

# *Compact Hi-Fi Stereo System*

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Operating Instructions



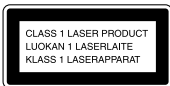
*LBT-XGR90AV*

## 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. This label is located on the rear exterior.

To prevent fire, do not cover the ventilation of the apparatus with newspapers, 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.



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

The following caution label is located inside the apparatus.



This stereo system is equipped with the Dolby Pro Logic Surround decoder.\*

\* Manufactured under license from Dolby Laboratories.

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As ENERGY STAR® Partner, Sony Corporation has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

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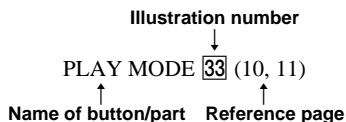
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# List of Button Locations and Reference Pages

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 - D

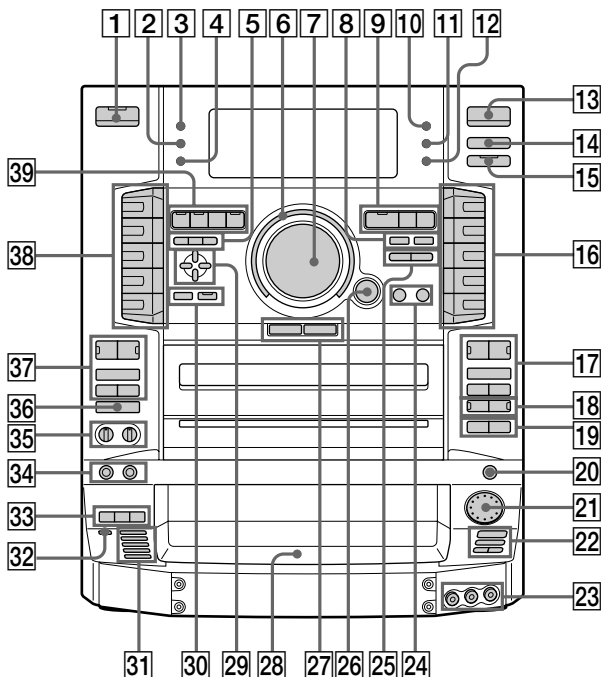
- A EJECT ▲/▲ B EJECT 27 (14)
- AMSI ◀◀/▶▶ 21 (10, 11)
- CD SYNC 19 (15)
- Direct equalizer 16 38 (18)
  - GUITAR/ROCK/JAZZ/DANCE/
  - GAME
  - SALSA/REGGAE/TANGO/
  - SAMBA/MOVIE
- DIRECTION 36 (14, 15, 22)
- DISC SKIP 33 (10, 11)
- DISC 1 to 5 31 (10)
- DISPLAY 2 (24)
- DSP 39 (15, 18)
- DVD 5.1CH 24 (27)

#### E - G

- EDIT 32 (16)
- EFFECT 5 (18)
- ENTER 5 (9, 16, 19, 20, 21)
- FM MODE 8 (13)
- FUNCTION 13 (7, 10, 11, 15, 22, 23, 27)
- GAME 14 (23)
- GAME INPUT AUDIO L/R jacks 23 (26)
- GAME INPUT VIDEO jack 23 (26)
- GAME MIXING 15 (23)
- GROOVE 39 (17)
- GUITAR DISTORTION 30 (23)
- GUITAR jack 34 (23)
- GUITAR LEVEL 35 (23)

#### H - R

- H SPEED DUB 19 (15)
- MIC LEVEL 35 (21)
- MIX GUITAR/KAROKE 30 (21, 23)
- MIX MIC jack 34 (21)
- P FILE 5 (18, 19)
- PHONES jack 20
- PLAY MODE 33 (10, 11)
- POWER SAVE/DEMO (STANDBY) 3 (24)
- Power stream indicator 6
- PRO LOGIC 24 (9, 19)
- PUSH OPEN 28 (10)
- REPEAT 33 (11)



**S - X**

- SLEEP **10** (20)
- SPECTRUM ANALYZER **4** (21)
- SUPER WOOFER **39** (17)
- SUPER WOOFER MODE **39** (17)
- TIMER SELECT **11** (17, 21)
- TUNER/BAND **9** (12, 13, 15)
- TUNER ENTER **25** (12)
- TUNER MEMORY **25** (12)
- TUNING MODE **8** (12, 13)
- TUNING -/+ **9** (12, 13)
- VOLUME control **7** (11)
- X-GROOVE **26** (17)

**BUTTON DESCRIPTIONS**

- I/⏻** **1**
- ⌚/CLOCK SET** **12**
- </>** **17 37**
- **17 37**
- ⏮/⏪/⏩/⏭** **17 37**
- ||** **18**
- REC** **18**
- ▷ ||** **22**
- **22**
- ◀/▶** **22**
- ↑/↓/←/→** (cursor) **29**

**Remote control**

**ALPHABETICAL ORDER**

**C - S**

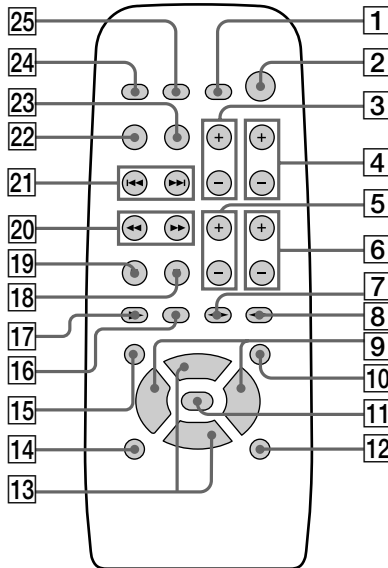
- CD **▶** **17** (10)
- CENTER LEVEL +/- **5** (9)
- CLEAR **23** (11)
- DISC SKIP **22** (10, 11)
- DSP **12** (15, 18)
- EFFECT **11** (18)
- FILE SELECT +/- **9** (18)
- FUNCTION **10** (10, 11, 15, 22, 23, 27)
- PRESET +/- **21**
- PRO LOGIC **15** (9, 19)
- REAR LEVEL +/- **6** (9)
- SLEEP **24** (20)

**T - V**

- TAPE A **◀▶** **7** (14)
- TAPE B **◀▶** **8** (14)
- TEST TONE **14** (9)
- TUNER/BAND **16** (12, 13, 15)
- TUNING +/- **20** (12, 13)
- TV CH +/- **4** (26)
- TV/VIDEO **25** (26)
- TV VOL +/- **3** (26)
- TV **I/⏻** **1** (27)
- VOL +/- **13** (11)

