

Mini Hi-Fi Component System

Operating Instructions



MHC-RV2

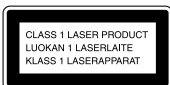
WARNING

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

To prevent fire, do not cover the ventilation of the apparatus with news papers, table-cloths, curtains, etc. And don't place lighted candles on the apparatus.

To prevent fire or shock hazard, do not place objects filled with liquids, such as vases, on the apparatus.

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. This label is located on the rear exterior.



Don't throw away the battery with general house waste, dispose of it correctly as chemical waste.



ENERGY STAR® is a U.S. registered mark. As an ENERGY STAR® partner, Sony Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

This system can play the following discs

	VIDEO CDs	Audio CDs
Disc Logo		
Contents	Audio + Video (moving pictures)	Audio
Disc size	12 cm	12 cm
Play time	74 min.	74 min.

Notes 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

- VIDEO CDs with CD audio tracks may not play properly.

Notes on CD-R and CD-RW discs

Type of discs	Label on the disc
Audio CDs	
MP3 files	

- Discs recorded on CD-R/CD-RW drives may not be played back because of scratches, dirt, recording condition or the drive's characteristics.
- You cannot play a CD-R/CD-RW that is not finalized.
- You cannot play a CD-R/CD-RW that is recorded in Multi Session.

Table of Contents

List of Button Locations and Reference Pages

Main unit	4
Remote Control	5

Getting Started

Hooking up the system	6
Inserting two R6 (size AA) batteries into the remote	8
Setting the clock	9

CD/VIDEO CD/MP3 file

Loading a disc	9
Playing a CD — Normal Play/Shuffle Play/Repeat Play	10
Programming VIDEO CD/CD tracks — Program Play	11
Playing a VIDEO CD — Normal Play/Shuffle Play/Repeat Play	12
Playing a VIDEO CD with PBC functions (Ver. 2.0) — PBC Play	14
Playing a disc with MP3 files	15
Locating a specific part of a VIDEO CD — Time Search/Disc Digest	17
Resuming playback from the point you stopped a VIDEO CD — Resume Play	18
Adjusting the VCD picture — Picture Effect	18

Tuner

Presetting radio stations	19
Listening to the radio — Preset Tuning/Manual Tuning	21

Tape

Loading a tape	22
Playing a tape	22

Recording to a tape — CD Synchro Recording/Recording Manually	23
Timer-recording radio programs	24

Sound Adjustment

Adjusting the sound	25
Selecting the sound effect	25
Selecting the surround effect	25

Display

Turning off the display — Power Saving Mode	26
Using the display	26
Using the on-screen display	27

Other Features

Enhancing video game sound — Game Sync	29
Mixing video game sound with other sound source — Game Mixing	29
Singing along: Karaoke	29
Falling asleep to music — Sleep Timer	31
Waking up to music — Daily Timer ...	31

Optional Components

Hooking up video game machine	33
-------------------------------------	----

Troubleshooting

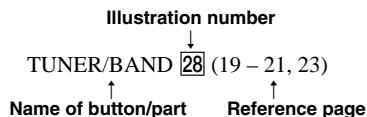
Problems and remedies	34
Messages	36

Additional Information

Precautions	37
Specifications	38
Glossary	Back cover

How to use this page

Use this page to find the location of buttons and other parts of the system that are mentioned in the text.



Main unit

ALPHABETICAL ORDER

A – E

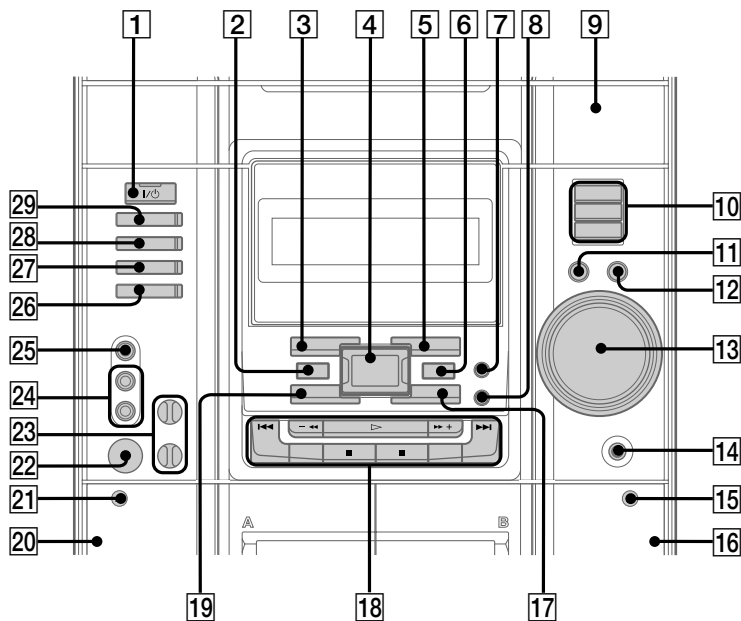
- ALBUM +/- 18 (12, 15)
- CD 29 (10 – 12, 14, 15, 23)
- CD SYNC 7 (23)
- Deck A 20 (22)
- Deck B 16 (22 – 24, 30)
- DISC 1 – 3 10 (10, 11, 13, 16)
- DISC SKIP/EX-CHANGE 11 (9, 10, 13, 16)
- Disc tray 9 (9)
- DISPLAY 2 (26, 27)
- ECHO LEVEL control 23 (30)
- EFFECT ON/OFF 17 (25, 30)

G – Z

- GAME 26 (29, 33)
- GAME EQ 19 (25, 30, 33)
- GAME INPUT (AUDIO) jacks 24 (33)
- GAME INPUT (VIDEO) jack 25 (33)
- GAME MIXING 4 (29)
- GROOVE 6 (25, 36)
- MIC jack 22 (29)
- MIC LEVEL control 23 (29, 30)
- MOVIE EQ 5 (25, 30)
- MUSIC EQ 3 (25, 30)
- PHONES jack 14
- REC PAUSE/START 8 (23, 30)
- TAPE A/B 27 (22, 23, 30)
- TUNER/BAND 28 (19 – 21, 23)
- VOLUME control 13

BUTTON DESCRIPTIONS

- I/O (power) 1
- ▲ OPEN/CLOSE 12
- ▲ (deck B) 15
- ▶▶ 18
- ◀◀ 18
- ▶▶ 18
- ◀◀ 18
- || 18
- ▷ 18
- 18
- ◀ 18
- ▲ (deck A) 21
- +/- 18



Remote Control

ALPHABETICAL ORDER

A - N

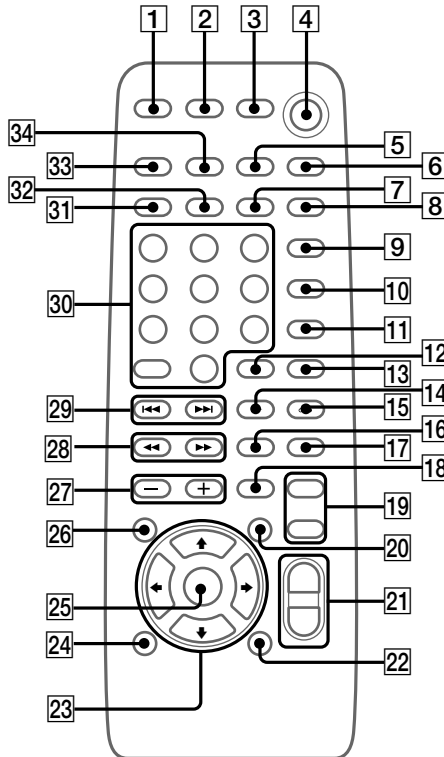
- ALBUM +/- **27** (12, 15)
- CD **33** (10 - 12, 14, 15, 23)
- CLEAR **9** (12, 17)
- CLOCK/TIMER SELECT **2** (24, 32)
- CLOCK/TIMER SET **3** (9, 24, 31)
- DISPLAY **8** (26, 27)
- D.SKIP **12** (10, 13, 16)
- EFFECT ON/OFF **24** (25, 30)
- ENTER **25** (9, 11, 14, 18 - 20, 24, 31, 32)
- FM MODE **32** (21, 36)
- GAME **6** (29, 33)
- GROOVE **22** (25, 36)
- KARAOKE PON **18** (29, 30)
- KEY CONTROL #/b **19** (30)
- NEXT **29** (13, 14, 17)
- Number buttons **30** (11, 16, 17)

