

# *Mini Hi-Fi Component System*

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Operating Instructions



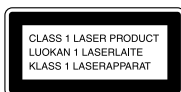
*MHC-VX33*

## 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 system can play the following discs

	VIDEO CDs	Audio CDs
Disc logo		
Contents	Audio + Video (moving pictures)	Audio
Disc size	12 cm/8 cm	12 cm/8 cm
Play time	74 min./20 min.	74 min./20 min.

### Note on VIDEO CDs

This system conforms to VIDEO CDs without PBC functions (Ver. 1.1) and VIDEO CDs with PBC functions (Ver. 2.0) of VIDEO CD standards. You can enjoy two kinds of playback according to the disc type.

Disc type	You can
VIDEO CDs without PBC functions (Ver. 1.1 discs)	Enjoy video playback (moving pictures) as well as audio CDs.
VIDEO CDs with PBC functions (Ver. 2.0 discs)	Play interactive software using menu screens displayed on the TV screen (menu playback), in addition to the video playback function of VIDEO CDs without PBC functions. Moreover, you can play high or standard quality still picture.

\* PBC = Play Back Control

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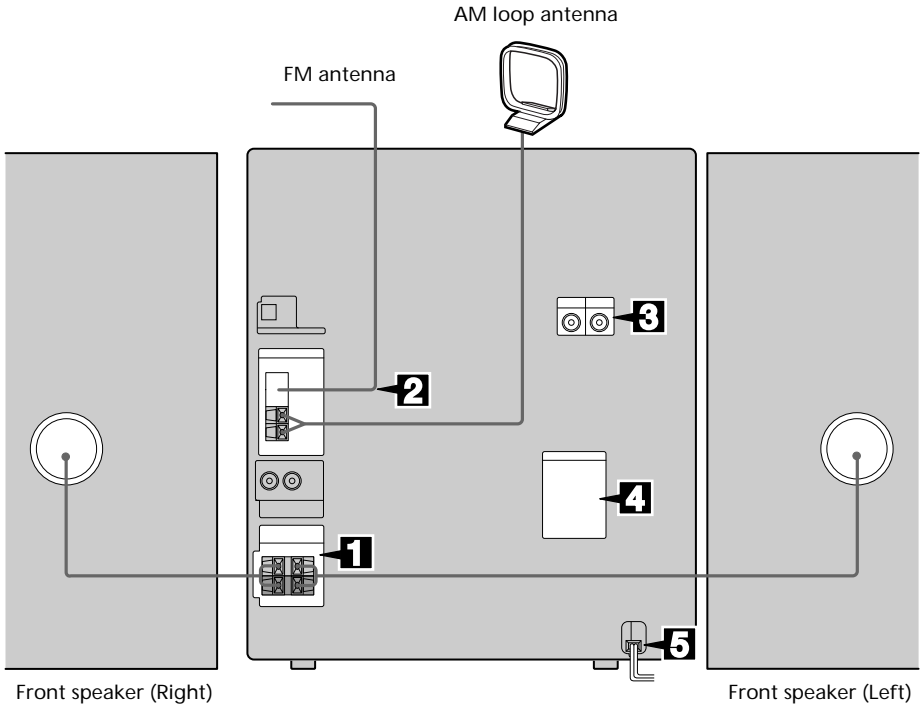
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## Step 1: Hooking up the system

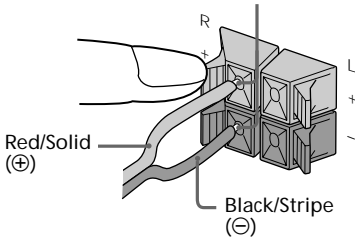
Follow steps **1** through **6** of the following procedure to hook up your system using the supplied cords and accessories.



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

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

Insert only the stripped portion.

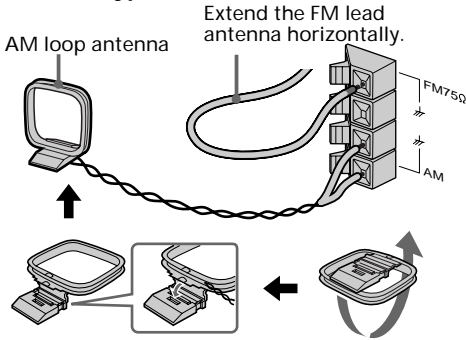


### Notes

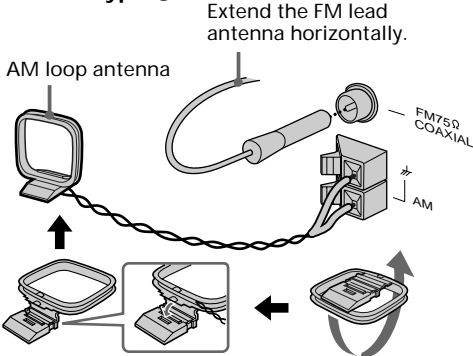
- Keep the speaker cords away from the antennas to prevent noise.
- The type of speakers supplied vary according to the model you purchased (see "Specifications" on page 56).

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

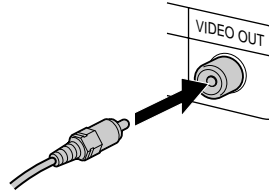
**Jack type ①**



**Jack type ②**



- 3** Connect the video input jack of your TV to the VIDEO OUT jack with the supplied video cable.



**When using a TV**

Turn on the TV and select the video input so you can view the pictures from this system.

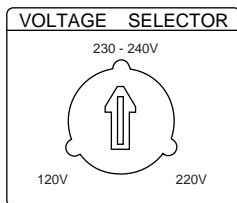
**Tip**

For even higher quality video images, you can use an optional S-video cable to connect the S VIDEO input jack on your TV to the S VIDEO OUT jack.

continued

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

- 4** For models with a voltage selector, set VOLTAGE SELECTOR to the local power line voltage.



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

The demonstration appears in the display. When you press I/⏻, the system turns on and the demonstration automatically ends.

If the supplied adapter on the plug does not fit your wall outlet, detach it from the plug (only for models equipped with an adapter).

- 6** Follow the instructions below to set the color system according to your TV. The factory setting is AUTO. Make sure the power is off each time before setting the color system. After you set the color system, the power turns on automatically and the function is set to CD.

### If your TV automatically changes the color system according to the input signal:

Press I/⏻ while holding down III. The color system is set to AUTO.

AUTO automatically changes the color system of the video output according to the color system of the current VIDEO CD.

### If the color system of your TV is NTSC:

Press I/⏻ while holding down ►►H. The color system is set to NTSC.

### If the color system of your TV is PAL:

Press I/⏻ while holding down ◀◀L. The color system is set to PAL.

### Note

When you set color system to NTSC and play back a VIDEO CD recorded in the PAL color system, the picture image may be distorted depending on the disc. Similarly, when you set color system to PAL and play back a VIDEO CD recorded in the NTSC color system, the picture image may be distorted depending on the disc.

## To connect optional components

See page 49.

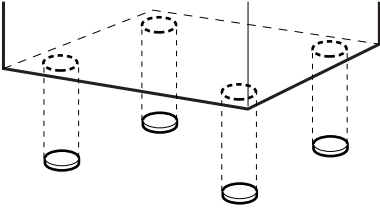
## To deactivate the demonstration

When you set the time ("Step 2: Setting the time" on page 8), the demonstration is deactivated.

To activate/deactivate the demonstration again, press DISPLAY once while the system is off.

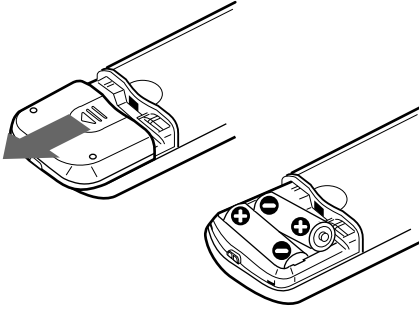
## To attach the front speaker pads

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

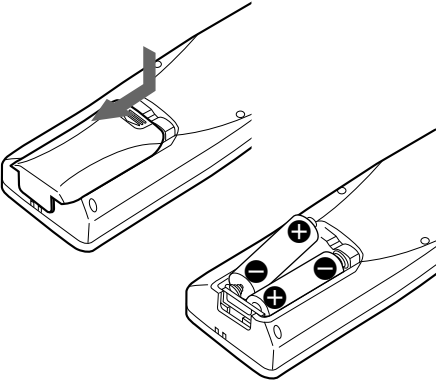


## Inserting two size AA (R6) batteries into the remote

### Remote type ①

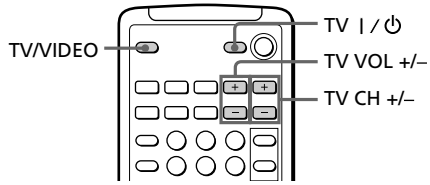


### Remote type ②



## Using the remote

You can use the shaded buttons shown below to operate a Sony TV.



To	Press
Turn the TV on or off	TV I/⏻
Switch the TV's video input	TV /VIDEO.
Change the TV channels	TV CH +/-.
Adjusts the volume of the TV speaker(s)	TV VOL +/-.

### 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 prevent possible damage from battery leakage.

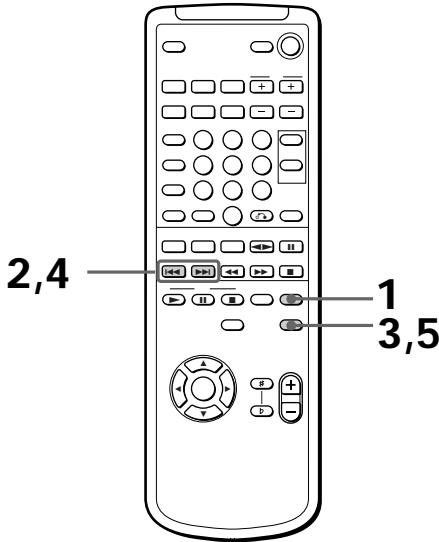
## When carrying this system

Make sure that all discs are removed from the unit. To protect the CD mechanism, hold down CD and press I/⏻ while the power is on. "LOCK" appears in the display and the power is turned off.

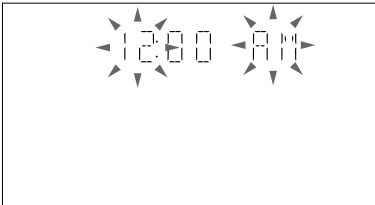
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## Step 2: Setting the time

You must set the time before using the timer functions.

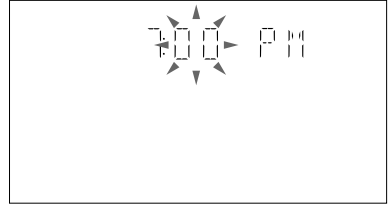


- 
- 1 Press **CLOCK/TIMER SET**.  
The hour indication flashes.



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

- 
- 3 Press **ENTER**.  
The minute indication flashes.



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

- 
- 5 Press **ENTER**.  
The clock starts working.
- 

### Tip

If you make a mistake, start over from step 1.

### To change the time

The previous explanation shows 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 Press **◀◀** or **▶▶** repeatedly to select **SET CLOCK**.
- 3 Press **ENTER**.
- 4 Perform steps 2 through 5 above.

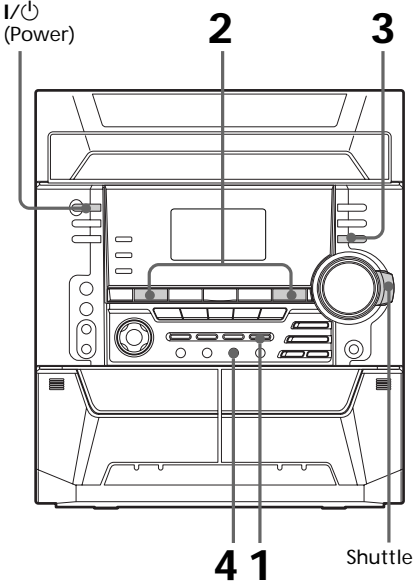
### Note

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



# Step 3: Presetting radio stations

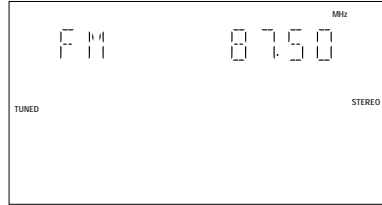
You can preset a total of 30 stations (20 for FM and 10 for AM).