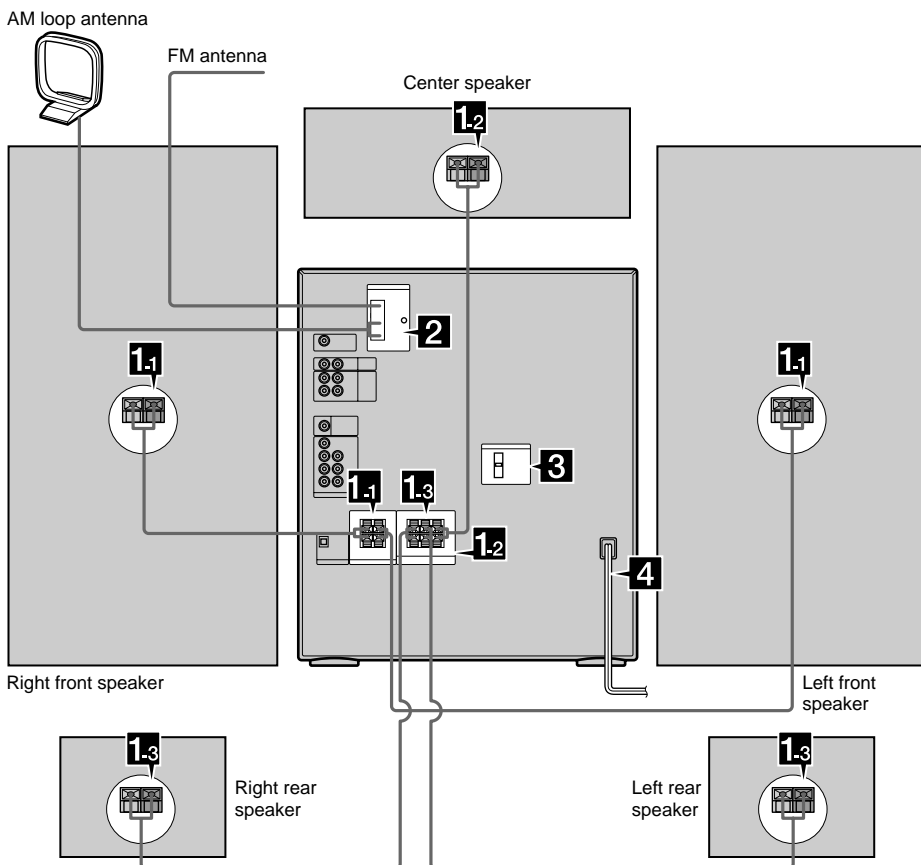
**BUTTON DESCRIPTIONS**

- I/⏻** **2**
- **18**
- ||** **19**
- ◀/▶** **20**
- ◀◀/▶▶** **21**



## Hooking up the system

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

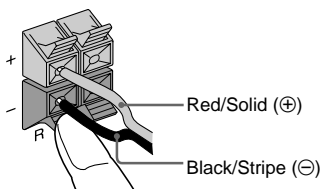


### **1** Connect the speakers.

#### **1** Connecting the front speakers

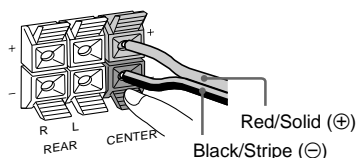
Connect the speaker cords to the FRONT SPEAKER jacks as below.

Insert only the stripped portion.



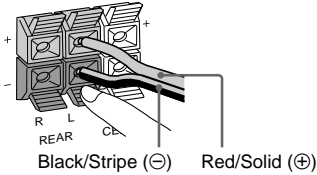
#### **2** Connecting the center speaker

Connect the speaker cords to the SURROUND SPEAKER CENTER jack as below.



### 3 Connecting the rear speakers

Connect the speaker cords to the SURROUND SPEAKER REAR jacks as below.

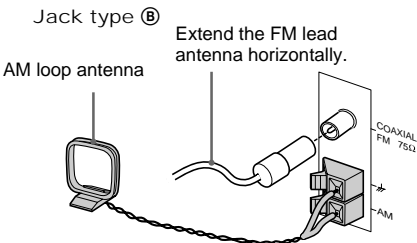
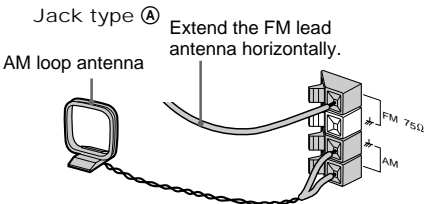
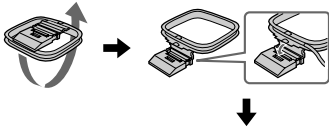


#### Note

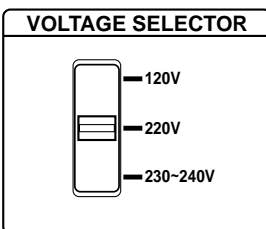
Keep the speaker cords away from the antennas to prevent noise.

### 2 Connect the FM/AM antennas.

Set up the AM loop antenna, then connect it.



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



### 4 Connect the power cord to a wall outlet.

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

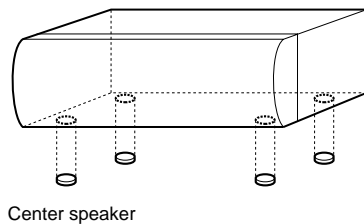
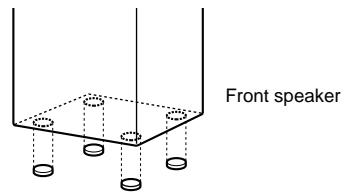
If the supplied adaptor on the plug does not fit your wall outlet, detach it from the plug (only for models equipped with the adaptor).

When carrying this system Do the following to protect the CD mechanism.

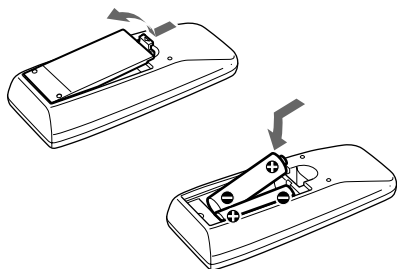
- 1 Make sure that all discs are removed from the unit.
- 2 Press FUNCTION repeatedly until "CD" appears.
- 3 Hold down EDIT and then press I/⏻ until "LOCK" appears.
- 4 Unplug the AC power cord.

Before connecting the Center and Front speakers

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



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



### Tip

When the remote no longer operates the system, replace both batteries with new ones.

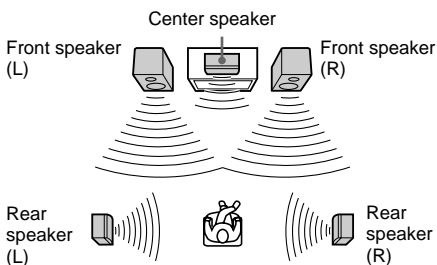
### Note

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

## Setting up the speakers for Dolby Pro Logic

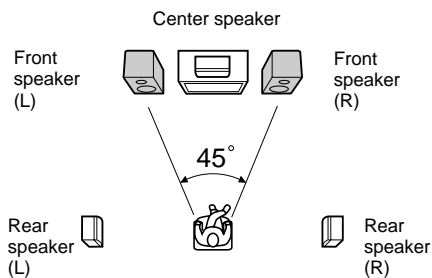
Dolby Pro Logic Surround improves the sound image by using four separate channels. These channels manipulate the sound to enhance the action as it happens on the screen.

Since the center speaker cannot produce enough bass, the bass sound of the center channel is output from the front speakers.

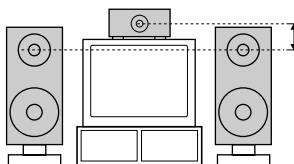


Positioning the center and rear speakers

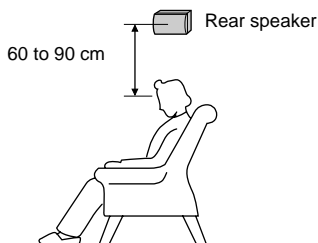
- 1 Place the front speakers at an angle of 45 degrees from your listening position.