O - Z

- ON SCREEN **13** (27)
- PICTURE EFFECT **10** (18)
- PLAY MODE **31** (10 - 13, 15, 22)
- PRESET EQ **26** (25, 30)
- PRESET +/- **29** (19 - 21)
- PREV **29** (13, 14, 17)
- REPEAT **32** (10, 16)
- RETURN **15** (14)
- SELECT **14** (14)
- SLEEP **1** (31)
- SPECIAL MENU **11** (17)
- SURROUND **20** (25)
- TAPE A/B **5** (22, 23, 30)
- TUNER/BAND **34** (19 - 21, 23)
- TUNER MEMORY **7** (19, 20)
- TUNING +/- **28** (19 - 21)
- VOL +/- **21**

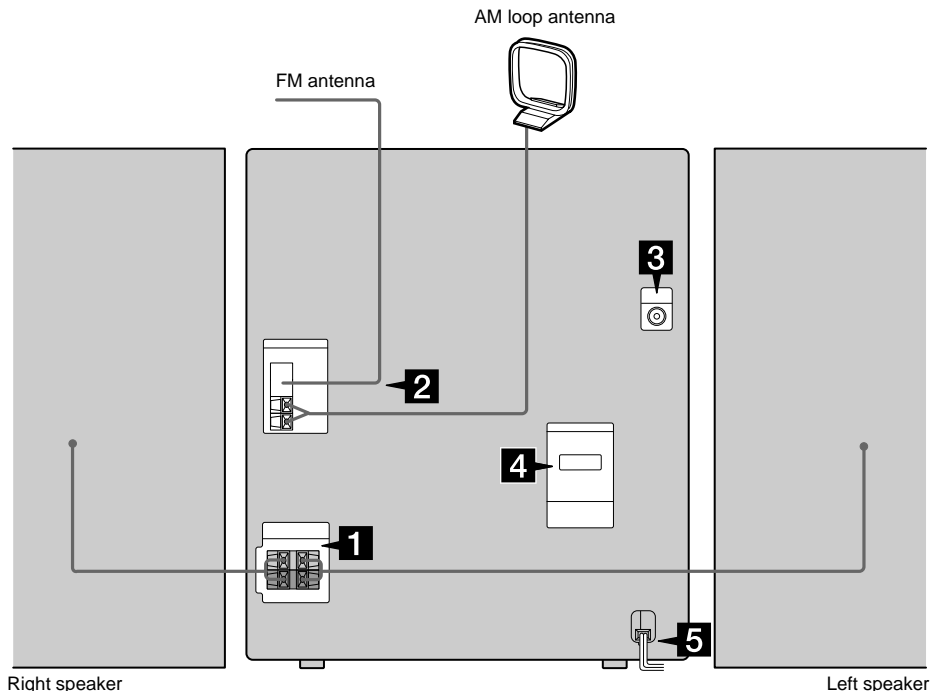
BUTTON DESCRIPTIONS

- I/⏻ (power) **4**
- ▶ **14**
- **16**
- ▨ **17**
- ↔/↔/↔/↔ **23**
- ◀◀ **28**
- ▶▶ **28**
- ◀▶ **29**
- ▶◀ **29**



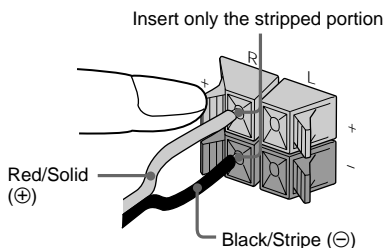
Hooking up the system

Perform the following procedure **1** to **6** to hook up your system using the supplied cords and accessories.



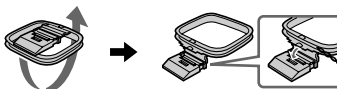
1 Connect the speakers.

Connect the speaker cords to the SPEAKER jacks as shown below.

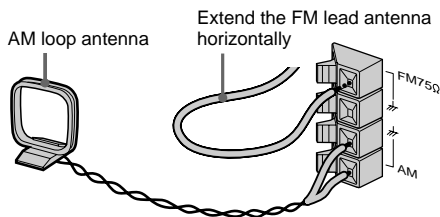


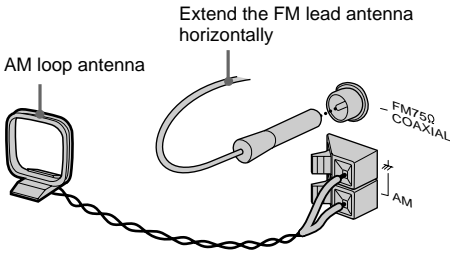
2 Connect the FM/AM antennas.

Set up the AM loop antenna, then connect it.

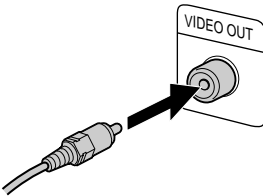


Jack type ^(A)



Jack type ②

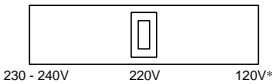
- 3** Connect the video input jack of your TV to the VIDEO OUT jack with the supplied video cable.

**When using a TV**

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

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

Depending on the model, the **VOLTAGE SELECTOR** may differ.



* Saudi Arabian model: 120 – 127 V

- 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** Set the color system to PAL or NTSC depending on the color system of your TV while the power is off.

The color system of your TV

The color system of your TV	Press
AUTO (factory setting)	I/⏻ while holding down III . If your TV automatically changes the color system according to the input signal, the system is set to AUTO.
NTSC	I/⏻ while holding down ▶▶I . The system is set to NTSC.
PAL	I/⏻ while holding down I◀◀ . The system is set to PAL.

Notes

- You cannot set the color system in the Power Saving Mode.
- When you play back a VIDEO CD recorded in the different color system from the one you set to the unit, the picture image may be distorted.

To connect optional components

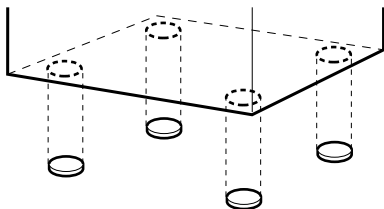
See page 33.

continued

Hooking up the system (continued)

To attach the speaker pads

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



Note

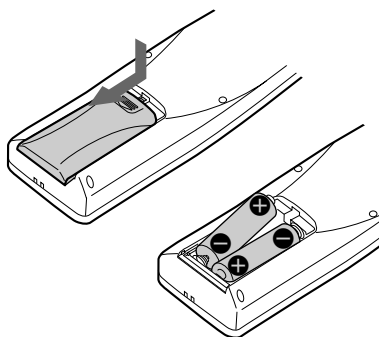
Keep the speaker cords away from the antennas to prevent noise.

When carrying this system

Perform the following procedure to protect the CD mechanism.

