

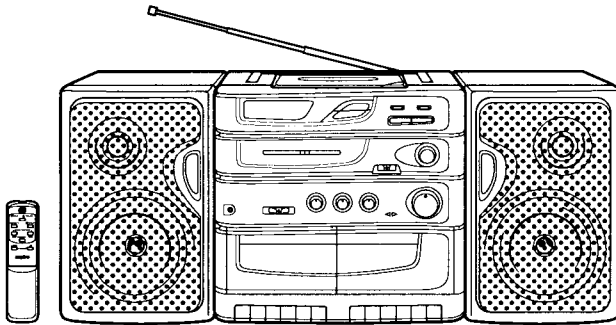
# SANYO

---

**INSTRUCTION MANUAL**

**MCD-S870F**

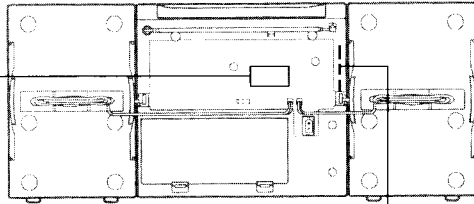
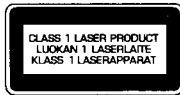
**CD Portable Stereo Radio  
Double Cassette Recorder**



## CAUTION

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED IN THE OPERATING INSTRUCTIONS MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

THE COMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT PROPERLY QUALIFIED PERSONNEL.



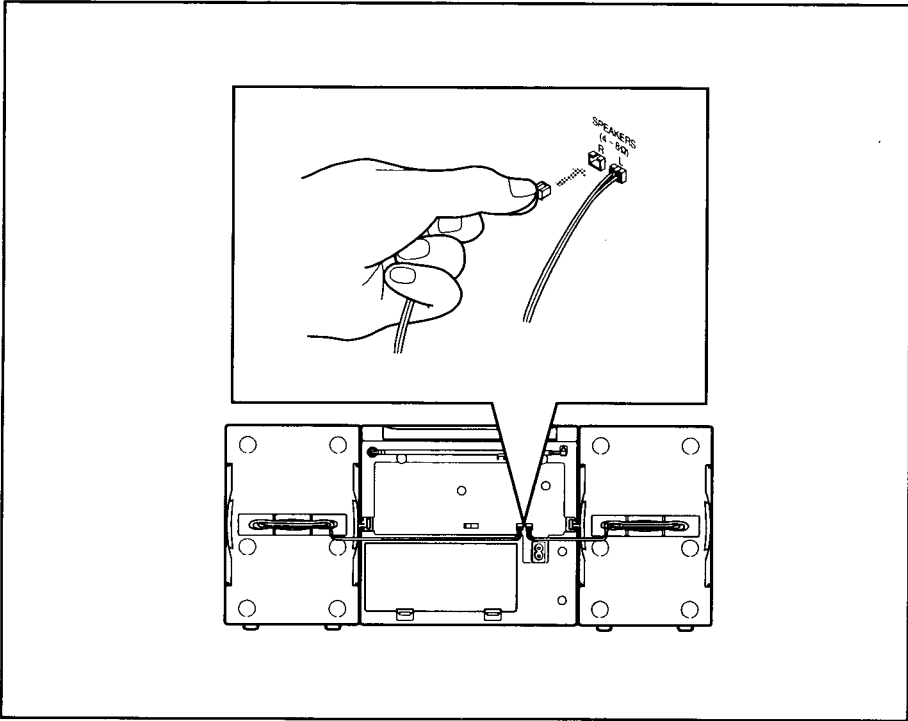
CAUTION - INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL - USYNLIG LASER STRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION, UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARNING - OSYNLIG LASER STRÅLNING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FÄRLIG.
VORSICHT - UNSICHTBARE LASERSTRÄHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND WENN SICHERHEITVERRIEGELUNG ÜBERBRÜCKT IST. NICHT, DEM STRAHL AUSSETZEN.
VARO - AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALLTHINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.



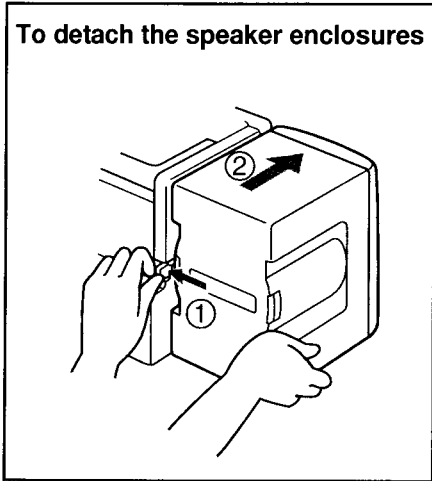
## FOR SAFE AND EFFICIENT OPERATION

- The apparatus shall not be exposed to dripping or splashing.
- Do not damage the mains lead.
- When not in use, disconnect the mains lead from the outlet. Grasp the plug, not the lead, when disconnecting the unit.
- If water should enter the unit, electrical shock or a malfunction may result. Use in an area where there is low humidity and little dust.
- Do not disassemble or alter the unit in any way.
- Do not use the unit in areas where extremes in temperature occur (below 5°C or exceeding 35°C), or where it may be exposed to direct sunlight.
- Because of the CD player's extremely low noise and wide dynamic range, there is a tendency to turn the volume on the amplifier higher than necessary. Doing so may produce an excessively high output from the amplifier which can cause damage to your speakers. Please be careful in this regard.
- Sudden changes in the surrounding temperature can cause dew to form on the optical pickup lens inside the unit. Under this condition the unit may be unable to operate properly. If this should occur, remove the disc and allow the player to adjust to the surrounding temperature.

