

**SONY.**

3-866-217-11(1)

# ***Mini Hi-Fi Component System***

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Operating Instructions

## **Owner's Record**

The model and serial numbers are located on the rear panel. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_



***MHC-RXD3 / GRX20***

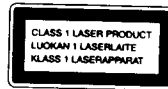
©1998 by Sony Corporation

## WARNING

**To prevent fire or shock hazard, do not expose the unit to rain or moisture.**

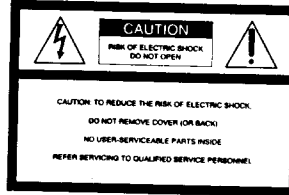
To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.



This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

## NOTICE FOR THE CUSTOMERS IN THE U.S.A.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

### CAUTION

The use of optical instruments with this product will increase eye hazard.

## INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### CAUTION

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

### Note on CATV system installer:

This reminder is provided to call CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

## NOTICE FOR THE CUSTOMERS IN CANADA

### CAUTION:

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

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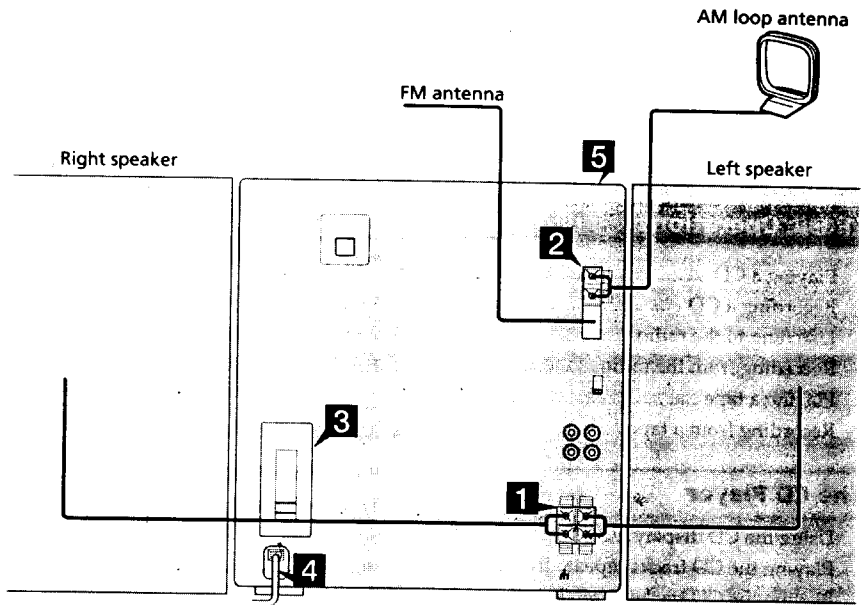
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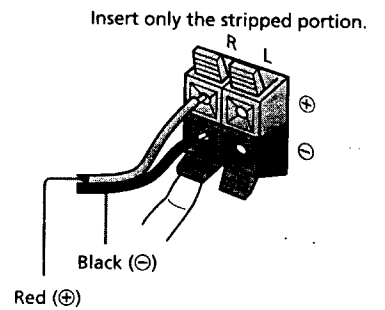
## Getting Started

### Step 1: Hooking up the system

Do the following procedure **1** to **5** to hook up your system using the supplied cords and accessories.



- 1** Connect the speakers.  
Connect the speaker cords to the SPEAKER jacks of the same color.  
Keep the speaker cords away from the antennas to prevent noise.

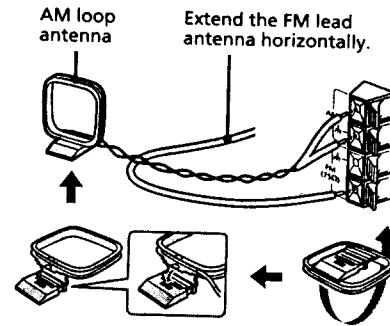


**Note**

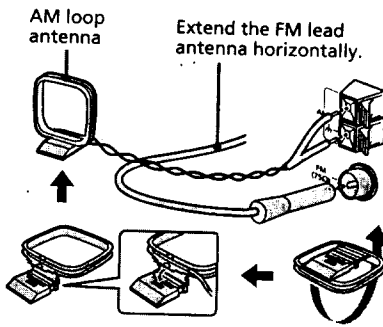
The type of supplied speakers varies according to the model you purchased (see "Specifications" on page 34).

- 2** Connect the FM/AM antennas. Set up the AM loop antenna, then connect it.

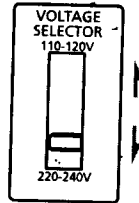
**Jack type ①**



**Jack type ②**



- 3** Set VOLTAGE SELECTOR to the position of your local power line voltage (for models with a voltage selector).



- 4** Connect the power cord to a wall outlet.

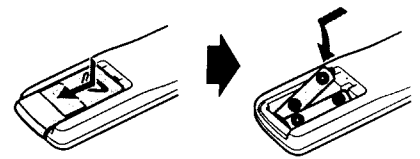
The demonstration appears in the display.

If the plug on this unit does not fit your wall outlet, attach the supplied plug adaptor (for Asian model).

- 5** Deactivate the demonstration mode by pressing DISPLAY/DEMO when the system is turned off.

The demonstration mode is also deactivated when you set the time.

**Inserting two size AAA (R03) batteries into the remote**



**Tip**

With normal use, the batteries should last for about six months. When the remote no longer operates the system, replace both batteries with new ones.

**Note**

If you do not use the remote for a long period of time, remove the batteries to avoid possible damage from battery leakage.

## Step 2: Setting the time

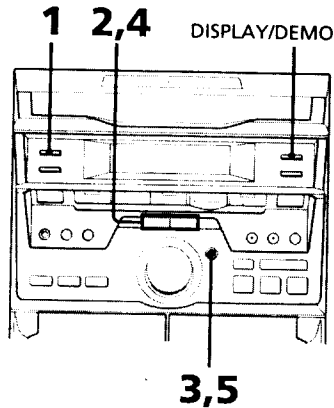
You must set the time before using the timer functions.

You can set the time while the system is off.

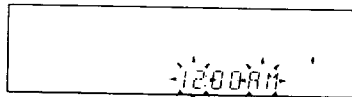
For European models, the clock is on a 24-hour system.

For other models, the clock is on a 12-hour (AM/PM) system.

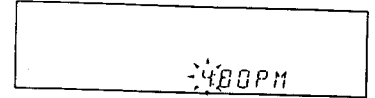
The 12-hour system model is used for illustration purpose.



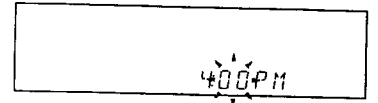
- 1 Press CLOCK/TIMER SET.  
The hour indication flashes.



- 2 Press ◀◀ or ▶▶ repeatedly to set the hour.



- 3 Press ENTER/NEXT.  
The minute indication flashes.



- 4 Press ◀◀ or ▶▶ repeatedly to set the minute.

- 5 Press ENTER/NEXT.  
The clock starts working.

### To change the preset time

You can also change the time while the system is on.

- 1 Press CLOCK/TIMER SET.
- 2 Press ◀◀ or ▶▶ repeatedly until "SET CLOCK" appears, then press ENTER/NEXT.
- 3 Repeat steps 2 to 5 in "Setting the time".

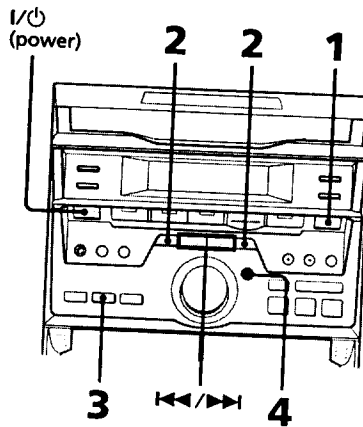
### Tips

- If you've made a mistake, start over from step 1.
- Setting the time deactivates the demonstration mode.

If you want to display the demonstration mode, press DISPLAY/DEMO when the system is off.

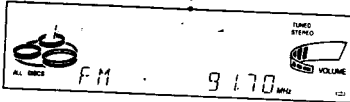
## Step 3: Presetting radio stations

You can preset up to 30 stations, 20 for FM and 10 for AM.

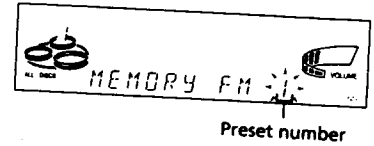


- 1 Press TUNER/BAND repeatedly until the band you want appears in the display.  
Every time you press this button, the band changes as follows:  
FM ↔ AM

- 2 Press and hold - or + until the frequency indication starts to change automatically, then release it.  
Scanning stops when the system tunes in a station. "TUNED" and "STEREO" (for a stereo program) appear.



- 3 Press TUNER MEMORY.  
A preset number flashes in the display.



- 4 Press ENTER/NEXT.  
The station is stored.
- 5 Repeat steps 1 to 4 to store other stations.

### To tune in a station with a weak signal

When the desired station is skipped during automatic tuning, press - or + repeatedly in step 2 to tune in the station manually.

### To set another station to the exist preset number

Start over from step 1. After step 3, press ◀◀ or ▶▶ repeatedly to select the preset number you want to store the station.

### Step 3: Presetting radio stations (continued)

#### To erase a preset number

- 1 Press and hold TUNER MEMORY until the preset number flashes in the display.
- 2 Press ◀ or ▶ repeatedly to select the preset number you want to erase.  
If you want to erase all preset numbers, select "ALL ERASE".
- 3 Press ENTER/NEXT.

When you erase a preset number, the total number of preset stations decreases by one. You can add a new preset number after the last preset number.

#### To change the AM tuning interval (for models with the AM TUNING STEP switch on the rear panel)

The AM tuning interval is factory-preset to 9 kHz (10 kHz in some areas). To change the AM tuning interval, turn off the system and set the AM TUNING STEP switch on the rear panel to 10 kHz (or 9 kHz). Then turn the system back on. When you change the interval, all the preset stations will be erased.

#### Tip

The preset stations are retained for half a day even if you unplug the power cord or if a power failure occurs.

## Connecting optional AV components

To enhance your system, you can connect optional components. Refer to the instructions of each component.

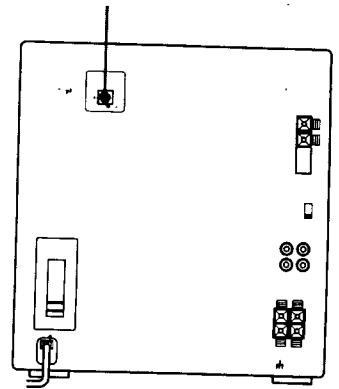
## Connecting audio components

Select one of the following two connections, depending on the equipment to be connected and method of recording.

### Connecting an MD deck for digital recording

You can record from CD into the MD deck digitally by connecting an optical cable (not supplied).

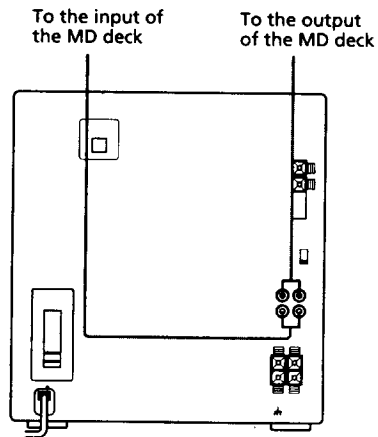
To the DIGITAL IN connector  
of the MD deck





### Connecting an MD deck for analog recording

Make sure to match the color of the plugs and the connectors. To listen to the sound of the connected MD deck, press FUNCTION repeatedly until "MD" appears.



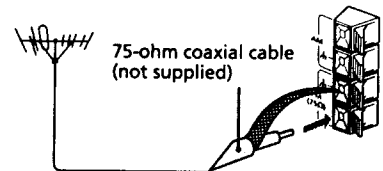
### Connecting outdoor antennas

Connect the outdoor antenna to improve the reception.

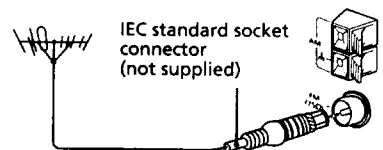
#### FM antenna

Connect the optional FM outdoor antenna. You can also use the TV antenna instead.

##### Jack type Ⓐ



##### Jack type Ⓑ



# Basic Operations

## Playing a CD

### — Normal play

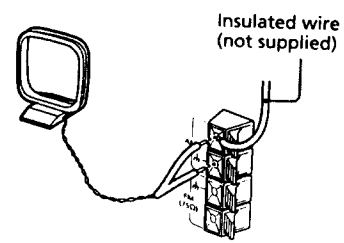
You can play up to three CDs in a row.

### Connecting outdoor antennas (continued)

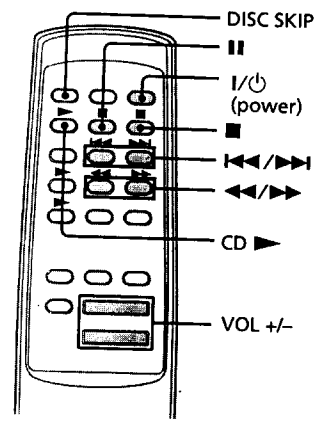
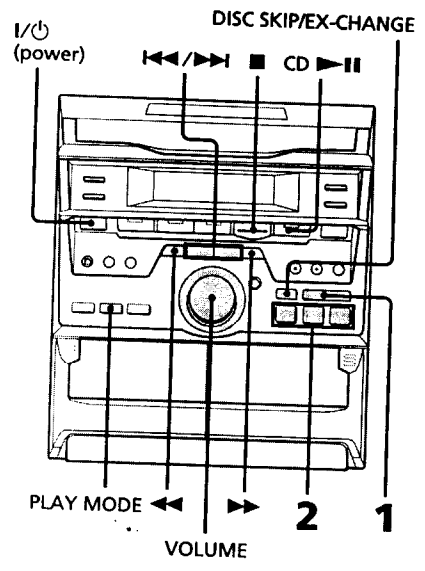
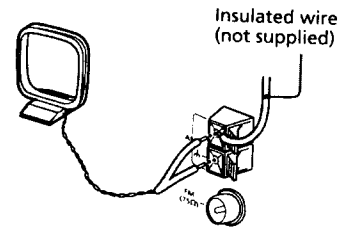
#### AM antenna

Connect a 6- to 15- meter (20- to 50- feet) insulated wire to the AM antenna terminal. Leave the supplied AM loop antenna connected.

#### Jack type ④



#### Jack type ⑥



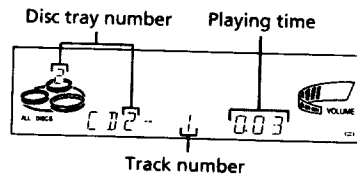
- 1 Press **▲ OPEN/CLOSE** and place up to two CDs on the disc tray. If a disc is not placed properly, it will not be recognized.

With the label side up. When you play a single CD, place it on the inner circle of the tray.



To insert a third disc, press **DISC SKIP/EX-CHANGE** to rotate the disc tray.

- 2 Press one of the **DISC 1 - 3** buttons. The disc tray closes and play starts. If you press **CD ►||** (or **CD ►** on the remote) when the disc tray is closed, play starts from the CD loaded on the disc tray whose number is displayed.



To	Do this
Stop play	Press <b>■</b> .
Pause	Press <b>CD ►  </b> (or <b>  </b> on the remote). Press again to resume play.
Go to the next track or go back to the start of the current track	During play or pause, press <b>►►</b> (to go forward) or <b>◄◄</b> (to go back).
Find a point in a track	Press and hold down <b>►►</b> or <b>◄◄</b> during play and release it at the desired point.
Select a CD in stop mode	Press <b>DISC 1 - 3</b> or <b>DISC SKIP/EX-CHANGE</b> .
Play only the CD you have selected	Press <b>PLAY MODE</b> repeatedly until "1 DISC" appears.
Play all CDs	Press <b>PLAY MODE</b> repeatedly until "ALL DISCS" appears.
Remove the CD	Press <b>▲ OPEN/CLOSE</b> .
Exchange other CDs while playing	Press <b>DISC SKIP/EX-CHANGE</b> .
Adjust the volume	Turn <b>VOLUME</b> (or press <b>VOL +/-</b> on the remote).

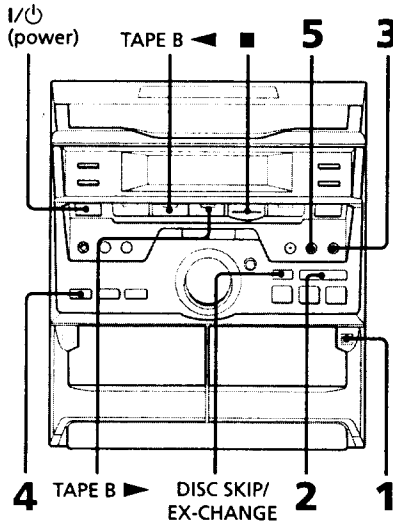
#### Tips

- Pressing **CD ►||** when the system is off automatically turns the system on and starts CD playback if there is a CD in the tray (One Touch Play).
- You can switch from another source to the CD player and start playing a CD just by pressing **CD ►||** or **DISC 1 - 3** (Automatic Source Selection).
- If there is no CD in the player, "CD NO DISC" appears in the display.

## Recording a CD

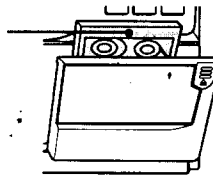
### — CD Synchro Recording

The CD SYNC button lets you record from a CD to a tape easily. You can use a TYPE I (normal) tape.



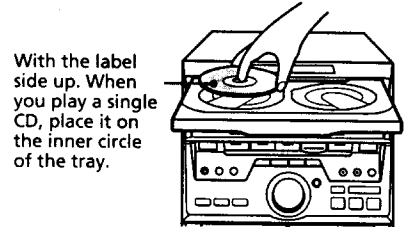
- 1 Press and insert a blank tape into deck B.

With the side you want to record facing forward



- 2 Press OPEN/CLOSE and place a CD.

Then press again to close the disc tray. If the disc number you want to record is not displayed, press DISC SKIP/EX-CHANGE repeatedly so that it appears.



With the label side up. When you play a single CD, place it on the inner circle of the tray.

- 3 Press CD SYNC. Deck B stands by for recording and the CD player stands by for playback. The indicator on TAPE B (for front side) lights up.
- 4 Press DIRECTION repeatedly to select to record on one side. Select (or RELAY) to record on both sides.
- 5 Press PAUSE. Recording starts.

#### To stop recording

Press .

#### Tips

- If you want to record from the reverse side, press TAPE B to light its indicator after pressing CD SYNC in step 3.
- When you record on both sides, be sure to start from the front side. If you start from the reverse side, recording stops at the end of the reverse side.

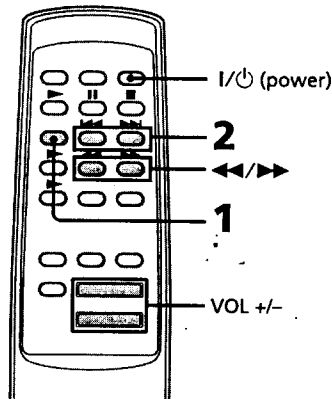
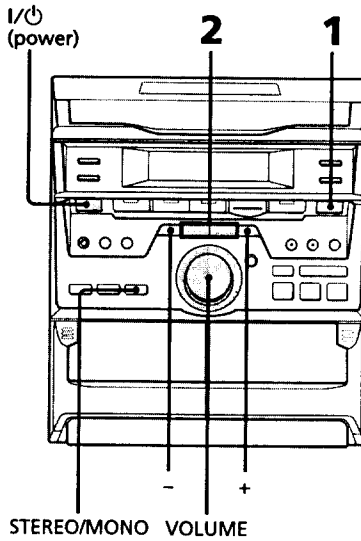
#### Note

You cannot listen to other sources while recording.

# Listening to the radio

## — Preset Tuning

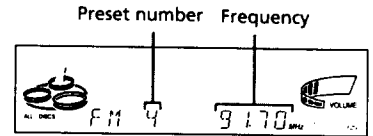
Preset radio stations in the tuner's memory first (see "Step 3: Presetting radio stations" on page 7).



**1** Press TUNER/BAND repeatedly until the band you want appears in the display.

Every time you press this button, the band changes as follows:  
FM ↔ AM

**2** Press ◀◀ or ▶▶ repeatedly to tune in the desired preset station. Press ◀◀ for lower preset numbers. Press ▶▶ for higher preset numbers.



To	Do this
Turn off the radio	Press I/⏻ (power).
Adjust the volume	Turn VOLUME (or press VOL +/- on the remote).

## To listen to non-preset radio stations

### Automatic tuning

Press and hold - or + (◀◀/▶▶ on the remote) in step 2 until the frequency indication starts to change, then release it.

### Manual tuning

Press - or + (◀◀/▶▶ on the remote) repeatedly in step 2 to tune in the station.

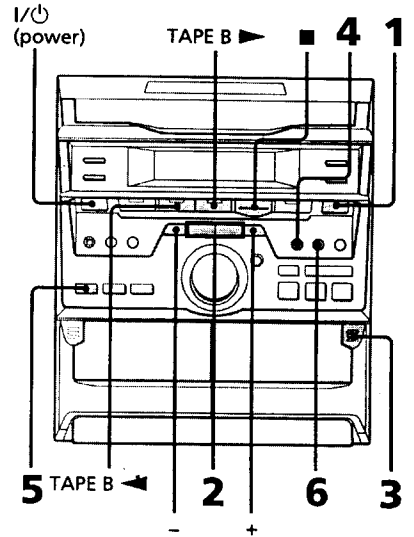
## Listening to the radio (continued)

### Tips

- Pressing TUNER/BAND when the system is off automatically turns the system on and tunes in the last received station (One Touch Play).
- You can switch from another source to the radio just by pressing TUNER/BAND (Automatic Source Selection).
- When an FM program is noisy, press STEREO/MONO so that "MONO" appears in the display. There will be no stereo effect, but the reception will improve. Press the button again to restore the stereo effect.
- To improve broadcast reception, reorient the supplied antennas.

## Recording from the radio

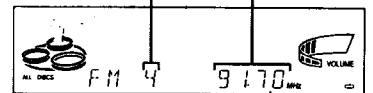
You can record the radio program on a tape by calling up a preset station. You can use a TYPE I (normal) tape.



**1** Press TUNER/BAND to select the band you want.

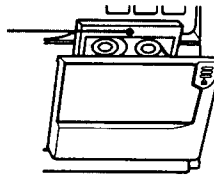
**2** Press ◀◀ or ▶▶ repeatedly to tune in the desired preset station. Press ◀◀ for lower preset numbers. Press ▶▶ for higher preset numbers.

Preset number    Frequency



- Press and insert a blank tape into deck B.

With the side you want to record facing forward



- Press REC.  
Deck B stands by for recording. The indicator on TAPE B (for front side) lights up.
- Press DIRECTION repeatedly to select to record on one side. Select (or RELAY) to record on both sides.
- Press PAUSE.  
Recording starts.

#### To stop recording

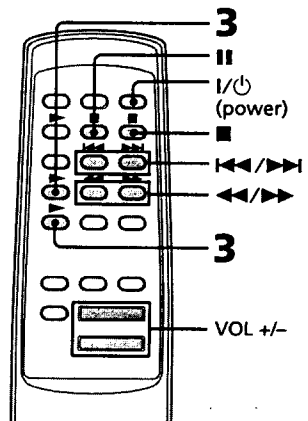
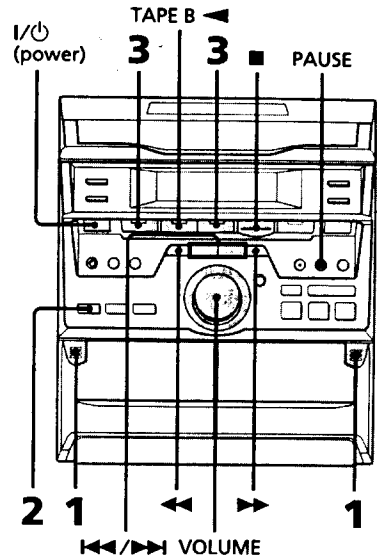
Press .

#### Tips

- If you want to record from the reverse side, press TAPE B to light its indicator after pressing REC in step 4.
- When you record on both sides, be sure to start from the front side. If you start from the reverse side, recording stops at the end of the reverse side.
- To record non-preset stations, use - and + ( / ) on the remote) in step 2 to tune in the desired station.
- If noise is heard while recording from the radio, move the respective antenna to reduce the noise.

## Playing a tape

You can use a TYPE I (normal) tape. To select either deck A or B, press DECK A or DECK B on the remote.

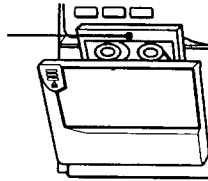


continued

## Playing a tape (continued)

- 1 Press and insert a recorded tape in deck A or B.  
You can play the reverse side only on deck B.  
If you use only deck A, go to step 3.

With the side you want to play facing forward



- 2 Press DIRECTION repeatedly to select to play one side. Select \* to play both sides.  
To play both decks in succession, select RELAY (relay play).\*\*
- 3 Press TAPE A or TAPE B (DECK A or DECK B on the remote).  
Press TAPE B (DECK B again on the remote) to play the reverse side.  
The tape starts playing.

\* The deck stops automatically after repeating the sequence five times (Deck B only).

\*\*To enjoy relay play, the tape in deck A must be always on the front side.  
If the tape in deck A is on the reverse side, only the tape in deck B repeats playing both sides.

To	Do this
Stop play	Press .
Pause	Press PAUSE (or  on the remote). Press again to resume play.
Fast-forward	Press .
Rewind	Press .
Remove the cassette	Press .
Adjust the volume	Turn VOLUME (or press VOL +/- on the remote).

### Tips

- Pressing TAPE A , TAPE B or TAPE B when the system is off automatically turns the system on and starts tape playback if there is a tape in the deck (One Touch Play).
- You can switch from another source to the tape deck just by pressing TAPE A , TAPE B or TAPE B (Automatic Source Selection).

### Searching for the start of the current or the next track (AMS\*)

#### To go forward

Press during play when the indicator is lit. "TAPE A (or TAPE B) >>> +1" appears.  
Press \*\* during play when the indicator is lit. "TAPE B <<< +1" appears.

#### To go back

Press during play when the indicator is lit. "TAPE A (or TAPE B) <<< -1" appears.  
Press \*\* during play when the indicator is lit. "TAPE B >>> -1" appears.

\* Automatic Music Sensor

\*\*Deck B only

### Note

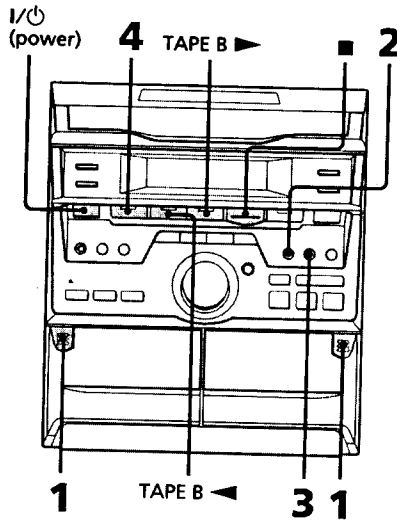
The AMS function may not operate correctly under the following circumstances:

- When the unrecorded space between songs is less than 4 seconds long.
- If completely different information is recorded on the left and right channels.
- When there are continuous sections of extremely low level or low frequency sound (like those of a baritone sax).
- When the system is placed near a television. (In this case, move the system farther away from the television or turn off the television.)



## Recording from a tape

You can use a TYPE I (normal) tape.



**3** Press PAUSE.  
Recording starts.


**4** Press TAPE A ►.

### To stop recording

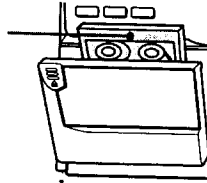
Press ■.

### Tip

If you want to record from the reverse side, press TAPE B ◀ to light its indicator after pressing REC in step 2.

**1** Press  and insert a recorded tape in deck A and a blank tape in deck B.

With the side you want to play/record facing forward

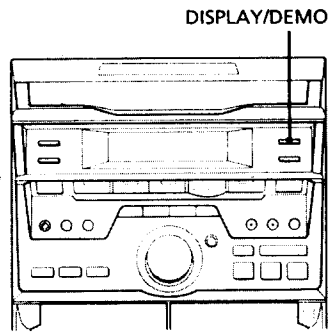


**2** Press REC.  
Deck B stands by for recording.  
The indicator on TAPE B ► (for front side) lights up.

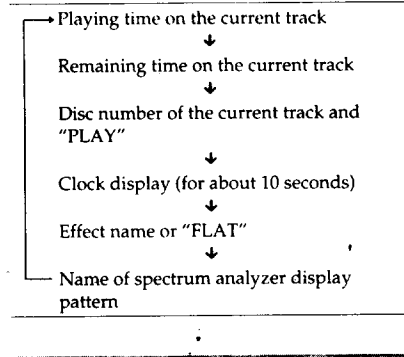
## The CD Player

### Using the CD display

You can check the remaining time of the current track.



