

# *Micro Hi-Fi Component System*

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Operating Instructions



*CMT-GP6V*

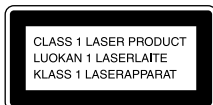
## WARNING

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

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## How to use this manual









- This manual mainly explains operations using the remote, but the same operations can also be performed using the buttons on the system having the same or similar names.
- The following symbols are used in this manual.

Symbol	Meaning
	Functions that can be used with VIDEO CDs
	Functions that can be used with audio CDs
	Functions that can be used with MP3

## Playable discs

You can play back the following discs on this system. Other discs cannot be played back.

### List of playable discs

Format of discs	Disc logo	Contents
VIDEO CD		Audio + Video
Audio CDs		Audio
CD-R/CD-RW (audio data)	 	Audio
CD-R/CD-RW (MP3 files)	   	Audio

## Discs that this system cannot play

- CD-ROMs
  - CD-Rs/CD-RWs other than those recorded in the following formats:
    - music CD format
    - video CD format
    - MP3 format that conforms to ISO9660 Level 1/Level 2 or Joliet\*
  - A disc that has a non-standard shape (e.g., card, heart).
  - A disc with paper or stickers on it.
  - A disc that has the adhesive, cellophane tape, or a sticker still left on it.
  - When you eject a disc, handle the disc by its edge. Do not touch the surface.
- \* Up to 8 characters can be displayed.

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## Notes on CD-R and CD-RW

- Some CD-Rs or CD-RWs cannot be played on this system depending upon the recording quality or physical condition of the disc, or the characteristics of the recording device. Furthermore, the disc will not play if it has not been correctly finalized. For more information, see the operating instructions for the recording device.
- CD-R and CD-RW discs recorded in packet write format are not supported.
- CD-R and CD-RW discs recorded in multi-session mode are not supported.
- Discs recorded on CD-R/CD-RW drives may not be played back because of scratches, dirt, recording condition or the driver's characteristics.
- The system may be unable to play MP3 format files that do not have the extender ".MP3".
- Attempting to play non-MP3 format files that have the extender ".MP3" may result in noise or malfunction.
- With formats other than ISO 9660 level 1 and 2, folder names or file names may not be displayed correctly.
- The following discs take a longer time to start playback.
  - a disc recorded with complicated tree structure.
  - a disc to which data can be added (non-finalized disc).

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## Note on playback operations of VIDEO CDs

Some playback operations of VIDEO CDs may be intentionally set by software producers. Since this system plays VIDEO CDs according to the disc contents the software producers designed, some playback features may not be available. Also, refer to the instructions supplied with the VIDEO CDs.

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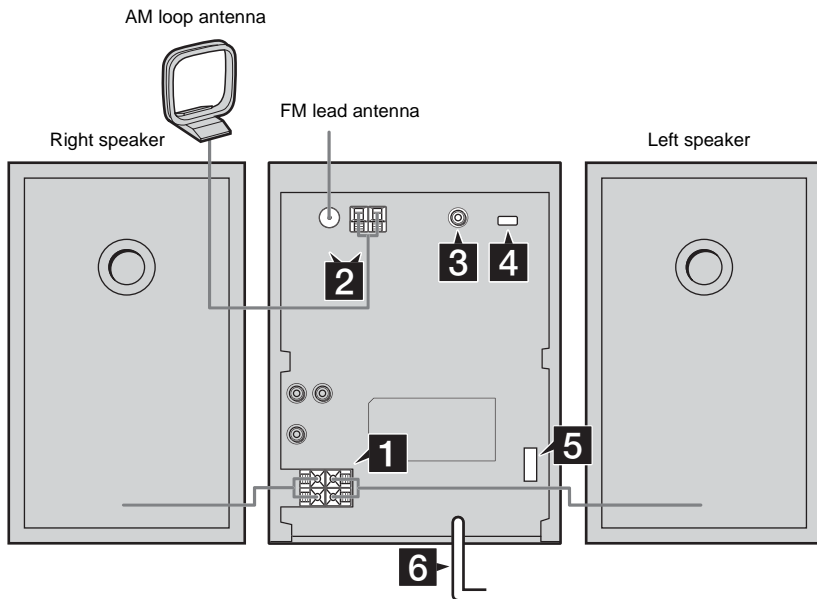
## Music discs encoded with copyright protection technologies

This product is designed to playback discs that conform to the Compact Disc (CD) standard. Recently, various music discs encoded with copyright protection technologies are marketed by some record companies. Please be aware that among those discs, there are some that do not conform to the CD standard and may not be playable by this product.