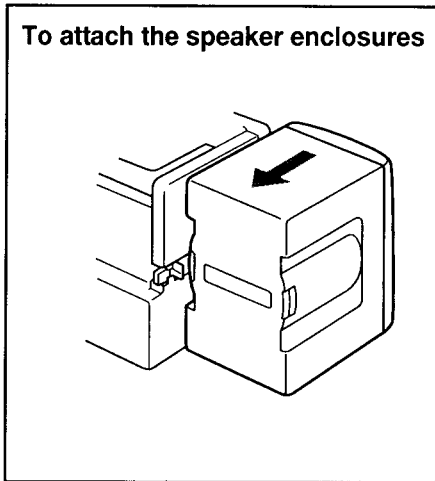
# SPEAKER SYSTEM CONNECTIONS



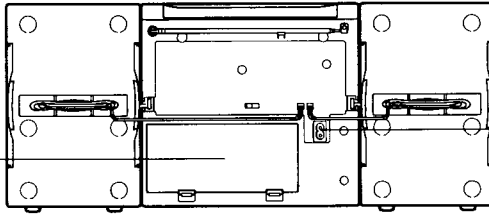
To detach the speaker enclosures



To attach the speaker enclosures

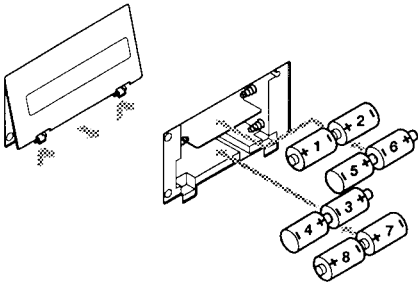


# POWER SUPPLY

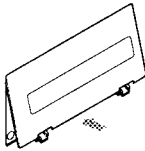


## Battery power operation

Install batteries.  
Observe + and - signs.



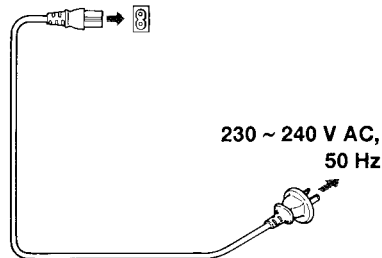
8 "D" size batteries



Replace lid.

## AC power operation

Take out the cord and  
connect it.



### NOTES:

- When the mains lead is connected to the unit, the installed batteries will be automatically disconnected.
- The FUNCTION switch is mounted on the secondary side. The unit is not disconnected from mains, even switched off.

### CAUTION:

#### WHEN INSTALLING THE BATTERIES

To prevent leakage from the batteries, which is corrosive and can cause personal injury and damage to the unit, observe the following precautions:

1. The batteries must be installed correctly. Match the polarities (+ and - signs) on the batteries, to the polarities shown on the back of the unit.
2. Do not mix new batteries with old or used batteries.
3. Only use batteries of the same type and brand.

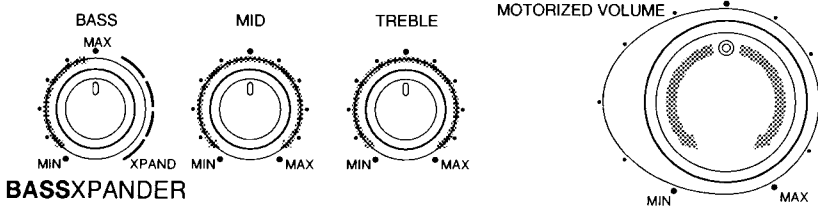
4. If the unit will not be used for an extended period of time, remove the batteries and store them in a cool place.
5. Carefully follow the battery manufacturer's instructions for proper use and disposal.
6. DO NOT ALLOW YOUNG CHILDREN TO HANDLE BATTERIES.

### NOTE:

*When the batteries have become discharged, they must be disposed of in a safe manner which complies with all applicable laws.*

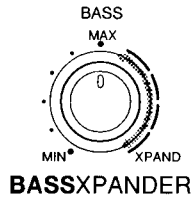
# GENERAL OPERATION

To control the sound.