- 2 Place the center speaker so it is placed at about the same height as the front speakers. Align the center speaker with the front speakers or place it a little behind the front speakers' position.



- 3 Place the rear speakers facing each other at about 60 to 90 cm above your listening position.





## Adjusting the speaker volume of each speaker (Test Tone)

To enjoy Dolby Pro Logic Surround sound, adjust the volume of each speaker using the test tone that the system provides.

### 1 Press PRO LOGIC when the power is on.

The button lights up.

### 2 Press TEST TONE on the remote.

The test tone is heard from the speakers in the following order.

LEFT (front left) → CENTER (center) →

RIGHT (front right) →

REAR (rear) → .....

### 3 From your listening position, adjust the volume until the volume level of the test tone from each speaker sounds the same.

To adjust	Press
the volume of the center speaker	CENTER LEVEL +/- on the remote.
the volume of the rear speakers	REAR LEVEL +/- on the remote.

### 4 From your listening position, adjust the balance.

To adjust	Press
the balance between the front left and front right speakers	← or → while “LEFT”, “CENTER”, or “RIGHT” appears.
the balance between the rear left and rear right speakers	← or → while “REAR” appears.

### 5 Press TEST TONE when you are done adjusting.

The test tone is turned off.

#### Tip

If you turn VOLUME (or press VOL+ or – on the remote) all the speaker volume changes.

#### Note

The test tone feature works only for Dolby Pro Logic Surround sound.

## Setting the clock

### 1 Turn on the system.

### 2 Press ⏸/CLOCK SET.

### 3 Press ↑/↓ repeatedly to set the hour.

### 4 Press ENTER.

The minute indication flashes.

### 5 Press ↑/↓ repeatedly to set the minute.

### 6 Press ENTER.

The clock starts working.

If you make a mistake

Press ←/→ repeatedly until the incorrect item flashes, then set it again.

To adjust the clock

### 1 Press ⏸/CLOCK SET.

### 2 Press ↑/↓ to select “CLOCK SET,” then press ENTER.

### 3 Do the same procedures as step 3 to 6 above.

#### Notes

- The clock settings are canceled when you disconnect the power cord or if a power failure occurs.
- You cannot set the clock in the Power Saving Mode.

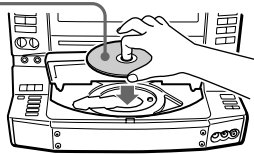
## Loading the CD

### 1 Press PUSH OPEN.

The front cover opens.

### 2 Place a CD with the label side up on the disc tray.

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



To insert additional discs, press DISC SKIP to rotate the disc tray.

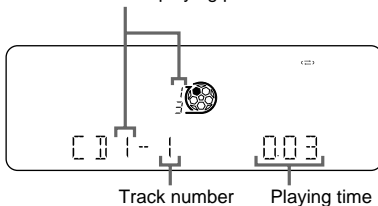
### 3 Close the front cover.

## Playing the CD

### —Normal Play/Shuffle Play/Repeat Play

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

Disc number in the playing position



### 1 Press FUNCTION repeatedly until "CD" appears.

### 2 Press PLAY MODE repeatedly in stop mode until the mode you want appears.

Select	To play
ALL DISCS	All CDs in the disc tray continuously.
1 DISC	The CD you selected in the original order.
ALL DISCS SHUFFLE	The tracks on all CDs in random order.
1 DISC SHUFFLE	The tracks on the CD you selected in random order.
PROGRAM	The tracks on all CDs in the order you want them to be played (see "Programming the CD tracks" on page 11).

### 3 Press ▷|| (or CD ► on the remote).

## Other Operations

To	Do this
Stop playback	Press ■.
Pause	Press ▷   (or    on the remote). Press again to resume play.
Select a track	During play or pause, turn ◀◀ AMS ▶▶ clockwise (to go forward) or counterclockwise (to go backward) (or press ▶▶ (to go forward) or ◀◀ (to go backward) on the remote).
Find a point in a track	Press and hold ▶▶ or ◀◀ during playback, and release at the desired point.
Select a CD	Press DISC 1 to 5 or DISC SKIP.

To	Do this
Switch to CD function from another source	Press DISC 1 to 5 or <b>▷  </b> (or CD <b>▶</b> on the remote) (Automatic Source Selection).
Play repeatedly (Repeat Play)	Press REPEAT during playback until “REPEAT” or “REPEAT1” appears. REPEAT*: For all the tracks on the CD up to five times. REPEAT1: For a single track only. To cancel playing repeatedly, press REPEAT until “REPEAT” or “REPEAT1” disappears.
Remove the CD	Press PUSH OPEN.
Adjust the volume	Turn VOLUME (or press VOL +/- on the remote).

\* You cannot select “REPEAT” and “ALL DISCS SHUFFLE” at the same time.

#### Tip

You can change the CD in the loading position during playback of the CD in the playing position.

## Programming the CD tracks

### — Program Play

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

- 1 Press **FUNCTION** repeatedly until “CD” appears, then load a CD.
- 2 Press **PLAY MODE** repeatedly until “PROGRAM” appears.
- 3 Press **DISC SKIP** to select a CD.
- 4 Turn **◀◀ AMS ▶▶** until the track you want appears.
- 5 Press **PLAY MODE** once.  
The track is programmed. First the programmed playing order and “STEP” appear, then the total playing time appears.
- 6 To program additional tracks, repeat steps 3 to 5.  
Skip step 3 to select tracks from the same disc.
- 7 Press **▷||**.

To	Press
Cancel Program Play	PLAY MODE repeatedly until “PROGRAM,” “ALL DISCS SHUFFLE” or “1 DISC SHUFFLE” disappears.
Clear a track from the end	CLEAR on the remote in stop mode.
Add a track to the end of the program in stop mode	Perform step 3 to 5.

#### Tips

- The program you made remains in the CD player after it has been played back. Press **▷||** to play the same program again.
- “--:--” appears when the total CD program time exceeds 100 minutes, or when you select a CD track whose number is 21 or over.

## 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

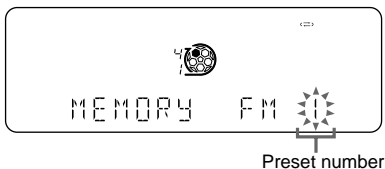
- 1 Press **TUNER/BAND** repeatedly to select “FM” or “AM.”
- 2 Press **TUNING MODE** repeatedly until “AUTO” appears.
- 3 Press **TUNING +/-**.

The frequency indication changes and the scanning stops when the system tunes in a station. “TUNED” and “STEREO” (for a FM stereo program) appear.

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

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

- 4 Press **TUNER MEMORY**.
- 5 Press **TUNING +/-** repeatedly to select the desired preset number.



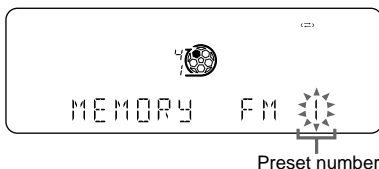
- 6 Press **TUNER ENTER**.