- ➔ Press DISPLAY/DEMO during playback. Each time you press the button during normal playback, the display changes as follows:



#### Tip

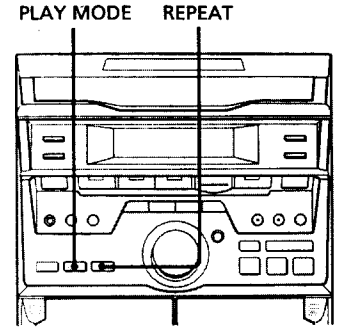
The total playing time and the number of tracks on a CD are displayed in stop mode.

If you press DISPLAY/DEMO in stop mode, the clock display appears for about 10 seconds, then the display returns to the previous indication.

### Playing the CD tracks repeatedly

#### — Repeat Play

This function lets you repeat a single CD or all CDs in normal play, Shuffle Play and Program Play.



- ➔ Press REPEAT during playback until "REPEAT" appears in the display. Repeat Play starts. Do the following procedure to change the repeat mode.

To repeat	Press
All the tracks on the current CD	PLAY MODE repeatedly until "1 DISC" appears in the display.
All the tracks on all CDs	PLAY MODE repeatedly until "ALL DISCS" appears in the display.
Only one track	REPEAT repeatedly until "REPEAT 1" appears in the display while playing the track you want to repeat.

#### To cancel Repeat Play

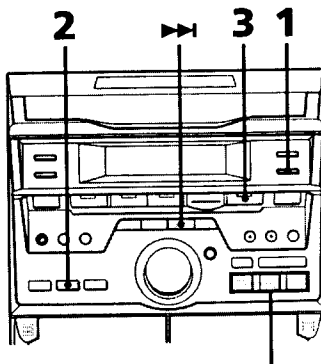
Press REPEAT so that "REPEAT" or "REPEAT 1" disappears from the display.

---

## Playing the CD tracks in random order

### — Shuffle Play

You can play all the tracks on one CD or all the CDs in random order.



DISC 1 - 3

- 
- 1** Press FUNCTION repeatedly until "CD" appears in the display, then place CDs on the disc tray.

---

  - 2** Press PLAY MODE repeatedly until "1 DISC SHUFFLE" or "ALL DISCS SHUFFLE" appears in the display. "ALL DISCS" shuffles all the CDs in the player. "1 DISC" shuffles the CD whose disc tray number is displayed.

---

  - 3** Press CD ►||. "t" appears and then all the tracks play in random order.
- 

### To cancel Shuffle Play

Press PLAY MODE repeatedly until "SHUFFLE" or "PROGRAM" disappears from the display. The tracks continue playing in their original order.

### To select a desired CD

Press DISC 1 - 3.

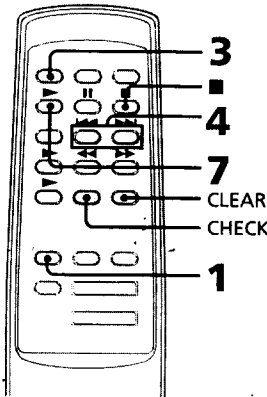
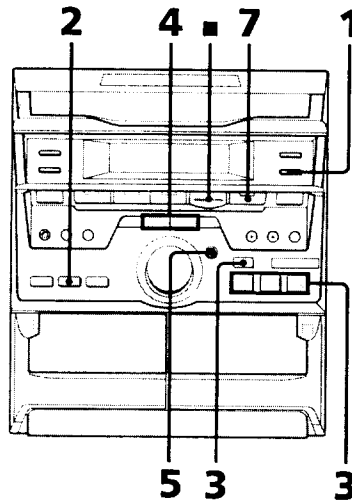
### Tips

- You can start Shuffle Play during normal play by pressing PLAY MODE repeatedly to select "SHUFFLE".
- To skip a track, press ►►.

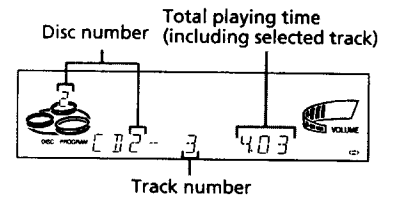
# Programming the CD tracks

## — Program Play

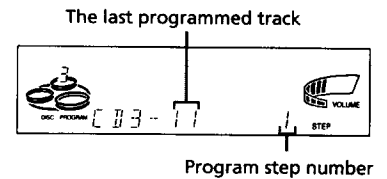
You can make a program of up to 32 tracks from all the CDs in the order you want them to be played.



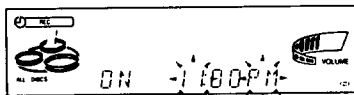
- 1** Press FUNCTION repeatedly until "CD" appears in the display, then place CDs on the disc tray.
- 2** Press PLAY MODE repeatedly until "PROGRAM" appears in the display.
- 3** Press one of the DISC 1 – 3 buttons or DISC SKIP/EX-CHANGE repeatedly to select a CD.
- 4** Press ◀◀ or ▶▶ repeatedly until the desired track appears in the display.



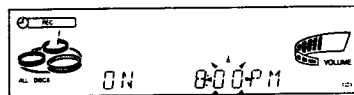
- 5** Press ENTER/NEXT. The track is programmed and the program step number appears.



- 
- 4** Press ENTER/NEXT.  
"ON" appears and the hour digits flash in the display.




- 
- 5** Set the time to start recording.  
Press ◀ or ▶ repeatedly to set the hour, then press ENTER/NEXT.  
The minute indication starts flashing.



Press ◀ or ▶ repeatedly to set the minute, then press ENTER/NEXT.  
"OFF" appears and the hour indication flashes again.

- 
- 6** Set the time to stop recording following the above procedure.  
The type of timer ("REC") appears, followed by the start time, the stop time and the preset station number, then the original display appears.

- 
- 7** Press  and insert a blank tape into deck B.

- 
- 8** Turn off the system.  
When the recording starts, the volume level is set to the minimum.
- 

#### To check the setting

Press TIMER SELECT and press ◀ or ▶ to select "TUNER REC", then press ENTER/NEXT.

To change the setting, start over from step 1.

#### To cancel the timer operation

Press TIMER SELECT and press ◀ or ▶ to select "TIMER OFF", then press ENTER/NEXT.

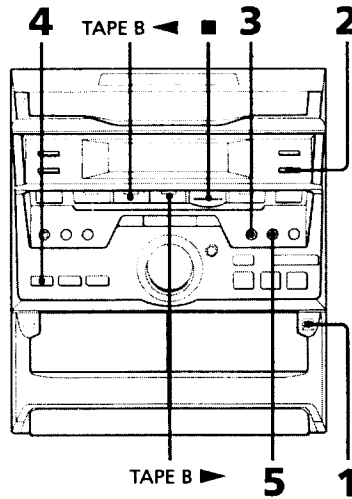
#### Notes


- If the system is on at the preset time, the recording will not be made.
- You cannot set the timer if the timer on and off times are the same.
- When you set the Sleep Timer, the Timer-recording will not turn on the system until the Sleep Timer turns it off.
- You cannot activate the Timer-recording and Daily Timer at the same time.

## The Tape Deck

### Recording on a tape manually



You can record from CD, tape, or radio as you like. For example, you can record just the songs you want or record from the middle of the tape.



**1** Press  and insert a blank tape into deck B.


**2** Press FUNCTION repeatedly until the source you want to record (e.g., CD) appears.

**3** Press REC.  
Deck B stands by for recording.  
The indicator on TAPE B ▶ (for front side) lights up.

**4** Press DIRECTION repeatedly to select  to record on one side. Select  (or RELAY) to record on both sides.

**5** Press PAUSE.  
Recording starts.

**6** Start playing the source to be recorded.

To	Press
Stop recording	
Pause recording	PAUSE.

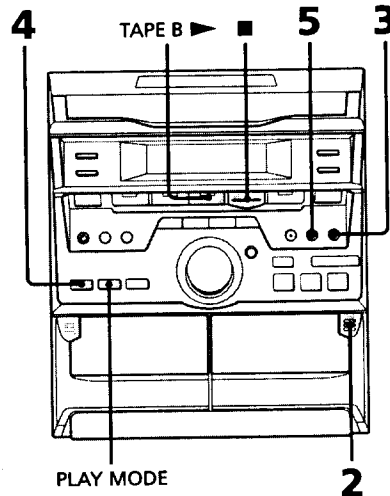
#### Tip

If you want to record from the reverse side, press TAPE B ◀ to light its indicator after pressing REC in step 3.

## Recording CDs by specifying the track order

### — Program Edit

You can record tracks from all the CDs in the order you want. When programming, make sure the playing times for each side do not exceed the length of one side of the tape.



- 1 Follow steps 1 to 6 in "Programming the CD tracks" (see page 20).
- 2 Press and insert a blank tape into deck B.
- 3 Press CD SYNC.  
Deck B stands by for recording and the CD player stands by for playback.  
The indicator on TAPE B (for front side) lights up.
- 4 Press DIRECTION repeatedly to select to record on one side.  
Select (or RELAY) to record on both sides.
- 5 Press PAUSE.  
Recording starts.

#### To stop recording

Press .

#### To cancel Program Edit

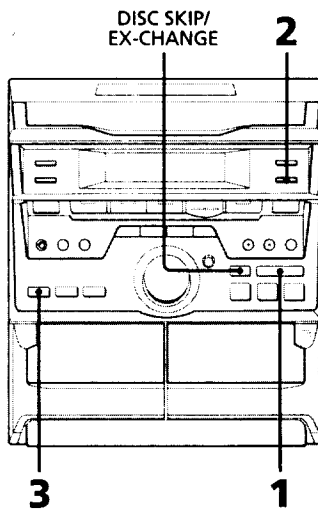
Press PLAY MODE repeatedly until "PROGRAM" or "SHUFFLE" disappears from the display.

**Recording CDs by specifying the track order (continued)**

**Selecting tape length automatically**

**— Tape Select Edit**

You can check the most suitable tape length for recording a CD. Note that you cannot use Tape Select Edit for discs containing over 20 tracks.



- 1** Place a CD on the disc tray.  
If the disc number you want to record is not displayed, press DISC SKIP/EX-CHANGE repeatedly so that it appears.
- 2** Press FUNCTION repeatedly until "CD" appears in the display.

- 
- 3** Press EDIT once so that "EDIT" flashes.

The required tape length for the currently selected CD appears, followed by the total playing time for sides A and B respectively.

---

**Note**

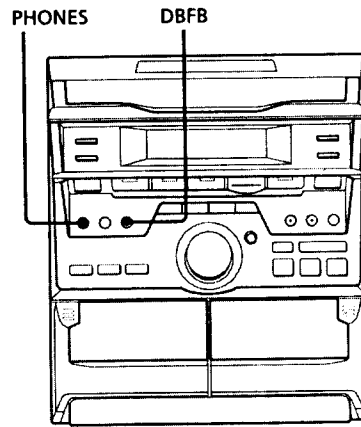
You cannot use this function after programming. In order to use this function, you must first erase the program (see "Clear the entire program" in the table on page 21).



## Sound Adjustment

### Adjusting the sound

You can reinforce the bass and listen with headphones.



#### To reinforce bass (DBFB)

Press DBFB\*.

"DBFB ■■■■■" appears in the display.

To cancel DBFB, press DBFB so that "DBFB ■■■■■" disappears from the display.

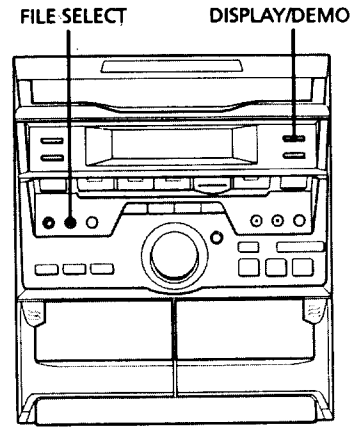
\* DBFB = Dynamic Bass Feedback

#### To listen through the headphones

Connect the headphones to PHONES jack.  
No sound will come from the speakers.

### Selecting the audio emphasis

The audio emphasis menu lets you select the sound characteristic according to the sound you are listening to.



---

➔ Press FILE SELECT repeatedly until the effect (ROCK, POP or DANCE) you desire appears in the display.

---

#### To cancel the effect

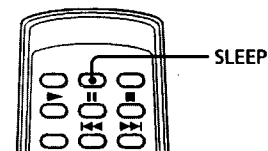
Press FILE SELECT repeatedly until "FLAT" appears in the display.

## Other Features

### Falling asleep to music

#### — Sleep Timer

You can let the system turn off at the preset time, so you can sleep to the music. You can preset the time to be turned off by 10 minutes.



#### Selecting the audio emphasis (continued)

#### To change the spectrum analyzer display

Press DISPLAY/DEMO repeatedly to select one of the displays below.

Pattern ①



(Changes with music)

Pattern ②



#### Note

The spectrum analyzer display changes each time you cycle through the information display (i.e., function → clock → effect).

#### → Press SLEEP.

Every time you press the button, the minute display (the turn-off time) changes as follows:

AUTO → 90min → 80min → 70min  
→ ... → 10min → OFF → AUTO ...

#### When you choose "AUTO"

The system turns off when the current CD or tape finishes playback (for up to 100 minutes).

#### To check the remaining time

Press SLEEP once.

#### To change the time to turn off

Select the time you want by pressing SLEEP.

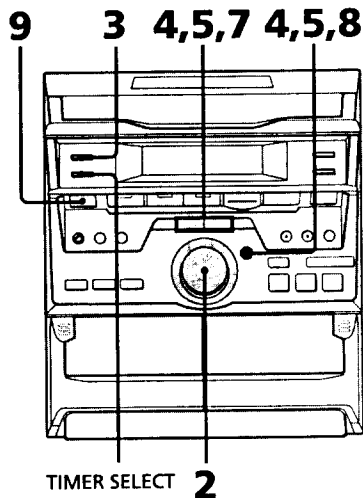
#### To cancel the Sleep Timer function

Press SLEEP repeatedly until "OFF" appears.

## Waking up to music

### — Daily Timer

You can wake up to music at a preset time every day. Make sure you have set the clock (see "Step 2: Setting the time" on page 6). The 12-hour system model is used for illustration purpose.



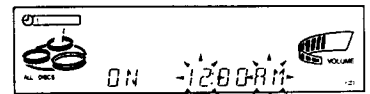
- 1 Prepare the music source you want to play.
  - CD: Place a CD. To start from a specific track, make a program (see "Programming the CD tracks" on page 20).
  - Tape: Insert a tape with the side you want to play facing forward.
  - Radio: Tune in the preset station you want (see "Step 3: Presetting radio stations" on page 7).

- 2 Turn VOLUME to adjust the volume.

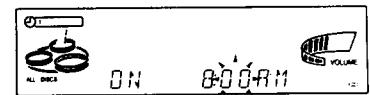
- 3 Press CLOCK/TIMER SET. "SET (DAILY)" appears.



- 4 Press << or >> to select DAILY 1 or 2, then press ENTER/NEXT. "ON" appears and the hour digits flash in the display.



- 5 Set the time to start playback. Press << or >> repeatedly to set the hour, then press ENTER/NEXT. The minute indication starts flashing.



Press << or >> repeatedly to set the minute, then press ENTER/NEXT. "OFF" appears and the hour indication flashes again.

- 6 Set the time to stop playback following the above procedure.

## Waking up to music (continued)

- 7** Press ◀◀ or ▶▶ repeatedly until the music source you want appears. The indications change as follows:

→ TUNER ↔ CD PLAY ↔ TAPE PLAY ←

- 8** Press ENTER/NEXT. The type of timer ("DAILY1" or "DAILY2") appears, followed by the start time, the stop time and the music source, then the original display appears.

- 9** Turn off the system.

### To check the setting

Press TIMER SELECT and press ◀◀ or ▶▶ to select the respective mode ("DAILY1" or "DAILY2"), then press ENTER/NEXT. To change the setting, start over from step 1.

### To cancel the timer operation

Press TIMER SELECT and press ◀◀ or ▶▶ to select "TIMER OFF", then press ENTER/NEXT.

### Tip

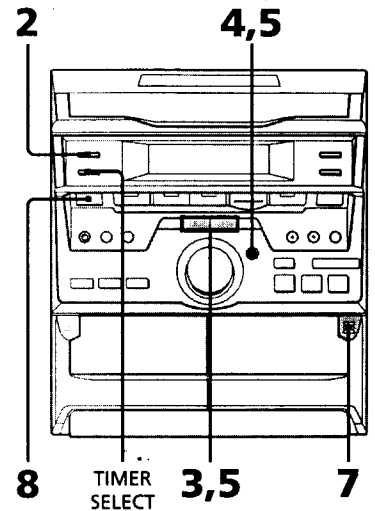
The system turns on 15 seconds before the preset time.

### Notes

- You cannot set the timer if the timer on and off times are the same.
- When you set the Sleep Timer, the Daily Timer will not turn on the system until the Sleep Timer turns it off.
- You cannot activate the Daily Timer and Timer-recording at the same time.

## Timer-recording radio programs

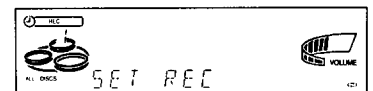
To timer-record, you must preset the radio station (see "Step 3: Presetting radio stations" on page 7) and set the clock (see "Step 2: Setting the time" on page 6) beforehand.



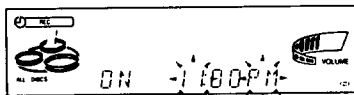
- 1** Tune in the preset radio station (see "Listening to the radio" on page 13).

- 2** Press CLOCK/TIMER SET. "SET (DAILY1)" appears.

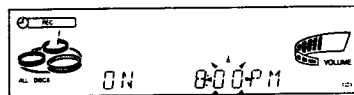
- 3** Press ◀◀ or ▶▶ until "SET REC" appears.



- 
- 4** Press ENTER/NEXT.  
"ON" appears and the hour digits flash in the display.




- 
- 5** Set the time to start recording.  
Press ◀ or ▶ repeatedly to set the hour, then press ENTER/NEXT.  
The minute indication starts flashing.



Press ◀ or ▶ repeatedly to set the minute, then press ENTER/NEXT.  
"OFF" appears and the hour indication flashes again.

- 
- 6** Set the time to stop recording following the above procedure.  
The type of timer ("REC") appears, followed by the start time, the stop time and the preset station number, then the original display appears.

- 
- 7** Press  and insert a blank tape into deck B.

- 
- 8** Turn off the system.  
When the recording starts, the volume level is set to the minimum.
- 

#### To check the setting

Press TIMER SELECT and press ◀ or ▶ to select "TUNER REC", then press ENTER/NEXT.

To change the setting, start over from step 1.

#### To cancel the timer operation

Press TIMER SELECT and press ◀ or ▶ to select "TIMER OFF", then press ENTER/NEXT.

#### Notes

- If the system is on at the preset time, the recording will not be made.
- You cannot set the timer if the timer on and off times are the same.
- When you set the Sleep Timer, the Timer-recording will not turn on the system until the Sleep Timer turns it off.
- You cannot activate the Timer-recording and Daily Timer at the same time.

## Additional Information

### Precautions

#### On operating voltage

Before operating the system, check that the operating voltage of your system is identical with the voltage of your local power supply.

#### On safety

- The system is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the system itself has been turned off.
- Unplug the system from the wall outlet (mains) if it is not to be used for an extended period of time. To disconnect the cord (mains lead), pull it out by the plug. Never pull the cord itself.
- Should any solid object or liquid fall into the system, unplug the system and have it checked by qualified personnel before operating it any further.
- The AC power cord must be changed only at the qualified service shop.

#### On placement

- Place the system in a location with adequate ventilation to prevent heat build-up in the system.
- Do not place the system in an inclined position.
- Do not place the system in locations where it is:
  - Extremely hot or cold
  - Dusty or dirty
  - Very humid
  - Vibrating
  - Subject to direct sunlight

#### On operation

- If the system is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lens inside the CD player. Should this occur, the system will not operate properly. Remove the CD and leave the system turned on for about an hour until the moisture evaporates.
- **When you move the system, take out any discs.**

If you have any questions or problems concerning your system, please consult your nearest Sony dealer.

#### Notes on CDs

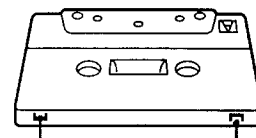
- Before playing, clean the CD with a cleaning cloth. Wipe the CD from the center out.
- Do not use solvents such as benzene, thinner, commercially available cleaners or anti-static spray intended for vinyl LPs.
- Do not expose the CD to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight.

#### Cleaning the cabinet

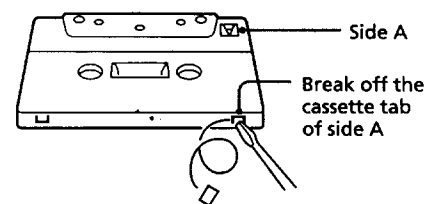
Use a soft cloth slightly moistened with mild detergent solution.

#### To save a tape permanently

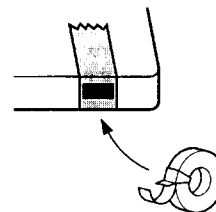
To prevent a tape from being accidentally recorded over, break off the cassette tab from side A or B as illustrated.



Tab of side B      Tab of side A



If you later want to reuse the tape for recording, cover the broken tab with adhesive tape.



### **Before placing a cassette in the tape deck**

Take up any slack in the tape. Otherwise the tape may get entangled in the parts of the tape deck and become damaged.

### **When using a tape longer than 90 minutes**

The tape is very elastic. Do not change the tape operations such as play, stop, and fast-winding etc. frequently. The tape may get entangled in the tape deck.

### **Cleaning the tape heads**

Clean the tape heads after every 10 hours of use. When the tape heads become dirty

- the sound is distorted
- there is a decrease in sound level
- the sound drops out
- the tape does not erase completely
- the tape does not record.

Make sure to clean the tape heads before you start an important recording or after playing an old tape. Use separately sold dry-type or wet-type cleaning cassette. For details, refer to the instructions of the cleaning cassette.

### **Demagnetizing the tape heads**

Demagnetize the tape heads and the metal parts that have contact with the tape every 20 to 30 hours of use with a separately sold demagnetizing cassette. For details, refer to the instructions of the demagnetizing cassette.

---

## **Troubleshooting**

If you run into any problem using this system, use the following check list. First, check that the power cord is connected firmly and the speakers are connected correctly and firmly. Should any problem persist, consult your nearest Sony dealer.

### **General**

**The display starts flashing as soon as you plug in the power cord even though you haven't turned on the system (demonstration mode).**

- Press DISPLAY/DEMO when the system is turned off.

The demonstration mode appears automatically the first time you plug in the power cord. If there is a power outage lasting longer than half a day, redo the following:

- Clock setting (see "Step 2: Setting the time" on page 6)
- Preset stations (see "Step 3: Presetting radio stations" on page 7)
- Timer settings (see "Waking up to music" on page 27 and "Timer-recording radio programs" on page 28)

**There is no sound.**

- Turn VOLUME clockwise.
- The headphones are connected.
- Insert only the stripped portion of the speaker cord into the SPEAKER jack. Inserting the vinyl portion of the speaker cord will obstruct the speaker connections.

## **Troubleshooting (continued)**

---

### **There is severe hum or noise.**

- A TV or VCR is placed too close to the system. Move the system away from the TV or VCR.

---

### **"0:00" (or "12:00AM") flashes in the display.**

- A power failure occurred. Set the clock and timer settings again.

---

### **The timer does not function.**

- Set the clock correctly.

---

### **"DAILY1", "DAILY2" and "REC" do not appear when you press the TIMER SELECT button.**

- Set the timer correctly.
- Set the clock.

---

### **The remote does not function.**

- There is an obstacle between the remote and the system.
- The remote is not pointing in the direction of the system's sensor.
- The batteries have run down. Replace the batteries.

---

### **There is acoustic feedback.**

- Decrease the volume level.

---

### **The color irregularity on a TV screen persists.**

- Place the speakers farther away from the TV set.
- 

## **Speakers**

---

### **Sound comes from one channel or unbalanced left and right volume.**

- Check the speaker connection and speaker placement.
- 

## **CD Player**

---

### **The CD tray does not close.**

- The CD is not placed properly.
- 

### **The CD will not play.**

- The CD is not lying flat in the disc tray.
  - The CD is dirty.
  - The CD is inserted label side down.
  - Moisture condensation has built up. Remove the CD and leave the system turned on for about an hour until the moisture evaporates.
- 

### **Play does not start from the first track.**

- The player is in Program or Shuffle Play mode. Press PLAY MODE repeatedly until "PROGRAM" or "SHUFFLE" disappears.
- 

### **"OVER" is displayed.**

- You have reached the end of the CD. Press and hold ◀◀ to return.
-



## Tape Deck

---

### The tape does not record.

- No tape in the cassette holder.
- The tab has been removed from the cassette (see "To save a tape permanently" on page 30).
- The tape has reeled to the end.

### The tape does not record nor play or there is a decrease in sound level.

- The heads are dirty. Clean them (see "Cleaning the tape heads" on page 31).
- The record/playback heads are magnetized. Demagnetize them (see "Demagnetizing the tape heads" on page 31).

### The tape does not erase completely.

- The record/playback heads are magnetized. Demagnetize them (see "Demagnetizing the tape heads" on page 31).

### There is excessive wow or flutter, or the sound drops out.

- The capstans or pinch rollers are dirty. Clean them (see "Cleaning the tape heads" on page 31).

### Noise increases or the high frequencies are erased.

- The record/playback heads are magnetized. Demagnetize them (see "Demagnetizing the tape heads" on page 31).
- 

## Tuner

---

### Severe hum or noise ("TUNED" or "STEREO" flashes in the display).

- Adjust the antenna.
- The signal strength is too weak. Connect the external antenna.

### A stereo FM program cannot be received in stereo.

- Press STEREO/MONO so that "STEREO" appears.
- 

### If other troubles not described above occur, reset the system as follows:

- 1 Unplug the power cord.
  - 2 Plug the power cord back in.
- The system is reset to the factory settings. All the settings you made, such as the preset stations, clock, and timer are cleared. You should set them again.

# Specifications

## AUDIO POWER SPECIFICATIONS: (U.S.A. model only)

### POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

with 6 ohm loads both channels driven, from  
70 - 20,000 Hz; rated 50 watts per channel  
minimum RMS power, with no more than  
0.9% total harmonic distortion from  
250 milliwatts to rated output.

## Amplifier section

### North American model

Continuous RMS power output  
60 watts + 60 watts  
(6 ohms at 1 kHz,  
10% THD)

### European model

DIN power output (Rated)  
40 watts + 40 watts  
(6 ohms at 1 kHz, DIN)  
Continuous RMS power output (Reference)  
50 watts + 50 watts  
(6 ohms at 1 kHz,  
10% THD)

Music power output (Reference)  
100 watts + 100 watts  
(6 ohms at 1 kHz,  
10% THD)

### Other models

The following measured at AC 110, 220 V 60 Hz;  
DIN power output (Rated)  
45 watts + 45 watts  
(6 ohms at 1 kHz, DIN)  
Continuous RMS power output (Reference)  
50 watts + 50 watts  
(6 ohms at 1 kHz,  
10% THD)

The following measured at AC 120, 240 V 60 Hz;  
DIN power output (Rated)  
50 watts + 50 watts  
(6 ohms at 1 kHz, DIN)  
Continuous RMS power output (Reference)  
60 watts + 60 watts  
(6 ohms at 1 kHz,  
10% THD)

Inputs  
MD IN (phono jacks): voltage 450 mV,  
impedance 47 kilohms  
Outputs  
MD OUT (phono jacks):  
voltage 250 mV  
impedance 1 kilohm  
PHONES (stereo phone jack):  
accepts headphones of  
8 ohms or more.  
SPEAKER:  
accepts impedance of 6 to  
16 ohms

## CD player section

System Compact disc and digital  
audio system  
Laser Semiconductor laser  
( $\lambda = 780$  nm)  
Emission duration:  
continuous  
Laser output Max. 44.6  $\mu$ W\*  
\* This output is the value  
measured at a distance of  
200 mm from the  
objective lens surface on  
the Optical Pick-up Block  
with 7 mm aperture.  
Frequency response 20 Hz - 20 kHz ( $\pm 0.5$  dB)  
Wavelength 780 - 790 nm  
DIGITAL OUT (OPTICAL)  
(Square optical connector jack, rear panel)  
Wavelength 600 nm  
Output Level -18 dBm

## Tape deck section

Recording system 4-track 2-channel stereo  
Frequency response 40 - 13,000 Hz ( $\pm 3$  dB),  
using Sony TYPE I  
cassette  
Wow and flutter  $\pm 0.15\%$  W.Peak (IEC)  
0.1% W.RMS (NAB)  
 $\pm 0.2\%$  W.Peak (DIN)

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**SONY.**

3-866-529-12(1)

# ***Mini Hi-Fi Component System***

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## Operating Instructions

### Owner's Record

The model and serial numbers are located on the rear panel. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. \_\_\_\_\_ Serial No. \_\_\_\_\_



***DHC-MDX10***

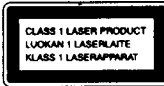
©1999 by Sony Corporation

## WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

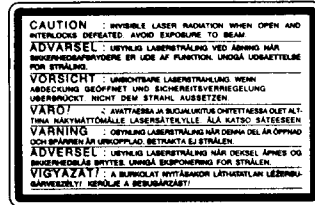
To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.