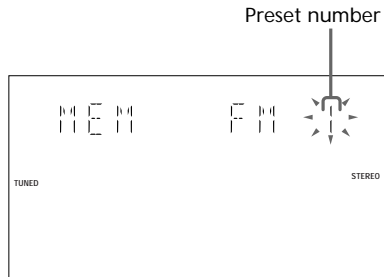
**1** Press TUNER/BAND repeatedly to select FM or AM.

**2** Press and hold + or - (or TUNING +/- on the remote) until the frequency indication starts to change, then release.

Scanning stops automatically when a station is tuned in. "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 automatically.



continued

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

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- 4** Press ENTER.  
The station is stored.
- 

- 5** Repeat steps 1 through 4 to store other stations.
- 

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

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

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

Start over from step 1. After step 3, turn the shuttle until it clicks to select the preset number where you want to store the other station.

You can preset a new station in the selected preset number.

#### To erase a preset station

- 1 Press and hold TUNER MEMORY until a preset number appears in the display.



- 2 Turn the shuttle until it clicks to select the preset number you want to erase.  
Select "ALL ERASE" when you want to erase all the preset stations.

- 3 Press ENTER.  
"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 Middle Eastern models)

The AM tuning interval is factory-preset to 9 kHz (10 kHz in some areas). To switch the AM tuning interval, tune in any AM station first, then turn off the power. While holding down ENTER, turn the power back on. When you change the interval, AM preset stations are erased. To switch back to the original interval, repeat the same procedure.

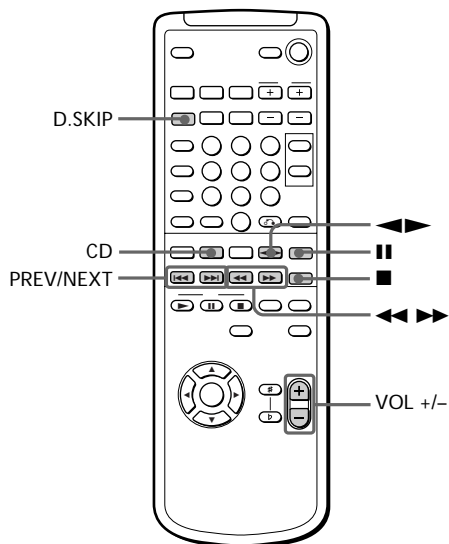
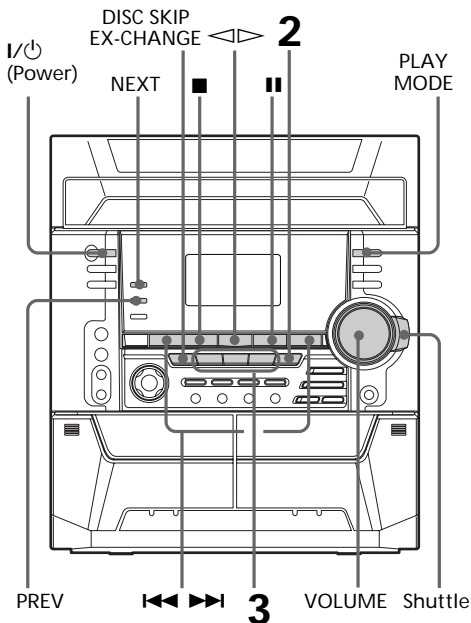
#### Tip

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

## Playing a VIDEO CD

You can play both VIDEO CDs without PBC functions (Ver. 1.1) and VIDEO CDs with PBC functions (Ver. 2.0).

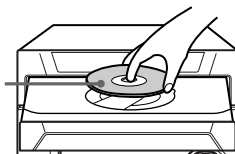
You can enjoy two kinds of playback according to the disc type.



- 1 Turn on your TV and select the video input.  
Refer to the operating instructions supplied with your TV if you need help.

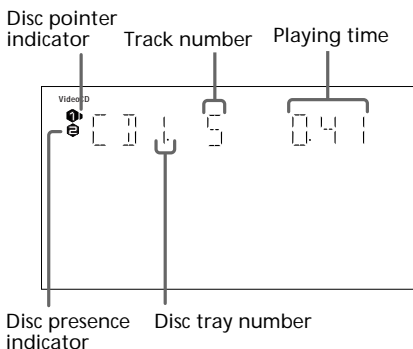
- 2 Press ▲ OPEN/CLOSE and place a VIDEO CD on the disc tray.  
If a disc is not placed properly, it will not be recognized.

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



To insert second and third discs, press DISC SKIP EX-CHANGE to rotate the disc tray.

- 3 Press one of the DISC 1-3 buttons. The disc tray closes and playback starts. If you press ◀▶ when CD is selected as the function and the disc tray is closed, playback starts from the CD loaded on the tray whose disc pointer indicator is lit.



continued

## Playing a VIDEO CD (continued)

To	Do this
Stop play	Press ■.
Pause	Press ■ <sup>*1</sup> . Press again to resume playback.
Select a track or scene <sup>*2</sup>	Press ►► to go forward or ◀◀ to go back. When you play VIDEO CDs with PBC functions (Ver 2.0), see page 23.
Find a point in a track or scene (Lock Search function)	<p>There are two types of searching:</p> <p>① Turn the shuttle until it clicks during playback and hold. According to the length of turning the shuttle, speed changes as follows (press and hold down ◀◀/►► on the remote):            1 (slow) → 2 (normal) → 3 (high)            Release the shuttle at the desired speed and the search goes on at the speed.            Press ◀◀/►► to stop searching and start playback at the desired point.</p> <p>② Turn the shuttle until it clicks during playback. Each time it is turned, speed changes as follows (press ◀◀/►► on the remote):            1 (slow) → 2 (normal) → 3 (high) → 1 (slow) ...            Press ◀◀/►► to stop searching and start playback at the desired point.</p>
Select a VIDEO CD in stop mode	Press a DISC 1-3 button or DISC SKIP EX-CHANGE (or D. SKIP on the remote).
Play only the VIDEO CD you have selected	Press PLAY MODE repeatedly until "CONTINUE 1 DISC", "PBC 1 DISC" <sup>*3</sup> or "SHUFFLE 1 DISC" <sup>*4</sup> appears.
Play all VIDEO CDs	Press PLAY MODE repeatedly until "CONTINUE ALL DISCS", "PBC ALL DISCS" <sup>*3</sup> or "SHUFFLE ALL DISCS" <sup>*4</sup> appears.
Remove the VIDEO CD	Press ▲ OPEN/CLOSE.
Exchange other VIDEO CDs while playing	Press DISC SKIP EX-CHANGE.
Adjust the volume	Turn VOLUME (or press VOL +/- on the remote).

<sup>\*1</sup>There may be some disturbance in the video image.

<sup>\*2</sup>Only when the PBC function is set to off or when playing VIDEO CDs without PBC functions (Ver 1.1).

<sup>\*3</sup>Only for VIDEO CDs with PBC functions (Ver 2.0) while the PBC function is set to on.

<sup>\*4</sup>SHUFFLE means to playback in random order (see page 34). This function cannot be used during menu playback of a VIDEO CD with PBC functions (Ver 2.0).

### Tips

- You can switch from another source to the VIDEO CD player and start playing a VIDEO CD just by pressing one of the DISC 1-3 buttons (Automatic Source Selection).
- If there is no VIDEO CD in the player, "CD NO DISC" appears in the display.
- When a disc tray holding a VIDEO CD is selected (or the VIDEO CD in the disc tray is playing) the disc pointer indicator lights. When a disc tray holding a VIDEO CD is not selected, the disc presence indicator lights, but the disc pointer indicator does not light. When all disc trays are empty, both the disc presence indicator and disc pointer indicator light.

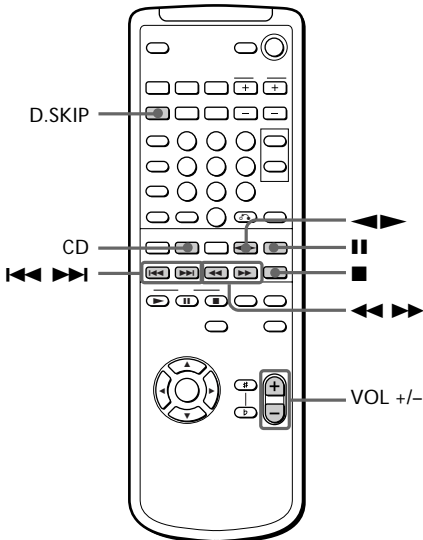
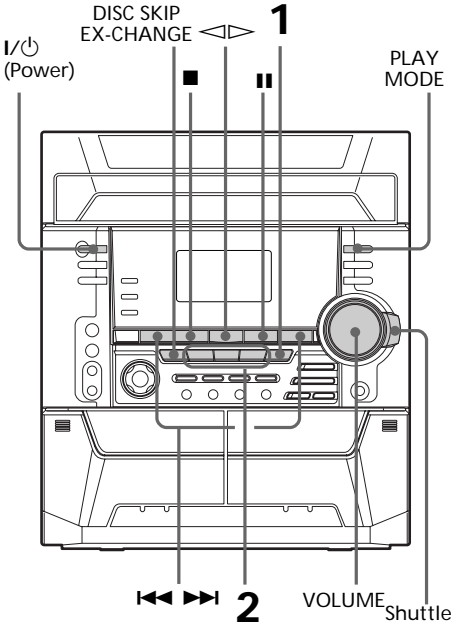
### Note

When a tray has not been read by the unit, the disc presence indicator may light even though there is no disc on the tray.

# Playing a CD

## — Normal Play

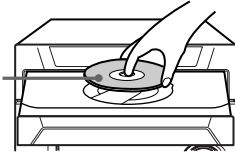
You can play up to three CDs in a row.



- 1 Press **▲ OPEN/CLOSE** and place a CD on the disc tray.

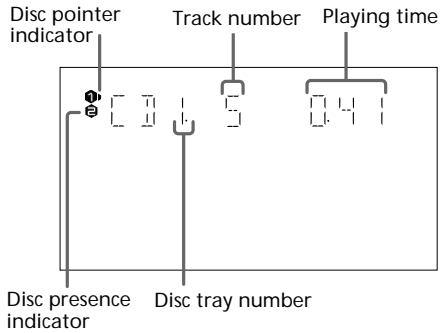
If a disc is not placed properly, it will not be recognized.

Place with the label side up. When you play a CD single (8 cm CD), place it on the inner circle of the tray.



To insert second and third discs, press **DISC SKIP EX-CHANGE** to rotate the disc tray.

- 2 Press one of the **DISC 1-3** buttons. The disc tray closes and playback starts. If you press **◀▶** when CD is selected as the function and the disc tray is closed, playback starts from the CD loaded on the tray whose disc pointer indicator is lit.



continued

## Playing a CD (continued)

To	Do this
Stop playback	Press ■.
Pause	Press ■■. Press again to resume playback.
Select a track	During play or pause, press ►► (to go forward) or ◀◀ (to go back).
Find a point in a track (Lock Search function)	Turn the shuttle clockwise (to go forward) or counterclockwise (to go back) until it clicks (or press ►► or ◀◀ on the remote) and then press ◀◀► when you find the desired point .
Select a CD in stop mode	Press a DISC 1-3 button or DISC SKIP EX-CHANGE (or D. SKIP on the remote).
Play only the CD you have selected	Press PLAY MODE repeatedly until "CONTINUE 1 DISC" or "SHUFFLE 1 DISC" appears.
Play all CDs	Press PLAY MODE repeatedly until "CONTINUE ALL DISCS" or "SHUFFLE ALL DISCS" appears.
Remove the CD	Press ▲ OPEN/CLOSE.
Exchange other CDs while playing	Press DISC SKIP EX-CHANGE.
Adjust the volume	Turn VOLUME (or press VOL +/- on the remote).

## Tips

- You can switch from another source to the CD player and start playing a CD just by pressing one of 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 the CD in the disc tray is playing) the disc pointer indicator lights. When a disc tray holding a CD is not selected, the disc presence indicator lights, but the disc pointer indicator does not light. When all disc trays are empty, both the disc presence indicator and disc pointer indicator light.

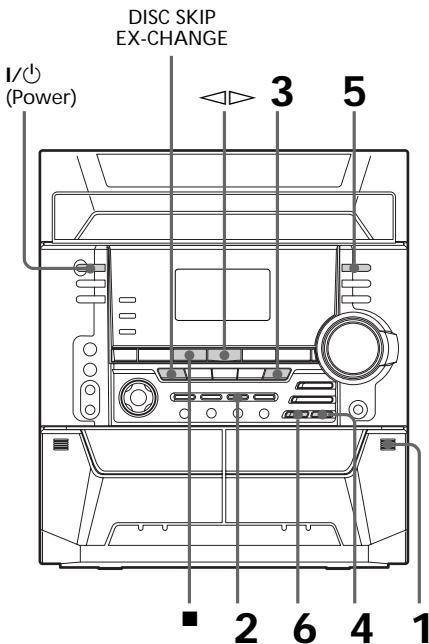
## Note

When a tray has not been read by the unit, the disc presence indicator may light even though there is no disc on the tray.