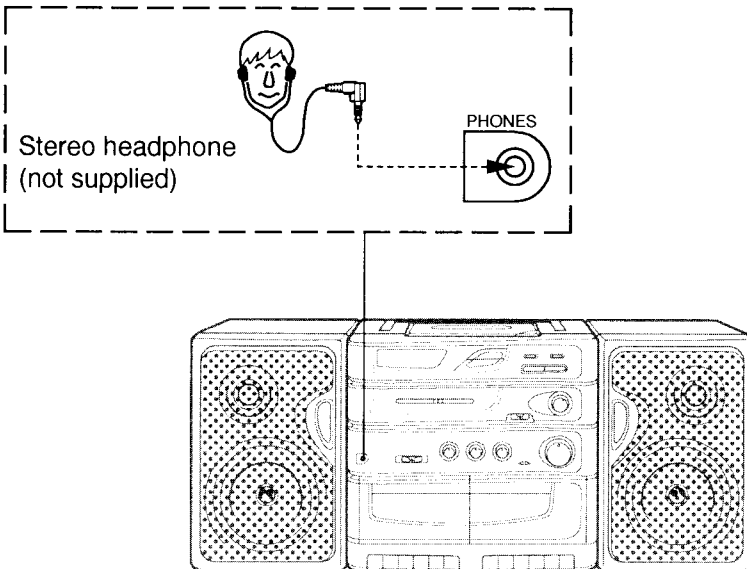


## Bass expander control (BASSXPANDER)

Turn the BASSXPANDER control to adjust the bass output level.

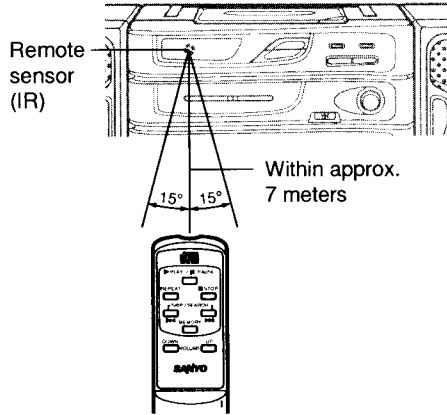
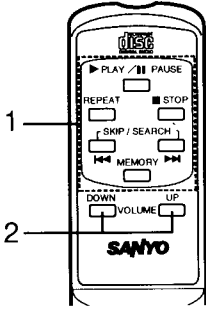


## Using headphones



# REMOTE CONTROL

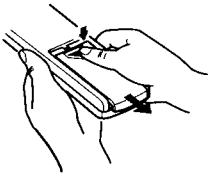
## Controls



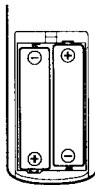
1. CD player controls
  - ▶PLAY/|| PAUSE: Play/Pause button
  - REPEAT: Repeat play button
  - STOP: Stop button
  - SKIP/SEARCH: Skip/Search buttons
  - MEMORY: Memory button
2. Volume buttons  
(DOWN VOLUME UP)

## Inserting batteries

1.



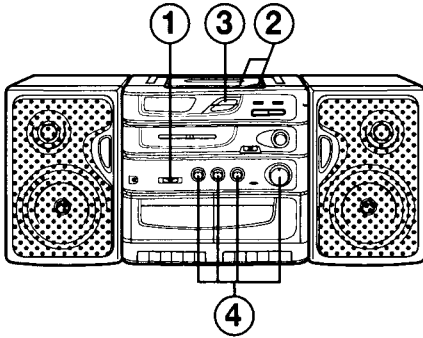
2.



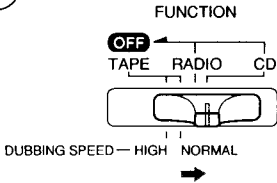
Two "AA" batteries

# COMPACT DISC OPERATION

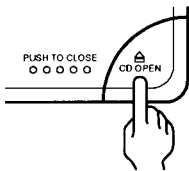
## CD PLAY



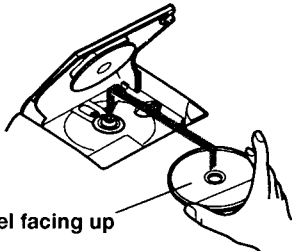
### 1 To CD.



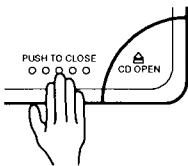
### 2



Push down.

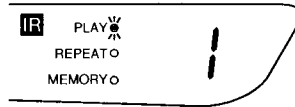
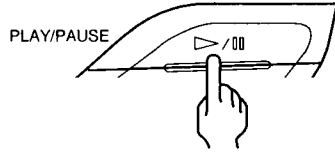


Label facing up



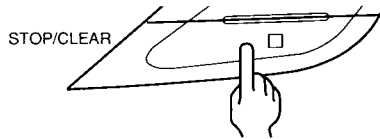
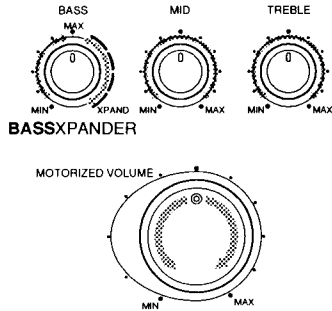
Push down.

### 3 Press PLAY/PAUSE.

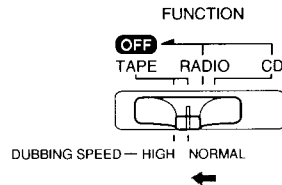


The PLAY indicator will light.

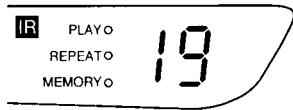
### 4 To control the sound.



Press STOP/CLEAR.



To OFF (TAPE).



The CD track number display will show the total number of tracks on the disc as shown below.