This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.


This caution label is located inside the unit.



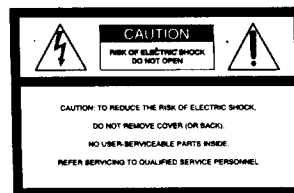
**IMPORTANT: Never connect two mains leads into a single mains plug.**

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY DIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE, OR LOSSES OR EXPENSES RESULTING FROM ANY DEFECTIVE PRODUCT OR THE USE OF ANY PRODUCT.

This stereo system is equipped with the Dolby B-type noise reduction system\*.

\* Manufactured under license from Dolby Laboratories Licensing Corporation. DOLBY and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

**NOTICE FOR THE CUSTOMERS IN THE U.S.A.**



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## CAUTION

The use of optical instruments with this product will increase eye hazard.

## INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## CAUTION

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

## NOTICE FOR THE CUSTOMERS IN CANADA

### CAUTION:

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.



AR46

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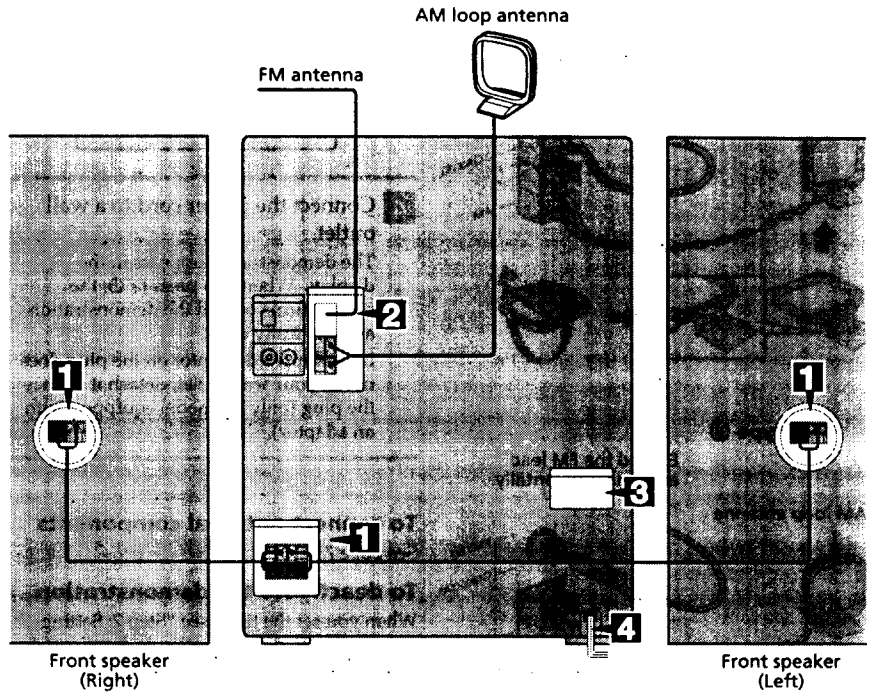
\* European model only

\*\* MD Walkman is a trademark of Sony Corporation

## Getting Started

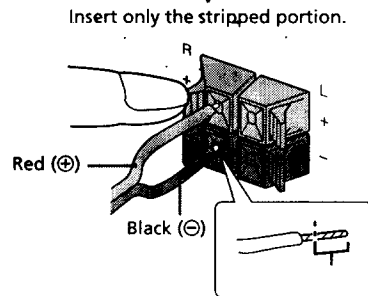
### Step 1: Hooking up the system

Do the following procedure **1** to **4** to hook up your system using the supplied cords and accessories.



#### **1** Connect the speakers.

Connect the speaker cords of front speakers to the SPEAKER jacks as below.



#### Notes

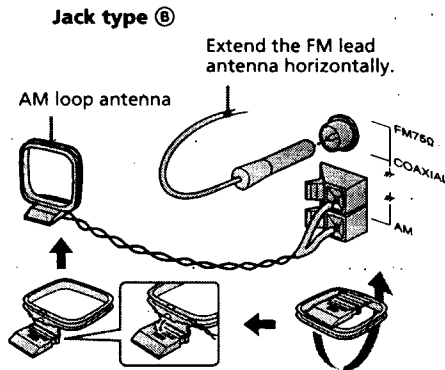
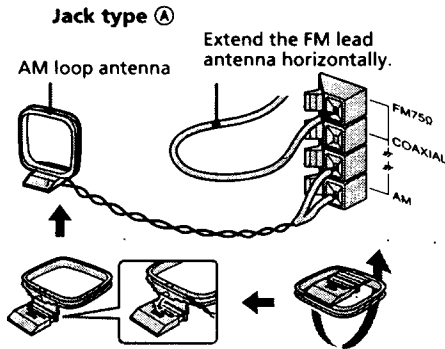
- Keep the speaker cords away from the antennas to prevent noise.
- The type of speakers supplied varies according to the model you purchased (see "Specifications" on page 90).

continued

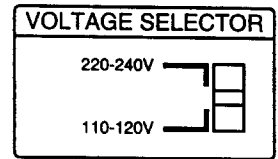


**Step 1: Hooking up the system  
(continued)**

- 2** Connect the FM/AM antennas.  
Set up the AM loop antenna, then connect it.



- 3** For models with a voltage selector, set VOLTAGE SELECTOR to position of your local power line voltage.



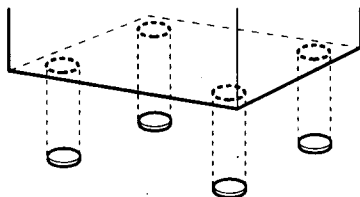
- 4** Connect the power cord to a wall outlet.
- The demonstration appears in the display. When you press | / Ⓞ, the system turns on and the demonstration automatically ends.
- If the supplied adaptor on the plug does not fit your wall outlet, detach it from the plug (only for model equipped with an adaptor).

**To connect optional components**  
See page 73.

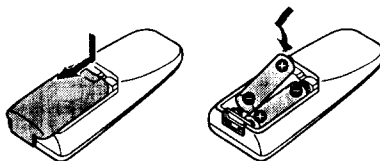
**To deactivate the demonstration**  
When you set the time (see "Step 2: Setting the time"), the demonstration is deactivated. To activate/deactivate the demonstration again, press DISPLAY while the system is off.

**To attach the front speaker pads**

Attach the supplied front speaker pads to the bottom of the speakers to stabilize the speakers and prevent them from slipping.



**Inserting two size AA (R6) batteries into the remote**



**Tip**

With normal use, the batteries should last for about six months. When the remote no longer operates the system, replace both batteries with new ones.

**Note**

If you do not use the remote for a long period of time, remove the batteries to avoid possible damage from battery leakage.

**When carrying this system**

Do the following to protect the CD mechanism.

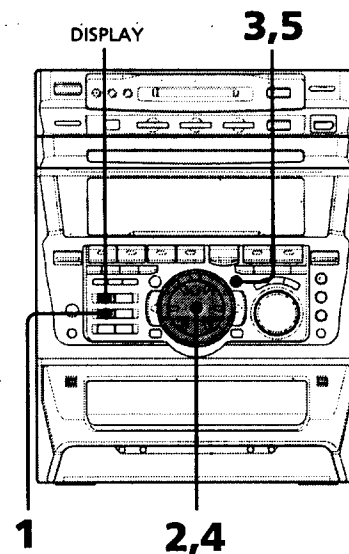
- 1 Press FUNCTION repeatedly until "CD" appears in the display.
- 2 Hold down CD LOOP and press | / Ⓞ so that "LOCK" appears in the display.
- 3 Unplug the power cord.

**Step 2: Setting the time**

You must set the time before using the timer functions.

The clock is on a 24-hour system for the European model and a 12-hour system for other models.

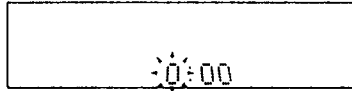
The 24-hour system model is used for illustration purposes.



continued

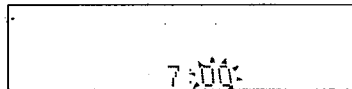
## Step 2: Setting the time (continued)

- 1 Press CLOCK/TIMER SET.  
The hour indication flashes.



- 2 Turn the jog dial to set the hour.

- 3 Press ENTER/YES.  
The minute indication flashes.



- 4 Turn the jog dial to set the minute.

- 5 Press ENTER/YES.  
The clock starts working.

### Tip

If you've made a mistake, start over from step 1.

### To change the time

The previous explanation shows you how to set the time while the power is off. To change the time while the power is on, do the following:

- 1 Press CLOCK/TIMER SET.
- 2 Turn the jog dial to select SET CLOCK.
- 3 Press ENTER/YES.
- 4 Perform steps 2 through 5 above.

### Tips

- The demonstration disappears when you set the time. To activate the demonstration, press DISPLAY while the system is off.
- The clock appears in the display while the system is power off. When the system is in the power saving mode, the clock indication disappears.

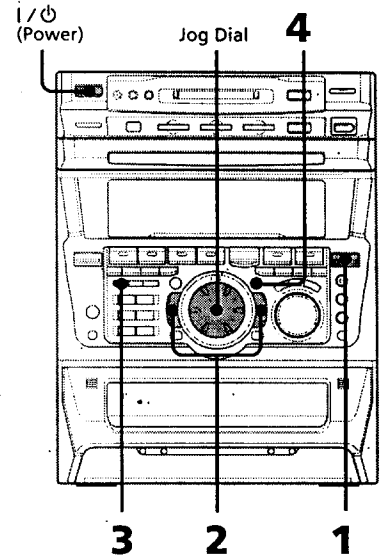
### Note

The clock settings are canceled when you disconnect the power cord or if a power failure occurs.

## Step 3: Presetting radio stations

You can preset the following number of stations:

- 2 band model: 20 for FM, 10 for AM.
- 3 band model: 20 for FM, 10 for MW and 10 for SW.



- 1 Press TUNER/BAND repeatedly until the band you want appears in the display.

The bands you can receive vary depending on the model you purchased. Be sure to check which bands you can receive.

Every time you press this button, the band changes as follows:

2 band model:

FM ↔ AM

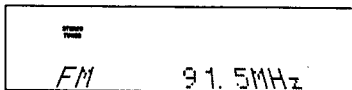
3 band model:

FM → MW → SW

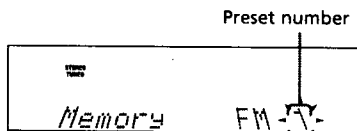


- 2 Press and hold + or - until the frequency indication starts to change, then release.

Scanning stops when the system tunes in a station. "TUNED" and "STEREO" (for a stereo program) appear.



- 3 Press TUNER MEMORY.  
A preset number appears in the display. The stations are stored from preset number 1.



- 4 Press ENTER/YES.  
The station is stored.
- 5 Repeat steps 1 to 4 to store other stations.

### To tune in a station with a weak signal

Press + or - repeatedly to tune in the station manually.

### To set another station to the existing preset number

Start over from step 1. After step 3, turn the jog dial to select the preset number you want to store the other station.

You can add a new preset number after the last preset number.

### To erase the preset station

- 1 Press MENU/NO.
- 2 Turn the jog dial to select "P. Erase?" to erase a station and then press ENTER/YES. Select "P. All Erase?" when you want to erase all the preset stations.
- 3 Turn the jog dial to select the preset number you want to erase.
- 4 Press ENTER/YES.  
"Complete!!" appears.

When you erase a preset number, the preset number decreases by one and all preset numbers following the erased one are renumbered.

### To change the AM tuning interval (Except for the European and Middle Eastern models)

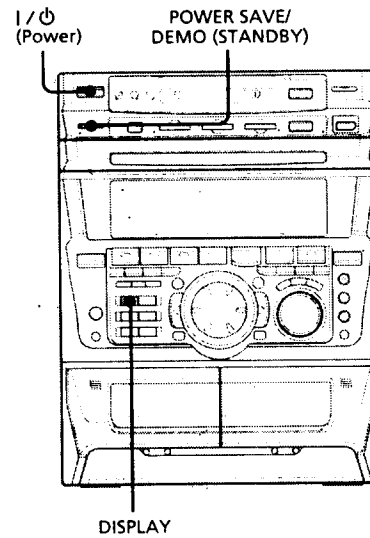
The AM tuning interval is factory set to 9 kHz (10 kHz in some areas). To change the AM tuning interval, tune in any AM station first, then turn off the power. While holding down the ENTER/YES button, turn the power back on. When you change the interval, AM preset stations will be erased. To reset the interval, repeat the same procedure.

#### Tip

The preset stations are retained for half a day even if you unplug the power cord or if a power failure occurs.

## Saving the power in standby mode

You can lower the power consumption to minimum (Power Saving Mode) and save energy in standby mode.



### Tips

- Each time you press POWER SAVE/DEMO (STANDBY) in the Power Saving Mode, the display switches between the Power Saving Mode and the demo mode.
- I / ⏻ indicator and timer indicator (when the timer is set) light up even in the Power Saving Mode.
- The timer works in the Power Saving Mode.

### Notes

- You cannot set the time in the Power Saving Mode.
- One Touch Play function does not work in the Power Saving Mode.

### To cancel the Power Saving Mode

Press DISPLAY.

The clock display appears.

- 
- ➔ Press POWER SAVE/DEMO (STANDBY) when the power is off (during demo or clock display mode).

The system switches to the Power Saving Mode and the demo or clock display disappears. The system is turned on/off by pressing DISPLAY.

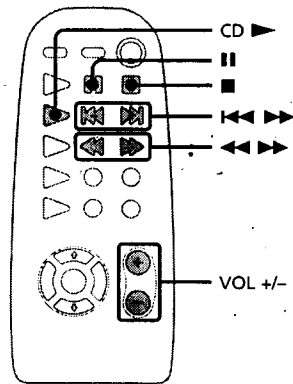
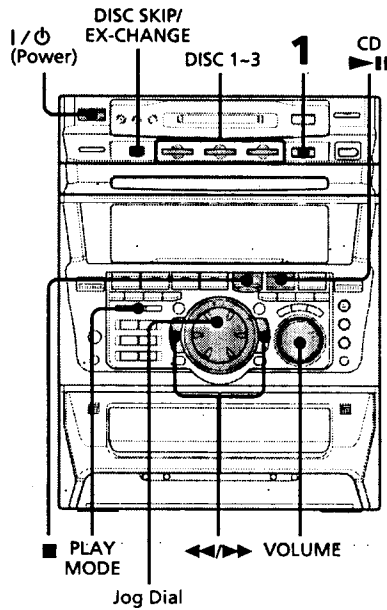
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## Basic Operations

### Playing a CD

#### — Normal play

You can play up to three CDs in a row.



- 1 Press and place up to two CDs on the disc tray.

If a disc is not placed properly it will not be recognized.

With the label side up. When you play a CD single, place it on the inner circle of the tray.

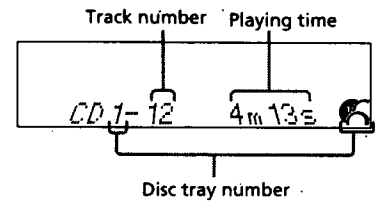


To insert a third disc, press DISC SKIP/ EX-CHANGE to rotate the disc tray.

- 2 Press one of the DISC 1-3 buttons.

The disc tray closes and play starts.

If you press CD (or CD on the remote) when the disc tray is closed, play starts from the CD loaded on the tray whose button is lit green.



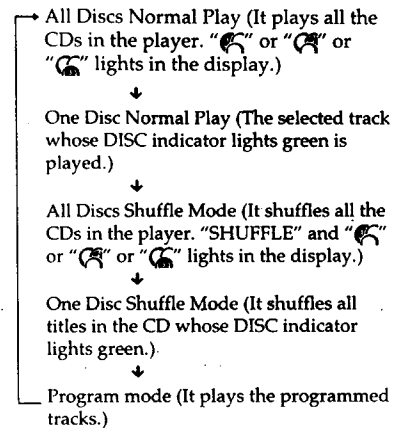
continued

## Playing a CD (continued)

To	Do this
Stop play	Press ■.
Pause	Press CD ►   (   on the remote). Press again to resume play.
Select a track	During play or pause, turn the jog dial clockwise (to go forward) or counterclockwise (to go back) and release it when you reach the desired track. (Or press ►► (to go forward) or ◀◀ (to go back) on the remote.)
Find a point in a track	Press and hold down ►► or ◀◀ during play and release it at the desired point.
Select a CD in stop mode	Press a DISC 1-3 button or DISC SKIP/EX-CHANGE.
Play only the CD you have selected	Press PLAY MODE repeatedly until "1" or "2" or "3" appears.
Play all CDs	Press PLAY MODE repeatedly until "1" or "2" or "3" appears.
Remove the CD	Press ⏏.
Exchange other CDs while playing	Press DISC SKIP/EX-CHANGE.
Adjust the volume	Turn VOLUME (or press VOL +/- on the remote).

## The play mode for CD

Each time you press PLAY MODE, the play mode for CD changes as follows:



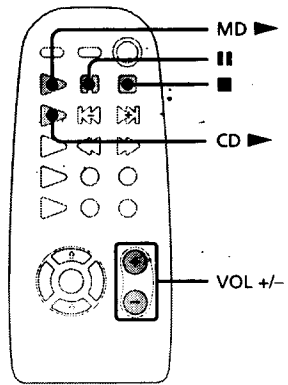
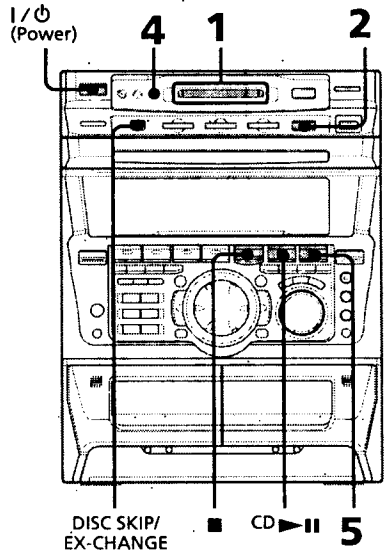
### Tips

- Pressing CD ►|| when the power is off automatically turns the power on and starts CD playback if there is a CD in the tray (One Touch Play). When the system is in the Power Saving Mode, the One Touch Play function does not work.
- You can switch from another source to the CD player and start playing a CD just by pressing CD ►|| or the DISC 1-3 buttons (Automatic Source Selection).
- If there is no CD in the player, "CD No Disc" appears in the display.
- When a disc tray holding a CD is selected (or playing), the DISC 1-3 button for that tray lights green. When a disc tray holding a CD is not selected, the DISC 1-3 button for that tray lights orange. When all disc trays are empty, the DISC 1-3 buttons all light green.

# Recording a CD on an MD

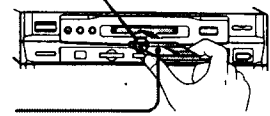
## — CD-MD Synchro Recording

You can make a digital recording of a CD on an MD, marking track numbers in the same sequence as the original CD. You can also record a programme of your favourite tracks (see page 32).



- 1** Insert a recordable MD.  
Insert the MD until the deck pulls it in. When is lit in the display, another MD has been inserted already. Press MD to eject an MD and then insert a recordable MD if necessary.

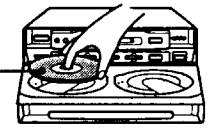
With the arrow pointing toward the deck.



With the label side up and the shutter slide rightward.

- 2** Press CD to open the disc tray and place a CD on the disc tray.

With the label side up. When you play a single CD, place it on the inner circle of the tray.



Press CD to close the disc tray.

- 3** Press DISC SKIP/EX-CHANGE to select the desired CD.

- 4** Press CD-MD SYNC.  
● REC button is lit red, the MD stands by for recording, and the CD pauses at the beginning.

- 5** Press MD .  
Recording starts. When the recording is completed, the CD player and the MD deck stop automatically.

continued



### Recording a CD on an MD (continued)

To	Do this
Stop recording	Press ■.
Remove CD or MD	Press ▲ for CD or MD.

#### Tip

If you use a recorded MD, the MD deck automatically locates the end of the recorded portion and starts recording from there. To record after erasing all tracks on an MD, see "Erasing recordings" on page 46.

#### While "TOC" is lit or is flashing

To ensure complete recording, do not move the deck or disconnect the mains lead. The deck updates the Table of Contents (TOC) while "TOC" is flashing.

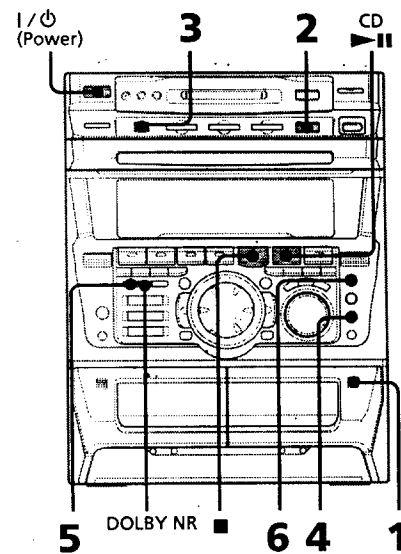
#### Notes

- If the MD is record protected, "C11" and "Protected" appears in the display alternately and the MD cannot be recorded on. Press MD ▲ and remove the MD, slide the record protection tab to the closed position (see page 34), reinsert the MD and try again.
- You cannot make CD synchro recordings on an MD and a tape simultaneously.

## Recording a CD to a tape

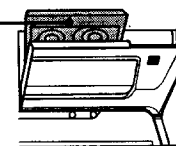
### — CD-TAPE Synchro Recording

The CD-TAPE SYNC button lets you record from a CD to a tape easily. You can use TYPE I (normal) or TYPE II (CrO<sub>2</sub>) tapes. The recording level is adjusted automatically.



- 1 Press ▲ and insert a blank tape into deck B.

With the side you want to record facing forward



- Press CD and place a CD. Then press again to close the disc tray.

With the label side up. When you play a CD single, place it on the inner circle of the tray.



- Press DISC SKIP/EX-CHANGE repeatedly so that it lights green.
- Press CD-TAPE SYNC. Deck B stands by for recording and the CD player stands by for playback. The indicator on TAPE B (for front side) lights up.
- Press DIRECTION repeatedly to select to record on one side. Select (or RELAY) to record on both sides.
- Press REC PAUSE/START. Recording starts.

**To stop recording**

Press .

**Tips**

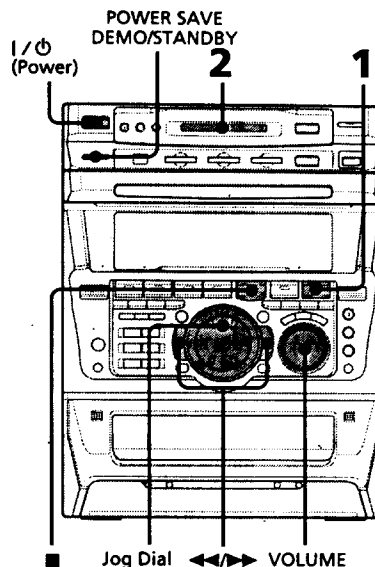
- If you want to record from the reverse side, press TAPE B to light its indicator after pressing CD-TAPE SYNC.
- When you record on both sides, be sure to start from the front side. If you start from the reverse side, recording stops at the end of the reverse side.
- When you want to reduce the hiss noise in low-level high-frequency signals, press DOLBY NR so that "DOLBY NR" appears after pressing CD-TAPE SYNC.

**Note**

You cannot listen to other sources while recording.

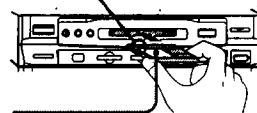
**Playing an MD**

— Normal play



- Insert a recorded MD. Insert the MD until the deck pulls it in. When is lit in the display, another MD has been inserted already. Press MD to eject an MD and then insert a recordable MD if necessary.

With the arrow pointing toward the deck.

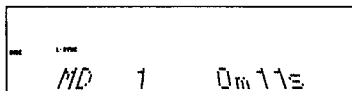


With the label side up and the shutter slide rightward.

continued

## Playing an MD (continued)

- 2** Press MD ►|| (or MD ► on the remote).  
Play starts.



To	Do this
Stop play	Press ■.
Pause	Press MD ►   (or    on the remote). Press again to resume play.
Select a track	Turn the jog dial (or press ◀▶/▶▶ on the remote) repeatedly until you find the desired track.
Find a point in a track	Press and hold ◀◀ or ▶▶; during play and release it at the desired point.
Remove MD	Press MD ⏏.
Adjust the volume	Turn VOLUME (or press VOL +/- on the remote).

### Tips

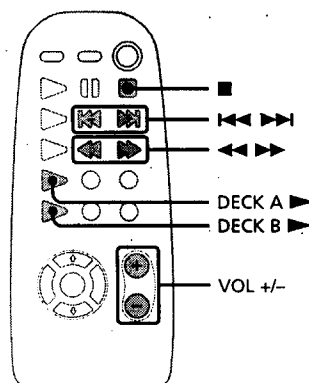
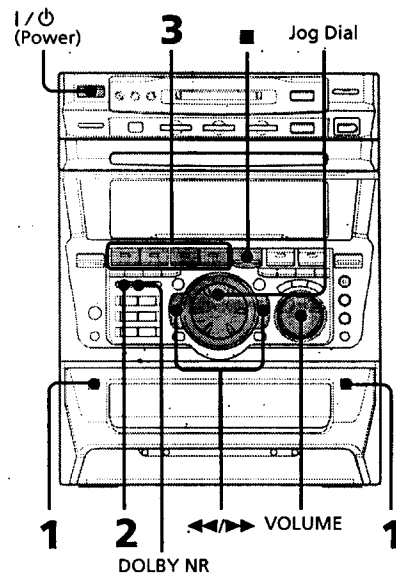
- You can start playing from the desired track in step 2.
  - Turn the jog dial (or press ◀▶/▶▶ on the remote) repeatedly until the desired track appears in the display.
  - Press MD ►||.
- You can switch from another source to the MD and start playing an MD by pressing MD ►|| (or MD ► on the remote) (Automatic Source Selection).

### Note

Please do not use MDs with labels that are protruding or labels that have not been positioned correctly. Use of such MDs may damage this unit.

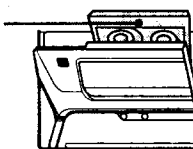
## Playing a tape

You can use any type of tape, TYPE I (normal), TYPE II (CrO<sub>2</sub>) or TYPE IV (metal), since the deck automatically detects the tape type. You can also use the jog dial's AMS\* functions to quickly search for songs you want to hear. To select either deck A or B, press DECK A ► or DECK B ► on the remote.



- 1 Press **▲** and insert a recorded tape in deck A or B.

With the side you want to play facing forward



- 2 Press **DIRECTION** repeatedly to select **⇄** to play one side. Select **↔**\* to play both sides.  
To play both decks in succession, select **RELAY** (relay play).\*\*

- 3 Press **TAPE A** (or **TAPE B**) **▶** (**DECK A** (or **DECK B**) **▶** on the remote).  
Press **TAPE A** (or **TAPE B**) **◀** to play the reverse side. (Press **DECK A** (or **DECK B**) **▶** again on the remote to play the reverse side.) The tape starts playing.

- \* The deck stops automatically after repeating the sequence five times.
- \*\* Relay play always follows the following sequence:  
Deck A (front side), Deck A (reverse side), Deck B (front side), Deck B (reverse side).

To	Do this
Stop play	Press <b>■</b> .
Fast-forward	Press <b>◀◀</b> or <b>▶▶</b> .
Rewind	Press <b>◀◀</b> or <b>▶▶</b> .
Remove the cassette	Press <b>▲</b> .
Adjust the volume	Turn <b>VOLUME</b> (or press <b>VOL +/−</b> on the remote).