## Getting Started

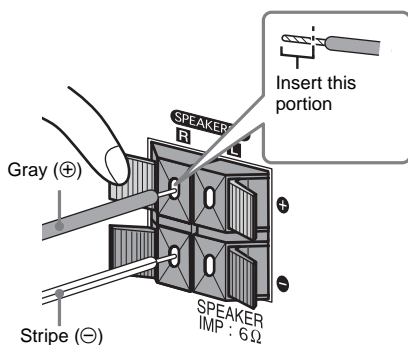
# Hooking up the system

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



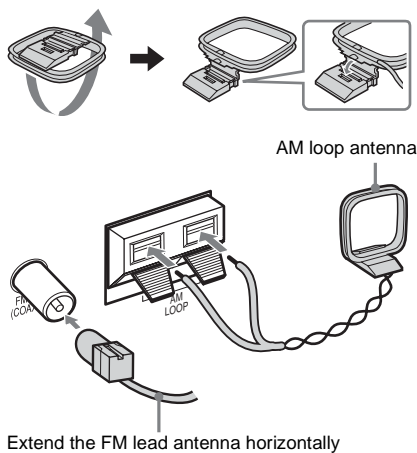
### **1** Connect the speakers.

Connect the right and left speaker cords to the SPEAKERS terminals as shown below.



### **2** Connect the FM and AM antennas.

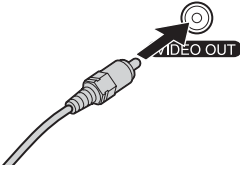
Set up the AM loop antenna, then connect it.



**Note**

Keep the antennas away from the speaker cords.

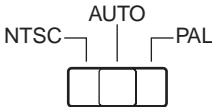
- 3** Connect the video input jack of your TV to the VIDEO OUT jack with the supplied video cord.



When using a TV

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

- 4** Set the color system to PAL or NTSC depending on the color system of your TV.



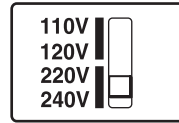
The color system of your TV	Do this
AUTO (factory setting)	Set SYSTEM SELECT to AUTO. If your TV automatically changes the color system according to the input signal, the system is set to AUTO.
NTSC	Set SYSTEM SELECT to NTSC. The system is set to NTSC.
PAL	Set SYSTEM SELECT to PAL. The system is set to PAL.

**Notes**

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

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

Refer to the print on your system's VOLTAGE SELECTOR for available settings.



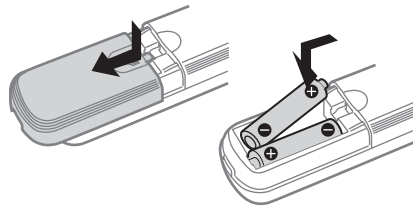
\* Saudi Arabian model: 120 – 127/220 V

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

If the plug does not fit the wall socket, detach the supplied plug adaptor (only for models equipped with an adaptor).

To turn on the system, press I/⏻.

Inserting two R6 (size AA) batteries into the remote

**Note**

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

**Tip**

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

## Setting the clock

Use buttons on the remote for the operation.

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

The clock starts working.

To adjust the clock

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



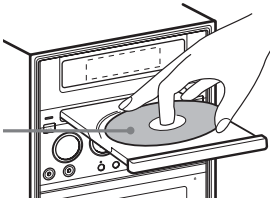
## VIDEO CD/CD/MP3 – Play

### Loading a disc

Use buttons on the unit for the operation.

- 1 Press **▲**.
- 2 Place a disc with the label side up on the disc tray.

When you play an 8 cm disc, place it on the inner circle of the tray.



- 3 Press **▲** again to close the disc tray.

#### Notes

- Do not use a disc with tape, seals or paste on it as this may cause malfunction.
- Do not forcibly press the disc tray closed with your finger, as this may cause malfunction.

## Playing a disc

### — Normal Play/Shuffle Play



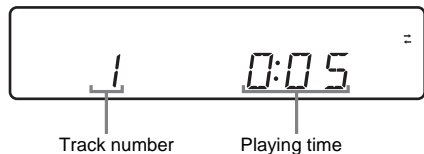
This system lets you play VIDEO CDs\*, audio CDs and discs with MP3 audio tracks.