TRACKS	CD track number display
1 ~ 19	1 ~ 19
More than 19	"0" Flashes

Table

**NOTES:**

- If a disc is loaded upside down, or if no disc is loaded, the CD player will not operate.
- Opening the CD compartment lid while a CD is playing could scratch the disc. Always press the STOP/CLEAR button and wait for the disc to stop rotating before opening the CD compartment lid.

**Compact discs**

- Both 8 cm and 12 cm discs can be played in this unit.  
NOTE: Place only one disc at a time in the CD compartment.
- Only discs bearing the logo as shown can be played in this unit.

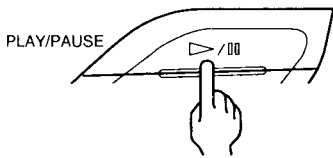


- Always place the compact disc in the CD compartment with the label facing up. Compact discs can be played on only one side.
- Fingerprints and dust should be carefully wiped off the disc's signal surface (opposite the label side) with a soft cloth. Gently wipe in a straight motion from the inside to the outside of the disc.
- Discs should be returned to their cases after use to avoid serious scratches which could cause the player to skip.
- Do not expose a disc to direct sunlight, high humidity, or high temperatures for extended periods of time to prevent warping the disc.
- Do not apply paper or write anything on either side of the compact disc. Sharp writing instruments, or the inks used in some felt-tip pens, may damage the surfaces of the disc.
- Do not use cleaners or antistatic sprays on discs, such as those used for phonograph records.

**IMPORTANT NOTE**

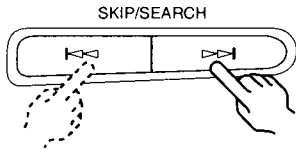
If an abnormal display indication, or an operating problem occurs, disconnect the mains lead. Remove the D batteries (see page 3). Wait at least 5 seconds, then reconnect the mains lead. Reinstall the D batteries.





### PAUSE MODE

1. Press the PLAY/PAUSE button during play. Play will temporarily stop, and the PLAY indicator will flash.
2. Press the PLAY/PAUSE button again to resume play. The PLAY indicator will remain ON.



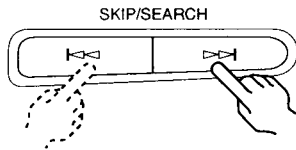
**Press and hold down during playback**

### TRACK SEARCH

1. In the play mode, press and hold down the **◀◀** or **▶▶** SKIP/SEARCH button to lower the volume level and quickly advance or return to any part of the disc. The CD track number display will flash.
2. Release the **◀◀** or **▶▶** SKIP/SEARCH button to return the volume to normal level and resume play.

#### NOTE:

If the **◀◀** or **▶▶** SKIP/SEARCH button is pressed during the PAUSE mode, no sound will be heard, and the PAUSE mode will continue when the button is released.



**Press and release repeatedly**

### TRACK SKIP

1. Press and release the **◀◀** or **▶▶** SKIP/SEARCH button repeatedly during play to quickly locate the beginning of a track.
2. The CD track number display will show the number of the selected track. Play will continue from the beginning of the new track.

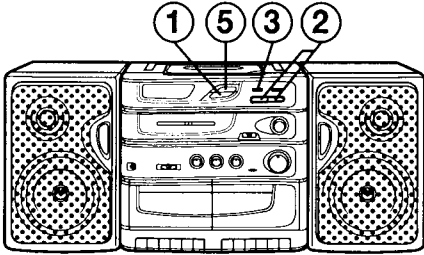
#### NOTE:

If the **◀◀** or **▶▶** SKIP/SEARCH button is pressed while the unit is in the PAUSE mode, the unit will remain in the PAUSE mode when the button is released.

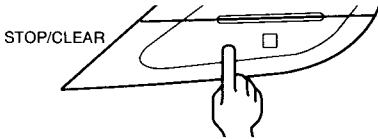
## PROGRAMMED PLAY

With programmed play, up to 16 tracks on a disc can be memorized and played in any order.

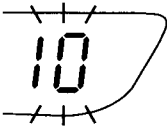
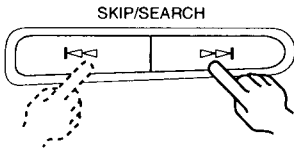
### TO PROGRAM



#### 1 Press STOP/CLEAR.

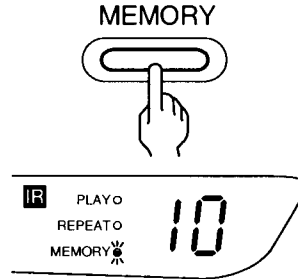


#### 2 Press <<< or >>>.



- The selected track number flashes.

#### 3 Press MEMORY.

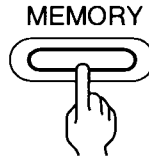


- The MEMORY indicator will light on the unit.

#### 4 Repeat 2 and 3 to memorize additional tracks.

### Checking the program

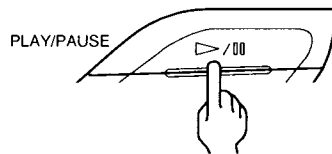
Press MEMORY.



To view the memorized track numbers, in the order they were entered.