- 1 Make sure that all discs are removed from the unit.
- 2 Hold down CD and then press I/⏻ until "STANDBY" appears.
When you release the buttons, "LOCK" appears.
- 3 Unplug the AC power cord.

Inserting two R6 (size AA) batteries into the remote



Tip

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

Note

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

Setting the clock

- 1** Press I/⏻ to turn on the system.
- 2** Press CLOCK/TIMER SET on the remote.
- 3** Press ◀◀ or ▶▶ on the remote repeatedly to set the hour.
- 4** Press ENTER on the remote.
- 5** Press ◀◀ or ▶▶ on the remote repeatedly to set the minute.
- 6** Press ENTER on the remote.
The clock starts working.

To adjust the clock

- 1** Press CLOCK/TIMER SET on the remote.
- 2** Press ◀◀ or ▶▶ on the remote to select "CLOCK SET", then press ENTER on the remote.
- 3** Do the same procedures as step 3 to 6 above.

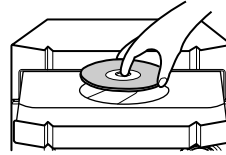
Note

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

Loading a disc

You can also load and play discs with MP3 files. See "Playing a disc with MP3 files" on page 15 for MP3 files.

- 1** Press ▲ OPEN/CLOSE.
The disc tray opens.
- 2** Place a disc with the label side up on the disc tray.



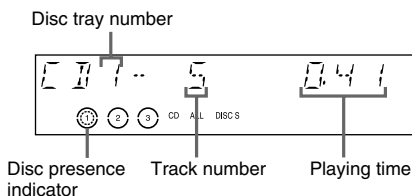
To insert additional discs, press DISC SKIP/EX-CHANGE to rotate the disc tray.

- 3** Press ▲ OPEN/CLOSE to close the disc tray.

Playing a CD

— Normal Play/Shuffle Play/Repeat Play

This system lets you play the CD in different play modes.



1 Press CD.

2 Press PLAY MODE on the remote repeatedly in stop mode until the mode you want appears in the display.

Select	To play
ALL DISCS (Normal Play)	All CDs in the disc tray continuously.
1DISC/ALBM (Normal Play)	The tracks on the CD you have selected in original order.
ALL DISCS SHUF (Shuffle Play)	The tracks on all CDs in random order.
1DISC SHUF/ ALBM SHUF (Shuffle Play)	The tracks on the CD you have selected in random order.
PGM (Program Play)	The tracks on all CDs in the order you want them to be played (see "Programing VIDEO CD/CD tracks" on page 11).

3 Press ▷ (or ► on the remote).

Other Operations

To	Do this
Stop play	Press ■.
Pause	Press II. Press again to resume play.
Select a track	During play or pause, press ►► or ◀◀.
Find a point in a track (Lock Search Function)	During play, press ►► or ◀◀. At the desired point, press ▷ (or ► on the remote) to stop searching and start playback.
Select a CD in stop mode	Press DISC 1 – 3*1 or DISC SKIP/EX-CHANGE (or D.SKIP on the remote).
Switch to CD function from another source	Press DISC 1 – 3 (Automatic Source Selection).
Remove a CD	Press ▲ OPEN/CLOSE.
Exchange other CDs while playing	Press DISC SKIP/EX-CHANGE.
Play repeatedly (Repeat Play)	Press REPEAT on the remote during play until "REP" or "REP 1" appears. REP*2: For all the tracks on the CD up to five times. REP 1*3: For a single track only. To cancel playing repeatedly, press REPEAT until "REP" and "REP 1" disappear.

*1 DISC 1 – 3 are not available when "ALL DISCS SHUF" is selected.

*2 You cannot select "REP" and "ALL DISCS SHUF" at the same time.

*3 When you select "REP 1", that track is repeated endlessly until "REP 1" is canceled.

Note

The play mode cannot be changed while playing a disc. To change the play mode, press ■ first to stop playing.

Playing a track by entering the track number

Press the number button(s) on the remote to enter the track number of the track you want to play.

To enter a track number over 10

1 Press >10.

2 Enter the corresponding digits.

To enter 0, press 10/0 instead.

Example:

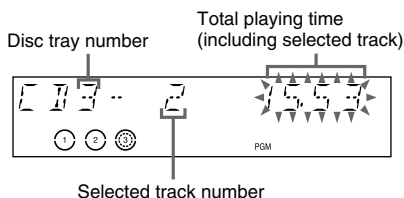
To play track number 30, press >10, then 3 and 10/0.

Programing VIDEO CD/CD tracks

— Program Play

You can make a program of up to 25 tracks from all the CDs in the order you want to play them.

- 1 Press CD.
- 2 Press PLAY MODE on the remote repeatedly in stop mode until “PGM” appears in the display.
- 3 Press one of DISC 1 – 3 to select a CD.
- 4 Press ◀◀ or ▶▶ until the desired track appears in the display.



- 5 Press ENTER on the remote.

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

continued

Programming VIDEO CD/CD tracks (continued)

6 Program additional discs or tracks.

To program	Repeat steps
Other tracks on the same disc	4 and 5
Other tracks on other discs	3 to 5

7 Press \triangleright (or \blacktriangleright on the remote).

Other Operations

To	Do this
Cancel Program Play	Press PLAY MODE on the remote repeatedly until "PGM" and "SHUF" disappear.
Clear a track from the end of program	Press CLEAR on the remote in stop mode.

To program the MP3 files

After step 3, press ALBUM – or + repeatedly until the folder you want appears, and then go to step 4.

Tips

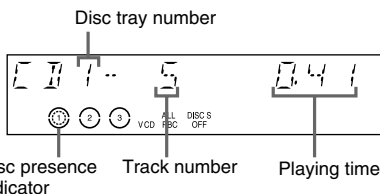
- The program you made remains after Program Play finishes. To play the same program again, press CD, then press \triangleright (or \blacktriangleright on the remote).
- "– – –" appears when the total VIDEO CD/CD program time exceeds 100 minutes, when you select a VIDEO CD/CD track whose number is 21 or over, or when you programmed MP3 files.

Playing a VIDEO CD

— Normal Play/Shuffle Play/Repeat Play

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

This system lets you play the VIDEO CD in different play modes.



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 CD.

3 Press PLAY MODE on the remote repeatedly in stop mode until the mode you want appears in the display.

Select	To play
ALL DISCS* (Normal Play)	All VIDEO CDs in the disc tray continuously.
1DISC/ALBM (Normal Play)	The VIDEO CD you have selected in original order.
ALL DISCS SHUF (Shuffle Play)	The tracks on all VIDEO CDs in random order.
1DISC SHUF/ ALBM SHUF (Shuffle Play)	The tracks on the VIDEO CD you have selected in random order.
PGM (Program Play)	The tracks on all VIDEO CDs in the order you want them to be played (see "Programing VIDEO CD/CD tracks" on page 11).

* Depending on VIDEO CDs with PBC functions (Ver. 2.0), the disc does not change.

4 Press ▷ (or ► on the remote).

Other Operations

To	Do this
Stop play	Press ■.
Pause	Press ■■* ¹ . Press again to resume playback.
Select a track or scene* ²	Press NEXT on the remote or ►► to go forward, or press PREV on the remote or ◀◀ to go back.
Find a point in a track or scene (Lock Search Function)	Press ◀◀ or ►► during playback. Each time you press the button, speed changes cyclically as follows: 1 (slow) → 2 (normal) → 3 (high) At the desired point, press ▷ (or ► on the remote) to stop searching and start playback.
Select a VIDEO CD in stop mode	Press DISC 1 – 3* ³ or DISC SKIP/EX-CHANGE (or D.SKIP on the remote).
Remove the VIDEO CD	Press ▲ OPEN/CLOSE.
Exchange other VIDEO CDs while playing	Press DISC SKIP/EX-CHANGE.
Play repeatedly (Repeat Play)	See page 10.* ⁴

*¹ There may be some disturbance in the video image.