Before playing a VIDEO CD, turn on your TV and select the video input. Refer to the operating instructions supplied with your TV if you need help.

Shuffle Play cannot be used while the PBC indicator lights up.

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

#### Example: When a disc is loaded



- 1 Press **CD** on the remote to switch the function to CD.
- 2 Press **PLAY MODE/TUNING MODE** on the unit in stop mode repeatedly until the mode you want appears in the display.

Select	To play
No display (Normal Play)	The tracks on the disc in original order.
SHUF (Shuffle Play)	All tracks on the disc in random order.
PGM (Program Play)	The tracks on the disc in the order you want them to be played (see "Creating your own program" on page 12).

- 3 Press **▶** (or **CD ▶||** on the unit).

## Other operations

To	Do this
Stop play	Press ■.
Pause	Press ■■ (or CD ►■■ on the unit)* <sup>1</sup> . Press again to resume play.
Select a track or scene* <sup>2</sup>	Press ◀◀/▶▶ repeatedly.
Select an album of MP3	Press ALBUM +/- on the remote repeatedly after step 2. If you select an album during playback, playback will stop. Press ► (or CD ►■■ on the unit) to resume play.
Find a point in a track or scene* <sup>3</sup> (Search)	Keep pressing ◀◀/▶▶ during playback and release it at the desired point. For VIDEO CDs only, keep pressing ◀◀/▶▶ for a few seconds during playback. The picture plays back in fast reverse or fast advance at 20-second intervals. Press ► (or CD ►■■ on the unit) to stop searching and start playback.
Remove a disc	Press ▲ on the unit.

\*<sup>1</sup> For VIDEO CDs, there are may be some disturbance in the video image.

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

\*<sup>3</sup> You may not be able to search between multiple files. Also, the time may not be displayed correctly for some files.

## Notes

- You cannot change the play mode during playback.
- Shuffle Play and Program Play cannot be used with MP3 discs.
- Some time may be needed to start playback of discs recorded in complex configurations such as many layers.
- When the disc is inserted, the player reads all the tracks on that disc. If there are many albums or non-MP3 audio tracks on the disc, it may take a long time for play to begin or for the next MP3 audio track to start play.
- Do not save unnecessary albums or tracks other than MP3 ones in the disc to be used for MP3 listening. We recommend that you do not save other types of tracks or unnecessary albums on a disc that has MP3 audio tracks.
- An album that does not include an MP3 audio track is skipped.
- Maximum album number: 255 (including root folder)
- Up to 255 tracks and albums of MP3 on a single disc can be recognized on this unit.
- Playback is possible up to 8 levels.
- MP3 audio tracks may not be 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 audio track is recorded, you may encounter such problems as disabled playback, sound interruptions and noise.
- The bit rate typically used for MP3 files is 128 kbps. The assured bit rate range for sound quality on the unit is 96 kbps to 192 kbps. If an MP3 file stored with a bit rate beyond that range is played back, sound quality is not guaranteed and noise may be generated.

## Tip

When disc access takes a long time, set “ON” by the CD power manage function (page 15).

## To play a track by entering the track number

You can also select the track you want using the remote during Normal Play.

### Press the numeric button(s).

To enter a track number over 10

**1** Press >10.

**2** Enter the corresponding digits for the same number of “—” flashing in the display.

To enter 0, press 10/0.

Example:

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

## Resuming playback from the point you stopped the disc

### — Resume Play

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

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

This function cannot be used while the PBC indicator lights up.

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

**2 Press ► (or CD ►|| on the unit).**

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

#### Notes

- You cannot perform Resume Play during Disc Digest, Track Digest, Repeat Play, Shuffle Play or Program Play.
- Depending on where you stopped the VIDEO CD, the system may resume playback from a different point.
- Resume play is canceled when:
  - you press the numeric buttons on the remote, PLAY MODE/TUNING MODE on the unit, ■ or ◀▶/▶▶.
  - you disconnect the power cord.
  - you press ▲ on the unit.

#### Tip

To view from the beginning of the VIDEO CD, press ■ in stop mode, then press ► (or CD ►|| on the unit).

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

### — PBC Play



You can use PBC\* menus on your TV screen to enjoy the disc's interactive software. The menu format and structure may differ depending on each disc.