**Tips**

- Pressing **TAPE A** (or **TAPE B**) **▶** or **◀** when the power is off automatically turns the power on and starts tape playback if there is a tape in the deck (One Touch Play). When the system is in the Power Saving Mode, the One Touch Play function does not work.
- You can switch from another source to the tape deck just by pressing **TAPE A** (or **TAPE B**) **▶** or **◀** (Automatic Source Selection).
- When you want to reduce the hiss noise in low-level high-frequency signals, press **DOLBY NR** so that "DOLBY NR" appears.

**Searching for the beginning of a track (AMS\*)**

During playback, turn the jog dial the same direction as the **◀** or **▶** indicator to go forward. Turn the opposite direction to go back. (Or press **◀◀** or **▶▶** on the remote.)

The search direction, + (forward) or - (back), and number of songs being skipped (1-9) appear in the display.

Example: searching forward 2 songs

TAPE A : : : +2

\* AMS (Automatic Music Sensor)

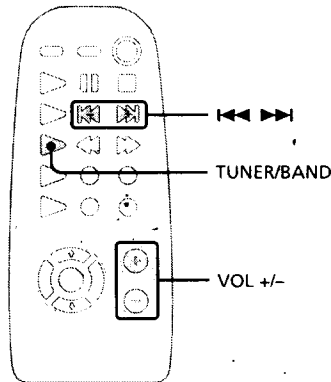
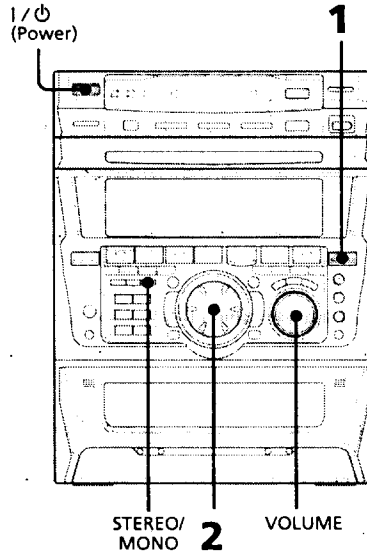
**Notes**

- The AMS function may not operate correctly under the following circumstances:
- When the unrecorded space between songs is less than 4 seconds long.
  - If completely different information is recorded on the left and right channels.
  - When there are continuous sections of extremely low level or low frequency sound (like those of a baritone sax).
  - When the unit is placed near a television. (In this case, we recommend moving the unit farther away from the television or turning off the television.)

# Listening to the radio

## — Preset Tuning

Preset radio stations in the tuner's memory first (see "Step 3: Presetting radio stations").



**1** Press TUNER/BAND repeatedly until the band you want appears in the display.

The bands you can receive vary depending on the model you purchased. Be sure to check which bands you can receive.

Every time you press the button, the band changes as follows:

2 band model:

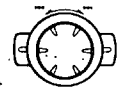
FM ↔ AM

3 band model:

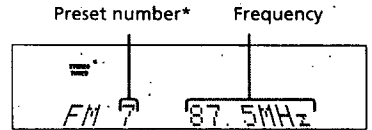
FM → MW → SW

**2** Turn the jog dial (or press ◀◀ or ▶▶ on the remote) to tune in the desired preset station.

Turn counter-clockwise (or press ◀◀ on the remote) for lower preset numbers.



Turn clockwise (or press ▶▶ on the remote) for higher preset numbers.



\* When only one station is preset, "ONE PRESET" appears in the display.

To	Do this
Turn off the radio	Press I/⊕.
Adjust the volume	Turn VOLUME (or press VOL +/- on the remote).

### To listen to non-preset radio stations

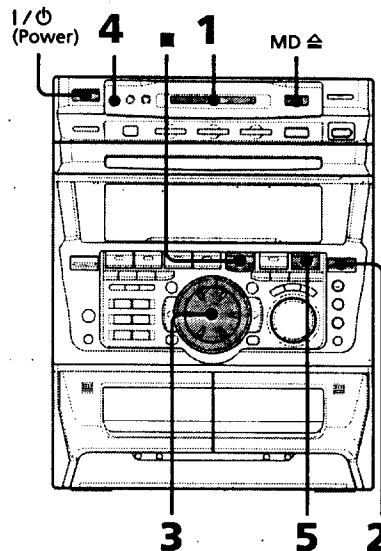
Use manual or automatic tuning in step 2. For manual tuning, press + or - (▶ or ◀ on the remote) repeatedly. For automatic tuning, press and hold + or - (▶ or ◀ on the remote).



#### Tips

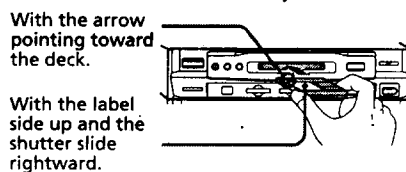
- Pressing TUNER/BAND when the power is off automatically turns the power on and tunes to the last received station (One Touch Play). When the system is in the Power Saving Mode, the One Touch Play function does not work.
- You can switch from another source to the radio just by pressing TUNER/BAND (Automatic Source Selection).
- When an FM program is noisy, press STEREO/MONO so that "MONO" appears in the display. There will be no stereo effect, but the reception will improve. Press the button again to restore the stereo effect.
- To improve broadcast reception, reorient the supplied antennas.

## Recording from the radio on an MD

You can make an analogue recording from a radio on an MD.



- 1** Insert a recordable MD.  
Insert the MD until the deck pulls it in. When  is lit in the display, another MD has been inserted already. Press MD  to eject an MD and then insert a recordable MD if necessary.

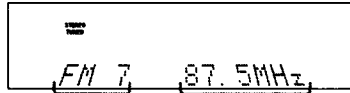


- 2** Press TUNER/BAND repeatedly until the band you want appears.

continued

**Recording from the radio on an MD (continued)**

- 3** Turn the jog dial (or press ◀◀ or ▶▶ on the remote) to tune in the desired preset station.



\* European model only.  
The station name appears when you tune in the labelled station.

- 4** Press REC on the MD.  
The MD stands by for recording and REC button is lit red.

- 5** Press MD ▶||.  
Recording starts.

To	Do this
Stop recording	Press ■.
Pause recording	Press MD ▶  . Press again to resume recording.
Remove MD	Press MD ⏏ while the deck is stopped.

**Tip**

If you use a recorded MD, the MD deck automatically locates the end of the recorded portion and starts recording from there. To record after erasing all tracks on an MD, see "Erasing recordings" on page 46.

**While "TOC" is lit or is flashing**

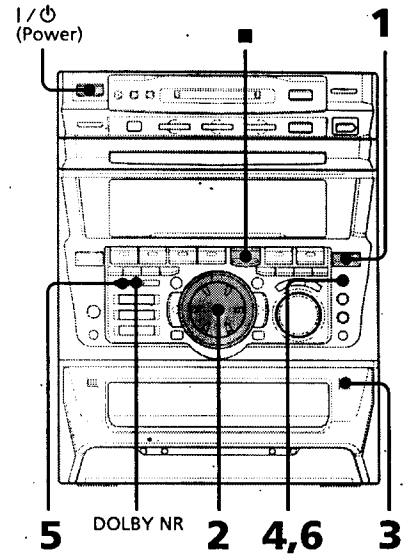
To ensure complete recording, do not move the deck or disconnect the mains lead. The deck updates the Table of Contents (TOC) while "TOC" is flashing.

**Note**

If the MD is record protected, "C11" and "Protected" appears in the display alternately and the MD cannot be recorded on. Press MD ⏏ and remove the MD, slide the record protection tab to the closed position (see page 34), reinsert the MD and try again.

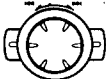
**Recording from the radio to a tape**

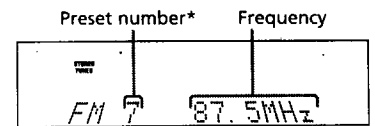
You can record the radio program to a tape by calling up a preset station. You can use TYPE I (normal) or TYPE II (CrO<sub>2</sub>) tapes. The recording level is automatically adjusted.




- 1** Press TUNER/BAND to select the band you want.

- 2** Turn the jog dial to tune in a preset station.

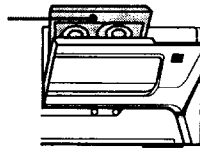
Turn counter-clockwise (or press ◀◀ on the remote) for lower preset numbers.  Turn clockwise (or press ▶▶ on the remote) for higher preset numbers.





\* When only one station is preset, "ONE PRESET" appears in the display. The station name appears when you tune in the labelled station.

- 3** Press  and insert a recordable tape into deck B.

With the side you want to record facing forward



- 4** Press REC PAUSE/START.  
Deck B stands by for recording.


- 5** Press DIRECTION repeatedly to select  to record on one side.  
Select  (or RELAY) to record on both sides.

- 6** Press REC PAUSE/START.  
Recording starts.

### To stop recording

Press .

#### Tips

- If you want to record from the reverse side, press TAPE B  to light its indicator after pressing REC PAUSE/START in step 4.
- When you record on both sides, be sure to start from the front side. If you start from the reverse side, recording stops at the end of the reverse side.
- To record non-preset stations, use + and - in step 2 to tune in the desired station manually.
- When you want to reduce the hiss noise in low-level high-frequency signals, press DOLBY NR so that "DOLBY NR" appears after pressing REC PAUSE/START in step 4.
- If noise is heard while recording from the radio, move the respective antenna to reduce the noise.



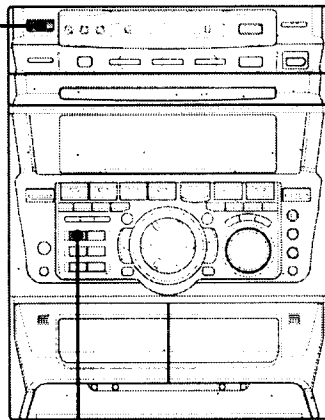
## Listening to a CD

### Using the CD display

You can check the remaining time of the current track or that of the CD.

When a CD TEXT disc is loaded, you can check the information stored on the disc, such as the titles or artist names.

I / ⏻  
(Power)



DISPLAY

→ Press DISPLAY.

Each time you press the button during normal playback or in the stop mode, the display changes as follows:

#### During normal playback

- Playing time on the current track
- ↓
- Remaining time on the current track
- ↓
- Remaining time on current CD (⏻, ⏪ or ⏩ or 1 DISC mode) or "---" display (⏻ or ⏩ or ALL DISCS mode)
- ↓
- Title name of the current track\*
- ↓
- Clock display (for eight seconds)
- ↓
- Effect (P FILE) name or "EFFECT ON (OFF)"

#### In the stop mode

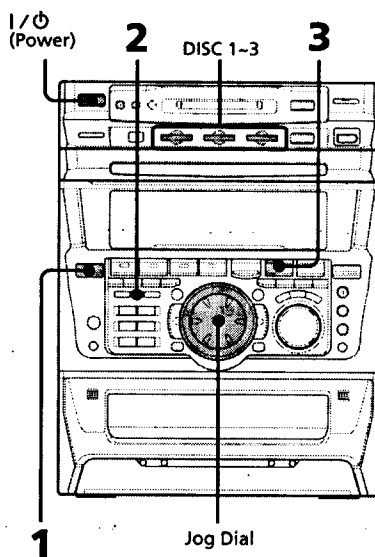
- Title name of the CD\*
- ↓
- Artist information\*
- ↓
- Total number of tracks and total playing time
- ↓
- Clock display (for eight seconds)
- ↓
- Effect (P FILE) name or "EFFECT ON (OFF)"

\* With CD TEXT discs only ( certain characters cannot be displayed ). When the CD contains more than 50 tracks, CD TEXT is not displayed from track 51 on.

## Playing the CD tracks in random order

### — Shuffle Play

You can play all the tracks on one CD or all CDs in random order.



**1** Press FUNCTION repeatedly until "CD" appears in the display, then place a CD.

**2** Press PLAY MODE repeatedly until "SHUFFLE" and "⊕", "⊕", "⊕" or "SHUFFLE" and "⊕", "⊕", "⊕" appears in the display.  
 "⊕", "⊕", "⊕" shuffles all the CDs in the player. "⊕", "⊕" or "⊕" shuffles the CD whose DISC indicator is green.

**3** Press CD ►||.  
 All the tracks play in random order.

### To cancel Shuffle Play

Press PLAY MODE repeatedly until "SHUFFLE" or "PROGRAM" disappears from the display. The tracks continue playing in their original order.

### To select a desired CD

Press DISC 1~3.

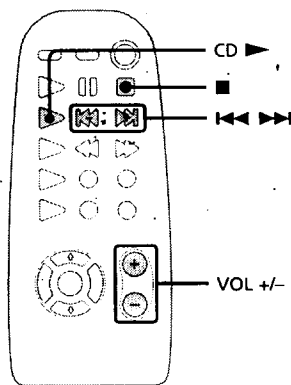
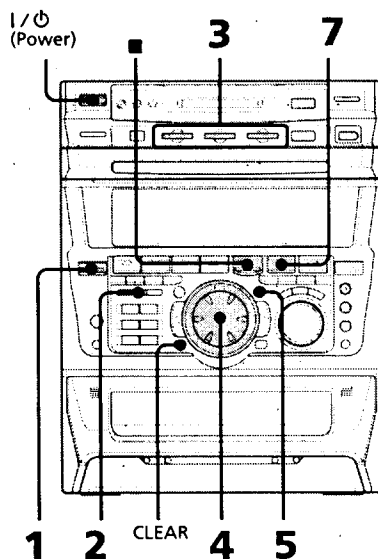
### Tips

- You can start Shuffle Play during normal play by pressing PLAY MODE repeatedly to select "SHUFFLE".
- To skip a track, turn the jog dial clockwise (or press ►| on the remote).

## Programming the CD tracks

### — Program Play

You can make a program of up to 32 tracks from all the CDs in the order you want them to be played.



- 1** Press FUNCTION repeatedly until "CD" appears in the display, then place a CD.
- 2** Press PLAY MODE repeatedly until "PROGRAM" appears in the display.
- 3** Press one of the DISC 1-3 buttons to select a CD.
- 4** Turn the jog dial until the desired track appears in the display.
 

Disc number

Track number    Total playing time (including selected track)
- 5** Press ENTER/YES. The track is programmed. The program step number appears, followed by the total playing time.
- 6** To program additional tracks, repeat steps 3 to 5. Skip step 3 to select tracks from the same disc.
- 7** Press CD ►||. All the tracks play in the order you selected.

### To cancel Program Play

Press **PLAY MODE** repeatedly until "PROGRAM" or "SHUFFLE" disappears from the display.

To	Press
Clear a track from the end	Press <b>CLEAR</b>
Add a track to the program	1 Select the disc tray with a <b>DISC 1-3</b> button. 2 Select the track by turning the jog dial. 3 Press <b>ENTER/YES</b> .
Clear the entire program	Press and hold down <b>CLEAR</b> or press <b>■</b> once in stop mode or twice while playing.
Check the order of programmed tracks	Turn the jog dial (or press <b>▶▶</b> or <b>◀◀</b> on the remote) while playing CD
Check the total number of programmed tracks	Press <b>DISPLAY</b> in the stop mode. The total programmed steps appears, followed by the last programmed track number and the total playing time.

### Tips

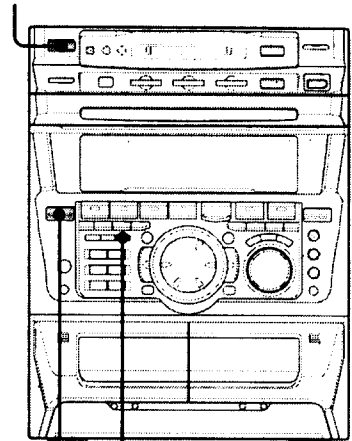
- The program you made remains in the CD player even after it has been played back. Press **CD ▶||** to play the same program again.
- If "--" appears instead of the total playing time during programming, this means:
  - you have programmed a track number which exceeds 20.
  - the total playing time has exceeded 100 minutes.

## Playing the CD tracks repeatedly

### — Repeat Play

This function lets you repeat a single CD or all CDs in normal play, Shuffle Play and Program Play.

| / Ⓞ  
(Power)



1 2

continued

**Playing the CD tracks repeatedly  
(continued)**

- 1** Press FUNCTION repeatedly until "CD" appears in the display, then place a CD.
- 2** Press REPEAT during playback until "REPEAT" appears in the display.  
Repeat play starts according to current status of play mode. To repeat only one track, press REPEAT again to display "REPEAT 1".

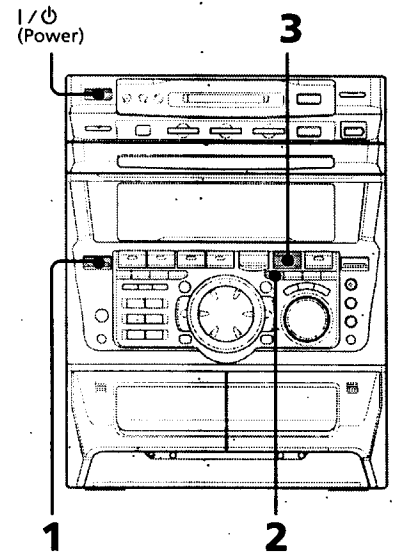
**To cancel Repeat Play**

Press REPEAT so that "REPEAT" or "REPEAT 1" disappears from the display.

**Playing CDs without interruption**

**— CD Non-Stop Play**

You can play CDs without pausing between tracks.



- 1** Press FUNCTION repeatedly until "CD" appears in the display, then place a CD.
- 2** Press CD NON-STOP to light the indicator.  
"NON-STOP PLAY" appears in the display.
- 3** Press CD ▶ II.

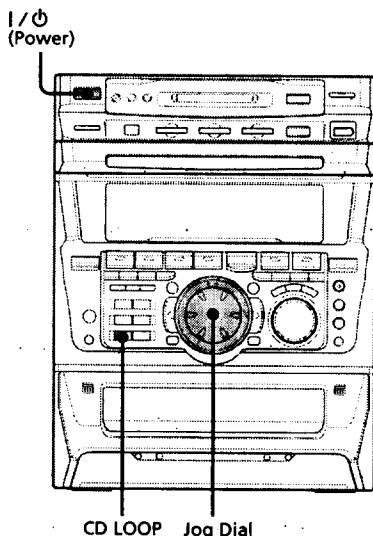
**To cancel Non-Stop Play**

Press CD NON-STOP so that the indicator goes out and "NON-STOP OFF" appears in the display.

## Looping part of a CD

### — CD Loop

With the loop function, you can repeat part of a CD during playback. This lets you create original recordings.



➔ Press and hold CD LOOP during playback at the point you want to start the Loop function, and release to resume normal play.

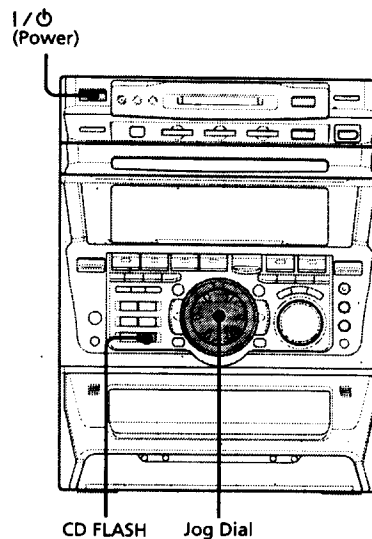
#### To adjust the loop length

Turn the jog dial while holding CD LOOP (or press FILE SELECT  $\uparrow$  or  $\downarrow$  while holding LOOP on the remote) to select different loop lengths (LOOP 1~20).

## Flashing part of a CD

### — CD Flash

With the flash function, you can “flash” the CD sound during playback. This lets you create original recordings.



➔ Press and hold CD FLASH during playback at the point you want to start the Flash function, and release to resume normal play.

#### To adjust the flash length

Turn the jog dial while holding CD FLASH (or press FILE SELECT  $\uparrow$  or  $\downarrow$  while holding FLASH on the remote) to select different flash lengths (FLASH 1~20).

#### To use LOOP and FLASH together

Press and hold both CD LOOP and CD FLASH at the same time.

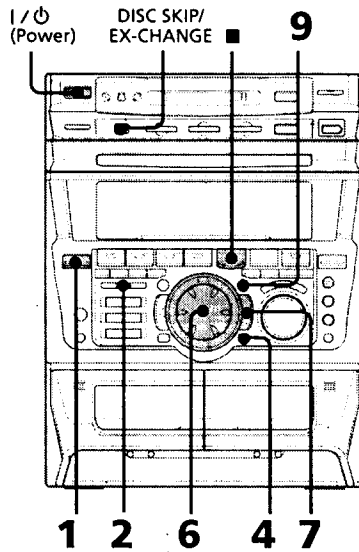
#### Notes

- The loop and flash length cannot be adjusted during this operation. Adjust the loop and flash lengths independently beforehand if necessary.
- To record the loop or flash effect, use unit's tape deck.

## Labelling a CD

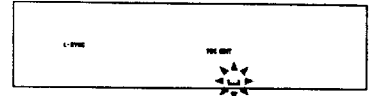
### - Disc Memo Function

You can label up to 50 CDs with titles of up to 20 symbols and characters. Whenever you load a labeled CD, the title (disc name) appears in the display.



- 1 Press FUNCTION repeatedly until "CD" appears.
- 2 To label a disc, press ■ to stop playing a disc. When "SHUFFLE" or "PROGRAM" appears in the display, press PLAY MODE repeatedly until it disappears.
- 3 Press DISC SKIP / EX-CHANGE repeatedly to select the desired CD.

- 4 Press NAME EDIT / CHAR.  
The cursor starts flashing.



- 5 Press NAME EDIT / CHAR repeatedly until the type of character you want appears.  
Each time you press the button, the display changes as follows:  
A (Upper case) → a (Lower case)  
→ 0 (Numbers) → ! (Symbols)\*  
→ □ (Space)\*\* → A...  
\* You can use the following symbols.

!"#\$%&'()\*+,-./:;<=>?@\_

**\*\* To enter a space**

Go to step 7.

You cannot label the blank space from the first letter.

- 6 Turn jog dial until the character you want appears.
- 7 Press ▶▶.  
The cursor shifts rightward and waits for the input of the next character.
- 8 Repeat steps 5 to 7 to complete the entire title.  
**If you made a mistake**  
Press ◀◀ or ▶▶ until the character you want change flashes, then repeat steps 4 to 6.  
**To erase the character**  
Press CLEAR while the character is flashing.
- 9 Press ENTER / YES to complete the labelling procedure

### To cancel labelling

Press ■.

### To check the disc title

- 1 Press MENU/NO while the CD is stopped.
- 2 Turn the jog dial to select "Name Check?" and then press ENTER/YES. The title scrolls in the display.

### To check the titles using the remote

Press DISC SKIP to select the desired CD and then press SCROLL.

### To erase a disc title

- 1 Press MENU/NO when CD is stopped.
- 2 Turn the jog dial to select "Name Erase?" and then press ENTER/YES. The title scrolls in the display. To erase all titles, select "All Erase?".
- 3 Press ENTER/YES again. When "No Name" appears, the disc has not been labelled. "Complete!!" appears and the disc title is erased.

### To cancel erasing a disc title

Press ■.

### To erase all titles

- 1 Press MENU/NO while the CD is stopped.
- 2 Turn the jog dial to select "All Erase?" and then press ENTER/YES. "All Erase?" appears.
- 3 Press ENTER/YES. "Complete!!" appears.

### To cancel erasing all titles

Press ■.

#### Note

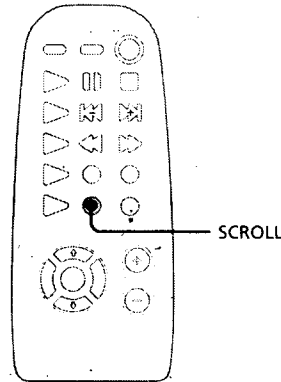
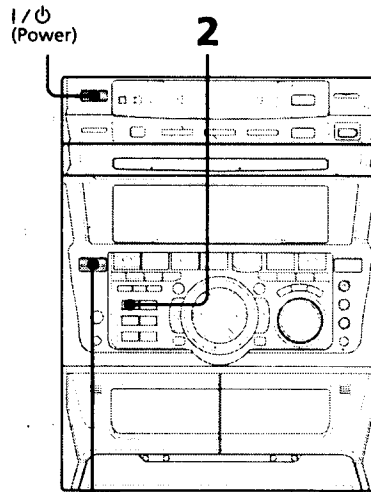
Turn on the system power at least once a week to ensure the stored disc titles are not erased.



## Listening to an MD

### Using the MD display

You can check the total number of tracks, the total playing time, and the remaining time of the MD.



### To check the total playing time

**1** Press **FUNCTION** repeatedly until "MD" appears in the display.

**2** While the deck is stopped, press **DISPLAY** repeatedly.

Each time you press the button, the display changes as follows:

#### In the stop mode

The total number of tracks and the total playing time

The remaining time of the MD (recordable MD only. Only the disc title appears and the remaining time does not appear with premastered MDs.)

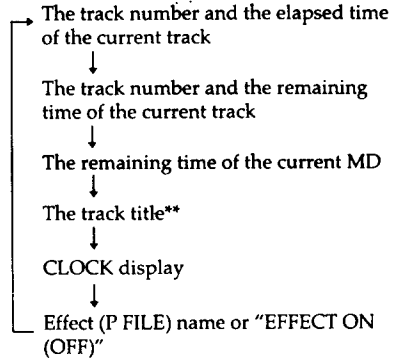
The disc title\*

CLOCK display

Effect (P FILE) name or "EFFECT ON (OFF)"

\* When the disc is not labelled, "No Name" appears, then the total number of tracks and the total playing time are displayed.

**During normal playback**



\*\*When the track is not labelled, "No Name" appears, then the elapsed time of a current track is displayed.

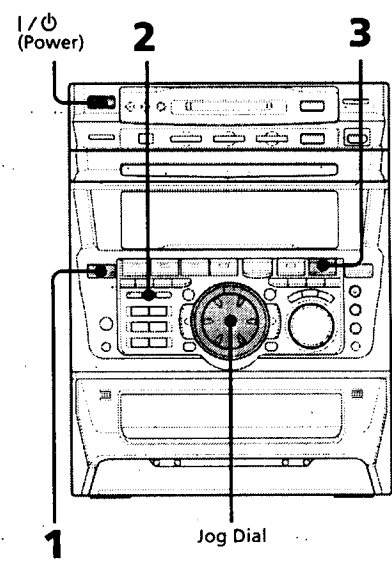
**Tips**

- To check the disc titles, press SCROLL while play is stopped. To check the track titles, press SCROLL while playing. The titles scroll across the display. To stop scrolling, press SCROLL. Press the button again to resume scrolling.
- To label discs and tracks, see "Labelling an MD" on page 44.

**Playing the MD tracks in random order**

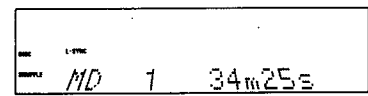
**— Shuffle Play**

You can play all the tracks on an MD in random order.



**1** Press FUNCTION repeatedly until "MD" appears in the display.

**2** While the deck is stopped, press PLAY MODE repeatedly until "SHUFFLE" appears.



**3** Press MD ► II. Shuffle Play starts.

continued

**Playing the MD tracks in random order (continued)**

**To cancel Shuffle Play**

While the deck is stopped, press PLAY MODE repeatedly until "SHUFFLE" and "PROGRAM" disappear.

**Tip**

To skip a track, turn the jog dial or press ►►1 on the remote. Press ◀◀1 to go back to the beginning of the current track. However, you cannot go back to the previous track.

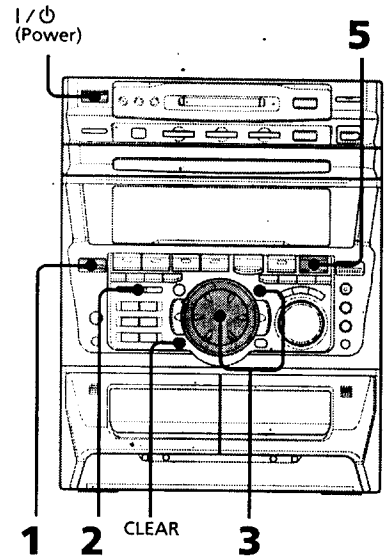
**Note**

You cannot change the play mode while playing.

## Programming the MD tracks

### — Programme Play

You can make a programme of up to 25 tracks in the order you want them to be played.



**1** Press FUNCTION repeatedly until "MD" appears in the display.

**2** While the deck is stopped, press PLAY MODE repeatedly until "PROGRAM" appears.

**3** Turn the jog dial to select the track number you desire, then press ENTER/YES.

The track is programmed. The program step numbers appears followed by the total playing time.

**4** To programme additional tracks, repeat step 3.  
Each time you programme, the total time of the programmes is displayed. You can make a programme of up to 25 tracks.

**5** Press MD ►II.  
All the tracks play in the order you selected.

**To cancel Programme Play**  
While the deck is stopped, press PLAY MODE repeatedly until "SHUFFLE" and "PROGRAM" disappear.