*² Only when setting the PBC function to off or when playing VIDEO CDs without PBC functions (Ver. 1.1).

*³ DISC 1 – 3 are not available when "ALL DISCS SHUF" is selected.

*⁴ You cannot select "REP 1" during playback of VIDEO CDs with PBC functions (Ver. 2.0).

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

— PBC Play

You can use menus on your TV screen to enjoy the disc's interactive software.

The menu format and structure will differ with each disc.

1 Press CD.

2 Press (or on the remote) 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.

- VCD: 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 "Cancel playback with PBC functions (Ver. 2.0)" on this page).


3 Press or repeatedly to select a number from the menu, then press ENTER (or SELECT on the remote).

4 Continue according to the instructions on the menus to enjoy interactive playback.

Other operations

To	Do this
Stop play	Press  .
Go to the next menu page or scene	Press NEXT on the remote.
Go back to the previous menu page or scene	Press PREV on the remote.
Go back to the previous menu	Press RETURN  on the remote.
Cancel playback with PBC functions (Ver. 2.0)	In stop mode, press  or  to select the desired track, then press ENTER (or SELECT on the remote). Also you can select the desired track number using the number 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.
Play with PBC functions (Ver. 2.0) after cancellation above	In stop mode, press  .
Select a menu number using the remote	Press the number buttons (see "To enter a track number over 10" on page 11).

Tips

- When  appears on the TV screen, you have pressed an invalid button.
- 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.

Playing a disc with MP3 files

About MP3 files

MP3 (MPEG 1 Audio Layer-3) is a standard technology and format for compressing a sound sequence. The file is compressed to about 1/10 of its original size. Sounds outside the range of human hearing are compressed while the sounds we can hear are not compressed.

Notes on discs

You can play MP3 files recorded on CD-ROMs, CD-Rs (recordable CDs), and CD-RWs (rewritable CDs).

The disc must be in the ISO 9660* level 1 or level 2 format.

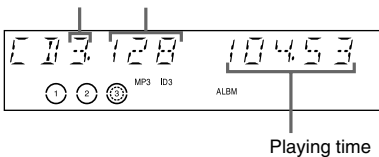
* ISO 9660 Format

The most common international standard for the logical format of files and folders on a CD-ROM. There are several specification levels. In Level 1, file names must be in the 8.3 format (no more than eight characters in the name, no more than three characters in the extension “.MP3”) and in capital letters. Folder names can be no longer than eight characters. There can be no more than eight nested folder levels. Level 2 specifications allow file names and folder names up to 31 characters long.

— Normal Play/Shuffle Play/Repeat Play

This system lets you play a disc with MP3 files in different play modes.

Disc tray number File number in the current folder



1 Press CD.

2 Press PLAY MODE on the remote repeatedly in stop mode until the mode you want appears in the display.

Select	To play
ALL DISCS (Normal Play)	All discs in the disc tray continuously.
IDISC (Normal Play)	The files on the disc you have selected in original order.
ALBM (Normal Play)	The folder you have selected in original order.
ALL DISCS SHUF (Shuffle Play)	The files on all discs in random order.
IDISC SHUF (Shuffle Play)	The files on the disc you have selected in random order.
ALBM SHUF (Shuffle Play)	The files in the folder you have selected in random order.
PGM (Program Play)	The files on all discs in the order you want them to be played (see “Programing VIDEO CD/CD tracks” on page 11).

3 Press ▷ (or ► on the remote).

Other Operations

To	Do this
Stop play	Press ■.
Pause	Press II. Press again to resume play.
Select a file	During play or pause, press ►► or ◀◀.
Select a folder of MP3 files	Press ALBUM – or + repeatedly after step 2.
Find a point*1 in a file	During play, press ►► or ◀◀. At the desired point, press ▷ (or ◀ on the remote) to stop searching and start playback.

continued

Playing a disc with MP3 files (continued)

To	Do this
Select a disc in stop mode	Press DISC 1 – 3* ² or DISC SKIP/EX-CHANGE (or D.SKIP on the remote).
Switch to disc function from another source	Press DISC 1 – 3 (Automatic Source Selection).
Remove a disc	Press ▲ OPEN/CLOSE.
Exchange other discs while playing	Press DISC SKIP/EX-CHANGE.
Play repeatedly (Repeat Play)	Press REPEAT on the remote during play until “REP” or “REP 1” appears. REP* ³ : For all the files on the disc up to five times. REP 1* ⁴ : For a single file only. To cancel playing repeatedly, press REPEAT until “REP” and “REP 1” disappear.

*1 You may not be able to search between multiple files. Also, the time may not be displayed correctly for some files.

*2 DISC 1 – 3 are not available when “ALL DISCS SHUF” is selected.

*3 You cannot select “REP” and “ALL DISCS SHUF” at the same time.

*4 When you select “REP 1”, that file is repeated endlessly until “REP 1” is canceled.

Tip

To select a file number using the remote, press number buttons instead of step 3.

Example:

If the folder contains 100 files or more, to play file number 100, press >10, then 1, and 10/0 twice.

Notes

- With formats other than ISO 9660 level 1 and 2, folder names or file names may not be displayed correctly.
- When naming, be sure to add the file extension “MP3” to the file name.
- If you put the extension “MP3” to a file other than MP3, the unit cannot recognize the file properly and will generate random noise that could damage your speakers.
- The following discs take a longer time to start playback.
 - a disc recorded with complicated tree structure.
- When the disc is inserted, the player reads all the files on that disc. If there are many folders or non-MP3 files on the disc, it may take a long time for play to begin or for the next MP3 file to start play.
- Do not save unnecessary folders or files other than MP3 ones in the disc to be used for MP3 listening. We recommend that you do not save other types of files or unnecessary folders on a disc that has MP3 files.
- A folder that does not include an MP3 file is skipped.
- Maximum folder number: 255 (including root folder and empty folders)
- The maximum number of MP3 files and folders that can be contained on a single disc is 512.
- When you store the files and folders in a tree structure, files in a maximum of 8 leaves can be played.
- MP3 files are played back in the order that they are recorded on the disc.
- Depending on the encoding/writing software, recording device, or the recording media used at the time an MP3 file is recorded, you may encounter such problems as disabled playback, sound interruptions, and noise.

Locating a specific part of a VIDEO CD

— Time Search/Disc Digest

The TV screen must be ON to use these functions. To cancel the PBC functions, see “Cancel playback with PBC functions (Ver. 2.0)” on page 14. Use the remote.

To stop playback

Press ■.

To enter 10 or over with the number buttons

Press the number buttons on the remote (see “To enter a track number over 10” on page 11).

Note

If you press SPECIAL MENU on the remote to activate Time Search or Disc Digest in Program or Shuffle Play mode, it becomes ALL DISCS (Normal Play) mode.

Locating by elapsed time from the beginning of the disc

— Time Search

1 Press SPECIAL MENU on the remote in stop mode.

2 Press 1 on the remote to select “1) TIME SEARCH.”

3 Press the number buttons (1 – 10/0) on the remote 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 on the remote, and then press the number buttons again.

4 Press ▷ (or ► on the remote).

Playback starts from the selected time.

Locating the desired track

— 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.

1 Press SPECIAL MENU on the remote in stop mode.

2 Press 2 on the remote to select “2) DISC DIGEST”.

The first frame of tracks 1 through 9 on the current disc are displayed.