### TO BEGIN PROGRAM PLAY

#### 5 Press PLAY/PAUSE.

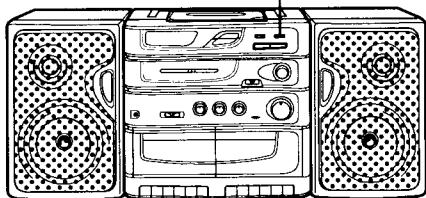


Programmed play will begin.

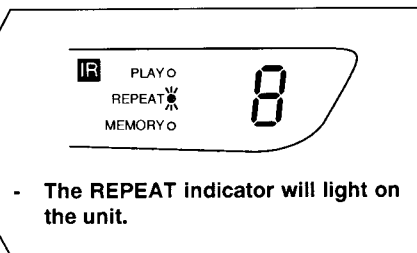
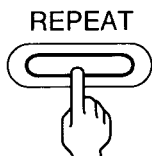
- To cancel programmed play, press STOP/CLEAR twice.  
The MEMORY indicator will go off.

## REPEAT PLAY

### REPEAT

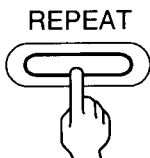


**Press REPEAT before or during play (or programmed play).**



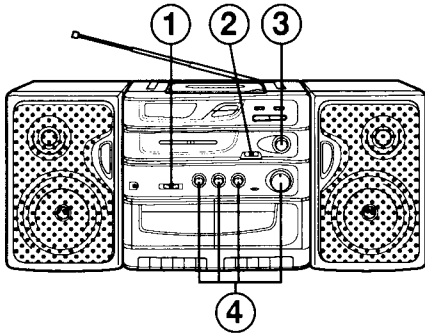
**To cancel repeat play**

**Press REPEAT again.**

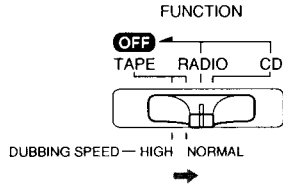


**- The REPEAT indicator will go off.**

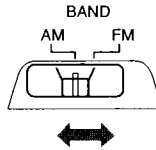
# RADIO OPERATION



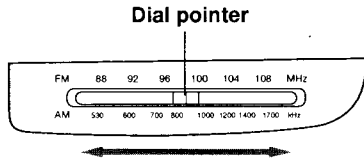
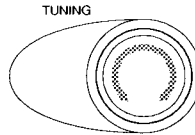
## 1 To RADIO.



## 2 To AM or FM.

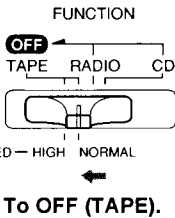
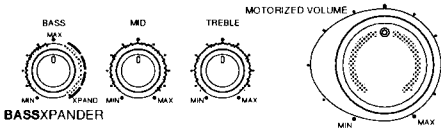


## 3 Tune in a station.



NOTE:  
The unit will automatically switch to stereo when an FM stereo broadcast is received.

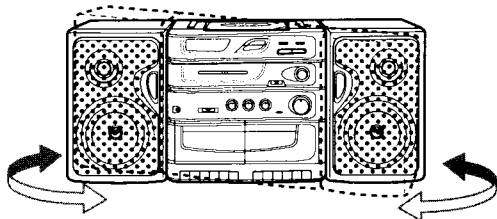
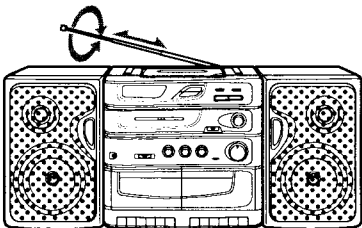
## 4 To control the sound.



# To improve reception

FM - Extend and change position.

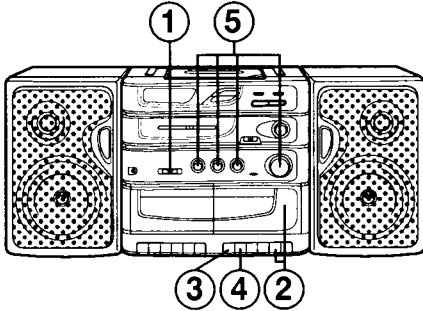
AM - Rotate unit.



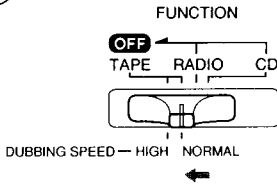
# CASSETTE TAPE OPERATION

## PLAYBACK

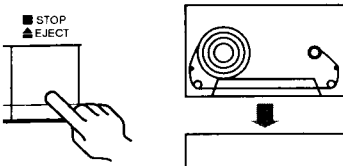
### A) PLAYBACK(Deck A)



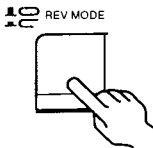
#### 1 To TAPE.



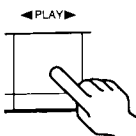
#### 2 Press STOP/EJECT. Insert cassette.



#### 3 Select REV MODE.



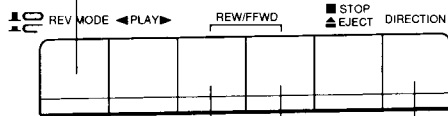
#### 4 Press PLAY.