**To change the programme**  
You can change the programme before you start playback.

To	Do this
Clear a track from the end	Press CLEAR while MD is stopped.
Clear the entire programme	Press CLEAR repeatedly while MD is stopped until the entire program is erased.
Add a track to the programme	Do steps 3.
Check the order of programmed tracks	Turn the jog dial (or press ►► or ◀◀ on the remote) while playing an MD.
Check the total number of program tracks	Press DISPLAY in the stop mode. The total program steps appear, follow by the last program track number and the total playing time.

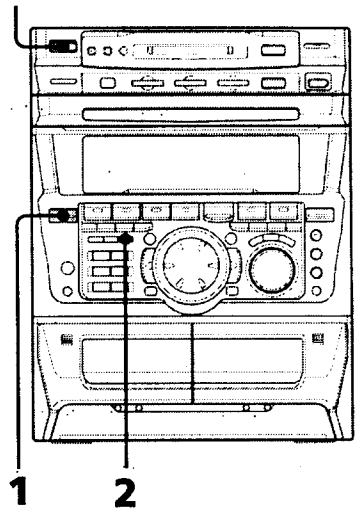
- Tips**
- The programme you made remains after Programme Play finishes. To play the same programme again, press MD ►II.
  - If you try to add more than the maximum number of the programme, "ProgramFull!" appears. Erase unnecessary tracks and programme again.

## Playing the MD tracks repeatedly

— Repeat Play

You can repeat a MD in normal play, Shuffle Play and Programme Play.

I / ⏻  
(Power)



**1** Press FUNCTION repeatedly until "MD" appears in the display.

**2** Press REPEAT during playback until "REPEAT" appears.  
Repeat play starts according to the current status of playmode.  
To repeat only one track, press REPEAT again to display "REPEAT 1".

**To cancel Repeat Play**  
Press REPEAT until "REPEAT" and "REPEAT 1" disappear.

## Recording on an MD

### Before you start recording

MDs (Mini Disc) let you digitally record and play music with high quality sound comparable with the sound of CDs. Another feature of MDs is track marking. The track marking feature lets you quickly locate a specific point or easily edit the recorded tracks. However, depending on the source you record, the recording method varies. Also, the way the track numbers are recorded differs depending on the source.

#### When the source you record from is:

##### • This system's CD player

- The digital signal from the CD is recorded as it is (digital recording)\*.
- Track numbers are automatically marked as on the original CD.

##### • This unit's tuner and other analogue components

- The analogue signal is converted to a digital signal and recorded (analogue recording)\*\*.
- Select SURROUND OFF during recording.
- A track number is marked at the beginning of a recording, but when you turn on the Level Sync function (see page 40), track numbers are automatically marked in sync with the level of the input signal.

##### • Other component connected by optical cable.

- The digital signal from the CD is recorded as it is (digital recording\*).
- The track mark is different condition depending on the source.

\* For details on the limitations for digital recording, see page 84.

\*\*This signal is converted because these systems do not use digital signals.

#### Note on MD track numbers

On an MD, the track number (track sequence), track start and end point information, etc., are recorded in the TOC\* area independent of the sound information. You can edit recorded tracks quickly by modifying the TOC information.

\* TOC: Table Of Contents.

### After recording

- Press MD  $\ominus$  to remove the MD or press | /  $\odot$  to turn off the system power.

"TOC" starts lighting or flashing. The MD recording is complete only after the recording information is entered to MD.

#### Note

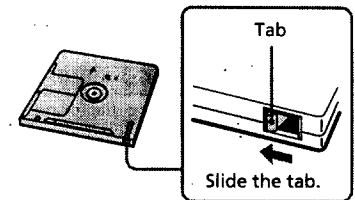
The MD recording is complete only after all the recording information is entered to TOC at which point TOC stops flashing and goes out. Be careful not to disconnect the mains lead or move the deck before this point. Before disconnecting the mains lead, do the following:

- Remove the MD.
- Press | /  $\odot$  to turn off the system.

#### Protecting a recorded MD

- To protect a recorded MD, slide the tab on the side of the MD to open the slot.

In this position, the MD cannot be recorded on. To record on the MD, slide the tab to close the slot.

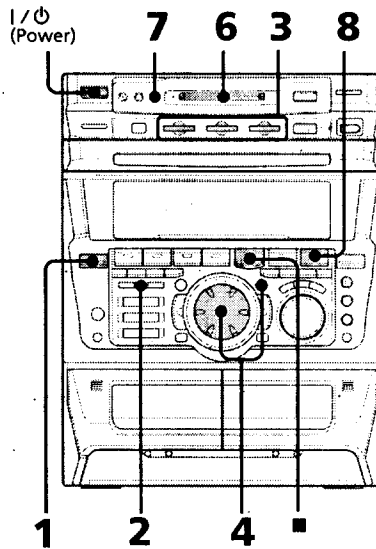


- If the MD is record protected, "C11" and "Protected" appears in the display alternately and the MD cannot be recorded on. Slide the tab to closed position, reinsert the MD and try again.

## Recording your favourite CD tracks

### -CD-MD Synchro Recording

You can select your favorite CD tracks with the Programme Play feature, then record the programme on an MD using the CD Synchro Recording feature.



- 1 Press FUNCTION repeatedly until "CD" appears in the display, then place a CD on the disc tray.
- 2 Press PLAY MODE repeatedly until "PROGRAM" appears.
- 3 Press one of the Disc 1~3 buttons to select a CD.
- 4 Turn the jog dial until the desired track appears in the display, then press ENTER/YES.  
The track is programmed.

- 5 To programme additional tracks, repeat step 3 and 4.  
The total playing time of the programme appears. You can make a programme of up to 32 tracks.

- 6 Insert a recordable MD.

- 7 Press CD-MD SYNC.  
The MD deck stands by for recording and the CD is in pause for playback. If you use an MD with tracks already recorded on it, the MD deck automatically locates the end of the recorded portion and starts the new recording from there.

- 8 Press MD ►|| .  
Recording starts from the last recorded portion of the MD. The CD player and the MD deck stop automatically when the recording is completed.

#### To stop recording

Press ■ .

#### If the MD ends while recording

The MD and the CD automatically stop.

#### Note

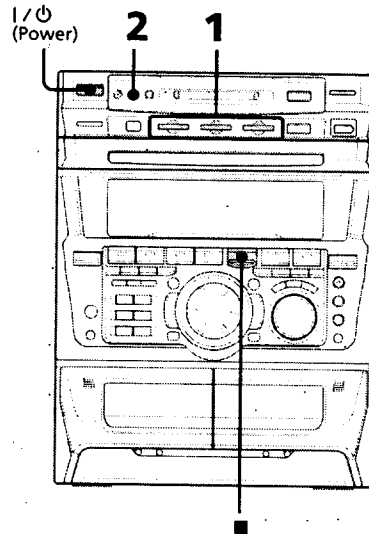
If the MD is record protected, "C11" and "Protected" appears in the display alternately and the MD cannot be recorded on. Press MD ⇄ and remove the MD, slide the record protection tab to the closed position (see page 34), reinsert the MD and try again.

## Recording the current track

### — Rec It

You can record a track quickly while listening to a CD.

If the MD has been partially recorded, recording starts after the recorded tracks.



**1** Press DISC 1 ~ 3.  
CD play starts.

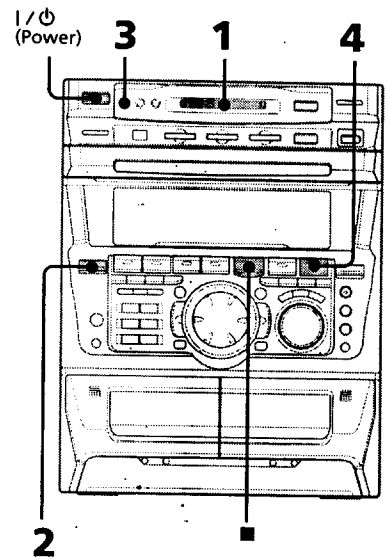
**2** Press REC IT while listening to a track you want to record.  
Play returns to the start of the track and recording starts. The MD deck stops automatically at the end of the track.

#### To stop recording

Press ■.

## Recording on an MD manually

The system automatically locates the end of any recorded portion of an MD and starts recording from that point.



**1** Insert a recordable MD.

**2** Press FUNCTION repeatedly until the source you want to record appears in the display.

- CD: Insert a CD. To start from a specific track, create a program (see "Programming CD tracks").
- Radio: Tune in the preset station you want (See "Step 3: Presetting radio stations").
- Tape: Insert a tape with the side you want to play facing forward.

When you want to record from optional AV components, see "Using optional components").

**3** Press REC.  
The MD deck is now ready for recording.

- 
- 4** Press MD ►|| (or MD ► on the remote).  
Recording starts.
- 

- 5** Start playing the source you want to record.
- 

#### To stop recording

Press ■.

#### Tips

- When you press FUNCTION while recording from a CD, both CD and MD stop.
- "OVER" lights up when a high-level signal was input during recording from the component connected to VIDEO.
- You can check the remaining time in the display while recording by pressing DISPLAY.

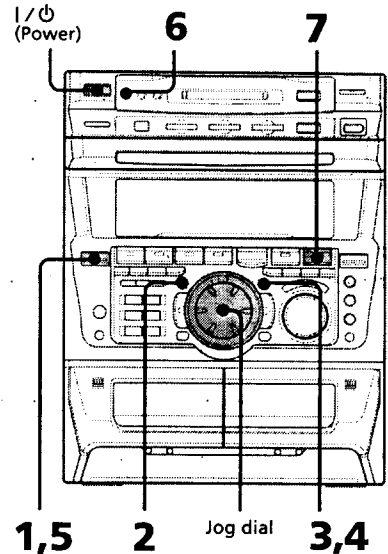
#### Note

If you pause recording during CD recording, a track number is recorded at that point.

---

## Monaural recording

You can record the stereo signals of an FM stereo broadcast etc. in monaural signals. In the monaural recording, the recording time becomes twice (120 minutes with an MD of 60-minutes) the normal recording time (stereo recording).



- 
- 1** Press FUNCTION repeatedly until MD appears in the display.
- 
- 2** Press MENU/NO twice.  
"Setup Menu" appears.
- 
- 3** Turn the jog dial until "Stereo Rec" (or "Mono Rec" appears then press ENTER/YES.
- 
- 4** Turn the jog dial until "Mono Rec" appears then press ENTER/YES.
- 

continued



### Monaural recording (continued)

The recording mode switches to monaural recording and "MONO" lights up in the display.

- 5 Press FUNCTION repeatedly until the source (eg: TUNER) you want to record appears in the display.
- 6 Press REC.  
The deck stands by for recording.
- 7 Press MD ►||.  
Recording starts.  
The sound source from the speakers is the original score.

#### To stop recording

Press ■.

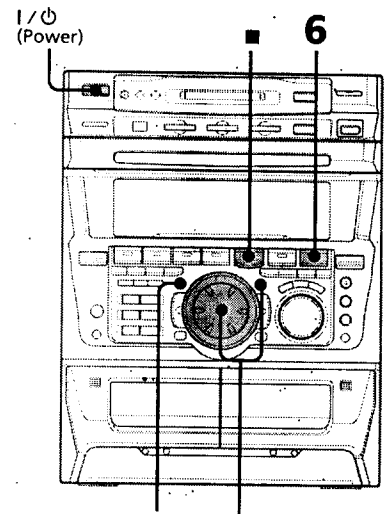
#### To return to the stereo recording

- 1 Press FUNCTION repeatedly until MD appears in the display.
- 2 Press MENU/NO twice, so that "Setup Menu" appears.
- 3 Turn the jog dial until "Mono Rec" appears, then press ENTER/YES.
- 4 Turn jog dial until "Stereo Rec" appears, then press ENTER/YES.  
The recording mode switches to stereo recording and "MONO" turns off in the display.

## Making a space between tracks 3 seconds long

### — Smart Space

The Smart Space function let you make a blank space between tracks three seconds long automatically while making a digital recording.



2,5 3,4

- 1 Press REC.  
The system pause recording
- 2 While in record pause, press MENU/NO twice.  
"Setup Menu" appears.
- 3 Turn the jog dial until "S. Space Off" (or "S. Space On") appears, then press ENTER/YES.
- 4 Turn the jog dial until "S. Space On" appears, then press ENTER/YES.  
"S. Space On" appears and the Smart Space function is set to on.

**5** Press MENU/NO.

**6** Press MD ►II.

Recording starts.

If there is extended silence of 4 to 29 seconds, "Smart Space" appears, the MD deck replaces the silence with a blank of about 3 seconds and continues recording. If there is no sound input for 30 seconds, "Auto Cut" appears, the MD deck replaces the silence with a blank of about 3 seconds and enters recording pause. To continue recording, press MD ►II.

### To stop recording

Press ■.

### To turn off the Smart Space function

- 1 Do steps 1 and 2.
- 2 Turn the jog dial until "S. SPACE ON" appears, then press ENTER/YES.
- 3 Turn the jog dial until "S. Space Off" appears, then press ENTER/YES.
- 4 Press MENU/NO.

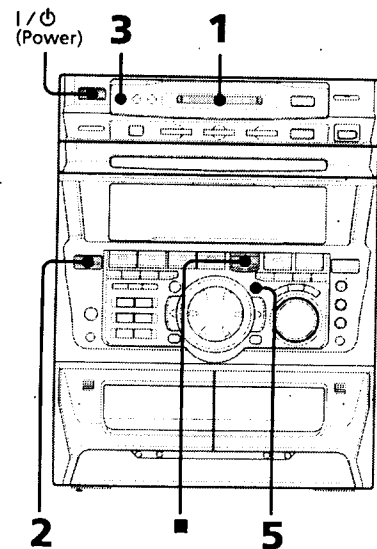
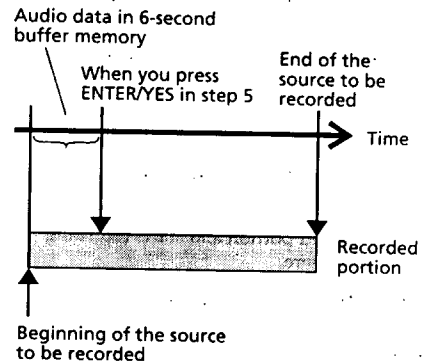
### Tips

- The Smart Space function is factory set on.
- If you turn the power off or disconnect the mains lead, the MD deck will recall the last setting (on or off) the next time you turn the power on.

## Starting recording with 6 seconds of prestored audio data

### — Time Machine Recording

When recording from the radio, the first few seconds of material are often lost. You can prevent the loss of this material with Time Machine Recording function.



continued

**Starting recording with 6 seconds of prestored audio data (continued)**

- 1** Insert a recordable MD.
- 2** Press FUNCTION repeatedly until the source (e.g., TUNER) you want to record appears in the display.
- 3** Press REC.  
The deck stands by for recording.
- 4** Start playing the source you want to record.
- 5** Press ENTER/YES at the point you want to start recording.  
Recording of the source starts with the 6 seconds of audio data stored in the buffer memory.  
If you use a recorded MD, the MD deck automatically locates the end of the recorded portion and starts recording from there.

**To stop Time Machine Recording**

Press ■.

## Marking track numbers

The track numbers can be marked as follows:

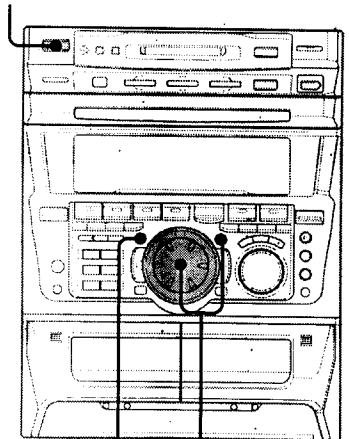
- Mark the track numbers automatically.  
When you record from this system's CD (digital recording) or during level-synchro recording, the track numbers are automatically marked.
- At any point while recording.  
You can mark the track numbers while recording any sources.
- After recording.  
You can use Divide function (see page 50).

## Marking track numbers automatically while recording

### — Level-Synchro Recording

The "LEVEL-SYNC" is factory set to on and the track numbers are automatically marked. If "L-SYNC" is not displayed during recording, turn it on as follows. Track numbers are automatically marked when the input signal is under a certain level for more than two seconds and then exceeds the previous level.

I/O  
(Power)



1,4 2,3

- 1** While in record pause, press MENU/NO twice.  
"Setup Menu" appears.
- 2** Turn the jog dial until "T. Mark Off" appears, then press ENTER/YES.
- 3** Turn the jog dial until "T. Mark L Sync" appears, then press ENTER/YES.  
"L-SYNC" lights up.
- 4** Press MENU/NO.

#### To stop recording

Press ■.

#### To cancel automatic track marking

- 1** While in record pause, press MENU/NO twice.  
"Setup Menu" appears.
- 2** Turn the jog dial until "T. Mark L Sync" appears, then press ENTER/YES.
- 3** Turn the jog dial until "T. Mark Off" appears, then press ENTER/YES.
- 4** Press MENU/NO.  
"L-SYNC" disappears.

When "L-SYNC" goes off, a track number is marked only at the beginning of each recording.

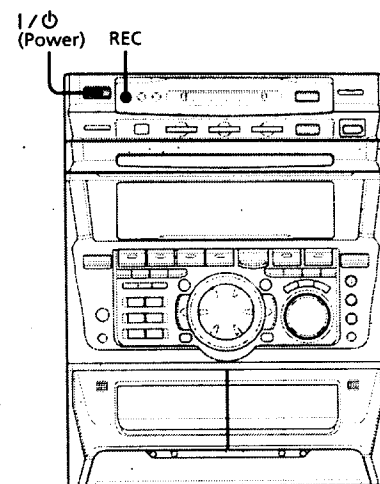
#### Note

The track numbers are not marked even if the level-synchro recording is set to on, if the noise increase while recording from radio or tape

## Marking track numbers at a specific point while recording

### - Track mark

You can mark track numbers at any time while recording, regardless of the type of sound source.

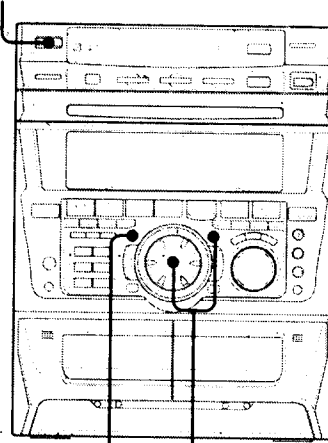


- Press REC while recording at the point you want to add a track mark. A track mark is added that location.

## Adjusting the recording level

You can adjust the recording level when the recorded sound is too soft or too strong. You can adjust and save the recording level for each recording source (function).

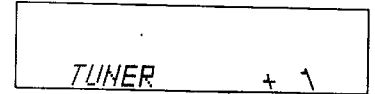
I / ⏻  
(Power)



**1,4** **2,3**

- 1** While recording or in record pause, press MENU/NO twice. "Setup Menu" appears.
- 2** Turn the jog dial until "LevelAdjust" appears, then press ENTER/YES. The recording source and the recording level appears.

- 3** Turn the jog dial to adjust the recording level.



The recording level can be adjusted from -12 to +12. Adjust the recording level so as not to light up "OVER" in the display at the strongest sound.

- 4** Press MENU/NO. The adjustment is completed. Start recording if the recording is paused.

### Tip

The recording level can be adjusted for each function, and the adjusted level is saved for each function.

### Note

If the recording level is adjusted during recording, the newly recorded sound differs in quality from the previously recorded sound.

## Editing an MD

### Before you start editing

You can edit the recorded tracks on an MD. By using the editing functions, you can create a new sequence to the recorded MD.

#### Editing functions

- **Name – Labelling MDs**  
Use this function to label discs and tracks. You can use upper case, lower case, numbers and symbols for the titles.
- **Erasé – Erasing recordings**  
Use this function to erase a single track, all the tracks, or a portion within a track.
- **Move – Changing the order of tracks**  
Use this function to change the track numbering.
- **Divide – Adding track numbers**  
Use this function to add track numbers. This lets you locate your favourite phrases quickly.
- **Combine – Combining recorded tracks**  
By using this function, the blank space between two tracks is erased and those two tracks are combined to one track. You can combine the tracks which are not numerically consecutive, i.e. the track 1 and track 4, etc.
- **Undo – Cancelling the last edit**  
Use this function to cancel the last edit and restore the contents of the MD to the condition before the edit.

### Before editing

To edit the MD, the MD deck requires the following conditions:

- The MD is recordable.
- The MD deck is in the Continuous mode.

Before editing, check the conditions by following the procedure below.

- 1 Check the tab of the MD to be edited.

If the MD is record protected, "C11" and "Protected" appear in the display alternately and the MD cannot be edited.

If the MD is protected against erasure, slide the tab to close the slot.

- 2 Press PLAY MODE repeatedly until "PROGRAM" and "SHUFFLE" disappear.

You can edit the MD only in Continuous mode. You cannot edit the MD in Shuffle or Programme mode.

### After editing

- Press  $\text{⏻}$  on the MDs to remove the MD or press  $\text{⏻}$  to turn off the system power.
- "TOC" starts lighting or flashing. The MD recording is complete only after the recording information is entered to MD.

#### Note

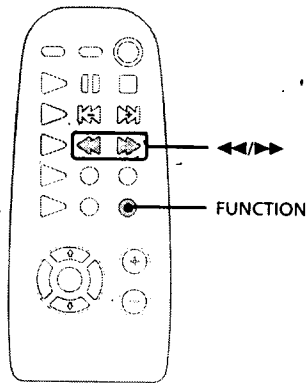
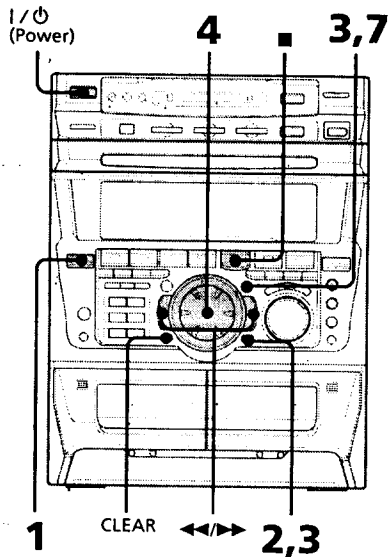
The MD editing is complete only after all the editing information is entered to TOC at which point TOC stops flashing and goes out. Be careful not to disconnect the mains lead or move the deck before this point. Before disconnecting the mains lead, do the following:

- Remove the MD.
- Press  $\text{⏻}$  to turn off the system.

# Labelling an MD

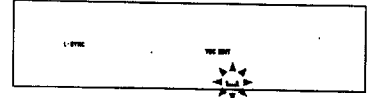
## — Name Function

You can also create titles (names) for your recorded MDs and tracks. You can use up to 1,700 characters on a disc.



- 1 Press **FUNCTION** repeatedly until "MD" appears in the display.  
To label a disc, press **■** to stop playing the disc.  
To label a track, turn the jog dial until the desired track number appears.

- 2 Press **NAME EDIT/CHAR**.  
The cursor starts flashing.



When you select the track in step 1, the playback starts automatically.

- 3 Press **NAME EDIT/CHAR** repeatedly until the type of character you want appears.  
Each time you press the button, the display changes as follows:  
A (Upper case) → a (Lower case)  
→ 0 (Numbers) → ! (Symbols)\*  
→ (Space)\*\* → A...  
**\* You can use the following symbols.**

!"#\$%&'()\*+,-./:;<=>?@\_

**\*\*To enter a space**

Go to step 5.

Press **ENTER/YES**.

You cannot label a blank space for the first letter.

- 4 Turn the jog dial until the desired character appears.

- 5 Press **▶▶**.  
The character you selected in step 4 stops flashing and the cursor shifts to the right.

- 
- 6** Repeat steps 3 through 5 to complete the entire title.  
If you enter an incorrect character, press ◀ or ▶ until the character you want to change flashes, then repeat steps 3 through 5.  
To erase a character, press CLEAR while the character is flashing.
- 

- 7** Press ENTER/YES to complete the labelling procedure.  
The disc or the track is labelled. The titles you labelled appear sequentially.
- 


### To cancel labelling

Press ■.

#### Tip

You can label a track title while playing. The current track is played repeatedly until the labelling is completed.

#### Note

If the MD is record protected, "C11" and "Protected" appears in the display alternately and the MD cannot be recorded on. Press MD  and remove the MD, slide the record protection tab to the closed position (see page 34), reinsert the MD and try again.

### To check the titles

To check the disc titles, press SCROLL on the remote while play is stopped. To check the track titles, press SCROLL while playing. The titles scroll across the display. To stop scrolling, press SCROLL. Press the button again to resume scrolling.

### To erase titles

- 1 While the deck is stopped, press MENU/NO.
- 2 Turn the jog dial until "Name?" appears, then press ENTER/YES.
- 3 Turn the jog dial until "Name Erase?" appears, then press ENTER/YES.  
To erase all the titles, select "Name All Ers?"
- 4 Turn the jog dial until the disc or track you want to erase the title appears, then press ENTER/YES.  
"Complete!!" appears.



# Erasing recordings

## — Erase Function

The MD deck lets you erase unwanted tracks quickly and easily. You can restore the contents to the condition before erasing (unerase) by using the Undo function.

Note, however, check carefully the portion to be erased, as you cannot undo an edit after performing any additional edits.

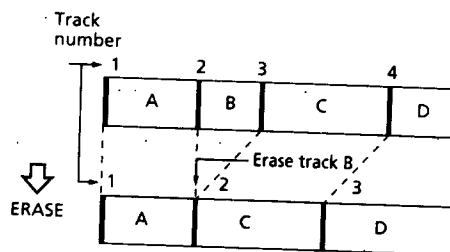
The three options for erasing recordings are:

- Erasing a single track (Erase).
- Erasing all the tracks (All Erase).
- Erasing a portion of a track (A-B Erase).

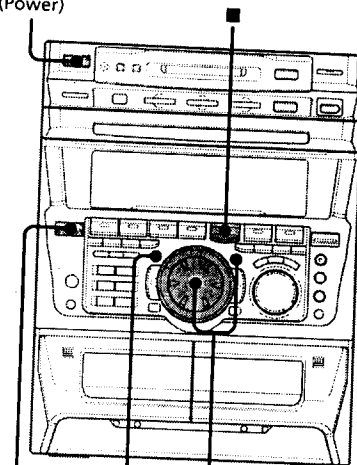
## To erase a single track

You can erase a track simply by selecting its track number.

When you erase a track, the total number of tracks on the MD decreases by one and all the tracks following the erased one are renumbered.



I/O  
(Power)



1 2 3,4

- 1 Press FUNCTION repeatedly until "MD" appears in the display.
- 2 Press MENU/NO while MD is stopped. "Edit Menu" appears.
- 3 Turn the jog dial until "Tr Erase ?" appears, then press ENTER/YES.
- 4 Turn the jog dial until the track you want to erase appears, then press ENTER/YES. "Complete!!" appears for a few seconds and the selected track is erased. The track following the erased track begins playing. (If you erase the last track, the track preceding the erased track begins playing.)

### To cancel erasing

Press ■.

### To undo the Erase Function

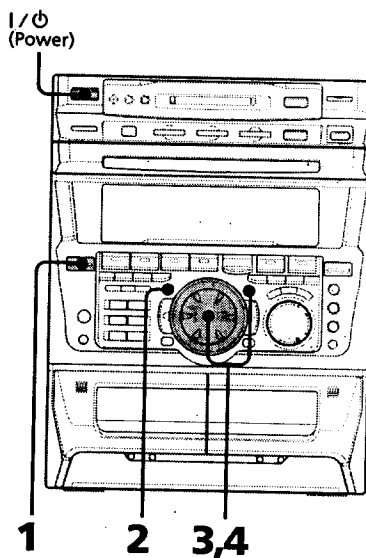
Use the Undo Function immediately after you erased the track (see page 53).

### Note

"Erase ???" appears when the track was recorded or edited on another deck and is against protected erasure. To erase the track, press ENTER/YES while "Erase ???" appears.

## To erase all the tracks

You can erase the entire MD contents (all titles and tracks) all at once.



- 1 Press FUNCTION repeatedly until "MD" appears in the display.
- 2 Press MENU/NO while MD is stopped. "Edit Menu" appears.
- 3 Turn the jog dial until "All Erase ?" appears, then press ENTER/YES. "All Erase??" appears.
- 4 Press ENTER/YES. "Complete!!" appears for a few seconds. All the tracks, track names and the disc name are erased.

### To cancel

Press ■.