3 Press the number buttons (1 – 10/0) on the remote to select the track you want.

To display the next 9 tracks

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

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

To display previous tracks, press PREV on the remote.

Resuming playback from the point you stopped a VIDEO CD

— Resume Play

The system memorizes the point where you stopped the VIDEO CD so that you can resume from that point.

Resume Play is not available for an audio CD and a disc with MP3 files.

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 **▷** (or **▶** on the remote).

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 on your TV screen, press **■**, then press **▷** (or **▶** on the remote).

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.
- Resume Play is canceled when:
 - you press the number buttons, PLAY MODE, **■**, DISC SKIP/EX-CHANGE (or D.SKIP on the remote), or **◀◀/▶▶**.
 - you remove the VIDEO CD.
 - you turn off the system.
 - you change the function.
 - you unplug the AC power cord.

Adjusting the VCD picture

— Picture Effect

You can adjust the hue and sharpness of the VCD picture.

1 Press PICTURE EFFECT on the remote during playback.

2 Press **←** or **→** repeatedly to adjust the hue.

3 Press **↑** or **↓** repeatedly to adjust the sharpness.

4 Press ENTER or PICTURE EFFECT on the remote.

Tip

The hue and sharpness can be adjusted in 11 steps (from -5 to +5).

Presetting radio stations

You can preset up to 20 FM stations and 10 AM stations. You can then tune in any of those stations simply by selecting the corresponding preset number.

There are two ways to store the station presets.

To	Method
Automatically tune in all of the stations that can be received in your area and then store them manually	Automatic Tuning Preset
Manually tune in and store the radio frequency of your favorite stations	Manual Tuning Preset

Setting presets through automatic tuning

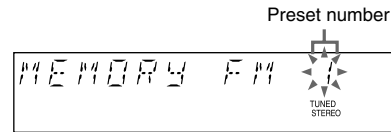
- 1 Press TUNER/BAND repeatedly to select “FM” or “AM”.**
- 2 Press and hold – or + (or TUNING – or + on the remote) until the frequency indication starts to change, then release it.**

Scanning stops automatically when the system tunes in a station. “TUNED” and “STEREO” (for an FM stereo program) appear.

If “TUNED” does not appear and the scanning does not stop

Set the frequency of the desired radio station as described in steps 2 through 6 of “Setting presets through manual tuning” on page 20.

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



- 4 Press ◀◀ or ▶▶ (or PRESET – or + on the remote) repeatedly to select the desired preset number.**
- 5 Press ENTER on the remote.**
- 6 Repeat steps 1 to 5 to store other stations.**

continued

Setting presets through manual tuning

- 1** Press TUNER/BAND repeatedly to select “FM” or “AM”.
- 2** Press – or + (or TUNING – or + on the remote) repeatedly to tune in the desired station.
- 3** Press TUNER MEMORY on the remote.
A preset number appears in the display.
The stations are stored from preset number 1.
- 4** Press ◀◀ or ▶▶ (or PRESET – or + on the remote) repeatedly to select the desired preset number.
- 5** Press ENTER on the remote.
- 6** Repeat steps 1 to 5 to store other stations.

Other Operations

To	Do this
Tune in a station with a weak signal	Follow the procedure described in “Setting presets through manual tuning”.
Set another station to an existing preset number	Start over from step 1. After step 3, press ◀◀ or ▶▶ (or PRESET – or + on the remote) repeatedly to select the preset number you want to store the other station.

To change the AM tuning interval (except for the Middle Eastern and Philippine models)

The AM tuning interval is factory-set to 9 kHz (10 kHz in some areas). To change the AM tuning interval, tune in any AM station first, then turn off the system. While holding down TUNER/BAND, turn the system back on. When you change the interval, all the AM preset stations are erased. To reset the interval, repeat the same procedure.

Note

You cannot change the AM tuning interval in the Power Saving Mode.

Tips

- The preset stations are retained for half a day even if you disconnect the power cord or if a power failure occurs.
- To improve broadcast reception, reorient or move the supplied antenna near a window or outdoors.

Listening to the radio

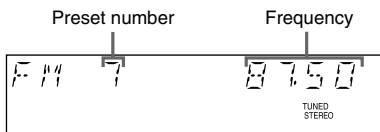
You can listen to a radio station either by selecting a preset station, or by manually tuning in the station.

Listening to a preset station

— Preset Tuning

Preset radio stations in the tuner's memory first (see "Presetting radio stations" on page 19).

- 1 Press TUNER/BAND repeatedly to select "FM" or "AM".
- 2 Press ◀◀ or ▶▶ (or PRESET – or + on the remote) repeatedly to select the desired preset station.



Listening to non-preset radio station

— Manual Tuning

- 1 Press TUNER/BAND repeatedly to select "FM" or "AM".
- 2 Press – or + (or TUNING – or + on the remote) repeatedly to tune in the desired station.

Tips

- When an FM stereo program has static noise, press FM MODE on the remote repeatedly until "MONO" appears. There will be no stereo effect, but the reception will improve.
- To improve broadcast reception, adjust the supplied antennas.
- Press and hold – or + (or TUNING – or + on the remote). The frequency indication changes and scanning stops when the system tunes in a station (Automatic Tuning).
- To record from the radio, see "Recording to a tape" on page 23 or "Timer-recording radio programs" on page 24.

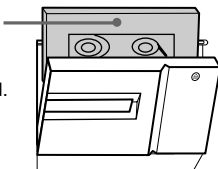
Note

When "CD" is selected as the current function and TUNER/BAND is pressed to select "TUNER", it may take some time to switch the function.

Loading a tape

- 1 Press **TAPE A/B** repeatedly to select deck A or B.
- 2 Press **▲**.
- 3 Insert a tape in deck A or B with the side you want to play/record facing forward.

With the side you want to play/record facing forward.



Playing a tape

You can use TYPE I (normal) tape.

1 Load a tape.

To play both decks in succession, press **PLAY MODE** on the remote repeatedly until “RELAY” (Relay Play)* appears in the display.

2 Press **▷** (or **▶** on the remote).

The tape starts playing.



* After the playback of the front side of deck A, deck B plays the front side, then stops.

Other Operations

To	Do this
Stop play	Press ■ .
Pause	Press II . Press again to resume play.
Fast-forward or rewind	Press ◀◀ or ▶▶ .
Remove the cassette	Press ▲ .

Searching for the beginning of the current or the next track (AMS)*

To go forward

Press **▶▶I** during playback.

“TAPE A (or TAPE B) >>> +1” appears.

To go back

Press **I◀◀** during playback.

“TAPE A (or TAPE B) <<< -1” appears.

* AMS (Automatic Music Sensor)

Note

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

- When the unrecorded space between songs is less than 4 seconds long.
- When the system is placed near a television.

Recording to a tape

— CD Synchro Recording/Recording Manually

You can record from a disc, tape (or connected components) or radio. You can use TYPE I (normal) tapes. The recording level is adjusted automatically.

Steps	Recording from a disc (CD Synchro Recording)	Recording from a disc/tape/radio manually
1	Load a recordable tape into deck B.	
2	Press CD.	Press CD, TAPE A/B or TUNER/BAND.
3	Load the disc you want to record.	Load the disc or tape (or other audio source), or tune in the station you want to record.
4	Press CD SYNC.	Press REC PAUSE/START.
	Deck B stands by for recording. “REC” flashes.	
5	Press REC PAUSE/START. Recording starts.	Press REC PAUSE/START, and then start playing the desired source to record.

To stop recording

Press ■.

Tip

For recording from the radio:

If noise is heard while recording from the radio, move the respective antenna to reduce the noise.