# Recording a CD/VIDEO CD

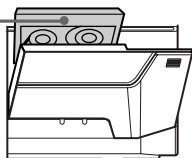
## — CD Synchro Recording

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



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

Insert with the side you want to record facing forward



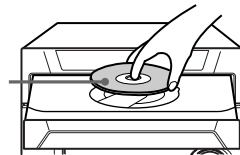
- 2 Press CD.

- 3 Press OPEN/CLOSE and place a CD.

Then press OPEN/CLOSE again to close the disc tray.

When the CD you want to record is not selected, press DISC SKIP EX-CHANGE repeatedly to select the CD you want.

Place with the label side up. When you play a CD single (8 cm CD), place it on the inner circle of the tray.



- 4 Press CD SYNC HI-DUB. Deck B stands by for recording and the CD player stands by for playback. The indicator on REC PAUSE/START flashes.

- 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 A/B repeatedly to select deck B after step 1. Press to start playback of the reverse side, then press where you want to start recording. The reverse indicator of deck B lights (see page 19).
- 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.

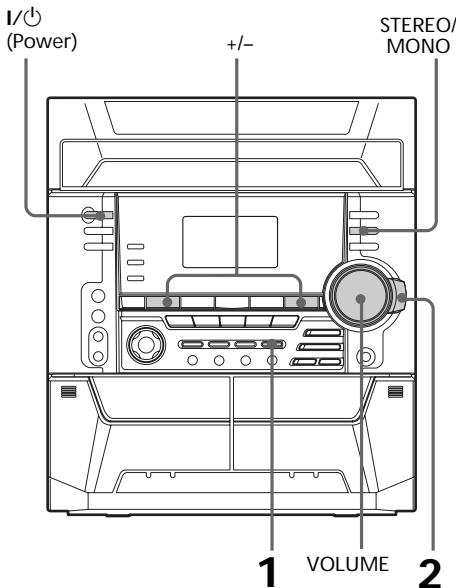
### Note

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 9).



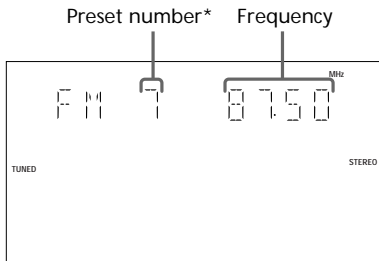
**1** Press TUNER/BAND repeatedly to select FM or AM.

**2** Turn the shuttle until it clicks (or press PRESET +/- on the remote) to tune in the desired preset station.

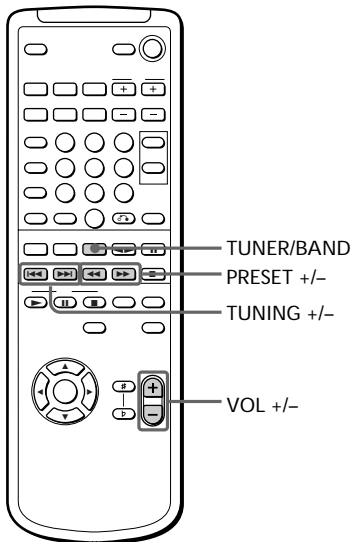
Turn counter-clockwise (or press PRESET - on the remote) for lower preset numbers.



Turn clockwise (or press PRESET + 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

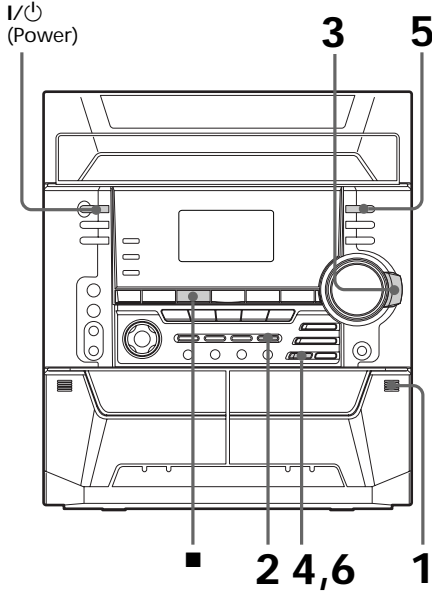
Use manual or automatic tuning in step 2. For manual tuning, press + or - (or TUNING +/- on the remote) repeatedly. For automatic tuning, press and hold + or - (or TUNING +/- on the remote).


#### Tips

- 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, adjust the supplied antennas.

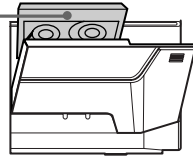
## Recording from the radio

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  and insert a recordable tape into deck B.

Insert with the side you want to record facing forward.



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

continued

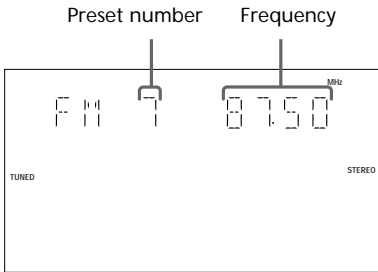
## Recording from the radio (continued)

- 3** Turn the shuttle until it clicks to tune in a preset station.

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



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



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

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

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

### To stop recording

Press ■.

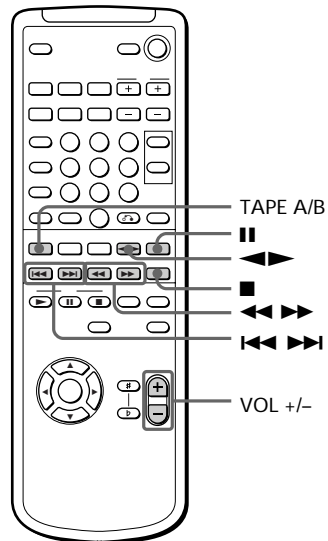
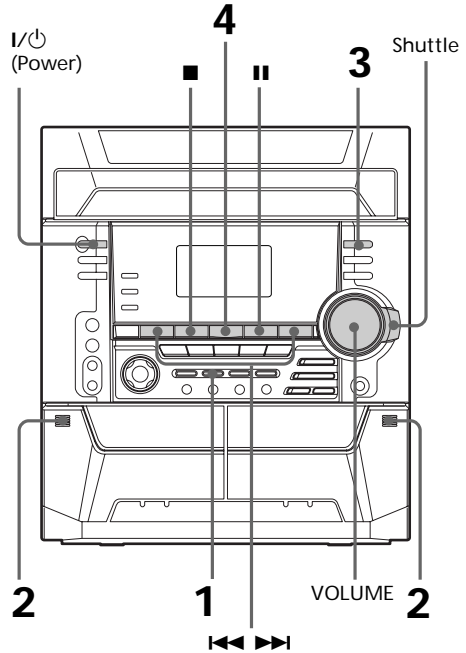
### Tips

- If you want to record from the reverse side, press TAPE A/B repeatedly to select deck B after step 1. Press  $\triangleleft \triangleright$  to start playback of the reverse side, then press ■ where you want to start recording. The reverse indicator of deck B lights (see page 19).
- 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 3 to tune in the desired station manually.
- 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. You can also use  $\lll / \ggg$  to quickly search for songs you want to hear (AMS\* function). To select either deck A or B, press TAPE A/B repeatedly.

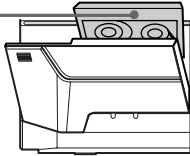
\* AMS (Automatic Music Sensor)



- 1 Press TAPE A/B.**  
 To select deck A or B, press TAPE A/B repeatedly.

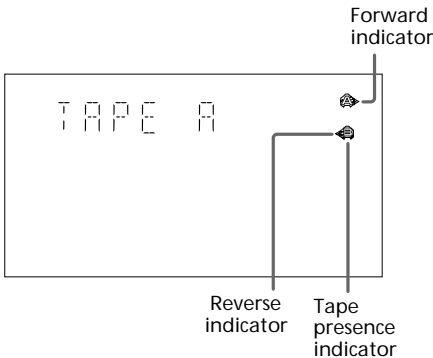
- 2 Press  $\hat{=}$  and insert a recorded tape in deck A or B.**

Insert with the side you want to play facing forward.

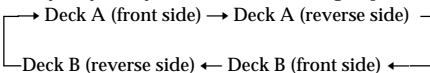


- 3 Press DIRECTION repeatedly to select  $\rightleftarrows$  to play one side. Select  $\leftrightarrow$  to play both sides.**  
 To play both decks in succession, select RELAY (Relay Play)\*.

- 4 Press  $\triangleleft \triangleright$ .**  
 Press  $\triangleleft \triangleright$  again to play the reverse side. The tape starts playing.



\* Relay Play always follows the following sequence:



To	Do this
Stop playback	Press ■.
Pause	Press II. Press again to resume playback.
Fast-forward	Turn the shuttle clockwise until it clicks while playing the front side or counterclockwise until it clicks while playing the reverse side (or press ►► or ◀◀ on the remote).
Rewind	Turn the shuttle counterclockwise until it clicks while playing the front side or clockwise until it clicks while playing the reverse side (or press ◀◀ or ►► on the remote).
Remove the cassette	Press $\hat{=}$ .
Adjust the volume	Turn VOLUME (or press VOL +/- on the remote).

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

During playback, press ◀◀ or ►► repeatedly for the number of songs you want to skip forward (or backward).

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:1:1+2

\* AMS (Automatic Music Sensor)

### Tip

When no tapes are inserted, all the indicators light. When a tape (tapes) is (are) inserted, corresponding presence and forward/reverse indicators light.

### Notes

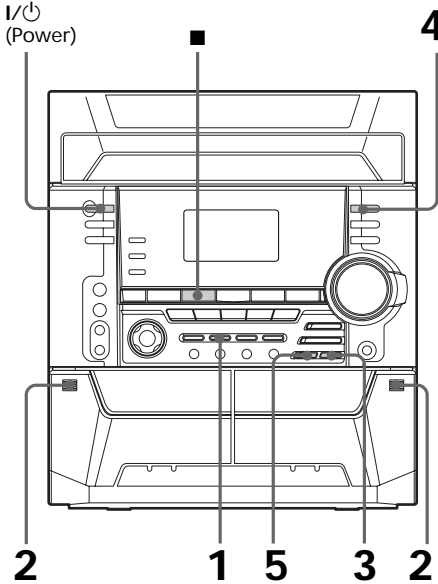
- The deck stops automatically after repeating the sequence five times.
- The AMS function may not operate correctly under the following circumstances:
  - When the unrecorded space between songs is less than 4 seconds long.
  - If completely different information is recorded on the left and right channels.
  - 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.)

---

# Recording from a tape

## — High-speed Dubbing


You can use a TYPE I (normal) tape.



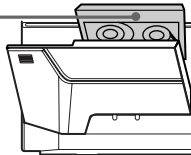
---

**1** Press TAPE A/B.

---

**2** Press  and insert a recorded tape in deck A and a recordable tape in deck B.



Insert with the side you want to play/record facing forward.



---

**3** Press CD SYNC HI-DUB.  
Deck B stands by for recording.

---

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

---


**5** Press REC PAUSE/START.  
Dubbing starts.

---

### To stop dubbing

Press .

### Tips

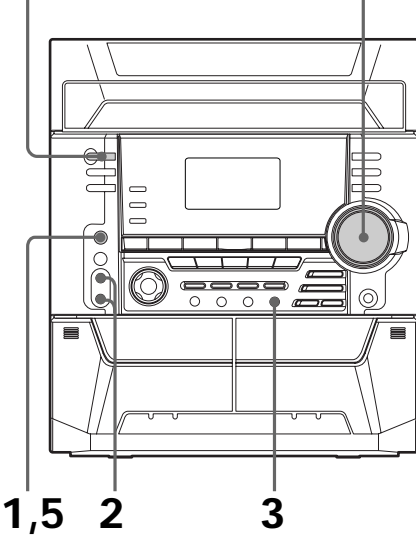
- When you dub on both sides, start recording from the front side. If you record from the reverse side, recording stops at the end of the reverse side.
- If you set DIRECTION to  when the tapes used have different lengths, the tape in each deck reverses independently. If you select RELAY, the tapes in both decks reverse together.

# 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/⏻  
(Power)

VOLUME



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

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

## When you use VIDEO CDs

Turn on your TV and switch it to the appropriate video input.