Press the REV MODE button to select the one-cycle or continuous-playback mode.

**Continuous-playback mode:** Both sides of the tape will be played continuously, until the Deck A STOP/EJECT button is pressed.

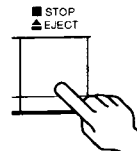
**One-cycle mode:** When the end of the tape is reached in the reverse direction, the tape will stop.



#### Deck A

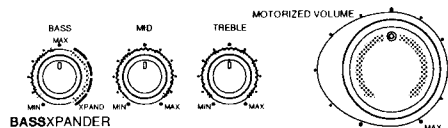
To quickly wind the tape

Press the DIRECTION button to select the side of the tape to be played. The DIRECTION indicator lights, or .

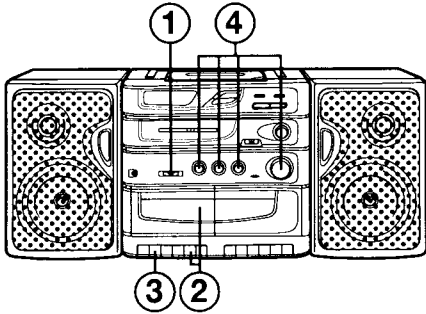


Press STOP/EJECT once to stop the tape. Press again to remove the cassette.

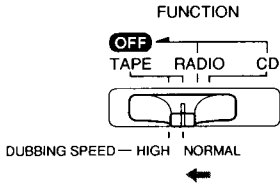
#### 5 To control the sound.



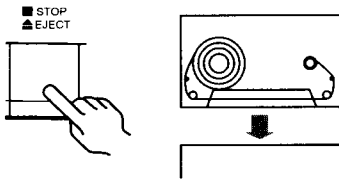
## B) PLAYBACK (Deck B)



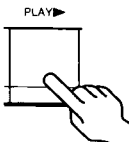
### 1 To TAPE.



### 2 Press STOP/EJECT. Insert cassette.

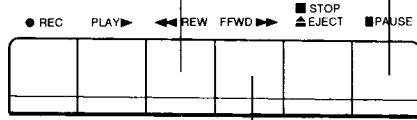


### 3 Press PLAY.



Press to temporarily stop the tape during playback or recording. Press it again to continue.

To quickly wind the tape backward

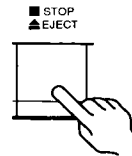


Deck B

To quickly wind the tape forward

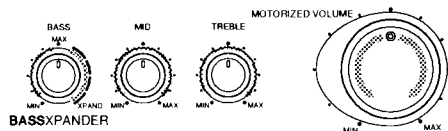
### Full automatic stop

Deck B has a full-release stop system to protect the tape and prevent pinch roller damage. When the end of the tape is reached in Playback, Recording, Fast forward or Rewind, the tape mechanism will automatically stop.

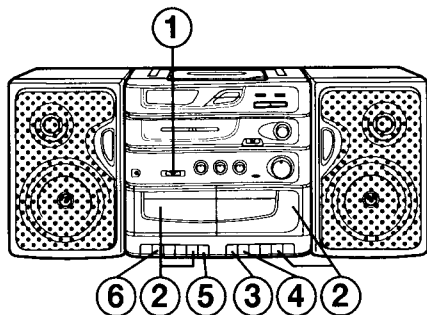


Press STOP/EJECT once to stop the tape. Press again to remove the cassette.

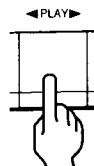
### 4 To control the sound.



## C) Continuous playback (Deck A to Deck B)

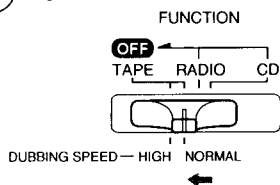


4 Press PLAY on Deck A.

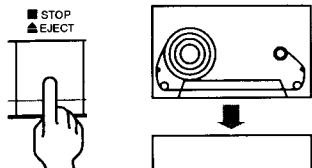


Play begins in Deck A.

1 To TAPE.



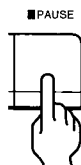
2 Press both STOP/EJECTs. Insert cassettes.



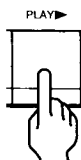
3 Press REV MODE on Deck A to select the one-cycle mode (Button down).



5 Press PAUSE on Deck B.



6 Press PLAY on Deck B.



Deck B is in standby mode.

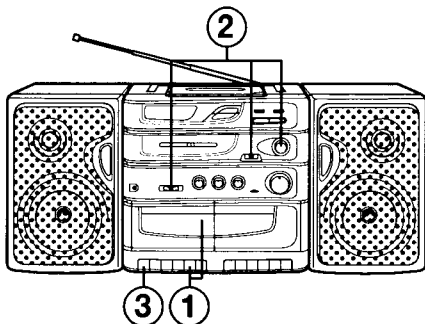
When the end of the tape in Deck A is reached, the tape will stop and Deck B playback will begin. When the end of the tape in Deck B is reached, the tape will stop.

### CAUTION:

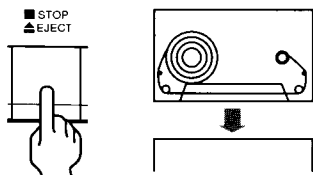
While playing or recording with one deck, do not press the Fast Forward (FFWD) or Rewind (REW) button of the other deck, or the sound quality may deteriorate.