Note

You cannot listen to other sources while recording.

Timer-recording radio programs

You can record a preset radio station from a specified time.

To timer-record, you must first preset the radio station (see “Presetting radio stations” on page 19) and set the clock (see “Setting the clock” on page 9).

1 Tune in the preset radio station (see “Listening to the radio” on page 21).

2 Press CLOCK/TIMER SET on the remote.

“DAILY SET” appears.

3 Press ◀◀ or ▶▶ on the remote repeatedly to select “REC SET”, then press ENTER on the remote.

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

4 Set the time to start recording.

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

The minute indication starts flashing.

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

5 Repeat step 4 to set the time to stop recording.

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

6 Load a recordable tape into deck B.

7 Press I/⏻ to turn off the system.

When the recording starts, the volume level is set to minimum.

Other Operations

To	Do this
Check the setting	Press CLOCK/TIMER SELECT on the remote and press ◀◀ or ▶▶ on the remote repeatedly to select “REC SELECT”, then press ENTER on the remote.
Change the setting	Start over from step 1.
Cancel the timer	Press CLOCK/TIMER SELECT on the remote and press ◀◀ or ▶▶ on the remote repeatedly to select “TIMER OFF”, then press ENTER on the remote.

Notes

- The system turns on 15 seconds before the preset time.
- If the system is on at the preset time, the recording will not be made.
- When you use the Sleep Timer, Timer-recording and Daily Timer will not turn on the system until the Sleep Timer turns it off.
- You cannot activate the Daily Timer and Timer-recording at the same time.

Adjusting the sound

You can reinforce the bass and create a more powerful sound.

The GROOVE setting is ideal for music sources, and the V-GROOVE setting is ideal for video sources (movies, VCDs).

Press GROOVE.

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

GROOVE ON* → V-GROOVE ON*
→ GROOVE OFF

* The volume switches to power mode, the equalizer curve changes, and the “GROOVE” or “V GROOVE” lights up.

Selecting the sound effect

Selecting the effect from the music menu

Press **MUSIC EQ**, **MOVIE EQ** or **GAME EQ** (or **PRESET EQ** on the remote*) repeatedly to select the preset you desire.

The preset name appears in the display. See the chart “Sound effect options”.

* You can select all of the effects in order.

To cancel the effect

Press **EFFECT ON/OFF** repeatedly until “**EFFECT OFF**” appears in the display.

Sound effect options

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

MUSIC EQ

Effect

ROCK	Standard music sources
POP	

MOVIE EQ

Effect

MOVIE	Soundtracks and special listening situations
-------	--

GAME EQ

Effect

GAME	PlayStation 1, 2 and other video game music sources
------	---

Selecting the surround effect

Press **SURROUND** on the remote.

“**SURR**” appears in the display.

Press the button again to cancel **SURROUND**.

Display

Turning off the display

— Power Saving Mode

The demonstration display (display window and buttons lighting and flashing even when the system power is off) and the clock display can be turned off to minimize the amount of power consumed during standby (Power Saving Mode).

Press DISPLAY repeatedly while the system is off until the demonstration display or the clock display disappears.

To cancel the Power Saving Mode

Press DISPLAY while the system is off. Each time you press the button, the display switches cyclically as follows:

Demonstration display → Clock display* →

No display (Power Saving Mode)

* The clock is displayed only if you set the clock.

Tip

The timer continues to operate in Power Saving Mode.

Note

You cannot perform the following operations in Power Saving Mode.

- setting the clock
- changing the AM tuning interval (except for Middle Eastern and Philippine models)
- turning on the system by pressing the function buttons

Using the display

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

When a CD-TEXT disc or a disc with MP3 files is loaded, you can also check the information recorded on the disc, such as the titles.

Checking the remaining time

Press DISPLAY repeatedly during Normal playback.

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

CD/VIDEO CD without PBC function (Ver. 1.1)

Elapsed playing time of the current track →

Remaining time of the current track*¹ →

Remaining time of the disc*² → Track title of

CD-TEXT disc*³ or file name of MP3 file →

Folder name of MP3 file (for a few seconds)*⁴

→ Clock display (for eight seconds) → Effect status

*¹ “_ _ _ _” appears when playing the program containing more than 20 tracks or 100 minutes, or MP3 files.

*² “_ _ _ _” appears in ALL DISCS, SHUFFLE or PROGRAM mode or when playing back MP3 files.

*³ When the CD contains more than 20 tracks, CD-TEXT is not displayed from track 21 on.

*⁴ Only for MP3 files.

VIDEO CD with PBC (Ver. 2.0)

Elapsed playing time of the current track* →

Clock display (for eight seconds) → Effect status

* The elapsed playing time may not be displayed in some cases such as during still image playback.

Checking the total playing time

Press **DISPLAY** repeatedly in stop mode.

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

Total number of tracks or albums and total playing time*¹ → Disc title*² or title name of the current folder*³ → Clock display (for eight seconds) → Effect status

*¹ The total playing time is not displayed for a disc with MP3 files.

*² With CD-TEXT discs (certain characters cannot be displayed) or a disc with MP3 files. When the CD contains more than 20 tracks, CD-TEXT is not displayed from track 21 on.

*³ Only for MP3 files.

Depending on the disc, some information may not appear.

Note

The display contents change according to the Play Mode.

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. Depending on conditions, some items are displayed and others are not.

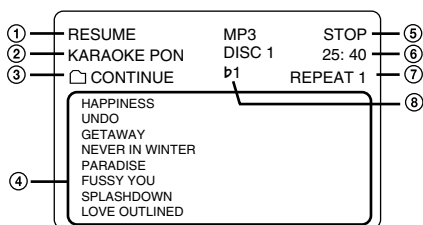
Press **ON SCREEN** on the remote.

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

ON SCREEN 1 → ON SCREEN 2 → ON SCREEN OFF*

* No display (except for Time Search/Disc Digest)

ON SCREEN display 1, 2



①

While the deck is:	Displayed
In stop mode	“RESUME” or no display
During playback	Current disc and track number

② KARAOKE effect status

③ Play mode (🌀 All discs / 🌀 One disc / Album) or “AUTO PBC”*

* “AUTO PBC” appears for a VIDEO CD with PBC functions.

continued

Using the on-screen display (continued)

④

While the deck is:	Displayed
In stop mode of a disc with MP3 files	Folder name
In Program Play mode	Programed disc and track number
During playback of a disc with MP3 files*	Current folder name and file name
In other conditions	No display

* When the MP3 file information includes an ID3 tag, the on-screen display information may differ from the ID3 information shown on the system display in order to display the file name.

⑤

While the deck is:	Displayed
During playback	Elapsed time of the current track
In stop mode	STOP

⑥

While the deck is:	Displayed
In stop mode	Total playing time of the current disc*

* In Program Play mode, total playing time of the program appears.

⑦ “REPEAT”, “REPEAT 1” or no display

⑧ Key control level or no display

Notes

- Check to make sure that ON SCREEN OFF is selected when recording a video signal played back by this system onto a video tape, etc. Otherwise the display information will also be recorded onto the video tape.
- Noise may be heard when switching the on-screen display.

Enhancing video game sound

— Game Sync

You need to connect a video game machine (see “Hooking up video game machine” on page 33).

Press GAME.

Tips

- In the standby mode, the system automatically turns on.
- The GAME EQ is automatically selected.
- These operations cannot be performed in the Power Saving Mode.