“COMPLETE” appears.

- 7 Repeat steps 1 to 6 to store other stations.

### Setting presets through manual tuning

- 1 Press **TUNER/BAND** repeatedly to select “FM” or “AM.”
- 2 Press **TUNING MODE** repeatedly until “MANUAL” appears.
- 3 Press **TUNING +/-** repeatedly to tune in the desired station.
- 4 Press **TUNER MEMORY**.
- 5 Press **TUNING +/-** repeatedly to select the desired preset number.



- 6 Press **TUNER ENTER**.

“COMPLETE” appears.

- 7 Repeat steps 1 to 6 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.”
Stop scanning	Press <b>TUNING MODE</b> .
Change the preset number	Start over from step 1.
Change the preset station	Start over from step 1.
Cancel presetting	Press <b>TUNER MEMORY</b> .

To change the AM tuning interval (Except for the Middle Eastern model)

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 ENTER, press I/⏻ to turn the system back on. When you change the interval, all the AM preset stations will be 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 unplug the power cord or if a power failure occurs.
- To improve broadcast reception, reorient or move the supplied antennas 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 12).

- 1 Press TUNER/BAND repeatedly to select "FM" or "AM."
- 2 Press TUNING MODE repeatedly until "PRESET" appears.
- 3 Press TUNING  $-/+$  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 TUNING MODE repeatedly until "MANUAL" appears.
- 3 Press TUNING  $-/+$  repeatedly to tune in the desired station.

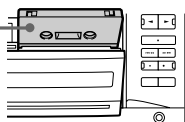
#### Tips

- To improve broadcast reception, adjust the supplied antennas, or connect a commercially available external antenna.
- When an FM stereo program has static noise, press FM MODE repeatedly until "MONO" appears. There will be no stereo effect, but the reception will improve.
- Press TUNING MODE repeatedly until "AUTO" appears in step 2 above, then press TUNING  $-/+$ . 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 15.

## Loading a tape







- 1 Press **A EJECT**  or **B EJECT** .
- 2 Insert a tape in deck A or B.

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















## Playing a tape

You can use TYPE I (normal) tape.

- 1 Load a recorded tape.
- 2 Press **DIRECTION** repeatedly to select  to play one side. Select  to play both sides. Select **RELAY (Relay Play)\*** to play both decks in succession.
- 3 Press  (or **TAPE A/TAPE B**  on the remote).  
Press  (or **TAPE A/TAPE B**  on the remote again) to play the reverse side.  
The tape starts playing.





\* Relay Play always follow this cyclic sequence:  
Deck A (front side) → Deck A (reverse side) →  
Deck B (front side) → Deck B (reverse side)

To	Do this
Stop play	Press  .
Pause (deck B only)	Press  Press again to resume play.
Fast-forward	Press  or  (or press  or  on the remote) in stop mode.
Rewind	Press  or  (or press  or  on the remote) in stop mode.
Remove the cassette	Press <b>A EJECT</b>  (or <b>B EJECT</b>  ) in stop mode.

### Tip

The deck stops automatically after repeating the sequence five times.

Searching for the beginning of a track (AMS)

During playback, press  or  (or press  or  on the remote) 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 to 9) appear.

Example: searching forward 2 songs



TAPE A : : : +2

### 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 unit is placed near a television.

### Note on the tape decks

Do not press **A EJECT**  or **B EJECT**  while playing a tape, otherwise the tape could be damaged.

# Recording to a tape

## — CD Synchro Recording/High Speed Dubbing/Recording Manually/ Program Edit

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

Steps	Recording from a CD (CD Synchro Recording)	Recording from a tape (High-Speed Dubbing)	Recording Manually
1	Insert a recordable tape into deck B.		
2	Insert the CD you want to record.	Insert the tape you want to record into deck A.	Press <b>FUNCTION</b> or <b>TUNER/BAND</b> repeatedly until the source or band you want to record appears, and then load the CD/ tape (or other music source), or tune to the station you want to record.
3	Press <b>CD SYNC.</b>	Press <b>H SPEED DUB.</b>	Press <b>● REC.</b>
	DECK B stands by for recording. When you want to record on the reverse side, press <b>◀</b> .		
4	Press <b>DIRECTION</b> repeatedly to select <b>↔</b> to record on one side. Select <b>↔↔</b> (or <b>RELAY</b> ) to record on both sides.		
5	Press <b>II</b> . Recording starts.		Press <b>II</b> , then start playing the source to be recorded.

Tape

To stop recording

Press **■**.

Tips

- 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.
- For recording from the tape:  
If you set the direction to **↔↔** when the tapes you use have different lengths, the tapes in each deck reverses independently. If you select **RELAY**, the tapes in both decks reverse together.
- To record with the surround effect, press **DSP** so that "SUR (|||||■|)" appears.  
The equalizer settings will not be recorded.
- For recording from the radio:  
If noise is heard while recording from the radio, move the respective antenna to reduce the noise.

continued

## Recording to a tape (continued)

Recording a CD by specifying track order

### — Program Edit

- 1 **Load CDs and a recordable tape.**
- 2 **Program CD and tracks following step 1 to 6 in “Programming the CD tracks” on page 11.**
- 3 **Press CD SYNC.**  
Deck B stands by for recording.
- 4 **Press DIRECTION repeatedly to select  $\rightleftarrows$  to record on one side.**  
**Select  $\leftrightarrow$  (or RELAY) to record on both sides.**
- 5 **Press II.**  
Recording starts.

#### Tip

To check the required tape length for recording a CD, press EDIT after you have loaded a CD and switched function to CD. The required tape length for the currently selected CD appears, followed by the total playing time for side A and side B respectively (Tape Select Edit).

#### Notes

- You cannot use Tape Select Edit for discs containing over 20 tracks.
- You cannot use this function when Program Play mode has been set. After clearing the entire program, follow the above procedure.

## Timer-recording radio programs

To timer-record, you must preset the radio station (see “Presetting radio stations” on page 12) and set the clock (see “Setting the clock” on page 9) beforehand.

- 1 **Tune in the preset radio station (see “Listening to the radio” on page 13).**
- 2 **Press  $\odot$ /CLOCK SET.**
- 3 **Press  $\uparrow/\downarrow$  repeatedly to select “REC SET,” then press ENTER.**  
“ON” appears and the hour indication flashes in the display.
- 4 **Set the time to start recording.**  
Press  $\uparrow/\downarrow$  to set the hour, then press ENTER. The minute indication starts flashing.  
Press  $\uparrow/\downarrow$  to set the minute, then press ENTER.
- 5 **Set the time to stop recording following the above procedure.**  
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 **Insert a recordable tape into deck B.**



## 7 Turn off the power.

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

To	Do this
Check the setting	Press TIMER SELECT. Press $\uparrow/\downarrow$ to select "REC SELECT". Then, press ENTER. To change the setting, start over from step 1.
Cancel timer operation	Press TIMER SELECT. Press $\uparrow/\downarrow$ to select "TIMER OFF". Then, press ENTER.

### Notes

- The system turns on 15 seconds before the preset time.
- If the system is on at the preset time, the Timer recording will not be made.
- When you use the Sleep Timer, Timer recording will not turn on the system until the Sleep Timer turns it off.
- Recording starts from the front side.