## RECORDING (Deck B)

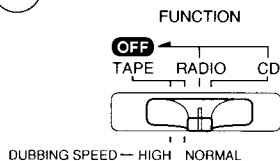
### A) Recording from the built-in radio



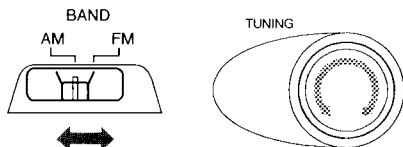
- 1 Press STOP/EJECT. Insert cassette.



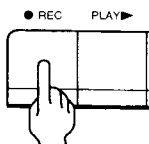
- 2 To RADIO



To AM or FM. Tune in a station.



- 3 Press REC.



### WARNING

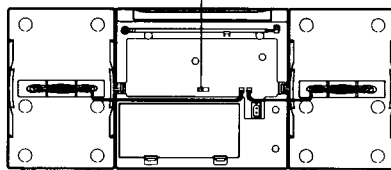
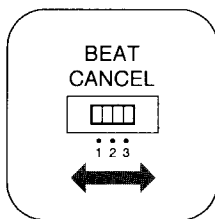
UNAUTHORIZED RECORDING COPYRIGHTED MATERIAL MAY VIOLATE APPLICABLE COPYRIGHT LAWS. SANYO ASSUMES NO RESPONSIBILITY FOR THE UNAUTHORIZED DUPLICATION, USE OR OTHER ACTS WHICH INFRINGE UPON THE RIGHTS OF COPYRIGHT OWNERS.

### Automatic Level Control (ALC) recording

The ALC circuit adjusts the recording input level automatically. No adjustments are required.

### BEAT CANCEL switch

When recording a radio program, an irritating "whistling" sound may sometimes be heard. If this occurs, select position 1, 2 or 3. Leave the switch in the position that gives the best results.



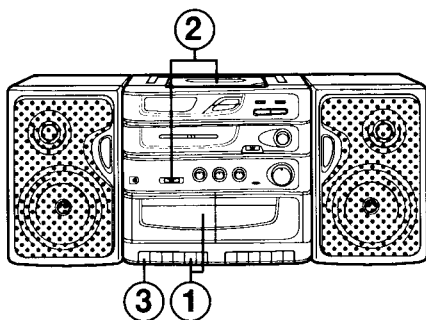
Back side of the unit



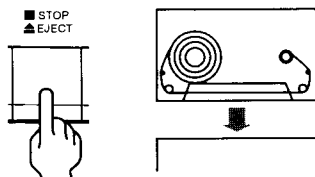
Press STOP/EJECT once to stop the tape. Press again to remove the cassette.



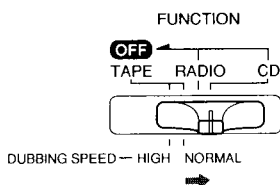
## B) Recording from a compact disc



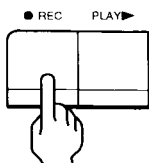
- 1 Press STOP/EJECT. Insert cassette.



- 2 To CD.



- 3 Press REC.

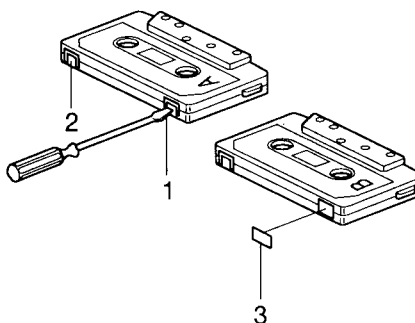


### Safeguards against accidental erasure

To protect side A, break out tab (1). To protect side B, break out tab (2).

NOTE:

A cassette with the erase guard tabs removed cannot be erased or used for recording and the REC button cannot be depressed. To record or erase a protected cassette, cover the tab openings with adhesive tape (3).



### Synchronous recording (CD-TAPE SYNCHRO DUBBING)

This recording system starts disc play and cassette recording at the same time.

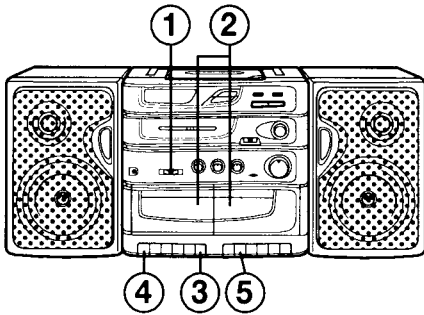
When the REC button is pressed, recording will start at the beginning of track number 1 of the disc.

If a program has been entered, recording will start from the beginning of the first programmed track.

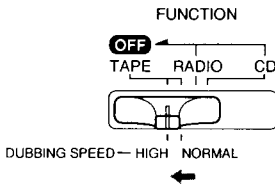
# DUBBING (Deck A to Deck B)

## Synchro dubbing

Copying recorded material from the cassette in Deck A onto the cassette in Deck B.



**1** Set the **FUNCTION** switch to **NORMAL** or **HIGH**.



**NORMAL:**

For normal speed dubbing while listening to the tape.