Mixing video game sound with other sound source

— Game Mixing

1 Select the desired source sound.

2 Press GAME MIXING.

Each time you press the button, the level of the game sound changes cyclically as follows:

MIXING LOW → MIXING MID →
MIXING HIGH → MIXING OFF

Tips

- The GAME MIXING indicator lights up while Game Mixing is activated.
- Once Game Mixing is activated, it will remain active while the power is on even if the source sound is changed.

Notes

- If you start recording while Game Mixing is activated, Game Mixing is canceled. To record the mixed sound, press GAME MIXING after step 4 of “Recording from a disc/tape/radio manually” on page 23, and then press REC PAUSE/START to start the recording.
- This system outputs the video signal from the GAME INPUT jack while GAME MIXING is activated.

Singing along: Karaoke

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

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

2 Connect an optional microphone to MIC.

3 Press KARAOKE PON on the remote repeatedly to obtain the karaoke effect you desire.

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

KARAOKE PON → MPX R → MPX L
→ Effect status*

* KARAOKE PON is canceled.

To sing karaoke of multiplex CD, select “MPX R” or “MPX L”.

4 Start playing the music.

5 Adjust the microphone volume by turning MIC LEVEL.

continued

Singing along: Karaoke (continued)

Other Operations

To	Do this
Use VIDEO CDs	Turn on your TV and switch it to the appropriate video input.
Cancel karaoke mode	Turn MIC LEVEL to MIN and disconnect the microphone from MIC, then press KARAOKE PON on the remote repeatedly until "🎤" disappears.
Adjust the microphone echo	Turn ECHO LEVEL to adjust the echo effect. To cancel the echoing, turn ECHO LEVEL to MIN.
Adjust the key*	Press KEY CONTROL # or ♭ on the remote to suit your vocal range. You can adjust the key higher or lower in 13 half-tone steps (♭6 – #6).

* This function is not available on MP3 files.

Notes

- With some songs, vocals may not be canceled when you select "KARAOKE PON".
- During KARAOKE PON, equalizer and surround settings cannot be changed.
- If you press MUSIC EQ, MOVIE EQ, GAME EQ or EFFECT ON/OFF (or PRESET EQ 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.

Mixing and recording sounds

- 1 Do the procedure for "Singing along" (steps 1 through 5). Then, load a recordable 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. "REC" flashes.
- 4 Press REC PAUSE/START and then press ▷ (or ► on the remote) 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 system 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 after a certain time, so that you can fall asleep to music.

Press SLEEP on the remote.

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

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

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

Other Operations

To	Press
Check the remaining time	SLEEP on the remote once.
Change the time to turn off	SLEEP on the remote repeatedly to select the time you want.
Cancel the Sleep Timer function	SLEEP on the remote repeatedly until "SLEEP OFF" appears.

Waking up to music

— Daily Timer

You can wake up to music at a preset time. Make sure you have set the clock (see "Setting the clock" on page 9).

1 Prepare the music source you want to play.

- Disc: Load a disc. To start from a specific track, make a program (see "Programming VIDEO CD/CD tracks" on page 11).
- Tape: Load 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 21).

2 Adjust the volume.

3 Press CLOCK/TIMER SET on the remote.

"DAILY SET" appears.

4 Press ENTER on the remote.

"ON" appears and the hour indication flashes.

5 Set the time to start playing.

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

The minute indication flashes.

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

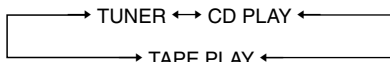
continued

Waking up to music (continued)

6 Repeat step 5 to set the time to stop playing.

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

The indication changes as follows:



8 Press **ENTER** on the remote.

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

9 Press **I/⏻** to turn off the system.

Other Operations

To	Do this
Check the setting	Press CLOCK/TIMER SELECT on the remote and press ◀◀ or ▶▶ on the remote repeatedly to select "DAILY", then press ENTER on the remote.
Change the setting	Start over from step 1.
Cancel the timer	Press CLOCK/TIMER SELECT on the remote and press ◀◀ or ▶▶ on the remote repeatedly to select "TIMER OFF", then press ENTER on the remote.

Tip

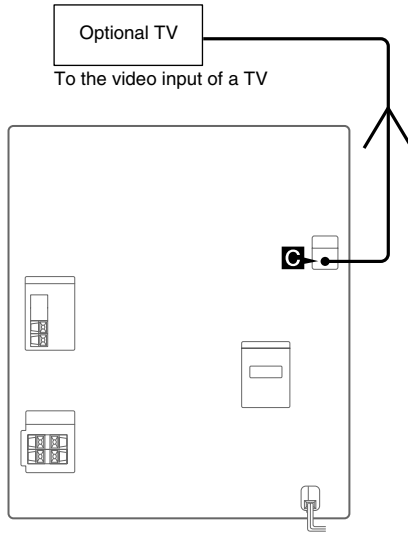
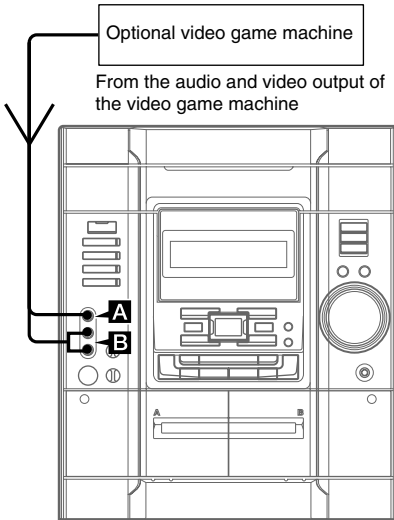
The system turns on 15 seconds before the preset time.

Notes

- When you use the Sleep Timer, the Daily Timer will not turn on the system until the Sleep Timer turns it off.
- You cannot activate the Daily Timer and Timer-recording at the same time.
- If the system is on at the preset time, you cannot activate the Daily Timer.

Hooking up video game machine

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



A GAME INPUT (VIDEO) jack

Use a video cable (not supplied) to connect the video output of the optional video game machine to this jack.

B GAME INPUT (AUDIO) jacks

Use audio cords (not supplied) to connect the audio output of the optional video game machine to these jacks. You can then output audio through this system.

C VIDEO OUT jack

Use a video cable to connect the video input of TV to this jack.

Notes

- The video game machine image may appear on the TV screen even if the system is turned off.
- See “Selecting the sound effect” on page 25 for video game sound effects.
- If you press GAME while the system is off, the system turns on, the function switches to GAME, and the equalizer also switches to the GAME EQ.
- If you press GAME while the system is on, the function switches to GAME and the equalizer automatically switches to the GAME EQ.

Problems and remedies

If you have any problem using this system, use the following check list.

First, check that the power cord is connected firmly and the speakers are connected correctly and firmly.

Should any problem persist, consult your nearest Sony dealer.

General

The display starts flashing as soon as you plug in the power cord even though you have not turned on the system (see step 5 of “Hooking up the system” on page 6).

- Press DISPLAY twice while the system is off. The demonstration disappears.

“- -: -” lights in the display.

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

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:
 - “Setting the clock” on page 9
 - “Presetting radio stations” on page 19

If you have set the timer, also redo “Waking up to music” on page 31 and “Timer-recording radio programs” on page 24.

There is no sound.

- Turn VOLUME (or press VOL + on the remote) 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.

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 timer does not function.

- Set the clock correctly.

“DAILY” and “REC” do not appear when you press CLOCK/TIMER SELECT.

- 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.

- Reduce the volume.
- 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.

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/MP3 files 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.
- Make sure that GAME MIXING is canceled.

The disc tray does not close.

- The disc is not placed properly.

The disc will not play.

- The disc is not lying flat in the disc tray.
- The disc is dirty.
- The disc is loaded label side down.
- There is moisture on the disc.

Play does not start from the first track.