Refer to the operating instructions supplied with your TV for details.

## When you are done

Turn MIC LEVEL to MIN and disconnect the microphone from MIC 1 or MIC 2, then press KARAOKE PON/MPX repeatedly so that "🎤" disappears.

## Tip

You can use two microphones connecting to MIC 1 and MIC 2 at the same time.

## Notes

- With some songs, vocals may not be cancelled when you select "KARAOKE PON".
- During KARAOKE PON, equalizer and surround settings cannot be changed.
- If you press ◀/▶/▲/▼ on the controller (or ON/OFF or MULTI MENU ◀/▶/▲/▼ 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.

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

**2** Connect an optional microphone to MIC 1 or MIC 2.

**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\*<sup>1</sup> → MPX L\*<sup>1</sup>  
└ EFFECT status before entering KARAOKE PON mode\*<sup>2</sup> ─┘

\*<sup>1</sup> Only for CD.

\*<sup>2</sup> KARAOKE PON is cancelled.

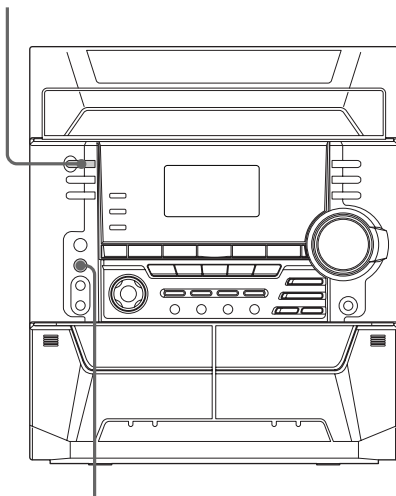
The 🎤 indicator appears in the display when a karaoke mode is activated. To sing karaoke with decreasing the vocal level of a CD, select "KARAOKE PON". To sing karaoke of multiplex CD, select "MPX R" or "MPX L".

continued

*Singing along: Karaoke*  
(continued)

## Adjusting the microphone echo

I/⏻  
(Power)



ECHO LEVEL

---

➔ Turn ECHO LEVEL to adjust the echo effect.

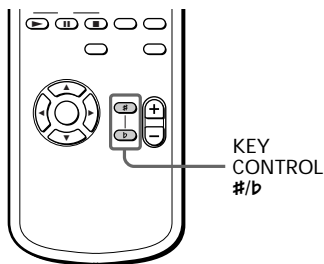
---

### To cancel the echoing

Turn ECHO LEVEL to MIN.

## Adjusting the key

This function allows you to adjust the key to suit your vocal range when playing a VIDEO CD or standard audio CD.



---

➔ Press KEY CONTROL # or ♭.  
You can adjust the key higher or lower in 13 half-tone steps (♭ 6 ~ # 6).

---

### Note

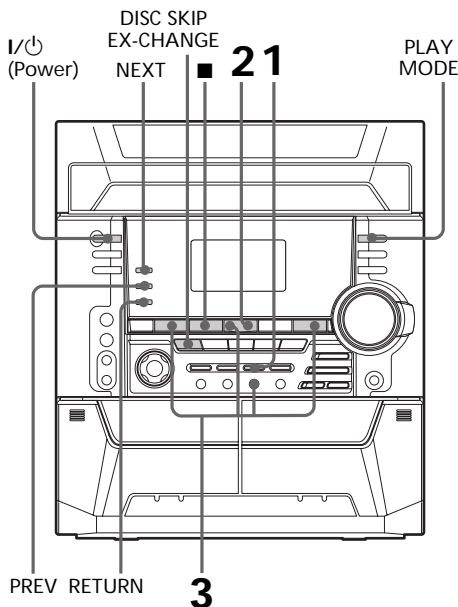
This function cannot be used with the tape deck.

## Playing a VIDEO CD with PBC functions (Ver. 2.0)

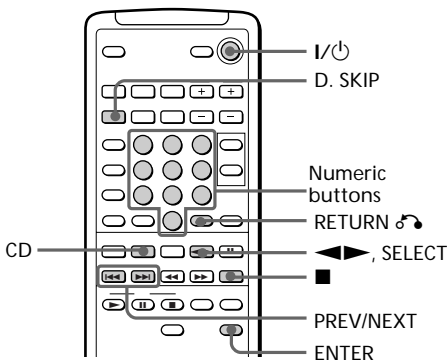
### -- PBC Play

The PBC (Play Back Control) function display menus on your TV screen to let you enjoy interactive software.

Be sure to read the instructions supplied with each disc for details regarding its use since different discs have different menu formats and structures.



- 1** Press CD.
- 2** Press  $\triangleleft \triangleright$  to start playing a VIDEO CD with PBC functions (Ver. 2.0).  
The VIDEO CD and PBC indicators light up and a PBC menu appears on your TV.  
  - Video CD : Lights during playback of a VIDEO CD.
  - PBC : Lights during PBC playback of a PBC compatible VIDEO CD (Ver. 2.0).
  - PBC OFF : Lights when a PBC compatible VIDEO CD (Ver. 2.0) is played without using the PBC functions (see next page).
- 3** Press  $\lll$  or  $\ggg$  repeatedly to select a number from the menu, then press ENTER or SELECT.
- 4** Continue according to the instructions on the menus to enjoy interactive playback.



To	Do this
Stop play	Press <b>■</b> .
See the rest of a menu	Press NEXT.
Go back to the top of a menu	Press PREV.
Go back to a previous menu	Press RETURN (or RETURN $\curvearrowright$ on the remote).

continued

## Playing a VIDEO CD with PBC functions (Ver. 2.0) (continued)

### To cancel PBC Playback of VIDEO CDs with PBC functions (Ver. 2.0)

There are two ways to cancel the PBC functions.


- Before you start playing, select the track you want using **◀◀/▶▶**, then press **ENTER** or **SELECT**.
- Before you start playing, select the track number using the numeric buttons on the remote.

The PBC OFF indicator lights up and playback begins from the selected track. Still images, such as the menu screens, will not be shown.

### To select a menu number using the remote

Press the numeric buttons in the order you want in step 2. To enter track numbers 10 or over, first press **>10**, then press the numeric buttons. To enter 0, use the **10/0** button.

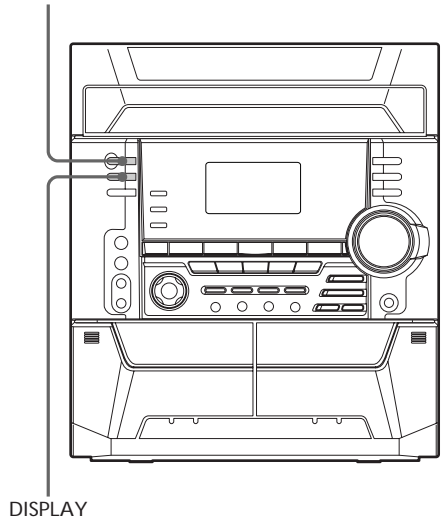
#### Tips

- When  appears on the TV screen, you have pressed an invalid button. Press a button indicated by the instructions on the menu screen.
- When you press **NEXT** during menu playback or while playing moving pictures, the next scene on the disc appears. Also refer to the instructions supplied with the disc.

## Checking the remaining time

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

I/⏻  
(Power)





---

➔ Press DISPLAY.

Each time you press the button during normal playback or when playback is stopped, the display changes as follows:

**During normal playback**

- Playing time of the current track
- ↓
- Remaining time of the current track
- ↓
- Remaining time of current CD (1 DISC mode) or “---” display (ALL DISCS mode)
- ↓
- Clock display (for eight seconds)
- ↓
- Effect status

(VIDEO CDs with PBC functions (Ver. 2.0))

- Playing time on the current track\*
- ↓
- Clock display (for eight seconds)
- ↓
- Effect status

\* May not appear with still images, etc.

**When playback is stopped**

During Program Play mode when there is a program

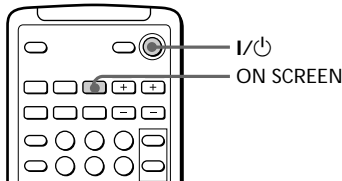
- The last track number of the program and the total playing time
- ↓
- Total number of programmed tracks (for eight seconds)
- ↓
- Clock display (for eight seconds)
- ↓
- Effect status

In other conditions

- Total number of tracks and total playing time
  - ↓
  - Clock display (for eight seconds)
  - ↓
  - Effect status
-

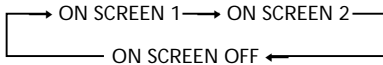
# Using the on-screen display

You can check the current operating status and disc information of VIDEO CDs or audio CDs during playback or in stop mode by superimposing a display on top of the images on your TV screen.



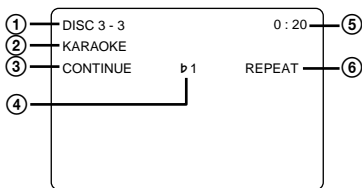
➔ Press ON SCREEN.

Each time you press this button, the on-screen display changes as follows:



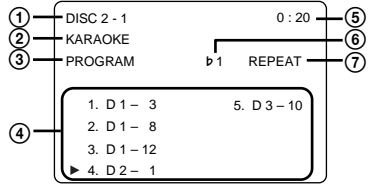
## ON SCREEN 1 display

- During playback of an audio CD (except Program Play mode)



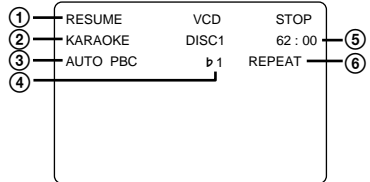
- ① Current disc and track number
- ② KARAOKE effect status
- ③ "PROGRAM"
- ④ Programmed disc and track numbers
- ⑤ Elapsed time of current track
- ⑥ "REPEAT", "REPEAT 1" or no display

- During playback of an audio CD in Program Play mode



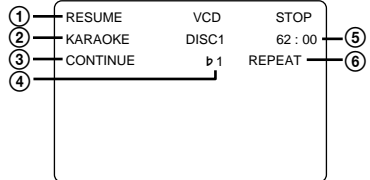
- ① Current disc and track number
- ② KARAOKE effect status
- ③ "PROGRAM"
- ④ Programmed disc and track numbers
- ⑤ Elapsed time of current track
- ⑥ Key control level or no display
- ⑦ "REPEAT", "REPEAT 1" or no display

- During stop mode of a VIDEO CD with PBC functions



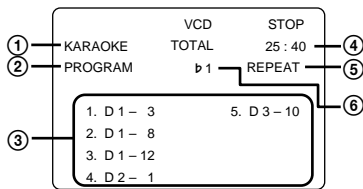
- ① "RESUME" or no display
- ② KARAOKE effect status
- ③ "AUTO PBC"
- ④ Key control level or no display
- ⑤ Total playing time of current disc
- ⑥ "REPEAT", "REPEAT 1" or no display

- During stop mode of a VIDEO CD or audio CD (except Program Play mode)



- ① "RESUME" or no display
- ② KARAOKE effect status
- ③ Play mode
- ④ Key control level or no display
- ⑤ Total playing time of current disc
- ⑥ "REPEAT", "REPEAT 1" or no display

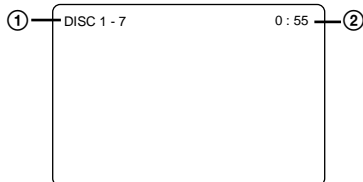
- During stop mode of a VIDEO CD or audio CD in Program Play mode



- ① KARAOKE effect status
- ② “PROGRAM”
- ③ Programmed disc and track numbers
- ④ Total playing time of program
- ⑤ “REPEAT”, “REPEAT 1” or no display
- ⑥ Key control level or no display

## ON SCREEN 2 display

- During playback of a VIDEO CD

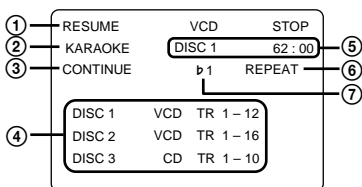


- ① Current disc and track number\*
  - ② Elapsed time of current track
- \* “SCENE” and number is displayed during playback of a VIDEO CD with PBC functions

- During playback of an audio CD

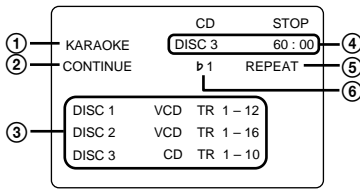
Display is the same as ON SCREEN 1.