Use buttons on the remote for the operation.

\* PBC: Playback Control

**1 Press ► (or CD ►|| on the unit) to start playing a VIDEO CD with PBC functions (Ver. 2.0).**

The PBC menu appears on the TV screen.

**2 Press the numeric buttons repeatedly to select the item number you want.**

**3 Continue playback according to the instructions on the menus to enjoy interactive playback.**

Refer to the operating instructions supplied with the disc, as the operating procedure may differ according to the VIDEO CD.

### Other operations

To	Do this
Stop play	Press ■.
Go to the next menu page or scene	Press NEXT.
Go back to the previous menu page or scene	Press PREV.
Go back to the previous menu	Press RETURN ↵.
Select a menu	See "To play a track by entering the track number" (page 10).

To cancel playback with PBC functions (Ver. 2.0)

- 1 In stop mode, press **◀◀/▶▶** to select a track.
- 2 Press **▶** (or CD **▶||** on the unit).  
The PBC indicator disappears and playback starts from the selected track. Still images, such as the menu screens, will not be shown.  
You can use the numeric buttons instead of performing steps 1 and 2.

To return to PBC playback, press **■** twice, then press **▶** (or CD **▶||** on the unit).

Tip

“PBC” appears for the disc with PBC functions, and the PBC indicator disappears when its function is canceled.

## Playing repeatedly

### — Repeat Play



You can play all the tracks on a disc.  
This function cannot be used while the PBC indicator lights up.

**Press REPEAT/FM MODE on the unit repeatedly during playback until “REPEAT” appears.**

Playback of all the tracks on a disc repeats up to five times.

To cancel Repeat Play

Press REPEAT/FM MODE on the unit repeatedly until “REPEAT” disappears.

## Creating your own program

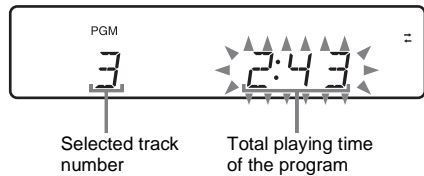
### — Program Play



You can make a program of up to 30 steps.  
You can synchro record the programmed tracks onto a cassette tape (page 18).  
This function cannot be used while the PBC indicator lights up.

Use buttons on the remote for the operation.

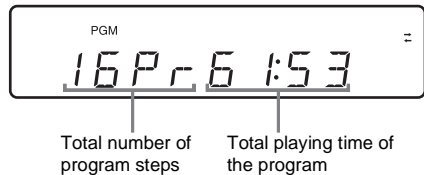
- 1 Press **CD** to switch the function to CD.
- 2 Press **PLAY MODE/TUNING MODE on the unit in stop mode repeatedly until “PGM” appears.**
- 3 Press **◀◀/▶▶** repeatedly until the desired track number appears.



- 4 Press **ENTER**.

The track is programmed.

The total number of program steps appears.



- 5 To program additional tracks, repeat steps 3 and 4.
- 6 Press **▶** (or CD **▶||** on the unit).  
Program Play starts.

## Other operations

To	Do this
Cancel Program Play	Press PLAY MODE/TUNING MODE on the unit in stop mode repeatedly until both “PGM” and “SHUF” disappear.
Add a track to the end of the program	Perform steps 1 – 4 in stop mode.
Erase the program	Press CLEAR in stop mode. Each time you press the button, a track is cleared from the end of the program.

## Selecting a track by entering the track number

You can also select the track you want using the remote. Press the numeric button(s) instead of performing steps 3 and 4.

### Tips

- When you press ■ twice, all the tracks in the program are cleared.
- The program you made remains after Program Play finishes. To play the same program again, press ► (or CD ►|| on the unit). However, the program is cleared when you open the disc tray.

## Locating a specific part of a VIDEO CD

### — Disc Digest/Track Digest



The TV screen must be ON to use these functions.

These functions cannot be used while the PBC indicator lights up.

Use buttons on the remote for the operation.

### 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 in stop mode.

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

#### 2 Press the numeric buttons (1 – 9) to select the track you want.

To display the next 9 tracks

Press ►►. 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 ◀◀.

To cancel Disc Digest

Press ■.

## Locating a section within a track

### — Track Digest

You can have the VIDEO CD player divide a track into 9 different sections and display the first scene of each section on the TV screen.