## Adjusting the sound

To reinforce lower bass sound (SUPER WOOFER)

Press SUPER WOOFER.

Each time you press this button, the super woofer level display changes cyclically as follows:

SUPER WOOFER FLAT → LOW → HIGH

### Tip

SUPER WOOFER button lights up when super woofer mode is activated.

To select the super woofer mode  
Press SUPER WOOFER MODE while the super woofer is on.

Each time you press this button, the super woofer mode display changes as follows:

MODE MOVIE ↔ MODE MUSIC

For a powerful sound (GROOVE)

The volume switches to power mode and the equalizer curve changes.

### Press GROOVE.

Press GROOVE again to return to the previous volume.

For a powerful and vivid sound (X-GROOVE)

The middle frequency of the music you are listening to is powerfully reinforced, the equalizer curve changes and loudness is increased.

### Press X-GROOVE.

Press X-GROOVE again to cancel the reinforcement.

### Note

Canceling the Groove mode cancels the equalizer curve and super woofer level. Adjust the equalizer settings to obtain the desired effect.

## Selecting the audio emphasis effect

Selecting the preset effect from the music menu

Press a direct equalizer button you want.

The preset effect name appears.

See the chart “Music menu options.”

Music menu options

“SUR (((|●|)))” appears if you select an effect with surround effects.

Effect	For
SALSA	standard music sources
REGGAE	
TANGO	
SAMBA	
MOVIE	
ROCK	
JAZZ	soundtracks and special listening situations
DANCE	
GUITAR	
GAME	

Other operations

To	Press
Select a personal file	P FILE.
Cancel the effect	EFFECT repeatedly until “EFFECT OFF” appears.

Tip

You can also select the preset effect including the P FILE by pressing FILE SELECT +/- on the remote repeatedly.

## Selecting the surround effect

Press DSP until the desired DSP mode appears in the display.

Each time you press this button, the menu changes as follows:

**DSP OFF:** Deactivates the DSP mode.

**SURROUND ON:** Reproduces stereo sources in surround sound.

**HALL:** Reproduces the acoustics of a concert hall.

**THEATER:** Reproduces the acoustics of a movie theater.

**E. (enhanced) THEATER:** Reproduces the acoustics of a large movie theater.

Note

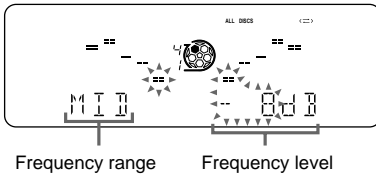
If you choose other sound effects, the surround effect will be canceled. To retain the effect, store it in a personal file (see “Making a personal audio emphasis file” on page 19).

## Making a personal audio emphasis file

### — Personal File

You can create a personal file of audio patterns (surround effect and graphic equalizer) and store them in the system's memory. Later, you can call up an audio pattern when playing a favorite tape, CD, or radio program. Before operating, first select the basic audio emphasis you want for your sound.

- 1 Press ←/→ to select the frequency range, and then press ↑/↓ to adjust the level.



- 2 Press ENTER.

This setting is automatically stored as P FILE.

The setting previously stored at this memory location is erased and replaced by the new settings.

To	Press
Call up a personal file	P FILE.
Cancel a personal file	EFFECT repeatedly until "EFFECT OFF" appears.

## Enjoying Dolby Pro Logic Surround sound

You can enjoy the Dolby Pro Logic Surround sound of Dolby Surround-encoded (DOLBY SURROUND) videos and TV programs. Complete the setup and speaker adjustments first (see "Setting up the speakers for Dolby Pro Logic" on page 8).

- 1 Press PRO LOGIC so the indicator lights up.
- 2 Play a program source.

To turn off the Dolby Pro Logic Surround sound

Press PRO LOGIC so the indicator goes off.

### Notes

- You cannot use the Dolby Pro Logic Surround sound and Surround Menu functions at the same time.
- When you record the sound, turn off the Dolby Pro Logic Surround sound.
- The audio emphasis setting will be canceled when you turn on the Dolby Pro Logic Surround sound.

## Falling asleep to music

### — Sleep Timer

You can have the system turn off at a preset time, so you can fall asleep to music.

#### Press SLEEP.

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

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

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

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

\*\* You cannot check the remaining time when AUTO is selected.

## 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 "Setting the clock" on page 9).

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

- CD: Load a CD. To start from a specific track, make a program (see "Programming the 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 "Presetting radio stations" on page 12).

#### 2 Adjust the volume.

#### 3 Press $\odot$ /CLOCK SET.

"SET" appears and "DAILY SET" flashes in the display.

#### 4 Press ENTER.

"ON" appears and the hour digits flash in the display.

#### 5 Set the time to start playback.

Press  $\uparrow/\downarrow$  repeatedly to set the hour, then press ENTER.

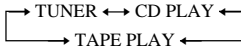
The minute indication starts flashing.

Press  $\uparrow/\downarrow$  repeatedly to set the minute, then press ENTER.

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

- 7 Press ↑/↓ repeatedly until the music source you want appears.**

The indication changes as follows:



- 8 Press ENTER.**

The start time, stop time, and the music source appear, then the original display appears.

- 9 Turn off the system.**

To	Do this
Check the setting	Press <b>TIMER SELECT</b> . Press ↑/↓ to select "DAILY SELECT". Then, press <b>ENTER</b> .
Change the setting	Start from step 1.
Cancel the timer operation	Press <b>TIMER SELECT</b> . Press ↑/↓ to select "TIMER OFF". Then, press <b>ENTER</b> .

#### Notes

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

#### Tip

The power turns on 15 seconds before the preset time.

## Changing the spectrum analyzer display


### Press SPECTRUM ANALYZER.

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

PATTERN1 → PATTERN2 →  
PATTERN3 → PATTERN4

## 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.

- 1 Turn MIC LEVEL to MIN to turn down the microphone control level.**
- 2 Connect an optional microphone to MIX MIC.**
- 3 Press MIX GUITAR/KARAOKE.**  
Each time you press the button, the display changes as follows:  
MIX GUITAR/KARAOKE ↔ EFFECT OFF\* or audio emphasis name\*  
The  indicator appears when karaoke mode is activated.  
\* Karaoke mode is canceled.
- 4 Start playing the music.**
- 5 Adjust the microphone volume by turning MIC LEVEL.**

continued

## ***Singing along: Karaoke (continued)***

After you have finished

Turn MIC LEVEL to MIN and disconnect the microphone from MIX MIC, then press MIX GUITAR/KARAOKE repeatedly until “” disappears.





### Notes

- With some songs, vocals may not be canceled when you select “MIX GUITAR/KARAOKE.”
- During MIX GUITAR/KARAOKE, equalizer and surround settings cannot be changed.
- If you select 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.

### 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).

## 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 FUNCTION repeatedly to select the source you want to record and set it to pause mode.**
- 3 Press ● REC.**
- 4 Press DIRECTION repeatedly to select  to record on one side. Select  (or RELAY) to record on both sides.**
- 5 Press II.**
- 6 Press  II to start playing the CD (or  on deck A to start playing the tape).**  
Start singing along with the music.

To stop recording

Press ■.