- During stop mode of a VIDEO CD (except Program Play mode)



- ① “RESUME” or no display
  - ② KARAOKE effect status
  - ③ Play mode\*
  - ④ Total track numbers of each disc
  - ⑤ Current disc number and total playing time of current disc
  - ⑥ “REPEAT”, “REPEAT 1” or no display
  - ⑦ Key control level or no display
- \* “AUTO PBC” display for a VIDEO CD with PBC functions

- During stop mode of an audio CD (except Program Play mode)



- ① KARAOKE effect status
- ② Play mode
- ③ Disc number and track numbers
- ④ Current disc number and total playing time of current disc
- ⑤ “REPEAT”, “REPEAT 1” or no display
- ⑥ Key control level or no display

- During stop mode of a VIDEO CD or audio CD in Program Play mode
- Display is the same as ON SCREEN 1.

## ON SCREEN OFF

No display (except for special menus).

### Note

Normally, leave the display mode set to either ON SCREEN 1 or 2. When you select ON SCREEN OFF, you cannot check the operating status while operating the CD player. In this case, check the information on the front panel display.

## To switch language of on-screen display (Chinese model only)

You can switch the messages in the on-screen display from Chinese to English.

1 Press SPECIAL MENU.

2 Press 4.

The messages switch from Chinese to English.

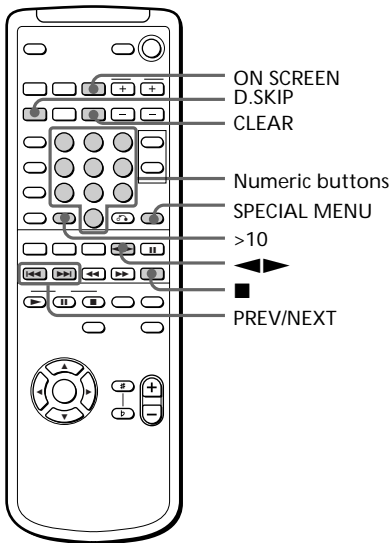
To switch back to Chinese messages, repeat this operation.

# Locating a specific part of a disc

## — Special Menu

This player has 3 different search features. Select the search feature you want from the SPECIAL MENU.

The TV screen must be ON to use these functions.



# Locating by elapsed time

## — Time Search

You can use elapsed time as a guide to find a certain part of a VIDEO CD. "Elapsed time" means the time from the beginning of the disc. It is not the playing time of the current track as shown in the display.

It is especially useful when playing discs that have only a few track divisions.

This function cannot be used during playback of VIDEO CDs with PBC functions (Ver. 2.0).

- 1** Press SPECIAL MENU.
- 2** Press 1 to select "1) TIME SEARCH."
- 3** Press the numeric buttons (1 - 10/0) to enter the time (in minutes) for the section you want.  
To enter 10 minutes: Press 1 → 10/0.  
The selected elapsed time appears on the TV screen.  
To reenter the time: Press CLEAR, and then press numeric buttons again.
- 4** Press ◀▶.  
Playback starts from the selected time.

## To stop playback

Press ■.

## To use time search with VIDEO CDs with PBC functions (Ver. 2.0)

Select "1) TIME SEARCH" before you start playing the VIDEO CD, to light the PBC OFF indicator and play without PBC functions.

# Locating the track you want

## -- Disc Digest

You can select the track you want by viewing the first frame of each track. 9 different tracks can be displayed on the TV screen at one time.

This function cannot be used during playback of VIDEO CDs with PBC functions (Ver. 2.0).

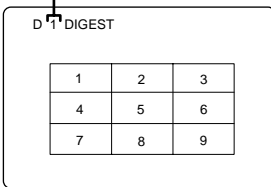
---

**1** Press SPECIAL MENU.

**2** Press 2 to select "2) DISC DIGEST."  
The first frame of tracks 1 through 9 on the current disc are displayed.

The sound of the first three seconds of each track on an audio CD plays, but there is no sound when using a VIDEO CD.

Current disc number



---

**3** Press the numeric buttons (1 - 10/0) to select the track you want.

---

## To stop playback

Press ■.

## To display the next 9 tracks

Press NEXT. The first frame of tracks 10 through 18 are displayed.

When there are more tracks in the disc, "▶▶1" appears in the upper right corner of the TV screen.

To display previous tracks, press PREV.

## To switch to the digest of another disc during disc digest

Press D. SKIP during disc digest.

## To use disc digest with VIDEO CDs with PBC functions (Ver. 2.0)

Select "2) DISC DIGEST" before you start playing the VIDEO CD, to light the PBC OFF indicator and play without PBC functions.

### Tip

In step 2, you can select tracks even if they have not been displayed yet. Use the numeric buttons to select the track you want.

### Notes

- Video images will not be shown for audio CDs.
- The play mode automatically switches to CONTINUE mode if you start disc digest during Shuffle or Program Play.

continued

## Locating a specific part of a disc (continued)

### Locating a section within a track

#### -- Track Digest

You can have the CD player divide a VIDEO CD track into 9 different sections and display the first scene of each section on the TV screen. This might be useful when playing discs with few track divisions, such as movies.

This function cannot be used during playback of VIDEO CDs with PBC functions (Ver. 2.0).

---

**1** Press SPECIAL MENU.

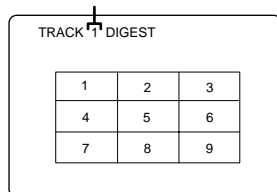
---

**2** Press 3 to select “3) TRACK DIGEST.”

The current track is divided into 9 sections and the first frame of each section is displayed.

The sound of the first three seconds of each track on an audio CD plays, but there is no sound when using a VIDEO CD.

Current track number



---

**3** Press the numeric buttons to select the section you want.

Playback starts from a point near the selected frame.

---

#### To stop playback

Press ■.

#### To switch to the digest of another track during track digest

Press PREV or NEXT during track digest.

#### To use track digest with VIDEO CDs with PBC functions (Ver. 2.0)

Select “3) TRACK DIGEST” before you start playing the VIDEO CD, to light the PBC OFF indicator and play without PBC functions.

#### Tip

In step 2, you can select sections even if they have not been displayed yet. Use the numeric buttons to select the track you want.

#### Notes

- Tracks less than 40 seconds long may be divided into fewer than 9 sections.
- You cannot use this function during Shuffle Play or Program Play.

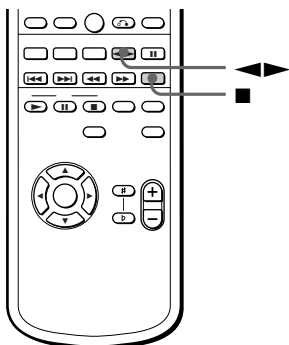
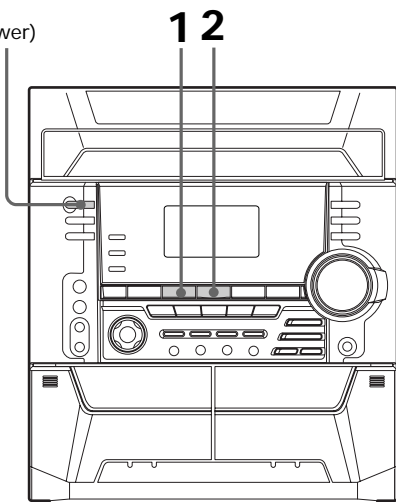
# Resuming playback from the point you stopped a VIDEO CD

## — Resume Play

The unit memorizes the point where you stopped the VIDEO CD so you can resume from that point. Resume play is not cancelled when you turn off the system.

Note that resume play is not available when playing an audio CD.

I/⏻  
(Power)



**1** While playing a VIDEO CD, press ■ to stop playback.

“RESUME” appears on your TV screen. If “RESUME” does not appear, Resume Play is not available.

**2** Press ◀▶.

The player starts playback from the point you stopped the VIDEO CD in step 1.

## To view from the beginning of the VIDEO CD

When “RESUME” appears in the display, press ■, then press ◀▶.

### Notes

- Resume Play is not available in the Digest, Shuffle, or Program Play modes.
- Depending on where you stopped the VIDEO CD, the player may resume playback from a different point.
- The point at which you stopped playback is cleared when:
  - you press numeric buttons, PLAY MODE, or ■.
  - you press DISC SKIP EX-CHANGE (or D. SKIP on the remote).
  - you press SPECIAL MENU.
  - you press ◀◀/▶▶.
  - you remove the VIDEO CD.
  - you unplug the unit’s AC power cord.

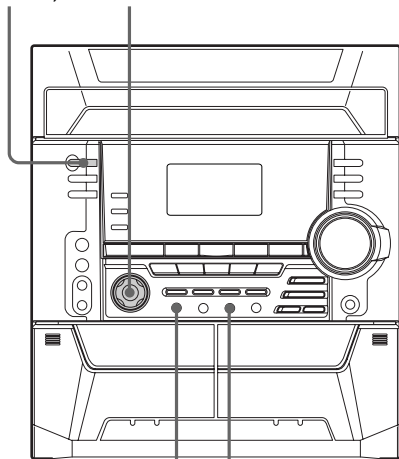
# Adjusting the picture

## -- Picture Effect

You can adjust the hue and sharpness of the picture.

I/⏻  
(Power)

**2,3**



**1 4**

---

**1** Press PICTURE EFFECT during playback.

---

**2** Press ◀ or ▶ on the controller repeatedly to adjust the hue.

---

**3** press ▲ or ▼ on the controller repeatedly to adjust the sharpness.

---

**4** Press ENTER or PICTURE EFFECT.

---

### Tips

- The hue and sharpness can be adjusted in 11 steps (from -5 to +5).
- To use the controller, see page 42.

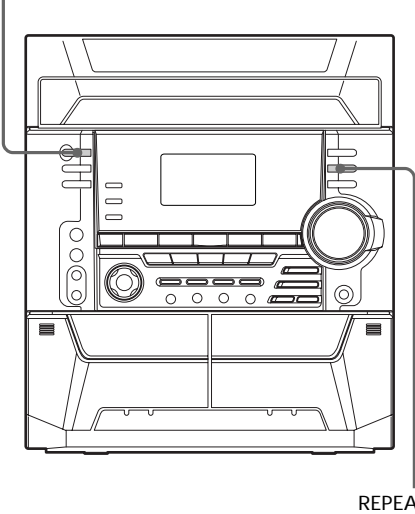


# Playing the CD tracks repeatedly

## -- Repeat Play

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

I/⏻  
(Power)



REPEAT

## To cancel Repeat Play

Press REPEAT repeatedly until "REPEAT" or "REPEAT 1" disappears from the display.

## Notes

- If you press PLAY MODE until "SHUFFLE ALL DISCS" appears, "REPEAT" is canceled automatically.
- During Program Play, the program is also repeated up to five times.

➔ Press REPEAT during playback until "REPEAT" appears in the display.

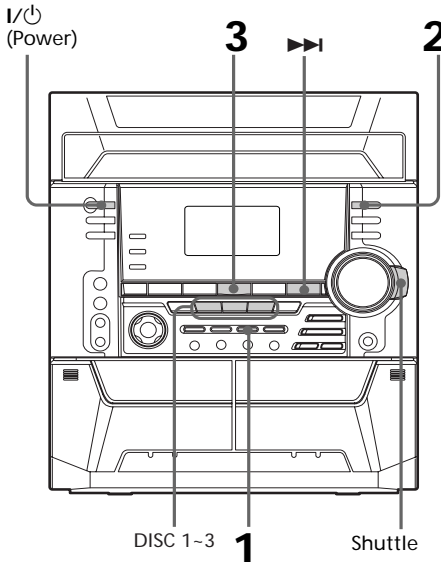
Repeat Play starts. Do the following procedure to change the repeat mode.

To repeat	Press
All the tracks on the current CD up to five times	PLAY MODE repeatedly until "CONTINUE 1 DISC" or "SHUFFLE 1 DISC" appears in the display.
All the tracks on all CDs up to five times	PLAY MODE repeatedly until "CONTINUE 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.

# Playing the CD tracks in random order

## — Shuffle Play

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



## To cancel Shuffle Play

Press PLAY MODE repeatedly until "SHUFFLE" or "PGM" 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 ►►.

---

**1** Press CD, then place a CD.

---

**2** Press PLAY MODE repeatedly until "SHUFFLE 1 DISC" or "SHUFFLE ALL DISCS" appears in the display. "SHUFFLE ALL DISCS" shuffles all the CDs in the player. "SHUFFLE 1 DISC" shuffles tracks on the CD whose disc pointer indicator is lit.