#### 1 Press SPECIAL MENU during playback.

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

#### 2 Press the numeric buttons (1 – 9) to select the section you want.

To switch to the digest of another track during Track Digest

Press ◀▶ repeatedly during Track Digest.

To cancel Track Digest

Press ■.

#### Notes

- If you press SPECIAL MENU to active Disc Digest or Track Digest in Repeat or Shuffle Play mode, it changes to Normal Play mode.
- Track Digest may not be possible for a track of less than 1 minute.

## Tuner

### Presetting radio stations

You can preset up to 32 stations for FM and AM. You can then tune in any of those stations simply by selecting the corresponding preset number.

Use buttons on the unit for the operation.

### Automatic tuning preset

You can automatically tune in all of the stations that can be received in your area and then store the radio frequency of the desired stations.

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

#### 2 Press PLAY MODE/TUNING MODE repeatedly until “AUTO” and the frequency appear in the display.

#### 3 Press and hold TUNING +/- until the frequency indication starts to change, then release it.

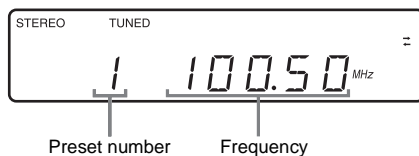
Scanning stops automatically when a station is tuned in. At that time, “TUNED” and “STEREO” (for stereo program only) appear.

#### 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 5 of “Manual tuning preset” (page 15).

#### 4 Press TUNING MEMORY on the remote.

The preset number appears. Station storage starts with preset number 1. If preset stations have been erased, then stations are stored to the lowest preset number containing no station.



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

---

## Manual tuning preset

You can manually tune in and store the radio frequency of the desired stations.

- 1 Press TUNER/BAND repeatedly to select FM or AM.**
- 2 Press PLAY MODE/TUNING MODE repeatedly until "AUTO" and "PRESET" disappear from the display.**
- 3 Press TUNING +/- repeatedly to tune in the desired station.**
- 4 Press TUNING MEMORY on the remote.**  
The preset number appears. Station storage starts with preset number 1. If preset stations have been erased, then stations are stored to the lowest preset number containing no station.
- 5 Repeat steps 1 through 4 to preset other stations.**

## Other Operations

To	Do this
Tune in a station with a weak signal	Follow the procedure described in "Manual tuning preset" (page 15).
Erase a preset station	<ol style="list-style-type: none"> <li><b>1</b> Select the preset number of the station to be erased.</li> <li><b>2</b> Press CLEAR on the remote.</li> <li><b>3</b> Press ENTER on the remote.</li> </ol>

## To improve tuner reception

When tuner reception is poor, set CD player power off by the CD power manage function. CD power is factory set to on.

- 1** Press CD on the remote to switch the function to CD.
- 2** Press I/⏻ to turn off the system.
- 3** Press CD ►|| while holding ■.  
"OFF" appears.

## To set the CD power on

Repeat the procedure above and "ON" appears.

### Note

When "OFF" is selected, CD access time is increased.

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

The AM tuning interval is factory-preset to 9 kHz (or 10 kHz for some areas). To change the AM tuning interval, tune in any AM station first. While holding TUNER/BAND, press I/⏻. When you change the interval, all the AM/FM preset stations are erased. To reset the interval, tune in any AM station first. While holding TUNER/BAND, press I/⏻.

### 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 the reception, adjust the supplied antennas or connect an external antenna.

## Listening to the radio

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

Use buttons on the unit for the operation.

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### Listening to a preset station

#### — *Preset Tuning*

Preset radio stations in the tuner's memory first (see "Presetting radio stations" on page 14).

- 1 Press TUNER/BAND.**
- 2 Press PLAY MODE/TUNING MODE repeatedly until "PRESET" appears in the display.**
- 3 Press TUNING +/- repeatedly to select the desired preset station.**

Selecting the desired preset number using the numeric buttons

Press the numeric button(s) on the remote instead of performing step 3.

---

### Listening to non-preset radio station

#### — *Manual Tuning*

- 1 Press TUNER/BAND repeatedly to select FM or AM.**
- 2 Press PLAY MODE/TUNING MODE repeatedly until "AUTO" and "PRESET" disappear from the display.**
- 3 Press TUNING +/- repeatedly to tune in the desired station.**

Note

When "CD" is selected as the current function and TUNER/BAND is pressed to select "TUNER" during "OFF", it may take some time to switch the function (page 15).