## Playing a guitar

You can enjoy playing the guitar by connecting an electric guitar to the GUITAR jack on the front panel.

When you select “MIX GUITAR/KARAOKE” by pressing MIX GUITAR/KARAOKE, you can play along with any stereo CD or tape.

You can select your preferred sound characteristics by adjusting GUITAR LEVEL.

### Using the Guitar distortion effect

#### Press GUITAR DISTORTION.

The indicator on the GUITAR DISTORTION button lights up.

Once GUITAR DISTORTION is activated, it will remain active while the power is on even if the function is changed.

To turn off GUITAR DISTORTION, press GUITAR DISTORTION again, the indicator on this button goes off.

#### Note

Playing a guitar with this unit may cause distortion or howling. To avoid this, do the followings:

- Move the guitar away from the speakers.
- Turn down the guitar volume.

## Enhancing video game sound

### — Game Sync

You can enjoy the sound effect of video games.

- 1 **Connect a video game player (see “Hooking up optional components” on page 25).**
- 2 **Press GAME in the upper-right corner on the front panel (see 14, “List of Button Locations and Reference Pages” on page 4).**

## Mixing video game sound with other sound source

### — Game Mixing

- 1 **Connect a video game player (see “Hooking up optional components” on page 25).**
- 2 **Press FUNCTION repeatedly to select your desired sound source.**
- 3 **Press GAME MIXING.**

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

MIXING LOW → MIXING MID →  
MIXING HIGH → MIXING OFF

#### Tips

- The indicator on the GAME MIXING button lights up when GAME MIXING is activated.
- Once GAME MIXING is activated, it will remain active while the power is on even if the function 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 Manually” on page 15, and then press X to start recording.
- This system outputs video from GAME INPUT jack while GAME MIXING is activated.

## 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 POWER SAVE/DEMO (STANDBY) repeatedly while the system is off until the demonstration display disappears.**

To cancel Power Saving Mode  
Press POWER SAVE/DEMO (STANDBY) repeatedly while the system is off. Each time you press the button, the display switches as follows:

Demonstration display ↔ No display (Power Saving Mode)

Tips

-  indicator lights up even in the Power Saving Mode.
- The timer continues to operate in Power Saving Mode.
- Each time you press DISPLAY while the system is off, the display switches as follows:  
Demonstration display ↔ Clock display\*

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

## Using the CD display

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

When a CD TEXT disc is loaded, you can check the information stored on the disc, such as the titles or artist names. When the unit detects CD TEXT discs, the “CD-TEXT” indication appears.

### Press DISPLAY.

During normal playback

Playing time on the current track →

Remaining time on the current track →

Remaining time on current CD (1 DISC mode)

or “-.-” display (ALL DISCS mode) → Title

name of the current track\* → Clock display

(for a few seconds) → Effect status

In stop mode

Total number of tracks and total playing time

→ Disc title\* → Clock display (for a few

seconds) → Effect status

\* With CD TEXT discs only (certain characters cannot be displayed). When the CD contains more than 20 tracks, CD TEXT is not displayed from track 21 on.

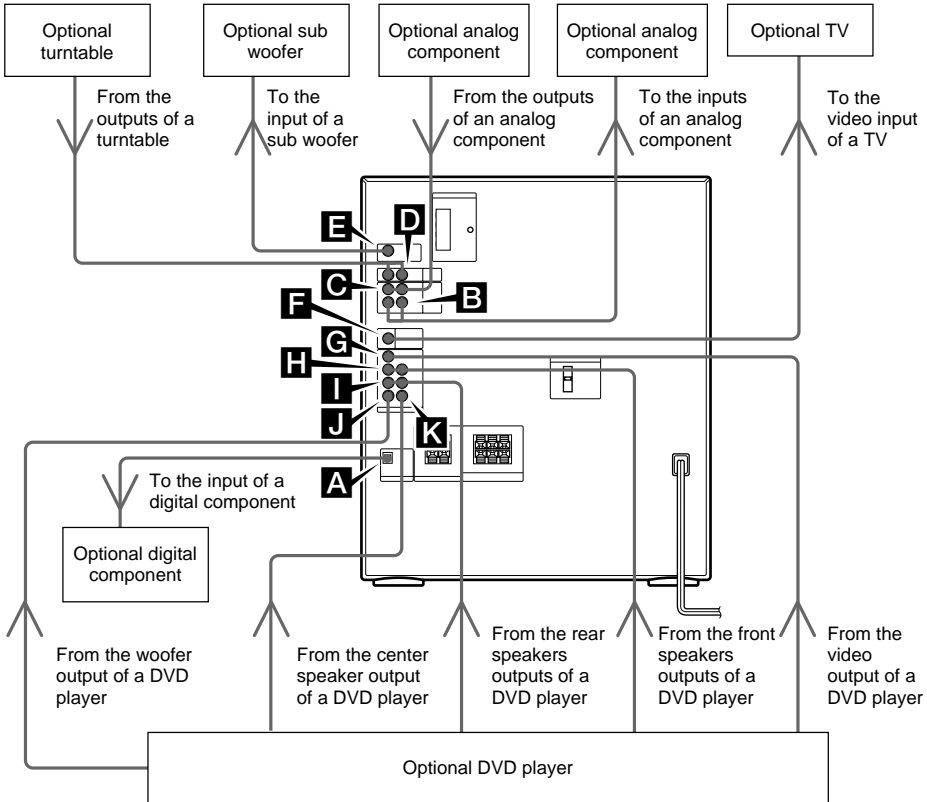
Notes

- The display may not show all the characters depending on the disc.
- This player can only display the disc titles and track titles from CD TEXT discs. Other information cannot be displayed.



## Hooking up optional components

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



**A** CD DIGITAL OUT jack

Use a digital optical cable (square, not supplied) to connect an optional digital component (such as an MD deck) to this jack. You can then output digital audio to that component from this system.

**B** MD (VIDEO) OUT jacks

Use audio cords (not supplied) to connect an optional component (such as an MD deck or a VCR) to these jacks. You can then output audio to that component from this system.

**C** MD (VIDEO) IN jacks

Use audio cords (not supplied) to connect an optional component (such as an MD deck or a VCR) to these jacks. You can then record or listen to analogue audio from that component through this system.

**D** PHONO IN jacks

Use audio cords (not supplied) to connect an optional component (such as a turntable) to these jacks. You can then record or listen to analogue audio from that component through this system.

continued

## Hooking up optional components (continued)

### **E** SUB WOOFER OUT jack

Use an audio cord (not supplied) to connect an optional sub woofer to this jack. You can then output analogue audio to that component from this system.

### **F** VIDEO OUT jack

Use a video cord (not supplied) to connect an optional component (such as a TV) to this jack. You can then output video to that component from the connected video game through this system.

You can control a Sony TV using the remote as below:

To	Do this
Turn on or off the TV	Press TV <b>I/⏻</b> on the remote repeatedly.
Select the input source for the TV	Press TV/VIDEO on the remote repeatedly.
Change the channel of the TV	Press TV CH +/- on the remote repeatedly.
Adjust the volume of the TV	Press TV VOL +/- on the remote repeatedly.

#### Note

Depending on the TV, you may not be able to control your TV or to use some buttons above.