---

**3** Press ◀▶.

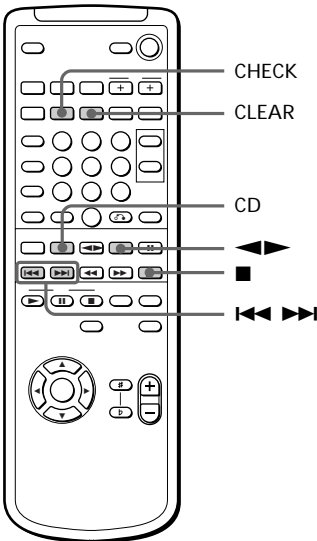
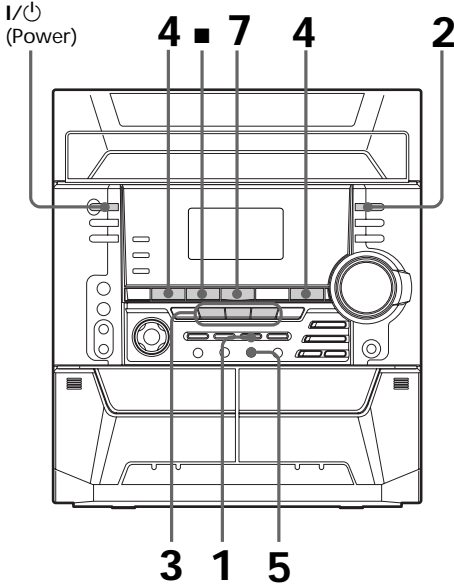
All the tracks play in random order.

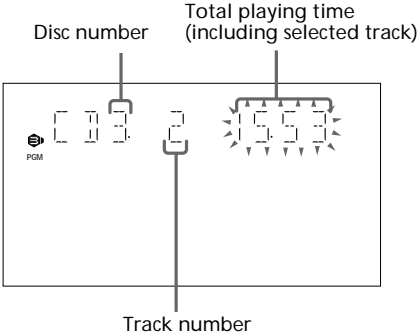
---

# 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 CD, then place a CD.
- 2** Press PLAY MODE repeatedly until “PGM” appears in the display.
- 3** Press one of the DISC 1~3 buttons to select a CD.  
To program all the tracks on a CD at once, proceed to step 5 while “AL” appears in the display.
- 4** Press ◀◀ or ▶▶ until the desired track appears in the display.  

- 5** Press ENTER.  
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 ◀▶.  
All the tracks play in the order you selected.

continued

## **Programming the CD tracks (continued)**

### **To cancel Program Play**

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

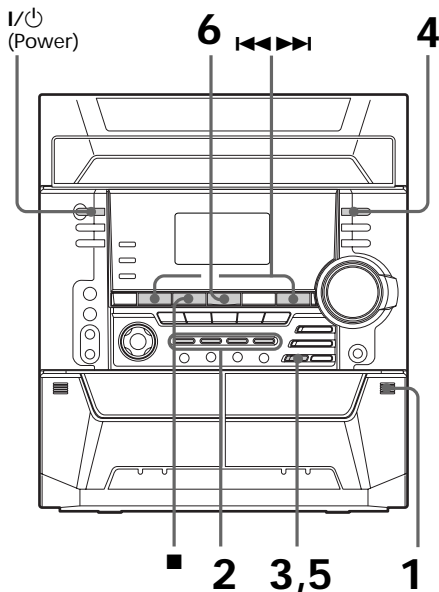
To	Press
Check the program	CHECK on the remote repeatedly. After the last track, "CHECK END" appears.
Clear a track from the end	CLEAR on the remote in stop mode.
Clear a specific track	CHECK on the remote repeatedly until the number of the track to be erased appears, then press CLEAR.
Add a track to the program in stop mode	1 Select the disc tray with a DISC 1~3 button. 2 Select the track by pressing I◀◀/▶▶I. 3 Press ENTER.
Clear the entire program	■ once in stop mode or twice during playback.

### **Tips**

- The program you made remains in the system's memory even after it has been played back. Press CD, then press ◀▶ 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.

## 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** Insert a recordable tape into deck B.

**2** Press the function button of the source you want to record (e.g., CD).

When you want to record from TAPE A, press TAPE A/B repeatedly until TAPE A is selected.

**3** Press REC PAUSE/START.

Deck B stands by for recording. The indicator on REC PAUSE/START flashes.

**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** Press  $\triangleleft \triangleright$  to start playing the source to be recorded.

To	Press
Stop recording	■
Pause recording	REC PAUSE/START.

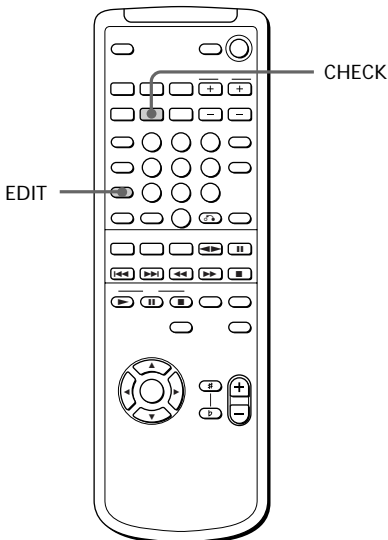
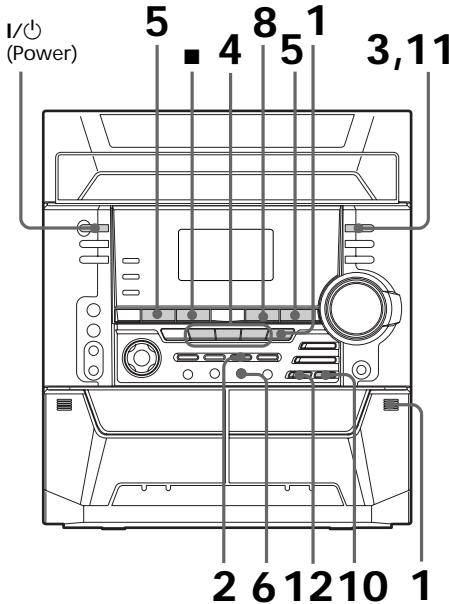
### Tips

- If you want to record from the reverse side, press TAPE A/B repeatedly to select deck B after step 1. Press  $\triangleleft \triangleright$  to start playback of the reverse side, then press ■ where you want to start recording. The reverse indicator of deck B lights (see page 19).
- When recording from a CD, you can use  $\ll$  or  $\gg$  to select tracks during rec pause mode (after pressing REC PAUSE/START in step 3 and before pressing again in step 5).

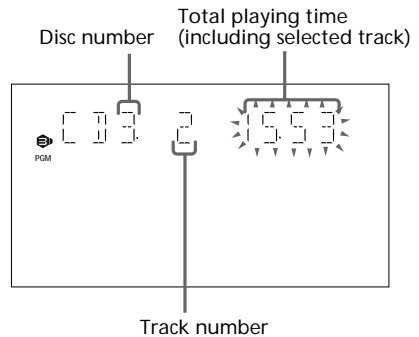
# Recording a CD by specifying track order

## — 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 a CD and insert a recordable tape into deck B.
- 2** Press CD.
- 3** Press PLAY MODE repeatedly until "PGM" appears in the display.
- 4** Press one of the DISC 1~3 buttons to select a CD.  
To program all the tracks on a CD at once, proceed to step 6 while "AL" appears in the display.
- 5** Press ◀◀ or ▶▶ until the desired track appears in the display.



- 6** Press ENTER.  
The track is programmed. The program step number appears, followed by the total playing time.
- 7** To program additional tracks to be recorded on side A, repeat steps 4 to 6.  
Skip step 4 to select tracks from the same disc.

---

**8** Press **II** 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.

---

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

---

**10** Press **CD SYNC HI-DUB**.  
Deck B stands by for recording and the CD player stands by for playback. The indicator on **REC PAUSE/START** flashes.

---

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

---

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

---

### To stop recording

Press **■**.

### To check the order

Press **CHECK** on the remote repeatedly. After the last track, “CHECK END” appears.

### To cancel Program Edit

Press **PLAY MODE** repeatedly until “PGM” or “SHUFFLE” disappears from the display.

## 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.

---

**2** Press **CD**.

---

**3** Press **EDIT** once, so that “EDIT” flashes.

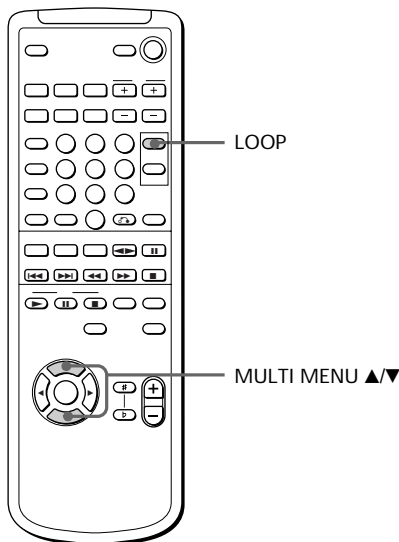
The required tape length for the currently selected CD appears, followed by the total playing time for side A and side B respectively.

---

## Looping part of a CD

### — Loop

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



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

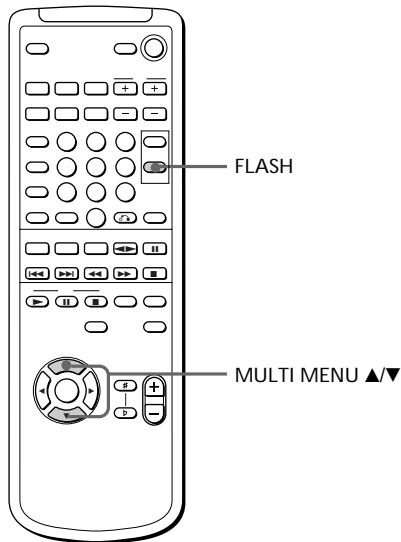
#### To adjust the loop length

Press MULTI MENU ▲/▼ on the remote while pressing LOOP to select different loop lengths (LOOP 1~20).

## Flashing part of a CD

### — Flash

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



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

#### To adjust the flash length

Press MULTI MENU ▲/▼ on the remote while pressing FLASH to select different flash lengths (FLASH 1~20).

#### To use LOOP and FLASH together

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

#### Note

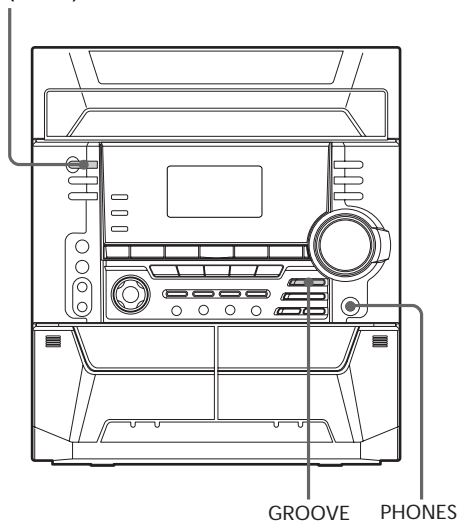
The loop and flash length cannot be adjusted during this operation. Adjust the loop and flash lengths independently beforehand if necessary.



## Adjusting the sound

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

I/⏻  
(Power)



### For a powerful sound (GROOVE)

Press GROOVE. The volume switches to power mode, the equalizer curve changes, and the GROOVE button lights. Press GROOVE again to return to the previous volume.

### To listen through the headphones

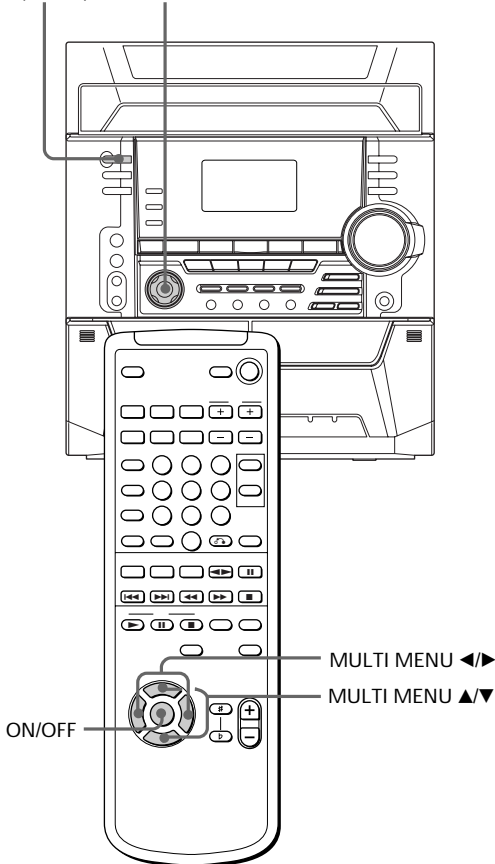
Connect the headphones to PHONES jack. No sound will come from the speakers.