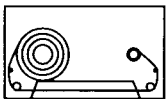
**HIGH:**

For high-speed dubbing (approximately twice the normal dubbing speed). Set the **MOTORIZED VOLUME** control to **MIN**.

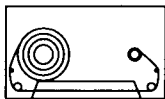
**2** Insert cassette tapes.

tape for recording

prerecorded tape



Deck B

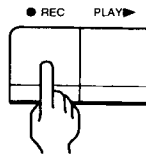


Deck A

**3** Press **PAUSE** on Deck B.



**4** Press **REC**.



**5** Press **PLAY** on Deck A.



**NOTE:**

**Do not change the dubbing speed during the dubbing operation.**



### Automatic stop in dubbing operation

1. The Deck A cassette is longer than the Deck B cassette:  
After the Deck B cassette stops, Deck A playback will continue at normal speed.
2. The Deck B cassette is longer than the Deck A cassette:  
After the Deck A cassette stops, Deck B will be set to the erase mode.  
Press the Deck B **STOP/EJECT** button immediately when the Deck A cassette stops.

# MAINTENANCE

## Cleaning the unit

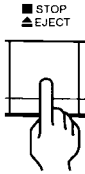
Clean the outside of the unit with a clean soft cloth, moistened with lukewarm water. Do not use solvents such as benzene or thinner. These will permanently damage the units finish.

## Cleaning the tape heads

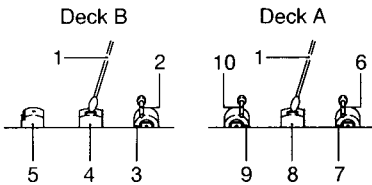
When dust or reddish-brown oxide builds up on the tape deck heads, pinch roller and capstan, the following problems may result:

- Poor sound quality during playback
- Distorted, poor quality recordings
- Erratic tape speed during recording or playback

1. Press both STOP/EJECT buttons to open both cassette compartment lids.

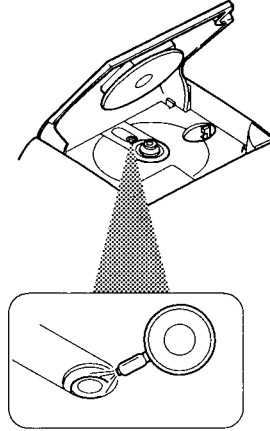


2. Moisten a cotton swab (1) with Isopropyl alcohol or special head cleaning fluid. Gently rub the face of each head (4, 5, 8) with alcohol. Also clean the capstans (2, 6, 10) and pinch rollers (3, 7, 9).



## Cleaning the CD player lens

The lens should never be touched. If dust is on the lens, blow it off using a camera lens blower. (Please consult your dealer.)



## If trouble occurs ...

To avoid the hazard of electric shock and damage to the unit, have the unit bench tested by an authorized SANYO service station. Do not remove the unit from its cabinet to attempt repairs yourself.

## REMOTE CONTROL OPERATION

### NOTE:

The buttons on the remote control perform similar functions to similarly marked buttons on the front panel.

### Operation

#### (Common section)

Adjust volume

UP or DOWN VOLUME

#### (CD player section)

Start play

▶PLAY/|| PAUSE

Temporarily stop play

During play ▶PLAY/|| PAUSE

Repeat play

REPEAT

Stop

■ STOP

Select the desired track

SKIP/SEARCH

Skip play

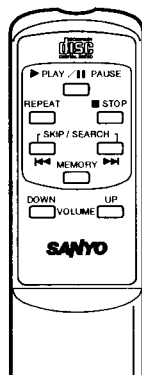
During play SKIP/SEARCH (press once)

Search

During play SKIP/SEARCH (press continuously)

Programmed play

MEMORY → SKIP/SEARCH → MEMORY → ▶PLAY/|| PAUSE



## SPECIFICATIONS

### (CASSETTE SECTION)

Recording system:

AC bias, 4-track stereo

Erasing system:

AC erase

Tape speed:

4.75 cm/sec.

Fast forward and rewind time:

110 sec. (C-60 tape)

Frequency response:

63 ~ 14,000 Hz (Normal tape)

### (CD SECTION)

Channels:

2 channels

S/N ratio:

73 dB

Wow & Flutter:

undetectable

Sampling frequency:

44.1 kHz

Quantization:

16 bits linear/ch

Pick up light source:

Semi-conductor laser

Pick up wave length:

790 nm

Laser output:

Continuous wave max. 0.6 mW

### (RADIO SECTION)

Tuning ranges:

AM: 525 ~ 1,710 kHz

FM: 88 ~ 108 MHz

Aerials:

Built-in ferrite bar and telescopic rod aerials

### (GENERAL)

Output power:

4.0 W x 2 (DC max.)

Speaker:

12 cm x 2, 4 ohms

PIEZO x 2

Terminal impedance

PHONES: 32 ohms

Power source:

AC: 230 ~ 240 V, 50 Hz

DC: 12 V (8 "D" size batteries)

Dimensions:

670 x 280 x 220 mm (W x H x D)

Weight (approx.):

7.4 kg including batteries

Specifications subject to change without notice.

# SANYO

SANYO Electric Co., Ltd.

Printed in Hong Kong