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

MP3 files cannot be played back.

- Recording was not performed according to the ISO 9660 level 1 or level 2 format.
- The file extension ".MP3" is not added to the file name.
- Files are not stored in MP3 format.
- Discs containing files that are not MPEG1 Layer-3 cannot be played back.
- Files that are too small (64 kB or less) cannot be played back.

MP3 files take longer to play back than others.

- After the unit reads all files on the disc, playback may take more time than usual if:
 - the number of folders or files on the disc is very large.
 - the folder and file organization structure is very complex.

The folder title, track title and ID3 tag do not appear correctly.

- The CD was not recorded in conformance with ISO 9660 level 1 or level 2. Use a CD that conforms with ISO 9660 level 1 or level 2.
- The disc ID3 tag is not ver. 1 (ver. 1.0 or 1.1).

The folder title, track title, ID3 tag, and the CD-TEXT characters don't appear properly.

- The characters that can be displayed by this unit are as follows:
 - Upper cases (A to Z)
 - Numbers (0 to 9)
 - Symbols (< > * + , - / [] \ _)
- Other characters may not be displayed correctly.

The disc tray does not open and "LOCKED" appears.

- Contact your Sony dealer or local authorized Sony service facility.

About ID3 tag version 2

Although not a malfunction, the following occurs when an MP3 file containing ID3 tag ver. 2 is played:

- When skipping a portion of ID3 tag ver. 2 (at the beginning of the track), sound is not output. Skip time changes depending ID3 tag ver. 2 capacity.

Example: At 64 kbytes, it is about 2 seconds (with RealJukebox*)

- The displayed elapsed playing time when skipping a portion of ID3 tag ver. 2 is inaccurate.

For MP3 files of a bit rate other than 128 kbps, time is not displayed accurately during playback.

- When an MP3 file is created with MP3 conversion software (ex. RealJukebox*), ID3 tag ver. 2 will automatically be written.

* "RealJukebox" is a registered trademark of RealNetworks, Inc.

As of December, 2001

continued

Problems and remedies (continued)

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 37).
- 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 (see “Cleaning the tape heads” on page 38).
- The record/playback heads are magnetized (see “Demagnetizing the tape heads” on page 38).

The tape does not erase completely.

- The record/playback heads are magnetized (see “Demagnetizing the tape heads” on page 38).

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

- The capstans or pinch rollers are dirty (see “Cleaning the tape heads” on page 38).

Noise increases or the high frequencies are erased.

- The record/playback heads are magnetized (see “Demagnetizing the tape heads” on page 38).

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 FM MODE on the remote repeatedly until “MONO” disappears.

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 ■, GROOVE, and I/⏻ at the same time.
- 4 Press I/⏻ to turn on the system.

The system is reset to the factory settings. All the settings you made are cleared.

Messages

One of the following messages may appear or flash in the display during operation.

CANNOT USE

- You pressed an invalid button.

NO DISC

- There is no CD on the disc tray.

OVER

- You have reached the end of the CD.
- You have reached the end of an MP3 file while fast-forwarding.

“PROTECT” and “PUSH POWER” appear alternately.

- A strong signal was input. Press I/⏻ to turn off the system, leave the system turned off for a while, then press I/⏻ again to turn on the system. If “PROTECT” and “PUSH POWER” appear alternately even after the system is turned on again, press I/⏻ to turn off the system and check the speaker cord.

PUSH STOP

- You pressed PLAY MODE during play.

STEP FULL

- You tried to program 26 or more tracks (steps).

TOC READING

- The system is reading the TOC information of the disc. Some buttons are not available.

WAIT

- The function is switching to the tuner.

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 system and have it checked by qualified personnel before operating it any further.
- The AC power cord must be changed only at a qualified service shop.

On placement

- Do not place the system in an inclined position.
- Do not place the system in locations where it is:
 - Extremely hot or cold
 - Dusty or dirty
 - Very humid
 - Subject to vibrations
 - Subject to direct sunlight.
- Use caution when placing the unit or speakers on surfaces that have been specially treated (with wax, oil, polish, etc.) as staining or discoloration of the surface may result.

On heat build up

- Although the system heats up during operation, this is not a malfunction.
- Place the system in a location with adequate ventilation to prevent heat build up in the system.
- If you continuously use this system at a large volume, the cabinet temperature of the top, side and bottom rises considerably. To avoid burning yourself, do not touch the cabinet.
- To prevent a malfunction, do not cover the ventilation hole for the cooling fan.

On operation

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

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

Notes on discs

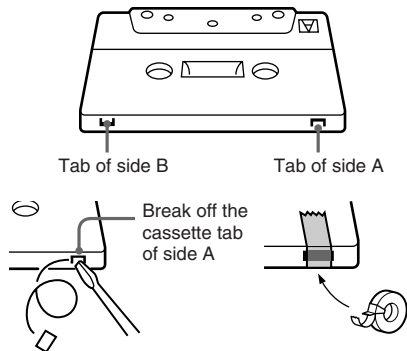
- Before playing, clean the disc with a cleaning cloth. Wipe the disc from the center out.
- Do not use solvents.
- Do not expose the disc to direct sunlight or heat sources.
- Discs with non-standard shapes (e.g., heart, square, star) cannot be played on this unit. Attempting to do so may damage the unit. Do not use such discs.

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.



continued

Precautions (continued)

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 frequently. The tape may get entangled in the tape deck.

Cleaning the tape heads

Clean the tape heads after every 10 hours of use. Be sure to clean the tape heads before you start an important recording or after playing an old tape. Use a 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.

Specifications

Amplifier section

The following measured at AC 120, 127, 220, 240 V
50/60 Hz

DIN power output (rated) 50 + 50 watts
(6 ohms at 1 kHz, DIN)

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

Inputs

GAME INPUT (VIDEO) (phono jack):
1V_{p-p}, 75 ohms

GAME INPUT (AUDIO) (phono jacks):
voltage 250 mV,
impedance 47 kilohms
sensitivity 1 mV,
impedance 10 kilohms

MIC (phone jack):

Outputs

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

PHONES (stereo mini jack):

accepts headphones of
8 ohms or more

SPEAKER:

accepts impedance of 6 to
16 ohms

Disc player section

System	Compact disc and digital audio and video system
Laser	Semiconductor laser ($\lambda=780$ nm) Emission duration: continuous
Wavelength	780 – 790 nm
Frequency response	2 Hz – 20 kHz (± 0.5 dB)
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB
Video color system format	NTSC, PAL

Tape deck section

Recording system	4-track 2-channel stereo
Frequency response	40 – 13,000 Hz (± 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	87.5 – 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	
Middle Eastern and Philippine models:	531 – 1,602 kHz (with the interval set at 9 kHz)
Other models:	531 – 1,602 kHz (with the interval set at 9 kHz) 530 – 1,710 kHz (with the interval set at 10 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

Speaker

Speaker system	3-way, 3-unit, bass-reflex type
Speaker units	
Woofers:	13 cm, cone type
Tweeters:	5 cm, cone type
Super Tweeter:	2 cm, dome type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 200 × 325 × 237 mm
Mass	Approx. 3.6 kg net per speaker

General



Power requirements	
Saudi Arabian model:	120 – 127 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
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	115 watts
Dimensions (w/h/d)	Approx. 280 × 325 × 412 mm
Mass	Approx. 9.0 kg
Supplied accessories:	AM loop antenna (1) Remote Commander (1) Batteries (2) FM lead antenna (1) Speaker pads (8) Video cable (1)

Design and specifications are subject to change without notice.

Glossary

Auto Pause

An automatic pause 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  (or  on the remote) 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 both versions.