### **G** DVD VIDEO INPUT jack

Use a video cord (not supplied) to connect an optional component (such as a DVD player) to this jack. You can then input video from that component.

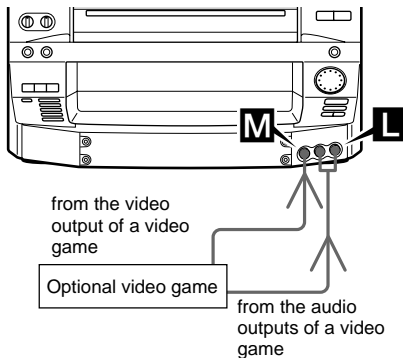
### **H** DVD FRONT INPUT jacks

### **I** DVD REAR INPUT jacks

### **J** DVD WOOFER INPUT jacks

### **K** DVD CENTER INPUT jacks

Use audio cords (not supplied) to connect a DVD player to these jacks. You can then record or listen to analogue audio from that component through this system.



### **L** GAME INPUT AUDIO L/R jacks

Use audio cords (not supplied) to connect an optional component (such as a video game or camcorder, etc.) to these jacks. You can then record or listen to analogue audio from that component through this system.

### **M** GAME INPUT VIDEO jack

Use video cord (not supplied) to connect an optional component (such as a video game or camcorder, etc.) to this jack. You can then output video to the connected TV from that component through this system.

#### Notes

- Be sure to match the color of the plugs and the connectors.
- Using a turntable at high volume may cause distortion or howling. This is often caused by the bass sound from the speakers. The bass sound may produce the distortion or howling. To avoid this, do the following:
  - 1 Keep some distance from speakers to the turntable.
  - 2 Stop using the surround effect.
  - 3 Install the speakers or the turntable on a firm and stable surface.
  - 4 Press SUPER WOOFER repeatedly until the indicator on this button goes off.

# Listening to audio from a connected component

Listening to an MD deck or VCR, etc.


## 1 Connect the audio cords.

See “Hooking up optional components” on page 25.

## 2 Press FUNCTION repeatedly until “MD” or “VIDEO” appears.

Start playing the connected component.

### Notes

- Holding down FUNCTION, and then pressing  while the power is off automatically turns the power on and selects “VIDEO” as the function. When the system is in power saving mode, this function does not work.
- If the sound is distorted or too loud when “VIDEO” is selected or you want to switch back to “MD,” repeat the operation described above to switch to “MD.”

Listening to a turntable, etc.

## 1 Connect the audio cords.

See “Hooking up optional components” on page 25.

## 2 Press FUNCTION repeatedly until “PHONO” appears.

Start playing the connected component.

Listening to a video game or camcorder, etc.

## 1 Connect the audio cords.

See “Hooking up optional components” on page 25.

## 2 Press FUNCTION repeatedly until “GAME” appears or press GAME in the right corner of the front panel.

Start playing the connected component.

Listening to a DVD player

## 1 Connect the audio cords.

See “Hooking up optional components” on page 25.

## 2 Press FUNCTION repeatedly until “DVD” appears.

Start playing the connected component.

To	Do this
Listen to 5.1CH analog audio	Press DVD 5.1CH repeatedly until the indicator of the button lights up.
Listen to stereo analog audio	Press DVD 5.1CH repeatedly until the indicator of the button goes off.

### Notes

- Each time you press DVD 5.1CH, the function changes as follows:  
DVD 5.1CH ↔ DVD (2 channel)  
(indicator on) ↔ (indicator off)
- You cannot enjoy the 5.1 channel surround sound if you connect a DVD player which does not have the 5.1 channel analog outputs.

## Recording audio from a connected component

Making an analogue recording from an analogue component on a tape

- 1 **Connect the audio cords.**  
See “Hooking up optional components” on page 25.
- 2 **Start recording manually.**  
See “Recording to a tape” on page 15.

## Recording on a connected component

Making a digital recording

- 1 **Connect the digital optical cord.**  
See “Hooking up optional components” on page 25.
- 2 **Start recording.**  
Refer to the operating instructions provided with connected component.

Making an analogue recording

- 1 **Connect the audio cords.**  
See “Hooking up optional components” on page 25.
- 2 **Start recording.**  
Refer to the operating instructions provided with connected component.

## Problems and remedies

If you run into any problem using this unit, use the following check list.

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

Should any problem persist, consult your nearest Sony dealer.

### General

---

“--:--” appears in the display.

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

---

The display starts flashing as soon as you plug in the power cord even though you haven't turned on the power.

- Refer to demonstration (see page 24).

---

The clock setting is canceled.

- The power cord is disconnected or a power failure occurs. Redo “Setting the clock” (on page 9). If you have set the timer, redo “Waking up to music” (on page 20) and “Timer-recording radio programs” (on page 16).

---

The radio presetting/timer setting is canceled.

- The power cord is disconnected or a power failure occurs for longer than half a day. Redo “Presetting radio stations” (on page 12).
-

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**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.
- The protective device on the amplifier has been activated because of a short circuit. (“PROTECT” and “PUSH POWER” flash alternately.) Turn off the unit, eliminate the short-circuit problem and turn on the power again.
- There is no audio output during timer recording.

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**There is no microphone sound.**

- Turn VOLUME or MIC LEVEL to adjust the microphone volume.
- Make sure the microphone is connected to the MIX MIC jack correctly.

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**There is no guitar sound.**

- Turn VOLUME or GUITAR LEVEL to adjust the guitar volume.
- Make sure the guitar is connected to the GUITAR jack correctly.
- Select “MIX GUITAR/KARAOKE” by pressing MIX GUITAR/KARAOKE.

---

**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 FUNCTION repeatedly, switch the display to “MD” (see “Notes” in “Listening to audio from a connected component” on page 27).

---

**The timer does not function.**

- Set the clock correctly.
  - Set the timer correctly.
- 

---

**DAILY and REC do not appear when you press the /CLOCK SET button.**

- Set the timer correctly.
- Set the clock.

---

**The remote does not function.**

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

---

**There is acoustic feedback.**

- Decrease the volume level.
- Move the microphone away from the speakers or change the direction of the microphone.

---

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

- Turn off the TV set once, then turn it on after 15 to 30 minutes. If the color irregularity still persists, place the speakers farther away from the TV set.

---

**There is no DVD picture.**

- Check that the DVD player is connected correctly and securely.
  - Make sure that GAME MIXING is canceled.
- 

## Speakers

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**“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.
- Check the speaker cables in case “PROTECT” and “PUSH POWER” appear alternately again after you turn the system on.

---

**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.
- 

continued

## Problems and remedies (continued)

### CD Player

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#### 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 (see “Notes on CDs ” on page 31).
  - The CD is inserted label side down.
  - The CD is moist.
- 

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

- The player is in program or shuffle mode. Press PLAY MODE repeatedly until “PROGRAM,” “ALL DISCS SHUFFLE,” or “1 DISC SHUFFLE” disappears.
- 

### Tape Deck

---

#### The tape does not record.

- The tab has been removed from the cassette (see “To save a tape permanently” on page 32).
  - 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 32).
  - The record/playback heads are magnetized (see “Demagnetizing the tape heads” on page 32).
- 

#### The tape does not erase completely.

- The record/playback heads are magnetized (see “Demagnetizing the tape heads” on page 32).
- 

#### 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 32).
- 

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

- The record/playback heads are magnetized (see “Demagnetizing the tape heads” on page 32).
- 

### Tuner

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#### 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” disappears.
- 

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

- 1 Press  $\odot$ /CLOCK SET, TUNER ENTER and I/ $\odot$  at the same time.
- 2 Unplug the power cord.
- 3 Plug the power cord back in.
- 4 Press I/ $\odot$  to turn on the power.