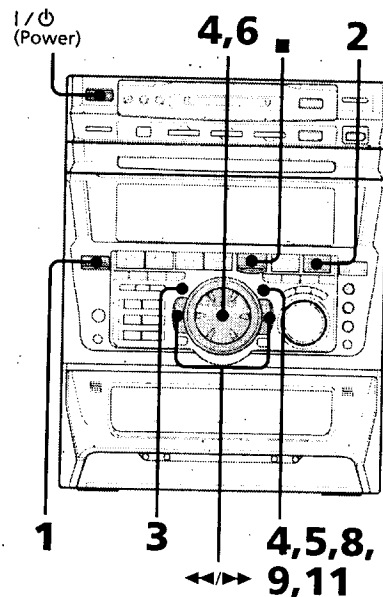
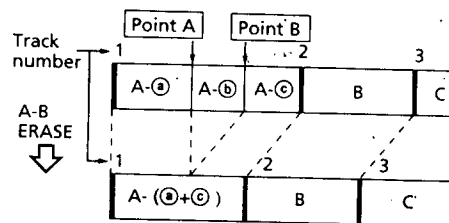
### To undo the Erase Function

Use the Undo Function immediately after you erased all the tracks (see page 53).

## To erase a portion of a track (A-B Erase Function)

You can specify a portion within a track and erase the portion with ease. It is convenient when erasing unnecessary sections after recording satellite or radio broadcasts.

Eg.: Erasing a portion of track A.



continued

## Erasing recordings (continued)

- 1** Press FUNCTION repeatedly until "MD" appears in the display.
- 2** While playing an MD, press MD **▶||** at the starting point of the portion to be erased (point A). The MD pauses.
- 3** Press MENU/NO. "Edit Menu" appears.
- 4** Turn the jog dial until "A-B Erase?" appears, then press ENTER/YES.
- 5** Press ENTER/YES again. "Rehearsal-" and "Point A ok?" appear alternately while the deck plays back the selected track from the beginning to point A set in step 2.
- 6** While monitoring the sound, turn the jog dial to find the starting point of the portion to be erased (point A). When you turn the jog dial, frame ( $f^{1/16}$  second), second (s), and minutes (m) are displayed. Point A moves in increments of 1 frame. To adjust point A in increments of 1 second or 1 minute, press **◀/▶** to flash the unit by which you want to shift (s or m), then turn the jog dial to shift the point.
- 7** Repeat step 6 until point A is played correctly.
- 8** Press ENTER/YES if point A is correct. "Point B set" appears and playback for setting the end point of the portion to be erased (point B) starts.

- 9** Continue playback until the deck reaches point B, then press ENTER/YES.

"A-B Ers" and "Point B ok?" appears alternately while the deck repeats a portion of a few seconds before point A and after point B successively.

- 10** Turn the jog dial to adjust point B if point B is not correct. The procedure is the same as step 6.

- 11** Press ENTER/YES if point B is correct. "Complete!!" appears for a few seconds and the portion between point A and B is erased.

### To cancel

Press **■**.

### To undo the Erase Function

Use the Undo Function immediately after you erased the portion of a track (see page 53).

### Note

If "Impossible" appears in the display, it means:

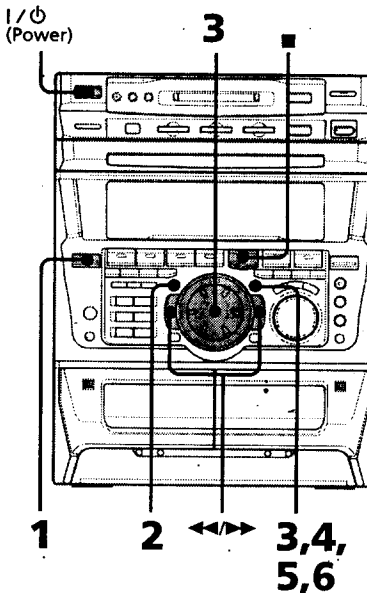
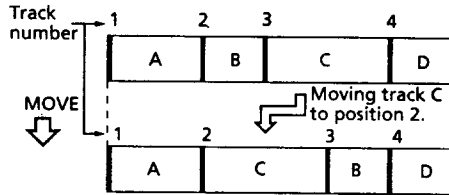
- Point B comes before point A. Point B should be specified after point A.
- The specified portion cannot be erased. This sometimes happens when you have edited the same track many times, and is due to a technical limitation of the MD system, not a mechanical error.

# Moving recorded tracks

## — Move Function

Using the Move function, you can change the order of any track on the disc. When you move tracks, the tracks are automatically renumbered.

Eg.: Moving track C to position 2.



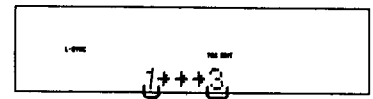
**1** Press FUNCTION repeatedly until "MD" appears in the display.

**2** Press MENU/NO while MD is stopped, playing or pausing. "Edit Menu" appears.

**3** Turn the jog dial until "Move ?" appears, then press ENTER/YES.

**4** Turn the jog dial until the track number you want to move appears, then press ENTER/YES.

**5** Turn the jog dial until the track number you want to move the track to (new track number) appears.



**6** Press ENTER/YES. "Complete!!" appears for a few seconds and the selected track moves to appointed position. The moved track begins playing.

### To cancel moving

Press ■.

### To undo the Move Function

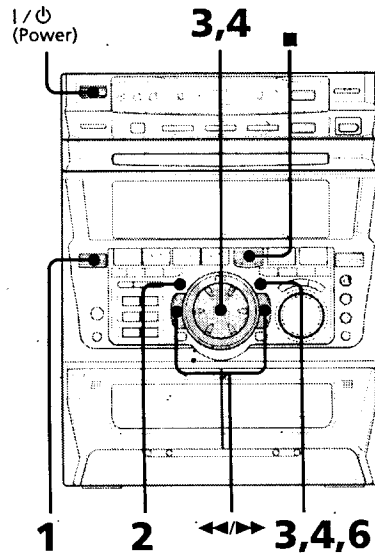
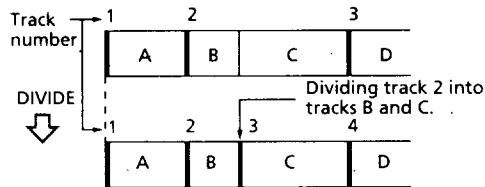
Use the Undo Function immediately after you moved the track (see page 53).

# Dividing recorded tracks

## — Divide Function

You can use this function to add track numbers to multiple tracks that are recorded as one track. This function also lets you mark track numbers. The total number of tracks increases by one and all the tracks following the new division are automatically renumbered.

Eg.: Dividing track 2 into tracks B and C.



- 1** Press FUNCTION repeatedly until "MD" appears in the display.
- 2** Press MENU/NO. "Edit Menu" appears
- 3** Turn the jog dial until "Divide ?" appears, then press ENTER/YES.
- 4** Turn the jog dial to select the track you want to divide, then press ENTER/YES. "Rehearsal-" appears and the portion to be divided set in step 2 is played repeatedly.
- 5** While monitoring the sound, turn the jog dial to find the point to divide the track. When you turn the jog dial, frame ( $f^{1/86}$  second), second (s), and minutes (m) are displayed. The dividing point moves in increments of 1 frame. To adjust the dividing point in increments of 1 second or 1 minutes, press  $\leftarrow/\rightarrow$  to flash the unit by which you want to shift (s or m), then turn the jog dial to shift the point.
- 6** Press ENTER/YES again when you find the point where you want to divide the track. "Complete!!" appears for a few seconds and the newly created track begins playing. When the original track is labelled, the second track will have no track title.

### To cancel dividing

Press ■.

### To undo the Divide Function

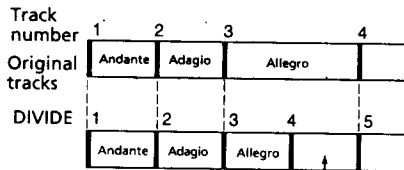
Use the Undo Function immediately after you divided the track (see page 53), or use the Combine Function.

### Tip

- You can divide a track while MD is stopped or playing.

### Notes

- If you divide a labelled track (page 50) into two tracks, only the first track is labelled with the title. Eg.



The latter track will have no title.

- The track cannot be divided at the beginning or end. If these points are designated, "Impossible" appears. Turn the jog dial and shift the dividing point.

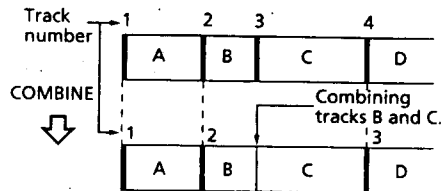
## Combining recorded tracks

### — Combine Function

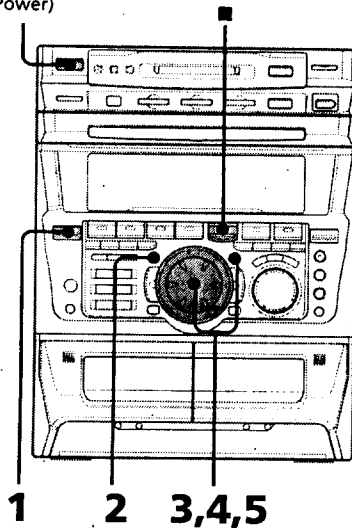
You can combine 2 tracks into a single track.

The total number of tracks decreases by one and all tracks following the combined ones are automatically renumbered.

Eg.: Combining tracks B and C.



I / ⏻  
(Power)



continued

### Combining recorded tracks (continued)

- 1** Press FUNCTION repeatedly until "MD" appears in the display.
- 2** Press MENU/NO while the MD is stopped, playing or pausing. "Edit Menu" appears.
- 3** Turn the jog dial until "Combine?" appears, then press ENTER/YES.
- 4** Turn the jog dial until the first track number of the two to be combined appears, then press ENTER/YES.  
The display for selecting the second track appears and the portion where the two tracks will join (i.e., the end of the first track and the beginning of the second track) is played back repeatedly.
- 5** Turn the jog dial until the second track number of the two to be combined appears, then press ENTER/YES.  
"Complete!!" appears for a few seconds and the tracks are combined. When both of the combined tracks have track titles, the title of the second track is erased.

#### To cancel

Press ■.

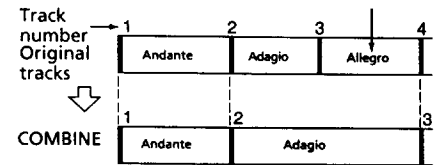
#### To undo the Combine Function

Use the Undo Function immediately after you combined the tracks (see page 53), or use Divide Function (see page 50).

#### Notes

- If both of the combined tracks have track titles, the title of the second track is erased.

Eg. The latter track will have no title.



- If "Impossible" appears, the tracks cannot be combined. This happens when you have edited the same track too many times. This is due to a technical limitation of the MD system and is not a mechanical error.

## Undoing the last edit

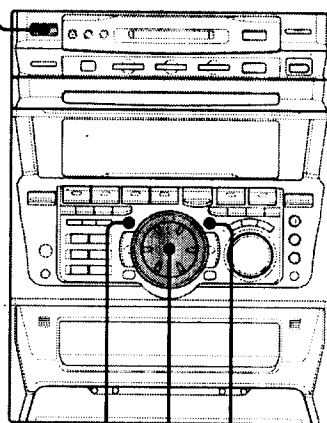
### — Undo Function

This function lets you cancel the last edit and restore the contents of the MD to the condition before the edit.

Note, however, that you cannot undo an edit if you do any of the following after the edit:

- Do other edits.
- Press REC, REC IT or CD-MD SYNC.
- Update the TOC by turning the power off or ejecting the MD.
- Disconnect the Mains lead.

I / ⏻  
(Power)



1 2 3,4

**1** While the deck is stopped, press MENU/NO.  
"Edit Menu" appears.

**2** Turn the jog dial until "Undo ?" appears.  
"Undo ?" does not appear if you have not done any editings.

**3** Press ENTER/YES.  
One of the following messages appears, depending on the last edit.

Editing done:	Message:
Labelling an MD	
Changing a title	"Name Undo?"
Erasing all titles	
Copying a title	
Erasing a single track	
Erasing all the tracks on an MD	"Erase Undo?"
Erasing a portion of a track	
Moving a track	"Move Undo?"
Dividing a track	"Divide Undo?"
Combining tracks	"Combine Undo?"

**4** Press ENTER/YES again.  
"Complete!!" appears for a few seconds and the contents of the MD are restored to the condition before the edit.

### To cancel the Undo Function

Press ■.

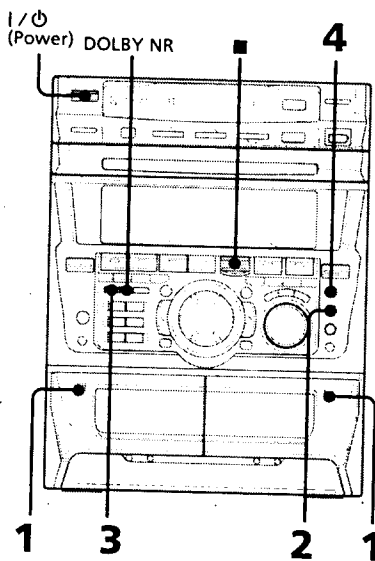


## Recording on a tape

### Recording from a tape to a tape

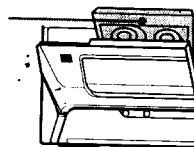
#### — High-speed Dubbing

You can use TYPE I (normal) or TYPE II (CrO<sub>2</sub>) tapes. The recording level is automatically adjusted.



- 1 Press and insert a recorded tape in deck A and a blank tape in deck B.

With the side you want to play/record facing forward



- 2 Press HI-DUB.  
Deck B stands by for recording.

- 3 Press DIRECTION repeatedly to select to record on one side. Select (or RELAY) to record on both sides.

- 4 Press REC PAUSE/START.  
Dubbing starts.

#### To stop dubbing

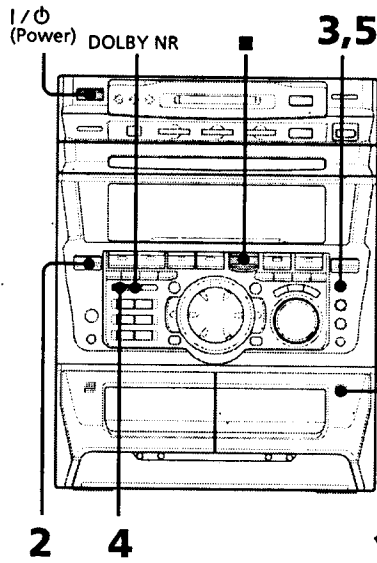
Press .

#### Tips

- When you dub on both sides, start recording from the front side. If you record from the reverse side, recording stops at the end of the reverse side.
- If you set DIRECTION to when the tapes you use have different lengths, the tape in each deck reverses independently. If you select RELAY, the tapes in both decks reverse together.
- You don't have to set DOLBY NR, since the tape in deck B is automatically recorded in the same state as the tape in deck A.

## Recording on a tape manually

You can record from CD, tape, or radio as you like. For example, you can record just the songs you want or record from the middle of the tape. The recording level is adjusted automatically.



- 1** Insert a blank tape into deck B.
- 2** Press **FUNCTION** repeatedly until the source you want to record (e.g., CD) appears.
  - **CD:** Insert a CD. To start from a specific track, create a program (See "Programming CD tracks").
  - **MD:** Insert a MD. To start from a specific track, create a program (See "Programming MD tracks").
  - **Tape:** Insert a tape with the side you want to play facing forward.
  - **Radio:** Tune in the preset station you want (See "Step 3: Presetting radio stations").

When you want to record from optional AV components, see "Optional AV components".

- 3** Press **REC PAUSE/START**. Deck B stands by for recording. The indicator on **TAPE B** (for front side) lights up.
- 4** Press **DIRECTION** repeatedly to select  $\leftarrow$  to record on one side. Select  $\leftrightarrow$  (or **RELAY**) to record on both sides.
- 5** Press **REC PAUSE/START**. Recording starts.
- 6** Start playing the source to be recorded.

To	Press
Stop recording	$\blacksquare$
Pause recording	<b>REC PAUSE / START</b>

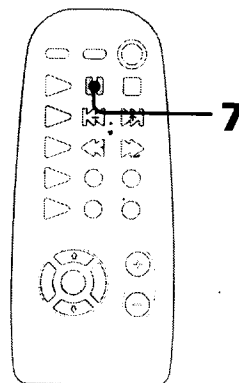
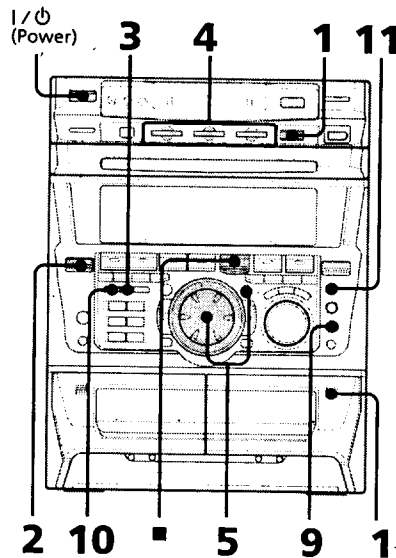
### Tips

- If you want to record from the reverse side, press **TAPE B** to light its indicator after pressing **REC PAUSE/START** in step 3.
- When you want to reduce the hiss noise in low-level high-frequency signals, press **DOLBY NR** so that "DOLBY NR" appears after pressing **REC PAUSE/START** in step 3.
- When recording from a CD, you can use the jog dial to select tracks during rec pause mode (after pressing **REC PAUSE/START** in step 3 and before pressing **REC PAUSE/START** in step 5).
- Select **SURROUND OFF** during recording.

## Recording a CD by specifying track order

### — Program Edit

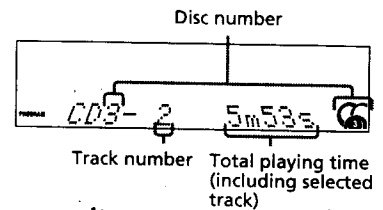
You can record tracks from all the CDs in the order you want. When programming, make sure the playing times for each side do not exceed the length of one side of the tape.



- 1** Place CDs and insert a blank tape into deck B.
- 2** Press FUNCTION repeatedly until "CD" appears in the display.
- 3** Press PLAY MODE repeatedly until "PROGRAM" appears in the display.

- 4** Press one of the DISC 1-3 buttons to select a CD.

- 5** Turn the jog dial until the desired track appears in the display, then press ENTER/YES. The track is programmed



- 6** To program additional tracks to be recorded on side A, repeat steps 4 to 5.

Skip step 4 to select tracks from the same disc.

- 7** Press II on the remote to insert a pause at the end of side A. "P" appears in the display and the total playing time resets to "0.00" in the display.

- 8** Repeat steps 5 and 6 for tracks from the same disc or steps 4 to 5 for tracks from another disc to program the remaining tracks to be recorded on side B.

---

**9** Press CD-TAPE SYNC.  
Deck B stands by for recording and the CD player stands by for playback. The indicator on TAPE B ► (for front side) lights up.

---

**10** Press DIRECTION repeatedly to select ◄► to record on one side.  
Select ◄► (or RELAY) to record on both sides.

---

**11** Press REC PAUSE/START.  
Recording starts.

---

#### To stop recording

Press ■.

#### To cancel Program Edit

Press PLAY MODE repeatedly until "PROGRAM" or "SHUFFLE" disappears from the display.

#### Tip

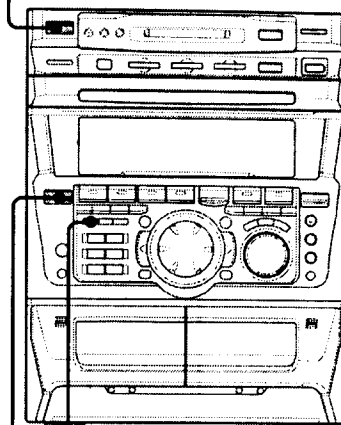
When you want to reduce the hiss noise in low-level high-frequency signals, press DOLBY NR so that "DOLBY NR" appears after pressing CD-TAPE SYNC.

### Selecting tape length automatically

#### —Tape Select Edit

You can check the most suitable tape length for recording a CD. Do the following steps before recording.

I/O  
(Power)



**2 3**

---

**1** Insert a CD.

---

**2** Press FUNCTION repeatedly until "CD" appears in the display.

---

**3** Press EDIT once, so that "EDIT" flashes.

The required tape length for the currently selected CD appears, followed by the total playing time for side A and side B respectively.

---

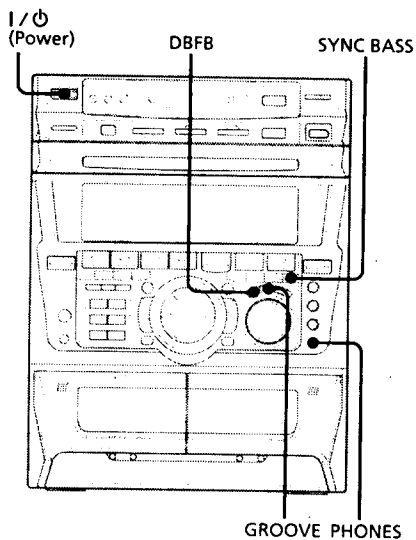
#### Notes

- You cannot use Tape Select Edit for discs containing over 20 tracks.
- You cannot use this function after programming. In order to use this function, you must first cancel the program by pressing PLAY MODE repeatedly until "PROGRAM" or "SHUFFLE" disappears from the display.

## Adjusting the sound

### Reinforcing the bass sound

You can reinforce the bass, create a more powerful sound, and listen with headphones.



### For the most suitable bass sound (SYNC BASS)

Press SYNC BASS.

The bass frequencies of the music you are listening to are measured and those areas with heavy bass tones are effectively reinforced. The indicator SYNC BASS H or SYNC BASS L lights up according to the areas with heavy bass tones. Press SYNC BASS again to return to the previous level.

### For a powerful sound (GROOVE)

Press GROOVE. The volume switches to power mode, DBFB is automatically set to full strength, the equalizer curve changes, and GROOVE button lights up. Press GROOVE again to return to the previous volume.

#### Notes

- With some songs, the music will sound distorted when you use the DBFB system with the graphic equalizer if the bass is too strong. Set the DBFB to "DBFB" or "OFF", or cancel the surround effect (see page 59).
- Cancelling GROOVE sets DBFB to "DBFB" and flattens the equalizer curve. To cancel the DBFB level, press DBFB until the indication disappears. Adjust the equalization to obtain the effect you desire.

### To listen through the headphones

Connect the headphones to PHONES jack. No sound will come from the speakers.

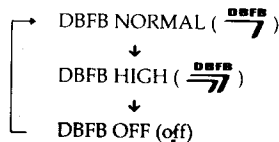
#### Note

(except European model)

If you have connected a super woofer, please note that sound comes from the super woofer even when the headphones are connected. Turn off the power of the super woofer when using headphones.

→ Press DBFB\*.

Every time you press the button, the display changes as follows:



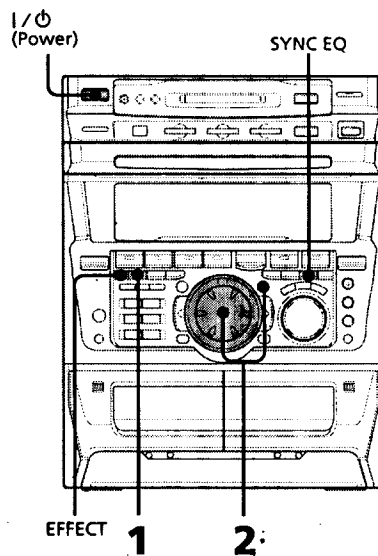
\* DBFB = Dynamic Bass Feedback

## Selecting the audio emphasis

The audio emphasis menu lets you select the sound characteristic according to the sound you are listening to.

Besides, you can also enjoy audio emphasis using the synchronized equalizer function. When using this function, the system switches the equalizer according to the genre automatically.

## Selecting the effect from the music menu




- 1** Press FILE SELECT.  
The last effect chosen appears in the display.
- 2** Use the jog dial to select the preset you desire, then press ENTER/YES.  
The preset name appears in the display. See the chart "Music menu options".

### To cancel the effect

Press EFFECT (or ON/OFF on the remote) repeatedly so that "EFFECT OFF" appears in the display.

### Music menu options

"" appears if you select an effect with surround effects.

Effect	For
ROCK	Standard music sources
POP	
JAZZ	
DANCE	
SOUL	
ACTION	Soundtracks and special listening situations
ROMANCE	
SF	
DRAMA	Video games
SPORTS	
SHOOTING	
RACING	
RPG	
BATTLE	Personal file*
ADVENTURE	
P FILE 1-5	

\* The personal file function lets you store your own effects (see "Making a personal audio emphasis file" on page 62).

## Using the synchronized equalizer

You can set the audio emphasis to change automatically according to the beat and tempo of the music.

### → Press SYNC EQ.

The indicator blinks while measuring the beat and tempo of the source. Once measured, the indicator lights up in the display.

SYNC EQ classifies the music as follows:

Beat Density	LO (Low) HI (High)
Beat Strength	SMOOTH MEDIUM STRONG

### To cancel the synchronized equalizer

Press SYNC EQ again. The indicator turns off. The synchronized equalizer is canceled also when:

- cancel the effect
- select the effect from the music menu
- select the surround effect
- adjust the graphic equalizer
- sing along (karaoke).

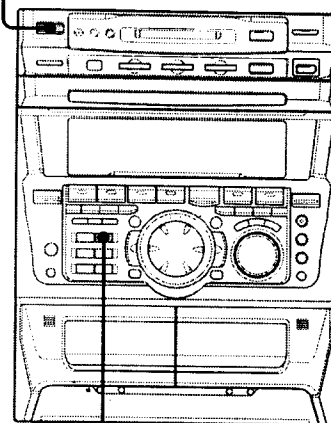
### Notes

- SYNC EQ does not work in KARAOKE mode.
- P FILE MEMORY does not work in SYNC EQ mode.
- The names of classification are not related with the genre of the music source.

## Changing the spectrum analyzer display

You can enjoy changing the display while listening to the music.

I / ⏻  
(Power)



SPECTRUM ANALYZER

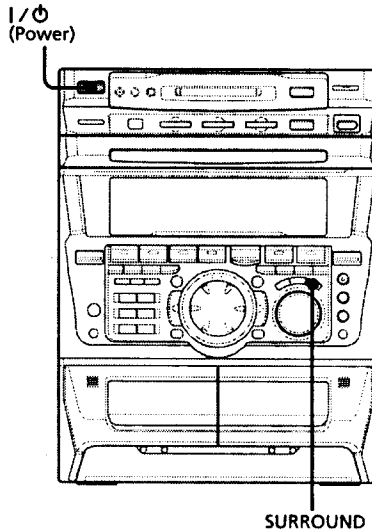
### → Press SPECTRUM ANALYZER.

The display changes.

IMAGE PATTERN  
↑  
NORMAL PATTERN

## Selecting the surround effects

You can enjoy surround effects.



→ Press SURROUND repeatedly to select the surround effect you desire.

Every time you press the button, the display changes as follows:

SURROUND ON (SUR)  
 ↓  
 SURROUND OFF (off)

### Tip

If you want to memorize the effect, store it into a personal file (see "Making a personal audio emphasis file").

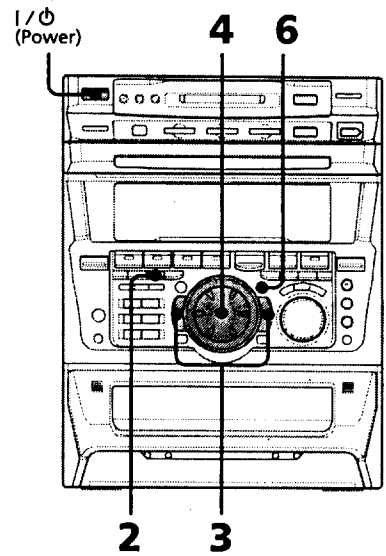
### Note

When you choose other sound effects, the surround effects will be canceled.

## Adjusting the graphic equalizer

You can adjust the sound by raising or lowering the levels of specific frequency ranges.

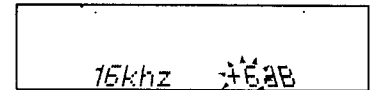
Before operation, first select the audio emphasis you want for your basic sound.



**1** Select the audio emphasis you want for your basic sound (see "Selecting the audio emphasis" on page 59).

**2** Press GEQ CONTROL.

**3** Press + or - repeatedly to select a frequency band.

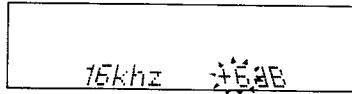


continued



### Adjusting the graphic equalizer (continued)

- 4 Turn the jog dial to adjust level.



- 5 Repeat steps 3 and 4.

- 6 Press ENTER/YES when finished.