## Selecting the audio emphasis

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

## Selecting the effect from the music menu

I/⏻  
(Power) Controller



continued

## Selecting the audio emphasis (continued)

➔ Press ◀ or ▶ on the controller (or MULTI MENU ◀/▶ on the remote) to select the preset you desire.

The preset name appears in the display.  
See the chart “Music menu options”.

### To select USER FILE

Press ▲ on the controller (or MULTI MENU ▲ on the remote).

### To cancel the effect

Press ▼ repeatedly on the controller (MULTI MENU ▼ or ON/OFF on the remote) so that “EFFECT OFF” appears in the display.

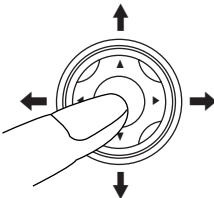
### Music menu options

“SURROUND” appears if you select an effect with surround effects.

Effect	For
ROCK	Standard music sources
POP	
JAZZ	
DANCE	
SOUL	
ORIENTAL	
ACTION	Soundtracks and special listening situations
DRAMA	
SF	
GAME	
USER FILE	See page 44

### Tip

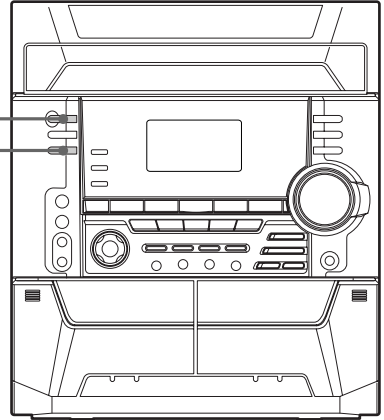
Refer to the illustration to use the controller.  
Put your finger in the hollow and move in the direction you want (▲/▼/◀/▶).



## Changing the spectrum analyzer display

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

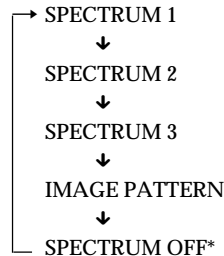
I/⏻  
(Power)



SPECTRUM

➔ Press SPECTRUM.

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

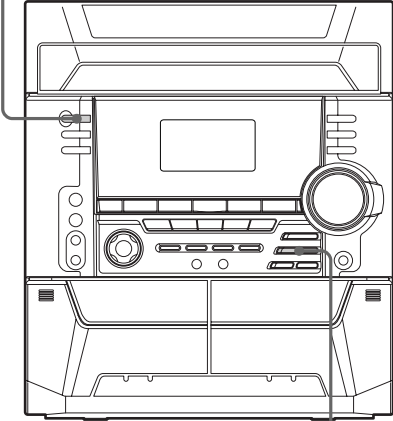


\* The display slightly dims.

# Selecting surround effects

You can enjoy surround effects.

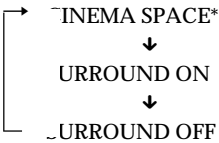
I/⏻  
(Power)



CINEMA SPACE

➔ Press CINEMA SPACE repeatedly to select the surround effect you desire.

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



\* CINEMA SPACE is the surround effect for movies.

### Note

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

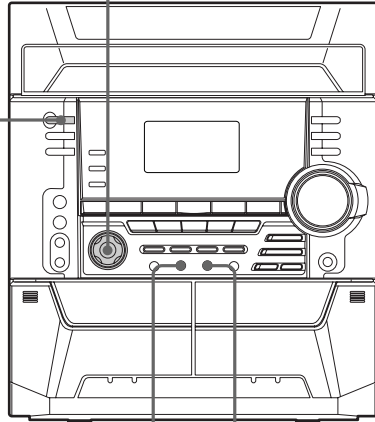
# Adjusting the graphic equalizer

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.

I/⏻  
(Power)

2,3



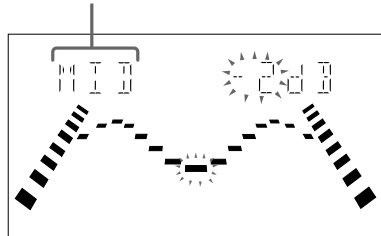
1

5

1 Press EQ EDIT.

2 Press ◀ or ▶ on the controller repeatedly to select a frequency band.

Frequency band

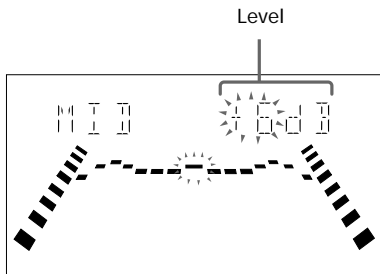


continued

## Adjusting the graphic equalizer (continued)

---

- 3** Press ▲ or ▼ on the controller to adjust the level.



- 
- 4** Repeat steps 2 and 3.
- 

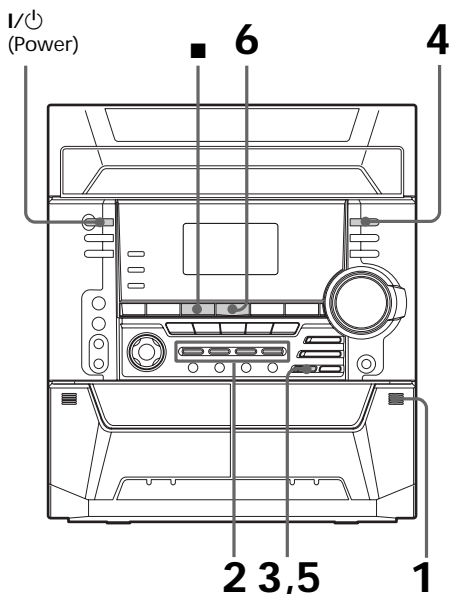
- 5** Press ENTER when finished.  
This setting is automatically stored as  
USER FILE.
- 

### Tips

- If you want to select the previously adjusted equalizer settings (USER FILE), press ▲ on the controller (or MULTI MENU ▲ on the remote).
- To use the controller, see page 42.

# Mixing and recording sounds

You can “mix” sounds by playing one of the components and singing or speaking into a microphone (not supplied). The mixed sounds can be recorded on a tape.



**1** Do the procedure for singing along (steps 1 through 5 on page 21). Then, insert a tape in deck B.

**2** Press the function button of the source you want to record (e.g., CD).

When you want to record from TAPE A, press TAPE A/B repeatedly until TAPE A is selected.

**3** Press REC PAUSE/START. Deck B stands by for recording. The indicator on REC PAUSE/START flashes.

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

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

**6** Press  $\triangleleft \triangleright$  to start playing the source to be recorded. Start singing along with the music.

## To stop recording

Press ■.

## Tips

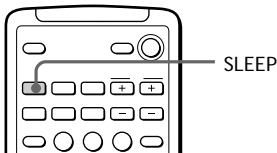
- If acoustic feedback (howling) occurs, move the microphone away from the speakers or change the direction of the microphone.
- If you want to record your voice through the microphone only, you can do so by selecting the CD function and not playing a CD.
- When high level sound signals are input, the unit automatically adjusts the recording level to prevent distortion of the recorded sound signal (Auto Level Control function).

---

# Falling asleep to music

## — Sleep Timer

You can set the system to turn off at a preset time, so you can fall sleep to music. You can preset the time to be turned off in 10 minutes increments.



---

➔ Press SLEEP.

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

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

---

### When you choose "AUTO"

The power 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

Press SLEEP repeatedly until the time you want appears.

### To cancel the Sleep Timer function

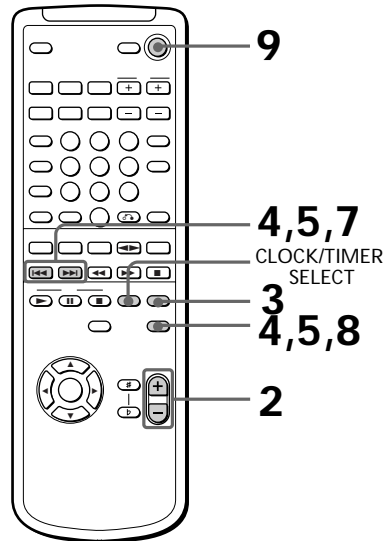
Press SLEEP repeatedly until "SLEEP OFF" appears.

---

# 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" on page 8).



---

**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" on page 35).
- Tape: Insert a tape with the side you want to play facing forward.
- Radio: Tune in the preset station you want (see "Listening to the radio" on page 16).

---

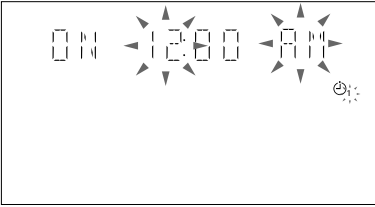
**2** Adjust the volume.

---

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

- 
- 4** Press **◀◀** or **▶▶** repeatedly to select “DAILY 1 (or 2)”, then press ENTER.

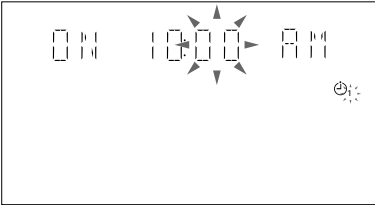
“ON” appears and the hour indication flashes in the display.



- 
- 5** Set the time to start playback.

Press **◀◀** or **▶▶** repeatedly to set the hour, then press ENTER.

The minute indication starts flashing.



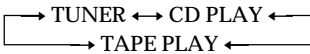
Press **◀◀** or **▶▶** repeatedly to set the minute, then press ENTER.

The hour indication flashes again.

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

- 
- 7** Press **◀◀** or **▶▶** repeatedly until the music source you want appears.

The indication changes as follows:



- 
- 8** Press ENTER.

The type of timer (DAILY 1 or DAILY 2), followed by the start time, stop time, and the music source, appear, then the original display appears.

- 
- 9** Turn off the power.
- 

### To check the setting

Press CLOCK/TIMER SELECT and press **◀◀** or **▶▶** repeatedly to select the respective mode (DAILY 1 or DAILY 2), then press ENTER.

To change the setting, start over from step 1.

### To cancel the timer operation

Press CLOCK/TIMER SELECT and press **◀◀** or **▶▶** repeatedly to select “TIMER OFF”, then press ENTER.

### Tip

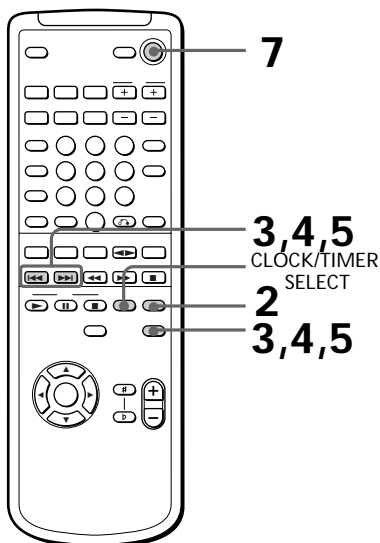
The power turns on 15 seconds before the preset time.

### Notes

- You cannot activate DAILY 1 and DAILY 2 Timer at the same time.
- You cannot set the timer if the starting time and stopping time are the same.
- When you use the Sleep Timer, Daily Timer will not turn on the system until the Sleep Timer turns it off.
- You cannot activate Daily Timer and Timer-recording at the same time.

# Timer-recording radio programs

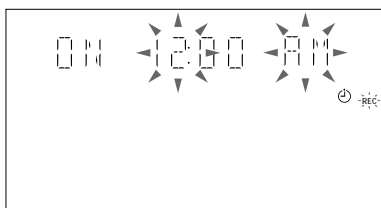
To timer-record, you must preset the radio station (see “Step 3: Presetting radio stations” on page 9) and set the clock (see “Step 2: Setting the time” on page 8) beforehand.



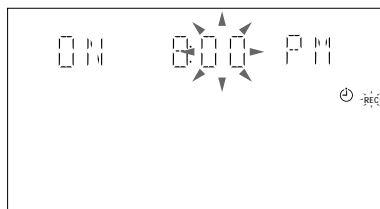
**1** Tune in the preset radio station (see “Listening to the radio” on page 16).

**2** Press CLOCK/TIMER SET.  
“SET (DAILY 1)” appears.

**3** Press **◀▶** or **▶▶** repeatedly to select “REC”, then press ENTER.  
“ON” appears and the hour indication flashes in the display.



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



Press **◀▶** or **▶▶** repeatedly to set the minute, then press ENTER.  
The hour indication flashes again.