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

## Messages

### CD

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#### NO STEP

You have cleared all the tracks you programmed.

---

#### OVER

You have reached the end of the CD. Press  $\blacktriangleleft$ .

---

#### STEP FULL

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

---

### Precautions

#### On operating voltage

Before operating the unit, check that the operating voltage of your unit 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 unit 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 unit and have the component checked by qualified personnel before operating it any further.
- AC power cord must be changed only at the qualified service shop.

#### On placement

- 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
- 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 buildup

- Although the unit heats up during the operation, this is not the malfunction.
- Place the unit in a location with adequate ventilation to prevent heat build-up in the unit.

If you continuously use this unit 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 cooling fan.

#### On operation

- If the unit 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 unit will not operate properly. Remove the CD and leave the unit turned on for about an hour until the moisture evaporates.
- When you move the unit, take out any discs.

If you have any questions or problems concerning your unit, 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.
- Do not expose the CD to direct sunlight or heat sources.
- Discs with non- standard shapes (e.g., heart, square, star) cannot be played on this unit. Do not use such discs.

#### Note on CD-R/CD-RW playback

Discs recorded on CD-R/CD-RW drives may not be played back because of scratches, dirt, recording conditions or the drive's characteristics. Besides, the discs, which are not yet finalized at the end of recording, cannot be played back.

#### Cleaning the cabinet

Use a soft cloth slightly moistened with mild detergent solution.

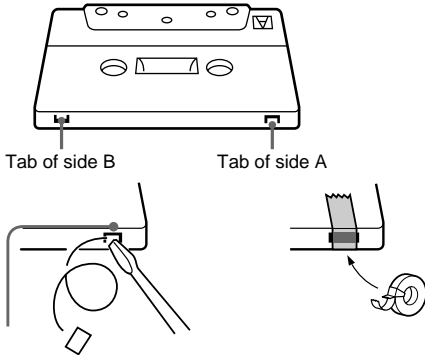
**continued**

## Precautions (continued)

### 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. However, be careful not to cover the detector slots which allow the tape player to automatically detect the type of tape.



Break off the cassette tab of side A

### 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.

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.



# Specifications

## Amplifier section

### Front Speaker:

The following measured at AC 120/220/240 V, 50 Hz  
DIN power output (Rated)

150 + 150 watts  
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (Reference)

200 + 200 watts  
(6 ohms at 1 kHz, 10%  
THD)

### Center Speaker:

DIN power output (Rated)

35 watts  
(8 ohms at 1 kHz, DIN)

Continuous RMS power output (Reference)

50 watts  
(8 ohms at 1 kHz, 10%  
THD)

### Rear Speaker:

DIN power output (Rated)

35 + 35 watts  
(8 ohms at 1 kHz, DIN)

Continuous RMS power output (Reference)

50 + 50 watts  
(8 ohms at 1 kHz, 10%  
THD)

## Inputs

### GUITAR:

(phone jack)

sensitivity 75 mV,  
impedance 470 kilohms

### PHONO IN:

(phono jacks)

sensitivity 3 mV,  
impedance 47 kilohms

### MIX MIC:

(phone jack)

sensitivity 1 mV,  
impedance 10 kilohms

### GAME INPUT:

(phono jacks)

sensitivity 250 mV,  
impedance 47 kilohms

### MD (VIDEO) IN:

(phono jack)

sensitivity 450 mV  
(250 mV), impedance  
47 kilohms

### DVD INPUT

FRONT, REAR, CENTER, WOOFER (phono jacks):

sensitivity 450 mV,  
impedance 47 kilohms

## Outputs

### PHONES:

(stereo phone jack)

accepts headphones of  
8 ohms or more

### MD (VIDEO) OUT:

(phono jacks)

voltage 250 mV  
impedance 1 kilohms

### WOOFER OUT (phono jack):

voltage 1 V, impedance  
1 kilohm

### FRONT SPEAKER:

accepts impedance of 6 to  
16 ohms

### CENTER SPEAKER:

accepts impedance of 8 to  
16 ohms

### REAR SPEAKER:

accepts impedance of 8 to  
16 ohms

continued

## Specifications (continued)

### Video section

#### Inputs

VIDEO IN (phono jack): 1 V p-p, 75 ohms

GAME IN (phono jack): 1 V p-p, 75 ohms

#### Output

VIDEO OUT (phono jack):  
1 V p-p, 75 ohms

### CD player section

System Compact disc and digital audio system

Laser Semiconductor laser ( $\lambda=795$  nm), Emission duration: continuous

Frequency response 2 Hz – 20 kHz ( $\pm 0.5$  dB)

Signal-to-noise ratio More than 90 dB

Dynamic range More than 90 dB

#### 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 87.5 – 108.0 MHz  
(50 kHz step)

Antenna FM lead antenna

Antenna terminals 75 ohms unbalanced

Intermediate frequency 10.7 MHz

#### AM tuner section

##### Tuning range

Pan-American model: 530 – 1,710 kHz (with the interval set at 10 kHz)

531 – 1,710 kHz (with the interval set at 9 kHz)

Other model:  
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

### Speakers

#### Front speaker:

##### SS-XGR90AV

Speaker system

3 way BUILT IN SW,  
magnetically shielded type

#### Speaker units

Super Woofer:

22 cm dia., cone type

Woofer:  
20 cm dia., cone type

Low Tweeter:  
2.5 cm dia., horn type

Rated impedance:  
6 ohms

Dimensions (w/h/d)  
Approx. 290 × 615 × 440 mm

Mass  
Approx. 15.5 kg net per speaker

#### Center speaker:

##### SS-CT380

Speaker system

Full-range, bass-reflex  
type, magnetically  
shielded type

#### Speaker units

Full range

10 cm dia., cone type (2)

Rated impedance

8 ohms

Dimensions (w/h/d)

Approx. 360 × 130 ×

170 mm

Mass

Approx. 2.7 kg

#### Rear speaker:

##### SS-RS380

Speaker system

Full-range, bass-reflex  
type

#### Speaker units

Full range

10 cm dia., cone type

Rated impedance

8 ohms

Dimensions (w/h/d)

Approx. 180 × 130 ×

170 mm

Mass

Approx. 1.5 kg net per  
speaker

## General

Power requirement	230 – 240 V AC, 50/60 Hz
Australian model:	230 – 240 V AC, 50/60 Hz
Other model:	120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	230 watts
Dimensions (w/h/d)	Approx. 355 × 425 × 451 mm
Mass :	Approx. 15.4 kg
Supplied accessories:	AM loop antenna (1) FM lead antenna (1) Speaker cords (5) Speaker pads (12) Remote commander (1) Batteries (2)

Design and specifications are subject to change without notice.