#### Note

If you choose another menu audio emphasis (other than "EFFECT OFF"), the adjusted sound effect is lost. To retain the adjusted sound effect for future use, store it in a personal file. (See "Making a personal audio emphasis file".)

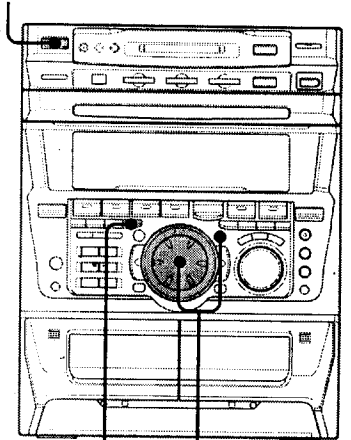
## Making a personal audio emphasis file

### — Personal file

You can create a personal file of audio patterns (surround effect and graphic equalizer) and store them in the memory of the unit. Later, call up an audio pattern to play a favorite tape, CD, or radio program. Create up to five audio files.

Before operation, first select the audio emphasis you want for your basic sound.

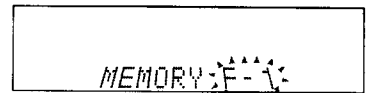
I / ⏻  
(Power)



2 3

- 1 Obtain the sound effect you want by using the graphic equalizer and surround effect.

- 2 Press P FILE MEMORY.  
The personal file number appears in the display.



- 
- 3** Use the jog dial to select the file number (P FILE 1~5) where you want to store the sound effect, then press ENTER/YES.

The adjusted sound effects are stored under the selected file number. The settings previously stored at this memory location are erased and replaced by the new settings.

---

**To call up the personal file**

- 1** Press FILE SELECT.
- 2** Use the jog dial to select the personal file you desire.
- 3** Press ENTER/YES.

## Other Features

### Using the Radio Data System (RDS)

(For European model only)

#### What is the Radio Data System?

Radio Data System (RDS) is a broadcasting service that allows radio stations to send additional information along with the regular program signal. This tuner offers convenient RDS features like station name display and location of stations by program type. RDS is available only on FM stations.\*

#### Note

RDS may not work properly if the station you are tuned to is not transmitting the RDS signal properly or if the signal strength is weak.

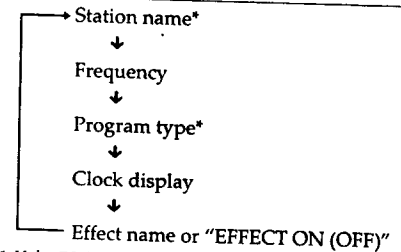
\* Not all FM stations provide RDS service, nor do they provide the same type of services. If you are not familiar with the RDS system, check with your local radio stations for details on RDS services in your area.

### Receiving RDS broadcasts

→ Simply select a station from the FM band. When you tune in a station that provides RDS services, the station name appears in the display.

### To check the RDS information

Each time you press DISPLAY, the display changes as follows:

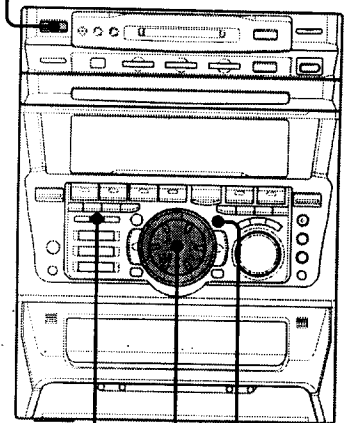


\* If the RDS broadcast is not received, the station name and program type may not appear in the display.

### Locating a station by program type (PTY)

You can locate a station you want by selecting a program type. The unit tunes in the type of programs currently being broadcast from the RDS stations stored in the tuner's preset memory.

I / ⏻  
(Power)



1 2,4 3,5

- 1** Press PTY while listening to the radio.
- 2** Turn jog dial to select the program type you want. See the "List of program types" section below.
- 3** Press ENTER/YES.  
The unit starts searching the preset RDS stations ("SEARCH" and the selected program type are shown alternately in the display).  
When the tuner receives a program, the preset station number flashes.
- 4** Turn jog dial to continue search for the station number you desire.
- 5** Press ENTER/YES while the preset station number you desire is flashing.

**To cancel PTY search**

Press PTY again.

**List of program types (PTY)**

- NEWS**  
News programs
- AFFAIRS**  
Topical programs that expand on current news
- INFORMATION**  
Programs about consumer affairs, medical advice, etc.
- SPORT**  
Sports programs
- EDUCATION**  
Educational programs, such as "how-to" programs and advice
- DRAMA**  
Radio plays and serials
- CULTURE**  
Programs about national or regional culture, language and social concerns

- SCIENCE**  
Programs about the natural sciences
- VARIED**  
Programs containing celebrity interviews, panel games, and comedy
- POP**  
Popular music programs
- ROCK**  
Rock music programs
- EASY MUSIC**  
Easy listening (middle of the road music)
- L CLASSICAL**  
Classical music, such as instrumental, vocal, and choral works
- S CLASSICAL**  
Performances of major orchestras, chamber music, opera, etc.
- OTHER MUSIC**  
Music, such as jazz, rhythm and blues, and reggae
- WEATHER**  
Weather information
- FINANCE**  
Stock market reports and tradings, etc.
- CHILDREN**  
Program for children
- SOCIAL**  
Programs about people and the things that affect them
- RELIGION**  
Programs of religious contents
- PHONE IN**  
Programs where members of the public express their views by phone or in a public forum
- TRAVEL**  
Programs about travel. Not for announcements that are located by TP/TA
- LEISURE**  
Programs on recreational activities such as gardening, fishing, cooking, etc.

continued

**Using the Radio Data System (RDS)  
(continued)**

**JAZZ**

Jazz programs

**COUNTRY**

Country music programs

**NATION**

Programs featuring the popular music of the country or region

**OLDIES**

Programs featuring oldies music

**FOLK**

Folk music programs

**DOCUMENTARY**

Investigative features

**ALARM TEST**

Test signal for emergency broadcasts

**ALARM-ALARM**

Emergency broadcasts

**NONE**

Any programming not defined above

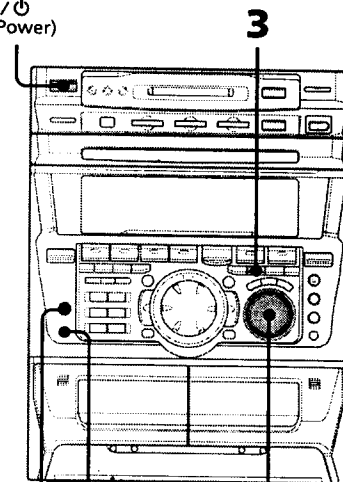
**Note**

"NO PTY" appears when the program type that you selected is not currently being broadcast.

## Singing along: Karaoke

You can sing along with any stereo CD or tape by turning down the singer's voice. You need to connect an optional microphone.

I / O  
(Power)



1,5 2 4

**1** Turn MIC LEVEL to 0 to turn down the microphone control level.


**2** Connect an optional microphone to MIX MIC.

**3** Press KARAOKE PON/MPX repeatedly to obtain the karaoke effect you desire.

Every time you press the button, the display changes as follows:

KARAOKE PON → MPX R → MPX L  
↑ EFFECT ON (OFF)\* ↓

\* When an audio emphasis is selected, the effect name appears.

The  indicator appears in the display when a karaoke mode is activated.

To sing karaoke with decreasing the vocal level of a CD, select "KARAOKE PON". To sing karaoke of multiplex CD or tape, select "MPX R" or "MPX L".

**4** Start playing the music and adjust the volume.

**5** Adjust the microphone volume by turning MIC LEVEL.

#### When you are done

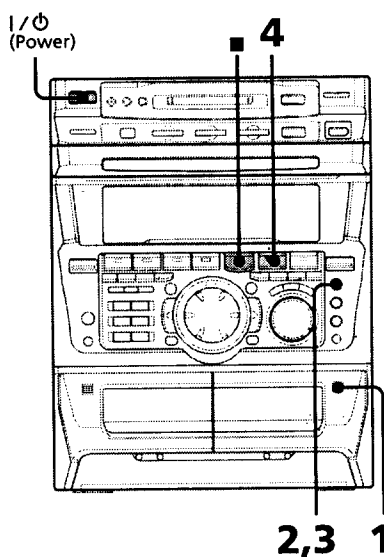
Turn MIC LEVEL to 0 and disconnect the microphone from MIX MIC, then press KARAOKE PON/MPX repeatedly so that "K" disappears.

#### Note

With some songs, vocals may not be canceled when you select "KARAOKE PON".

### Mixing and recording sounds

You can "mix" karaoke sounds with your voice into a microphone (not supplied). The mixed sound can be recorded onto a tape.



**1** Do steps 1 to 5 in the "Singing along: Karaoke" section. Then, insert a tape in deck B.

**2** Press REC PAUSE/START.

**3** Press REC PAUSE/START again. Recording starts.

**4** Press CD ►|| to start playing the CD player (or MD ►|| for MD deck, TAPE A ► for tape deck A). Playback starts. Start singing along with the music.

#### To stop recording

Press ■.

#### Tips

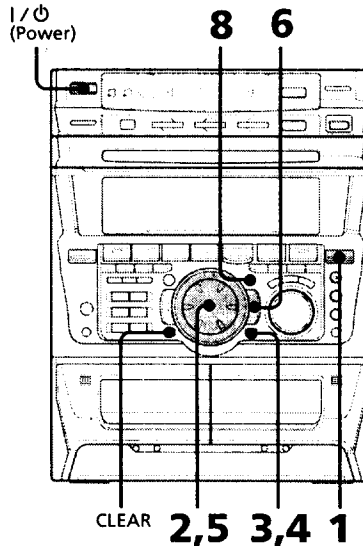
- If acoustic feedback (howling) occurs, move the microphone away from the speakers or change the direction of the microphone.
- If you want to record your voice through the microphone only, you can do so by selecting the CD function and not playing a CD.
- When high level sound signals are input, the unit automatically adjust the recording level to prevent distortion of the recorded sound signal (Auto Level Control function).
- You can mix down karaoke sounds with your voice through the microphone onto an MD during TUNER, TAPE and VIDEO IN recordings only.

#### Notes

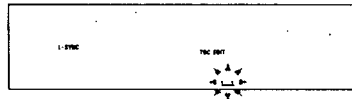
- If you press EFFECT (or ON/OFF on the remote) or recall a sound effect, the karaoke mode is canceled.
- The instrumental sound may be reduced as well as the singer's voice when the sound is recorded in monaural.
- The singer's voice may not be reduced when:
  - only a few instruments are playing.
  - a duet is being played.
  - the source has strong echoes or chorus.
  - the singer's voice deviates from the center.
  - the voice on the source is singing in high soprano or tenor.

## Labelling preset radio station

You can label each preset radio stations with up to 12 characters (Station Name). The station name appears when you tune in the station.



- 1** Press TUNER/BAND repeatedly until the desired band appears.
- 2** Turn the jog dial to select the preset number of the station you want to label.
- 3** Press NAME EDIT/CHAR. The cursor starts flashing.



- 4** Press NAME EDIT/CHAR repeatedly until the type of character you want appears. Each time you press the button, the display changes as follows:  
 A (Upper case) → a (Lower case)  
 → 0 (Numbers) → ! (Symbols)\*  
 → ␣ (Space)\*\* → A...

\* You can use the following symbols.

!"#\$%&'()\*+,-./:;<=>?@\_

\*\* To enter a space

Go to step 6.

You cannot label a blank space from the first letter.

- 5** Turn the jog dial until the desired character appears.
- 6** Press ►►.  
The cursor shifts rightward and waits for the input of the next character.
- 7** Repeat steps 4 to 6 to complete the entire title.  
**If you made a mistake**  
Press ◀◀ or ▶▶ until the character you want to change flashes, then repeat step 4 to 6.  
**To erase the character**  
Press CLEAR while the character is flashing.
- 8** Press ENTER/YES to complete the labelling procedure.

### To cancel labelling

Press MENU/NO.

### To check the preset number and frequency

The station name appears when you tuned it once you labeled. To check the preset number and frequency, press DISPLAY. The preset number and frequency are displayed for 4 seconds and it returns to the station names display.

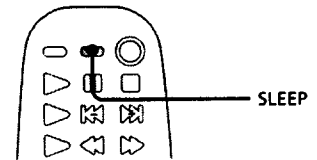
### To erase the name

Repeat steps 1 to 5 then press CLEAR repeatedly until all the characters are erased.

## Falling asleep to music

### — Sleep Timer

You can let the system turn off at the preset time, so you can sleep to the music. You can preset the time to be turned off by 10 minutes.



#### ➔ Press SLEEP on the remote.

Every time you press the button, the minute display (the turn-off time) changes as follows:

AUTO → 90min → 80min → 70min  
→ ... → 10min → OFF → AUTO ...

#### When you choose "SLEEP AUTO"

The power turns off when the current CD, MD or tape finishes playback (for up to 100 minutes).

#### To check the remaining time

Press SLEEP once.

#### To change the time to turn off

Select the time you want by pressing SLEEP.

#### To cancel the Sleep Timer function

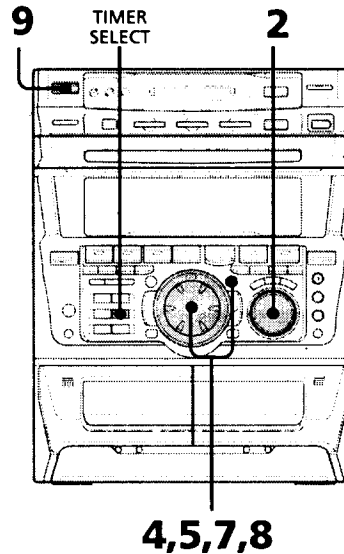
Press SLEEP repeatedly until "SLEEP OFF" appears.



## Waking up to music

### — Daily Timer

You can wake up to music at a preset time every day. Make sure you have set the clock (see "Step 2: Setting the time").



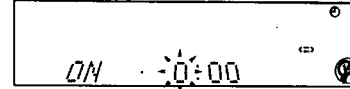
**1** Prepare the music source you want to play.

- CD: Insert a CD. To start from a specific track, make a program (see "Programming the CD tracks").
- MD: Insert an MD. To start from a specific track, make a program (See "Programming the MD tracks").
- Tape: Insert a tape with the side you want to play facing forward.
- Radio: Tune in the preset station you want (see "Step 3: Presetting radio stations").

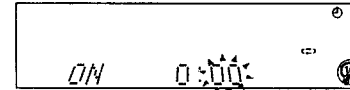
**2** Adjust the volume.

**3** Press CLOCK/TIMER SET.  
"SET DAILY 1" appears.

**4** Turn jog dial to select "DAILY 1 (or 2)", then press ENTER/YES.  
"ON" appears and the hour digits flash in the display.



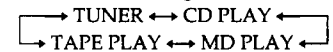
**5** Set the time to start playback.  
Turn jog dial to set the hour, then press ENTER/YES.  
The minute indication starts flashing.



Turn jog dial to set the minute, then press ENTER/YES.  
The hour indication flashes again.

**6** Set the time to stop playback following the above procedure.

**7** Turn jog dial until the music source you want appears.  
The indications change as follows:



**8** Press ENTER/YES.  
The type of timer (DAILY 1 or DAILY 2) followed by the start time, stop time at the music source, appears, then the original display appears.

**9** Turn off the power.

### To check the setting

Press **TIMER SELECT** and turn the jog dial to select the respective mode (DAILY 1 or DAILY 2), then press **ENTER/YES**.

To change the setting, start over from step 1.

### To cancel the timer operation

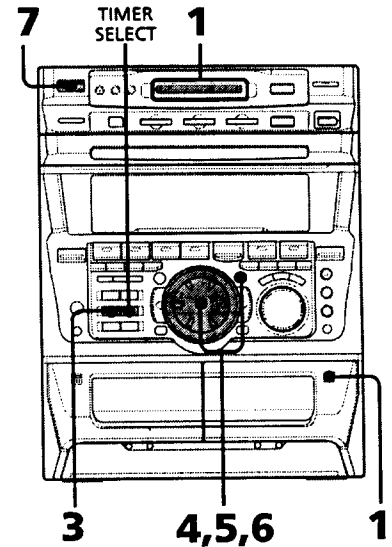
Press **TIMER SELECT** and turn the jog dial to select "TIMER OFF", then press **ENTER/YES**.

#### Tip

The power turns on 15 seconds before the preset time.

## Timer-recording radio programs

To timer-record, you must preset the radio station (see "Step 3: Presetting radio stations") and set the clock (see "Step 2: Setting the time") beforehand.

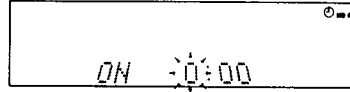


- 1** Insert a recordable MD or tape.  
If tape, insert it into deck B.
- 2** Tune in the preset radio station (see "Listening to the radio").  
In the case that you record from an optional component that is connected to OPTICAL IN terminal, set its timer as well. See an appropriate operating instruction of each component.
- 3** Press **CLOCK/TIMER SET**.  
"SET DAILY 1" appears.

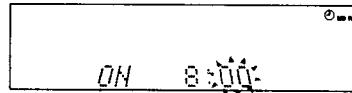
continued

### Timer-recording radio programs (continued)

- 4** Turn jog dial to select either "MD REC" (MD recording) or "TAPE REC" (Tape recording), then press ENTER/YES.  
"ON" appears and the hour digits flash in the display.



- 5** Set the time to start recording.  
Turn the jog dial to set the hour, then press ENTER/YES.  
The minute indication starts flashing.



Turn the jog dial to set the minute, then press ENTER/YES.  
The hour indication flashes again.

- 6** Set the time to stop recording following the above procedure.  
When you record onto MD, select STEREO or MONO by turning the jog dial then press ENTER/YES before setting the end time.  
The start time appears, followed by the stop time, the preset radio station to be recorded (e.g., "TUNER FM 5"), then the original display appears.

- 7** Turn off the power.  
When the recording starts, the volume level is set to the minimum.

### To check the setting

Press TIMER SELECT and turn the jog dial to select either "MD REC" or "TAPE REC", then press ENTER/YES.

To change the setting, start over from step 1.

### To cancel the timer operation

Press TIMER SELECT and turn the jog dial to select "TIMER OFF", then press ENTER/YES.

### Notes

- If the power is on at the preset time, the recording will not be made.
- Do not operate the system from the time the power turns on until the playback starts (about 3 seconds).
- Smart Space and Level-Synchro recording do not work.

## Using optional A/V components

### Connecting the MD Walkman\*

You can connect Sony portable minidisc recorder/player MD Walkman with the MD Walkman cable.

For the operations of the MD Walkman, refer to the instructions of the MD Walkman.

#### Note

Do not connect the MD Walkman which is not listed below to MD WM LINK terminal. This may cause malfunction.

- **MD Walkman models compatible with this system.**

Portable minidisc player:

MZ-E70, E45 (Hong Kong only), E55, E50, E44, E35, E33, E32, E30, E25, EP11

Portable minidisc recorder:

MZ-R30, R35, R50, R55, R5ST (Europe only)\*\*

\*\*Be sure to remove from the MD station, and connect the MD Walkman only.

- When you connect an MD Walkman to this system, analogue recording to the MD starts automatically when the MD Walkman starts playing (synchro recording).

\* MD Walkman is a trademark of Sony Corporation.

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**1** If the power is on, press | / ⏻ to turn off.

---

**2** Release the Digital Mega Bass (reinforcing bass) function of the MD Walkman.  
Set DIGITAL MEGA BASS to 0 or press DIGITAL MEGA BASS to turn off "BASS" indicator.

---

**3** Activate the AVLS (reducing the volume) function of the MD Walkman.  
Set AVLS to "LIMIT".

---

**4** Start playing MD Walkman.

---

**5** Press DISPLAY on the MD Walkman repeatedly until the elapsed time and the track number appears on the remote (or in the display of the MD walkman with MZ-R30).

The information of the elapsed time and the track number can be output through the remote terminal of the MD Walkman.

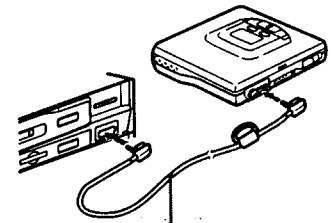
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**6** Set the volume to maximum with the remote of the MD Walkman.

---

**7** Remove the remote of the MD Walkman, then connect to the DHC-MDX10.

Connect the cable so that the cylinder is close to the MD Walkman.

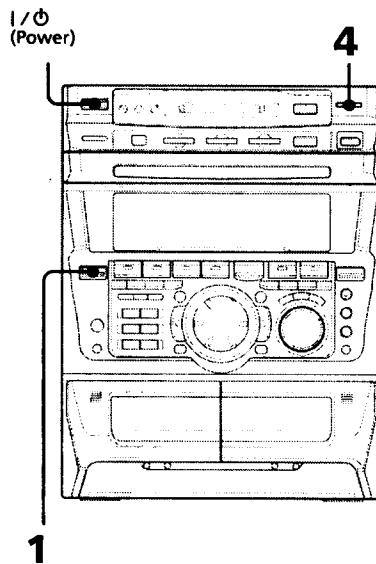


MD Walkman cable

#### Notes

- Do not place the MD Walkman on the DHC-MDX10. The sound may be interrupted or noise may occur. Besides, this may cause a malfunction of the MD Walkman.
- The sound may be distorted during playback of the MD Walkman when the Digital Mega Bass function is activated or the AVLS function is released.
- Be sure to turn off the power before connecting because noise or an incorrect operation may occur.
- The MD Walkman requires more power than normal operation when connected to DHC-MDX10. Make sure that the power is left enough before recording.

## Recording from the MD Walkman on an MD



**1** Press FUNCTION repeatedly until "MD WALKMAN" appears in the display.

**2** Pause the MD Walkman.  
If the MD Walkman does not have Pause function, stop the MD walkman.

**3** Press ◀◀ or ▶▶ on the MD Walkman repeatedly to select the track you want to record.

**Note**

You cannot select the track when ◀◀/▶▶ button on your MD Walkman is also used for ▶.

**4** Press MD WALKMAN SYNC.  
The deck stands by for recording.

**5** Press ▶ on the MD Walkman.  
Recording starts at the same time the MD Walkman starts playing.

### Stop recording

Press ■, then press ■ on the MD Walkman.  
The sound from the speaker is interrupted and the recording stops.

### While "TOC" is lit or is flashing

To ensure complete recording, do not move the deck or pull out the mains lead. The deck updates the Table of Contents (TOC) while "TOC" is flashing.

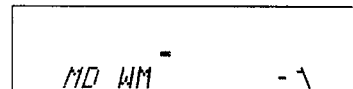
### Notes

- When the MD WALKMAN SYNC recording is started while the MD Walkman is stopped, a few seconds before the MD Walkman starts playing may be recorded as a blank space.
- When the recording is stopped or paused, the sound from the speaker may be interrupted a maximum of 3 seconds. This is not a malfunction.
- The Smart Space and the Level Synchro functions does not work.

### Adjust the recording level

Do the following procedures after step 3.

- 1 Press MENU/NO twice.  
"Setup Menu" appears.
- 2 Turn the jog dial until "Level Adjust?" appears, then press ENTER/YES.  
The recording level appears.
- 3 Turn the jog dial to adjust the recording level.



The recording level can be adjusted from -12 to +12. Adjust the recording level so as not to light up "OVER" in the display at the strongest sound.

**4** Press MENU/NO.

## Copy the title

When you use a portable minidisc player, you can copy the title of the track you are recording.

- **MD Walkman models compatible with this function.**  
MZ-E70, E45 (Hong Kong only), E55, E50, E44, E35, E33, E32, E30, E25, EP11
- 1 While recording, press MENU/NO. "Edit Menu" appears.
  - 2 Turn the jog dial until "Nm In ?" appears, then press ENTER/YES.  
When the recording track is labelled, the title appears. When the title is long, press ◀◀ or ▶▶ to scroll the title.  
When the track is not labelled, you can label the track. (To label the track, see page 44).
  - 3 Press ENTER/YES.  
The displayed title is copied.  
To copy the title after editing, follow the steps 1 to 7 of "Labelling an MD" on page 44.

### Notes

- The title may not be copied when recording is started from the middle of the track.
- The title may not be copied correctly when you copy the title from the portable minidisc recorder (MZ-R55/R50/R35/R30/R5ST (Europe only)).

## Marking track numbers

Press REC while recording at the point you want to mark a track number.

### Tip

When you use a portable minidisc player, the track numbers are automatically marked at the same position of the MD played on the portable minidisc player.

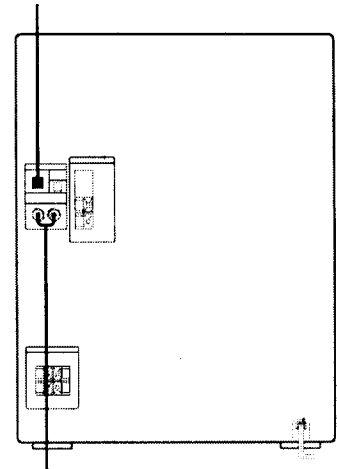
### Notes

- When you use a portable minidisc recorder, the track numbers may not be marked at the same position of the MD played on the portable minidisc recorder. After recording, remark the track numbers using the editing functions.
- The Level Synchro function does not work while recording from the MD Walkman.

## Connecting the digital components

You can connect the digital components with a digital cable (optical, optional) or an analogue audio cord (optional). You can record from the connected components into the MD digitally if you use a digital cable. Refer to the instructions of each component.

To the digital audio out jack of the digital component

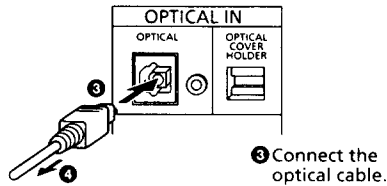
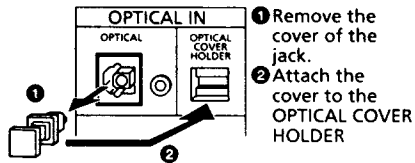


To the analogue audio output jacks of the digital components

continued

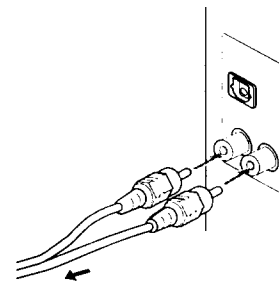
### Connecting the digital components (continued)

- 1 Connect a digital cable (optical, optional)



- 4 Connect to the digital out jack of the digital components.

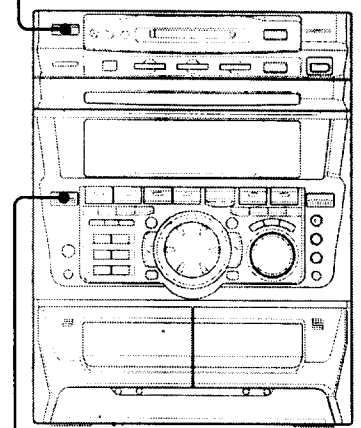
- 2 Connect an audio cord (optional).



To the audio output jacks of the digital components.

## Listening to the sound of connected digital components

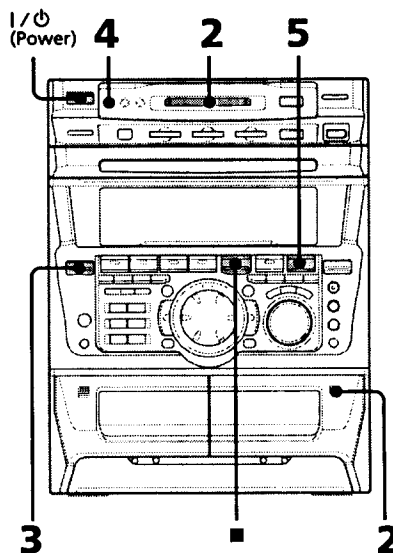
I / ⏻  
(Power)



2

- 1 Prepare the digital component.
- 2 Press FUNCTION repeatedly until "OPTICAL IN" appears in the display.  
You can hear the sound of the connected digital components.

## Recording from the digital components



- 1** Prepare the digital component.
- 2** Insert a recordable MD or tape.  
If tape, insert it to deck B.
- 3** Press FUNCTION repeatedly until "OPTICAL IN" appears in the display.
- 4** Press REC when you want to record onto MD, press REC PAUSE/START when you want to record onto a tape.  
The MD or tape stands by for recording and the sound from the connected digital component can be heard.

- 5** Press MD ►|| for MD recordings, press REC PAUSE/START for tape recording.  
Recording starts.

- 6** Start playback of the desired music source.

### To stop recording

Press ■.

### While "TOC" is lit or is flashing

To ensure complete recording, do not move the deck or pull out the mains lead. The deck updates the Table of Contents (TOC) while "TOC" is flashing.