**5** Set the time to stop recording following the above procedure.  
The start time, followed by the stop time, the preset radio station to be recorded (e.g., “TUNER FM 5”) appear, then the original display appears.

**6** Insert a recordable tape.

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



### To check the setting

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

To change the setting, start over from step 1.

### To cancel the timer operation

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

### Notes

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

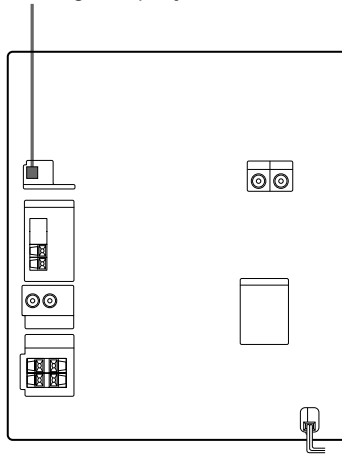
## Connecting audio components

Select one of the following connections, depending on the component to be connected and method of connecting. Refer to the instructions of each component.

### Connecting an MD deck for digital recording

You can record from CD into the MD deck digitally by connecting an optional optical cable.

To the digital input jack of the MD deck



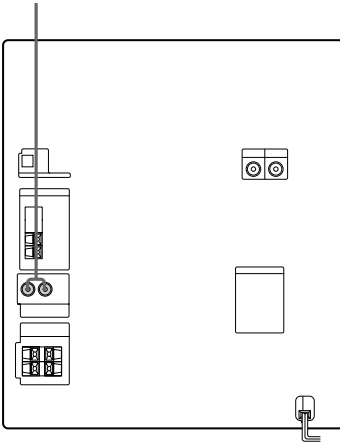
continued

## Connecting audio components (continued)

### Connecting an MD deck for listening to music

Make sure to match the color of the plugs and the connectors. To listen to the sound of the connected MD deck, press MD (VIDEO).

To the audio output of the  
MD deck



#### Tip

When you connect a Sony MD deck, you can use the MD ►, II, and ■ buttons on this unit's remote to perform play, pause, and stop operations.

#### Note

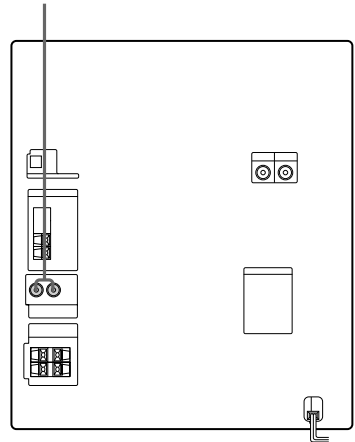
If you cannot select "MD" when you press MD (VIDEO), press I/⏻ while pressing MD (VIDEO) when the power is turned off. "VIDEO" will be switched to "MD". To return to "VIDEO", do the same procedure.

## Connecting a VCR

By connecting the audio output jacks of your VCR to the MD/VIDEO (AUDIO) IN jacks using an optional audio cable, you can enjoy video playback in powerful stereo sound.

Make sure to match the color of the plugs and the connectors. To listen to the sound of the connected VCR, hold down MD (VIDEO) and press I/⏻ when the power is turned off. This switches the "MD" function to "VIDEO". Once you enable the "VIDEO" function, just press MD (VIDEO).

To the audio output  
of the video deck



#### Notes

- To return to "MD", press I/⏻ while pressing MD (VIDEO) again when the power is turned off.
- When you connect a VIDEO CD deck, set to "MD".

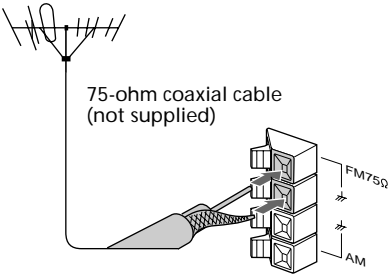
# Connecting external antennas

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

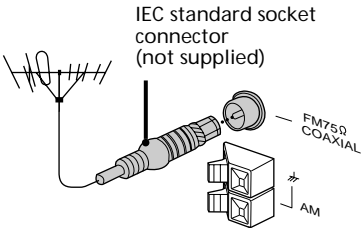
## FM antenna

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

### Jack type ①



### Jack type ②

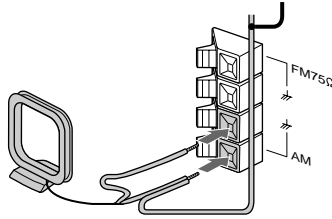


## AM antenna

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

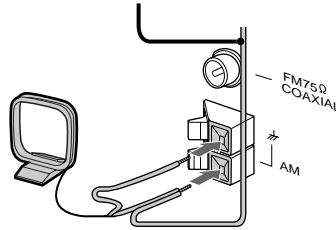
### Jack type ①

Insulated wire (not supplied)



### Jack type ②

Insulated wire (not supplied)



## 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 a qualified service shop.

### On placement

- 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 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

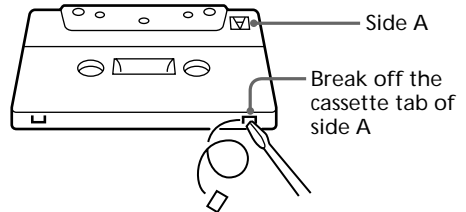
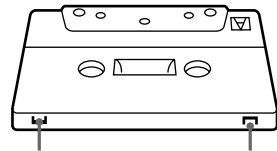
- Before playing, clean the CD with a cleaning cloth. Wipe the CD from the center out.
- Do not use solvents such as benzene, thinner, commercially available cleaners or anti-static spray intended for vinyl LPs.
- Do not expose the CD to direct sunlight or heat sources such as hot air ducts, nor leave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

### Cleaning the cabinet

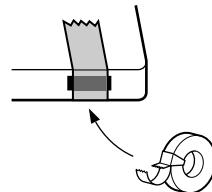
Use a soft cloth slightly moistened with mild detergent solution.

### 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.



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.

## In case color irregularity is observed on nearby a TV screen.

With the magnetically shielded type of speaker system, the speakers can be installed near a TV set. However, color irregularity may still be observed on the TV screen depending on the type of your TV set.

## If color irregularity is observed...

Turn off the TV set once, then turn it on after 15 to 30 minutes.

## If color irregularity is observed again...

Place the speakers farther away from the TV set.

---

# Troubleshooting

If you run into any problem using this stereo 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 power (demonstration mode).

- Press DISPLAY when the power is turned off. The demonstration disappears.

The demonstration mode appears automatically the first time you plug in the power cord or if there is a power outage lasting longer than half a day.

The clock setting/radio presetting/timer is canceled.

- The power cord is disconnected or a power failure occurs longer than half a day.

Redo the following:

- "Step 2: Setting the time" on page 8
- "Step 3: Presetting radio stations" on page 9

If you have set the timer, also redo "Waking up to music" on page 46 and "Timer-recording radio programs" on page 48.

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.
- There is no audio output during timer recording.

continued

## Troubleshooting (continued)

---

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.
- 

The sound from the connected source is distorted.

- If "VIDEO" appears in the display when you press MD (VIDEO), switch the display to "MD" (see "Note: Connecting audio components" on page 50).
- 

"0:00" (or "12:00 AM") 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, and REC do not appear when you press CLOCK/TIMER SET.

- 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 I/⏻ to turn off the power, leave the system turned off for a while, then press I/⏻ again to turn on the power. If "PROTECT" and "PUSH POWER" appear alternately even after the power is turned on again, press I/⏻ to turn off the power and check the speaker cord.
- 

## 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.
- 

## VIDEO CD/CD Player

---

There is no picture.

- Check that the player is connected securely.
  - Make sure you operate the TV correctly.
  - Make sure you set the color system correctly, according to your TV (color) system.
  - Press CD.
- 

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 "PGM" or "SHUFFLE" disappear.
- 

"OVER" is displayed.

- You have reached the end of the CD. Turn the shuttle counterclockwise until it clicks and hold.
-

## 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 52).
  - 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 53).
  - The record/playback heads are magnetized. Demagnetize them (see “Demagnetizing the tape heads” on page 53).
- 

The tape does not erase completely.

- The record/playback heads are magnetized. Demagnetize them (see “Demagnetizing the tape heads” on page 53).
- 

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 53).
- 

Noise increases or the high frequencies are erased.

- The record/playback heads are magnetized. Demagnetize them (see “Demagnetizing the tape heads” on page 53).
- 

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

---

There is 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.
- 3 Press ■, ENTER, and I/⏻ at the same time.
- 4 Press I/⏻ to turn on the power.

The system is reset to the factory settings. All the settings you made, such as the preset stations, clock, timer, and color system are cleared. You should set them again.

---

# Specifications

## Amplifier section

### MHC-VX33:

The following measured at AC 120, 220, 240 V  
50/60 Hz

DIN power output (rated) 75 + 75 watts  
(6 ohms at 1 kHz, DIN)  
Continuous RMS power output (reference)  
100 + 100 watts  
(6 ohms at 1 kHz,  
10% THD)

### Inputs

MD/VIDEO IN: voltage 450/250 mV,  
(phono jacks) impedance 47 kilohms  
MIC: sensitivity 1 mV,  
(mini jack) impedance 10 kilohms

### Outputs

VIDEO OUT: max. output level  
(phono jack) 1Vp-p, unbalanced, Sync  
negative, load impedance  
75 ohms

S-VIDEO OUT: Y: 1Vp-p, unbalanced,  
(4-pin/mini-DIN jack) Sync negative,  
C: 0.286Vp-p,  
load impedance 75 ohms

PHONES: accepts headphones of  
(stereo mini jack) 8 ohms or more

### SPEAKER:

MHC-VX33: accepts impedance of 6 to  
16 ohms

## VIDEO CD/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.
Wavelength	780 - 790 nm
Frequency response	2 Hz - 20 kHz ( $\pm 0.5$ dB)
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB
Video color system format	NTSC, PAL
CD OPTICAL DIGITAL OUT (Square optical connector jack, rear panel)	
Wavelength	660 nm
Output Level	-18 dBm



## Tape player 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)

## Tuner section

FM stereo, FM/AM superheterodyne tuner

### FM tuner section

Tuning range	
Tourist model:	76.0 – 108.0 MHz
Other models:	87.5 – 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

### AM tuner section

Tuning range	
Middle Eastern model:	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)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

## Speaker

### SS-VX33/SS-VX33B for MHC-VX33

Speaker system	2-way, bass-reflex type
Speaker units	
Woofer:	15 cm, cone type
Tweeter:	10 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 215 x 325 x 275 mm
Mass	Approx. 4 kg net per speaker

## General

Power requirements	
Thai model:	220 V AC, 50/60 Hz
Other models:	120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector

Power consumption	190 watts
Dimensions (w/h/d)	Approx. 280 x 325 x 403 mm

Mass	Approx. 8.9 kg
------	----------------

Supplied accessories:	AM loop antenna (1) FM lead antenna (1) Remote Commander (1) Batteries (2) Video cable (1) Front speaker pads (8)
-----------------------	--

Design and specifications are subject to change without notice.

---

# Glossary

## Auto Pause

An automatically pauses according to the signal encoded on the disc while playing a VIDEO CD. If the CD player does not resume play for a long time, press <◀▶> to resume play manually.

## Menu Playback

Playback using the menu screens recorded on VIDEO CDs with PBC functions. You can enjoy simple interactive software using the menu playback function.

## Playback Control (PBC)

Signals encoded on VIDEO CDs (Version 2.0) to control playback.

By using menu screens recorded on VIDEO CDs with PBC functions, you can enjoy playing simple interactive software, software with search functions, and so on.

When you select a VIDEO CD with PBC functions on this player, the PBC indicator lights up.

## Track

Sections of a picture or a music piece on disc. Each track is assigned a track number to help you locate the track you want.

## VIDEO CD

A compact disc which contains moving pictures.

VIDEO CDs contain compact picture information using the MPEG 1 format, one of the world wide standards of digital compact technology. The picture information is compressed about 120 times. Consequently, a 12 cm VIDEO CD can contain up to 74 minutes of moving pictures.

VIDEO CDs also contain compact audio information. Sounds outside the range of human hearing are compressed while the sounds we can hear are not compressed. VIDEO CDs can hold six times the audio information of conventional audio CDs.

There are two versions for VIDEO CDs:

Version 1.1 (VIDEO CDs without PBC functions):

You can play only moving pictures and sounds.

Version 2.0 (VIDEO CDs with PBC functions):

You can play still pictures and enjoy PBC functions.

This player can play to both versions.



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