### Notes

- This MD deck has an internal sampling rate converter. The audio signal from digital components connected to this unit can be recorded on the MD, regardless of the sampling frequency (32 kHz, 44.1 kHz, 48 kHz).
- Most DVD discs do not allow digital audio recording. When recording a digital recording prohibited DVD source, whether digital connections are made or not, analogue recording is performed.
- When you record onto a tape, analogue recording is performed.

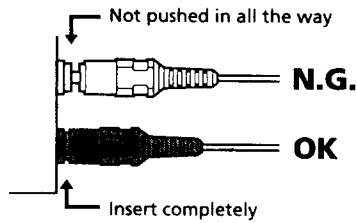


## Connecting the analogue components

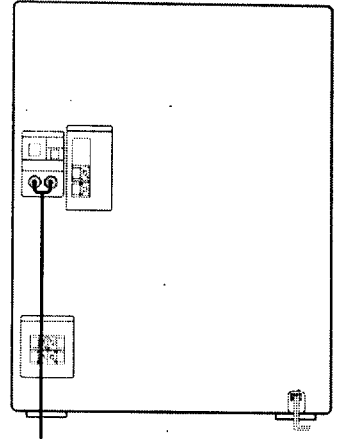
To enhance your system, you can connect optional components. Analogue sound from the connected component is recorded as an analogue signal on the MD. Refer to the operating instructions of each component.

### Connecting the audio cords (not supplied)

When using audio cords (not supplied) to connect other AV components to the system, make sure to insert the plugs firmly, pushing them in all the way. No sound will be produced if the plugs are not inserted securely.




## Connect to VIDEO input jack



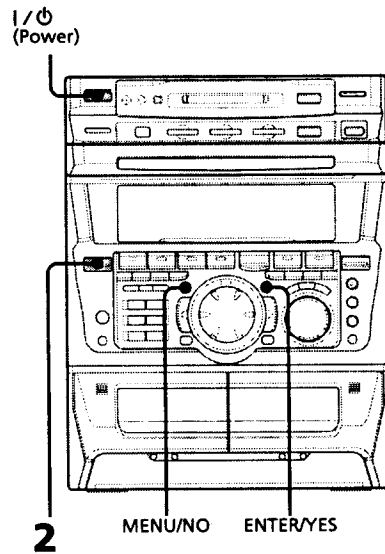
to the audio output jack of a component

### Tip

The system does not support Dolby Pro Logic, so you cannot listen to material played back on a DVD player with Dolby Digital or Dolby Pro Logic. In addition, this system cannot make a digital recording from a disc that was recorded with Dolby Digital.

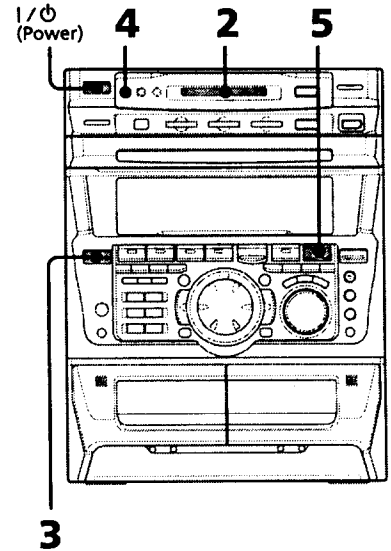
\* DOLBY, the double-D symbol , the Dolby Digital and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.

## Listening to the sound of connected A/V components



- 1 Prepare the connected analogue component.
- 2 Press FUNCTION repeatedly to select "VIDEO".

## Recording the sound of connected analogue components



- 1 Prepare the connected analogue components.
- 2 Insert a recordable MD.
- 3 Press FUNCTION repeatedly to select "VIDEO".
- 4 Press REC when you want to record onto an MD, press REC PAUSE/START when you want to record onto a tape.  
The MD or tape are standby for recording and the sound from connected digital component can be heard.  
- The MD deck stands by for recording.

continued

**Recording the sound of connected analogue components (continued)**

- 5** Press MD ►|| for MD recording, press REC PAUSE/START for tape recording.  
Recording starts.

- 6** Play the desired sound source.

**To stop recording**

Press ■.

**Tip**

You can adjust the recording level to the desired volume after performing step 4. (See page 42)

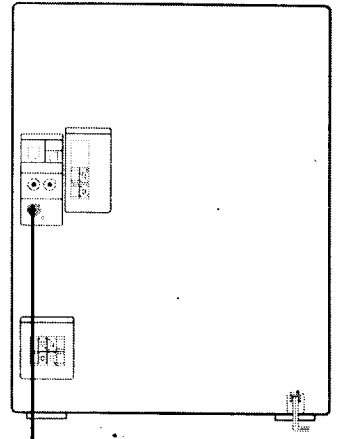
**Before pulling out the power cord**

MD recording is completed when the MD Table of Contents (TOC) is updated. The TOC is updated when you eject the MD or press | / ⏻ (power) and turn off the system. Do not pull out the power cord before updating the TOC (while "TOC" is lit) or while updating the TOC (while "TOC" is flashing) to ensure the complete recording.

**Connecting a super woofer speaker**

(except European model only)

You can connect an optional super woofer speaker.



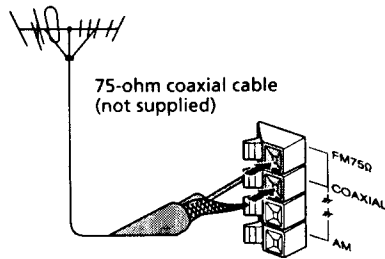
## Connecting external antennas

Connect the outdoor antenna to improve the reception. Refer to the instructions of each component.

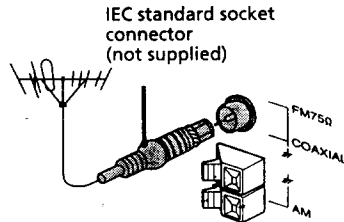
### FM antenna

Connect the optional FM outdoor antenna. You can also use the TV antenna instead.

Jack type ①



Jack type ②

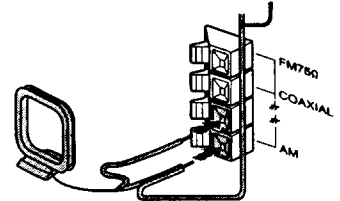


### AM antenna

Connect a 6- to 15- meter (20- to 50- feet) insulated wire to the AM antenna terminal. Leave the supplied AM loop antenna connected.

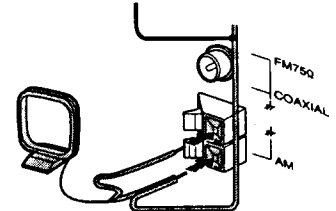
Jack type ①

Insulated wire (not supplied)



Jack type ②

Insulated wire (not supplied)



## Additional Information

### Precautions

#### On operating voltage

Before operating the system, check that the operating voltage of your system is identical with the voltage of your local power supply.

#### On safety

- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.
- Unplug the system from the wall outlet (mains) if it is not to be used for an extended period of time. To disconnect the cord (mains lead), pull it out by the plug. Never pull the cord itself.
- Should any solid object or liquid fall into the component, unplug the stereo system and have the component checked by qualified personnel before operating it any further.
- The AC power cord must be changed only at the qualified service shop.
- When you connect the mains lead to mains, even though the power is off, the system begins charging for remote and timer functions. Therefore the surface of this unit become warm, this is normal.

#### On placement

- Make sure the system fan is on during use. Place the system in a location with adequate air circulation, and do not place any on the system.
- Place the stereo system in a location with adequate ventilation to prevent heat build-up in the stereo system.
- Do not place the unit in an inclined position.
- Do not place the unit in locations where it is;
  - Extremely hot or cold
  - Dusty or dirty
  - Very humid
  - Vibrating
  - Subject to direct sunlight.

#### On installing

When you move the system, remove the MD.

#### On operation

- If the stereo system is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lens inside the CD player. Should this occur, the system will not operate properly. Remove the CD and leave the system turned on for about an hour until the moisture evaporates.
- When you move the system, take out any discs.

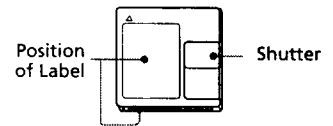
If you have any questions or problems concerning your stereo system, please consult your nearest Sony dealer.

#### Notes on CDs

- Before playing, clean the CD with a cleaning cloth. Wipe the CD from the center out.
- Do not use solvents such as benzene, thinner, commercially available cleaners or anti-static spray intended for vinyl LPs.
- Do not expose the CD to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight.

#### Notes on MDs

- Do not open the shutter to expose the MD. Close the shutter immediately if the shutter opens.
- Do not apply MD disc labels over the shutter or in other unspecified locations. Always apply the label in the space allocated on the disc. Because the size and shape of the label may differ depending on the manufacturer, be sure to use the labels supplied with the disc.



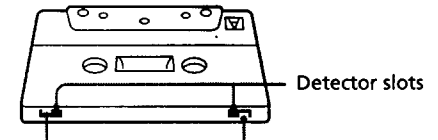
- Wipe the disc cartridge with a dry cloth to remove dirt.
- Do not expose the MD to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight.

#### Cleaning the cabinet

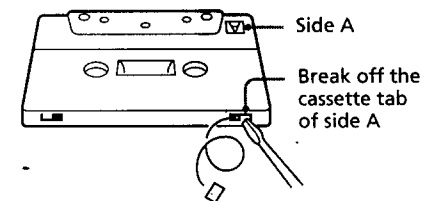
Use a soft cloth slightly moistened with mild detergent solution.

#### To save a tape permanently

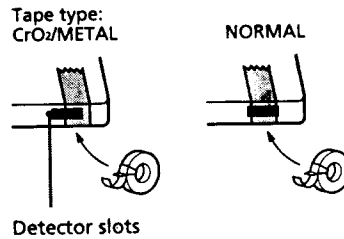
To prevent a tape from being accidentally recorded over, break off the cassette tab from side A or B as illustrated.



Tab of side B      Tab of side A



If you later want to reuse the tape for recording, cover the broken tab with adhesive tape. However, be careful not to cover the detector slots which allow the tape player to automatically detect the type of tape.



### Before placing a cassette in the tape deck

Take up any slack in the tape. Otherwise the tape may get entangled in the parts of the tape deck and become damaged.

### When using a tape longer than 90 minutes

The tape is very elastic. Do not change the tape operations such as play, stop, and fast-winding etc. frequently. The tape may get entangled in the tape deck.

### Cleaning the tape heads

Clean the tape heads after every 10 hours of use.

When the tape heads become dirty;

- the sound is distorted
- there is a decrease in sound level
- the sound drops out
- the tape does not erase completely
- the tape does not record.

Make sure to clean the tape heads before you start an important recording or after playing an old tape.

Use separately sold dry-type or wet-type cleaning cassette. For details, refer to the instructions of the cleaning cassette.

### Demagnetizing the tape heads

Demagnetize the tape heads and the metal parts that have contact with the tape every 20 to 30 hours of use with a separately sold demagnetizing cassette.

For details, refer to the instructions of the demagnetizing cassette.

---

## System limitations of MDs

The recording system in your MD deck has the limitations described below. Note, however, that these limitations are due to the inherent nature of the MD recording system itself, not to mechanical causes.

### **"Disc Full" lights up before the MD has reached the maximum recording time**

When 255 tracks have been recorded on the MD, "Disc Full" lights up regardless of the total recorded time. More than 255 tracks cannot be recorded on the MD. To continue recording, erase unnecessary tracks or use another recordable MD.

### **"Disc Full" lights up before the maximum number of tracks (255) is reached**

Fluctuations in emphasis within tracks are sometimes interpreted as track intervals, increasing the track count and causing "Disc Full" to light up.

### **The remaining recording time does not increase even after erasing numerous short tracks**

Tracks shorter than 12 seconds are not counted, so erasing them may not increase the recording time.

### **Some tracks cannot be combined with others**

Track combination may become impossible when tracks are shorter than 12 seconds.

### **The total recorded time and the remaining time on the MD do not add up to the maximum recording time (60, 74 or 80 minutes)**

Recording is done in minimum units of 2 seconds each, no matter how short the material. The recorded contents may be shorter than the maximum recording capacity. Disc space may also be reduced by scratches.

### **The sound may drop-out while searching the edited tracks**

Tracks created through editing may exhibit sound dropout during searching because high-speed playback requires time to search for the position on the disc when the tracks are not in order.

### **Track numbers cannot be marked**

When "L-SYNC" (page 40) lights up in the display window during analogue recording, the track numbers may not be marked at the beginning of the track:

- If the input signal is below a certain fixed level for less than two seconds between tracks.
- If the input signal is below a certain fixed level for more than two seconds in the middle of the track.

### **Guide to the Serial Copy Management System**

Digital audio components, such as CDs, MDs, and DATs let you copy music easily with high quality by processing music as a digital signal.

To protect the copyrighted music programs, this system uses the Serial Copy Management System that allows you to make only a single copy of a digitally recorded source through digital-to-digital connections.

### **You can make only a first generation copy\* through a digital-to-digital connection.**

For example:

- 1 You can make a copy of a commercially available digital sound programme (for example, a CD or MD), but you cannot make a second copy from the first-generation copy.
  - 2 You can make a copy of a digital signal from a digitally recorded analog sound programme (for example, an analog record or a music cassette tape) or from a digital satellite broadcast programme, but you cannot make a second copy.
- \* A first-generation copy means a digital recording of a digital signal made on digital audio equipment. For example, if you record from this system's CD player to the MD deck, you make a first-generation copy.

### **Note**

This copy management system doesn't apply when you make a recording through analogue-to-analogue connections.

---

## Troubleshooting

If you run into any problem using this unit, use the following check list.

First, check that the power cord is connected firmly and the speakers are connected correctly and firmly.

Should any problem persist, consult your nearest Sony dealer.

---

### General

**The display starts flashing as soon as you plug in the power cord even though you haven't turned on the power (demonstration mode).**

- Press DISPLAY when the power is turned off.
- The demonstration mode appears automatically the first time you plug in the power cord or if there is a power outage.

---

**The clock setting is canceled.**

- The power cord is disconnected or a power failure occurs. Redo "Step 2: Setting the time". If you have set the timer, also redo "Waking up to music" and "Timer-recording radio programs".

---

**The radio presetting/timer setting is canceled.**

- The power cord is disconnected or a power failure occurs for longer than half a day. Redo "Step 3: Presetting radio stations".

---

**There is no sound.**

- Rotate VOLUME clockwise.
- The headphones are connected.
- Insert only the stripped portion of the speaker cord into the SPEAKER jack. Inserting the vinyl portion of the speaker cord will obstruct the speaker connections.
- The protective device on the amplifier has been activated because of short circuit. ("PROTECT" and "PUSH POWER" flash alternately.) Turn off the unit, eliminate the short-circuit problem and turn on the power again.
- There is no audio output during timer recording.

---

**There is severe hum or noise.**

- A TV or VCR is placed too close to the stereo system. Move the stereo system away from the TV or VCR.

---

**"0:00" (or "12:00") flashes in the display.**

- A power interruption occurred. Set the clock and timer settings again.

---

**The timer does not function.**

- Set the clock correctly.

---

**DAILY 1, DAILY 2, MD and TAPE REC do not appear when you press the TIMER SELECT button.**

- Set the timer correctly.
- Set the clock.

---

**The remote does not function.**

- There is an obstacle between the remote and the system.
- The remote is not pointing in the direction of the system's sensor.
- The batteries have run down. Replace the batteries.

---

**There is acoustic feedback.**

- Decrease the volume level.
- Move the microphone away from the speakers or change the direction of the microphone.

---

**The color irregularity on a TV screen persists.**

- Turn off the TV set once, then turn it on after 15 to 30 minutes. If the color irregularity still persists, place the speakers farther away from the TV set.

---

**"PROTECT" and "PUSH POWER" appear alternately.**

- A strong signal was input. Press | / ⊕ to turn off the power, leave the system turned off for a while, then press | / ⊕ again to turn on the power.

continued



## Troubleshooting (continued)

### Speakers

---

**Sound comes from one channel or unbalanced left and right volume.**

- Check the speaker connection and speaker placement.

---

**Sound lacks bass.**

- Check that the speaker's + and - jacks are connected correctly.

### CD Player

---

**The CD tray does not close.**

- The CD is not placed properly.

---

**The CD will not play.**

- The CD is not lying flat in the disc tray.
- The CD is dirty.
- The CD is inserted label side down.
- Moisture condensation has built up. Remove the CD and leave the system turned on for about an hour until the moisture evaporates.

---

**Play does not start from the first track.**

- The player is in program or shuffle mode. Press PLAY MODE repeatedly until "PROGRAM" or "SHUFFLE" disappears.

---

**"OVER" is displayed.**

- You have reached the end of the CD. Press ◀ to return.

### MD Deck

---

**The display shows a code made up of three letters and a message**

- This system has the Self-Diagnostic function (see "Self-diagnosis Display" on page 88).

---

**The disc will not be inserted.**

- Insert the MD in the direction of the arrow.

---

**The controls do not work.**

- The MD is dirty or scratched. Replace the MD with a new one.

---

**The MD will not play.**

- Moisture condensation has built up. Remove the MD and leave the system turned on for several hours until the moisture evaporates.
- Nothing is recorded on the MD.

---

**Recording is not possible.**

- The MD is protected against erasure. ("C11" and "Protected" appear alternately.) Slide the tab to close the slot (see page 34).
- Connect the sound source properly.
- A pre-recorded MD is in the deck. Replace the disc with a recordable MD.
- Replace the disc with a recordable MD that has sufficient time remaining or erase unnecessary tracks.
- The mains lead was unplugged or a power interruption occurred during recording. Start recording over from the beginning.

---

**"-OVER-" is displayed.**

- You have reached the end of the MD. Press ◀ to return to the beginning of the MD.

---

**"OVER" lights up during recording.**

- A strong signal was input during recording in the TAPE function. When the sound is distorted, reduce the recording level ("Adjusting the recording level" on page 42), then re-record.

## Tape Deck

---

### The tape does not record.

- No tape in the cassette holder.
- The tab has been removed from the cassette (see "To save a tape permanently" on page 82).
- The tape has reeled to the end.

---

### The tape does not record nor play or there is a decrease in sound level.

- The heads are dirty. Clean them (see "Cleaning the tape heads" on page 83).
- The record/playback heads are magnetized. Demagnetize them (see "Demagnetizing the tape heads" on page 83).

---

### The tape does not erase completely.

- The record/playback heads are magnetized. Demagnetize them (see "Demagnetizing the tape heads" on page 83).

---

### There is excessive wow or flutter, or the sound drops out.

- The capstans or pinch rollers are dirty. Clean them (see "Cleaning the tape heads" on page 83).

---

### Noise increases or the high frequencies are erased.

- The record/playback heads are magnetized. Demagnetize them (see "Demagnetizing the tape heads" on page 83).

---

### After pressing ► (◀) or ▲, there is a mechanical noise, "EJECT" appears in the display, and the unit enters standby mode automatically.

- The cassette tape was not inserted correctly. Eject the tape and turn the power back on.
- 

## Tuner

---

### Severe hum or noise ("TUNED" or "STEREO" flashes in the display).

- Adjust the antenna.
- The signal strength is too weak. Connect the external antenna.

---

### A stereo FM program cannot be received in stereo.

- Press REPEAT STEREO/MONO so that "MONO" disappears.
- 

### If other troubles not described above occur, reset the system as follows:

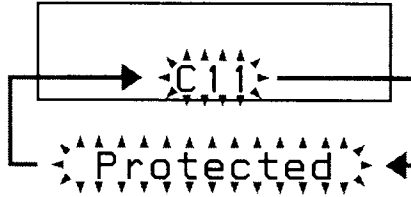
- 1 Press ■, ENTER/YES, and | / Ⓞ at the same time.
- 2 Unplug the power cord.
- 3 Plug the power cord back in.
- 4 Press | / Ⓞ to turn on the power.

The unit is reset to factory settings. All the settings you made, such as the preset stations, clock, and timer are cleared. You should set them again.

---

## Self-diagnosis Display

This system has the Self-diagnosis display function to let you know if there is a system malfunction. The display shows a code made up of three letters and a message alternately to show you the problem. To solve the problem refer to the following list. If any problem persists, consult your nearest Sony dealer.



---

### C11 / Protected

The MD is protected against erasure.

→ Remove the MD and slide the tab to close the slot (page 34).

---

### C12 / Cannot Copy

You are attempting to record a CD with a format that the system does not support, such as CD-ROM.

→ —

---

### C13 / REC Error

Recording is not possible.

→ Move the system to a stable place and start recording over from the beginning.

The MD is dirty or is scratched or the MD does not meet the standards.

→ Change the MD with another one and start recording over from the beginning.

---

### C13 / Read Error

The MD cannot read the disc information correctly.

→ Eject the MD once, then insert it again.

---

### C14 / Toc Error

The MD cannot read the disc information correctly.

→ Change the MD with another one.

→ Erase all the recorded contents of the MD using the Erase function on page 46.

---

### C41 / Cannot Copy

This unit complies with the Serial Copy Management System (SCMS) which limits the number of digital copies that can be made of any given digital audio source (page 84).

---

---

## MD Messages

One of the following messages may appear or flash in the display window during operation.

---

### Auto cut

The MD deck is pausing the recording because silence continued for 30 seconds or more during digital recording.

---

### Blank Disc

The inserted recordable MD is new or all tracks on the MD have been erased.

---

### Cannot edit

The inserted MD is a premastered MD. You tried to edit in Programme or Shuffle Play mode.

---

### Cannot REC

Press FUNCTION to select the recording source.  
A pre-recorded MD is in the deck.

---

### Complete !!

MD editing was done completely.

---

### Impossible

You tried to edit the track which you have edited too many times.  
You tried to divide the first or end of the track.

---

### Disc Full

There is no time remaining on the disc (see "System Limitations of MDs" on page 84).

---

### Eject

The MD deck is ejecting the disc.

---

### No Disc

There is no MD in the deck.

---

### Name Full

There is no more space to store track or disc titles.

---

### No Name

The inserted MD has a track numbers but no disc titles.

---

### - OVER -

You have reached the end of the last track during high-speed search.

---

### Position OK?

The dividing position playback while dividing the MD track.

---

### Push STOP!

You pressed PLAY MODE during play.

---

### Standby (flashing)

If the timer was set but not used for a long time, the contents of the setting are erased, and cannot be recalled. Similarly, if a program was entered and not used for a long time, the program contents are erased and the program cannot be played back.

---

### Rehearsal

The dividing position playback after designated it.

---

### Smart Space

The signal was input again after silence continued for 30 seconds or less during digital recording.

---

### TOC Reading

The MD deck is reading the TOC information of the MD.

---

### TOC Writing

The MD deck is writing the information of recorded or edited contents.

---

### Track End

You have reached the end of the track while adjusting the division point during Divide Function.

---

# Specifications

## AUDIO POWER SPECIFICATIONS: (U.S.A. model only)

### POWER OUTPUT AND TOTAL HARMONIC DISTORTION

with 6 ohm loads both channels driven, from 70-20,000 Hz; rates 50 watts per channel minimum RMS power, with no more than 0.9% total harmonic distortion from 250 milliwatts to rated output.

### Amplifier section

#### Canadian model:

Continuous RMS power output (reference)  
50 + 50 watts  
(6 ohms at 1 kHz,  
10% THD)  
Total harmonic distortion less than 0.07%  
(6 ohms at 1 kHz, 25 W)

#### European model:

DIN power output (rated) 60 + 60 watts  
(6 ohms at 1 kHz, DIN)  
Continuous RMS power output (reference)  
80 + 80 watts  
(6 ohms at 1 kHz,  
10% THD)  
Music power output (reference)  
140 + 140 watts  
(6 ohms at 1 kHz,  
10% THD)

#### Other models:

The following measured at AC 110, 220 V 50/60 Hz  
DIN power output (rated) 80 + 80 watts  
(6 ohms at 1 kHz, DIN)  
Continuous RMS power output (reference)  
100 + 100 watts  
(6 ohms at 1 kHz,  
10% THD)  
The following measured at AC 120, 240 V 50/60 Hz  
DIN power output (rated) 95 + 95 watts  
(6 ohms at 1 kHz, DIN)  
Continuous RMS power output (reference)  
120 + 120 watts  
(6 ohms at 1 kHz,  
10% THD)

Inputs  
VIDEO (AUDIO) IN: voltage 250 mV,  
(phono jacks) impedance 47 kilohms  
MIX MIC: sensitivity 1 mV,  
(phone jack) impedance 10 kilohms

Outputs  
PHONES: accepts headphones of 8  
(stereo mini jack) ohms or more  
SPEAKER: accepts impedance of 6 to  
16 ohms  
SUPER WOOFER (except for European model):  
voltage 1V, impedance  
1 kilohm

## CD player section

System Compact disc and digital  
audio system  
Laser Semiconductor laser  
( $\lambda=780\text{nm}$ )  
Emission duration:  
continuous  
Laser output Max. 44.6  $\mu\text{W}^*$   
\*This output is the value  
measured at a distance of  
200 mm from the  
objective lens surface on  
the Optical Pick-up Block  
with 7 mm aperture.  
Frequency response 2 Hz - 20 kHz ( $\pm 0.5$  dB)  
Wavelength 780 - 790 nm  
Signal-to-noise ratio More than 85 dB  
Dynamic range More than 85 dB

## MD deck section

System MiniDisc digital audio  
system  
Laser Semiconductor laser  
( $\lambda=780\text{nm}$ )  
Emission duration:  
continuous  
Laser output Max. 44.6  $\mu\text{W}^*$   
\*This output is the value  
measured at a distance of  
200 mm from the  
objective lens surface on  
the Optical Pick-up Block  
with a 7 mm aperture.  
Recording time 80 minutes max. (using  
MDW-80, stereo)  
160 minutes max. (using  
MDW-80, monaural)  
Sampling frequency 44.1 kHz  
Frequency response 20 - 20,000 Hz

OPTICAL DIGITAL IN  
(Square optical connector jacks, rear panel)  
Wavelength 700 nm

### Tape player section

Recording system	4-track 2-channel stereo
Frequency response (DOLBY NR OFF)	40 - 13,000 Hz ( $\pm 3$ dB), using Sony TYPE I cassette
	40 - 14,000 Hz ( $\pm 3$ dB), using Sony TYPE II cassette
Wow and flutter	$\pm 0.15\%$ W.Peak (IEC) 0.1% W.RMS (NAB) $\pm 0.2\%$ W.Peak (DIN)

### Tuner section

FM stereo, FM/AM superheterodyne tuner

#### FM tuner section

Tuning range	87.5 - 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

#### AM tuner section

Tuning range	
2 Band type:	
North American models:	530 - 1,710 kHz (with the interval set at 10 kHz) 531 - 1,710 kHz (with the interval set at 9 kHz)
European models:	531 - 1,602 kHz (with the interval set at 9 kHz)
Other models:	531 - 1,602 kHz (with the interval set at 9 kHz) 530 - 1,710 kHz (with the interval set at 10 kHz)
3 Band type:	
Middle Eastern models:	
MW:	531 - 1,602 kHz (with the interval set at 9 kHz)
SW:	5.95 - 17.90 MHz (with the interval set at 5 kHz)
Other models:	
MW:	531 - 1,602 kHz (with the interval set at 9 kHz) 530 - 1,710 kHz (with the interval set at 10 kHz)
SW:	5.95 - 17.90 MHz (with the interval set at 5 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

### Speaker

<b>SS-MDX10</b>	
Speaker system	3-way, 3-unit, bass-reflex type
Speaker units	
Woofer:	17 cm, cone type
Tweeter:	5 cm, cone type
Super Tweeter:	2 cm, dome type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 240 x 360 x 320 mm (9 <sup>1</sup> / <sub>2</sub> x 14 <sup>1</sup> / <sub>4</sub> x 12 <sup>2</sup> / <sub>8</sub> in.)
Mass	Approx. 5.0 kg net per speaker (11 lb. 3 oz.)

### General

Power requirements	
North American models:	120 V AC, 60 Hz
European models:	230 V AC, 50/60 Hz
Australian models:	240 V AC, 50/60 Hz
Mexican models:	120 V AC, 50/60 Hz
Other models:	110 - 120 V or 220 - 240 V AC, 50/60 Hz

Power consumption	
U.S.A. models:	115 watts
Canadian model:	95 watts
European models:	165 watts
Other models:	170 watts

Dimensions (w/h/d)	Approx. 280 x 360 x 390 mm (11 x 13 <sup>3</sup> / <sub>8</sub> x 15 in.)
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Mass	
North American models:	10.0 kg
European models:	10.2kg
Other models:	11.0kg

Supplied accessories:	AM loop antenna (1) Remote commander (1) Batteries (2) FM lead antenna (1) MD Walkman cable (1) Front speaker pads (8) Speaker cords (2)
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Design and specifications are subject to change without notice.

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