#### Tips

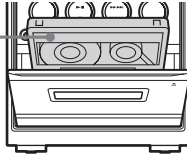
- To improve broadcast reception, adjust the supplied antennas, or connect a commercially available external antenna.
- When an FM stereo program has static noise, press REPEAT/FM MODE until "MONO" appears. There will be no stereo effect, but the reception will improve.
- In step 2, press PLAY MODE/TUNING MODE repeatedly until "AUTO" and the frequency appear in the display, then press and hold TUNING +/- until the frequency indication starts to change. Scanning stops when the system tunes in a station (Automatic Tuning).
- To record the radio programs, use manual recording (page 18).
- You can change the display into the clock display (for the six seconds) by pressing DISPLAY on the remote.



## Loading a tape

- 1 Press **▲ PUSH** on the unit.
- 2 Load a recorded/recordable tape into the cassette holder.

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



## Playing a tape

You can use TYPE I (normal) tape.  
Use buttons on the unit for the operation.

- 1 **Load a recorded tape.**
- 2 **Press TAPE ◀▶.**  
When using the buttons on the remote, press TAPE, then press ▶.  
Press TAPE ◀▶ (or ▶ on the remote) again to play the reverse side.
- 3 **Press DIRECTION repeatedly to select “↔” to play one side, “↔↔” to play both sides, or “↔↔”<sup>\*</sup> to play both sides repeatedly.**

<sup>\*</sup> The tape automatically stops after playing back five times.

### Other operations

To	Do this
Stop play	Press ■.
Pause	Press    on the remote. Press again to resume play.
Fast-forward or rewind	Press ◀◀◀◀/▶▶▶▶ (or ◀◀/▶▶ on the remote).
Remove a tape	Press ▲ PUSH.

## Recording your favorite CD tracks on a tape

### — CD Synchro Recording

You can record a whole CD on a tape.  
You can use TYPE I (normal) tape.  
Use buttons on the unit for the operation.

- 1 Load a recordable tape.**
- 2 Load a disc you want to record.**
- 3 Press CD SYNC.**  
The tape deck stands by for recording and the CD player pauses for playback.  
When you want to record on the reverse side, press TAPE ◀▶ (or ▶ on the remote).
- 4 Press DIRECTION repeatedly to select “↔” to record on one side or “↔↔” to record on both sides.**
- 5 Press ●REC PAUSE/START.**  
Recording starts.  
When the recording is completed, the CD player and the tape deck stop automatically.

To stop recording

Press ■.

To record only your favorite tracks

You can record only your favorite tracks using Program Play. Between steps 2 and 3, perform steps 1 to 5 of “Creating your own program” (page 12).

Note

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.

Tip

When setting the PBC function to on, change the setting to off and then start recording.

## Recording on a tape manually

### — Manual Recording

You can record just the portions you like from a CD on a tape. You can also record a radio program.

You can use TYPE I (normal) tape.  
Use buttons on the unit for the operation.

- 1 Load a recordable tape.**
- 2 Select the desired source to record.**
  - CD: To record from this system’s CD player.
  - TUNER: To record from this system’s tuner.
  - MD: To record from the optional component connected to the MD IN jacks.
- 3 Press ●REC PAUSE/START.**  
The tape deck stands by for recording.  
When you want to record on the reverse side, press TAPE ◀▶ (or ▶ on the remote).
- 4 Press DIRECTION repeatedly to select “↔” to record on one side or “↔↔” to record on both sides.**
- 5 Press ●REC PAUSE/START, then start playing the desired source to record.**  
Recording starts.

Other operations

To	Do this
Stop recording	Press ■.
Pause recording	Press ●REC PAUSE/START.

Tip

For recording from a disc, you can press ◀◀◀◀/▶▶▶▶ (or ◀◀/▶▶ on the remote) repeatedly to select tracks during recording pause mode (after step 3 and before step 5).

Note

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.

## Sound Adjustment

### Adjusting the sound

You can adjust the bass and treble to enjoy more powerful sound.

Use buttons on the remote for the operation.

---

Generating a more dynamic sound (Dynamic Sound Generator)

#### Press DSG.

To cancel the DSG, press DSG again.

---

### Adjusting the bass and treble

- 1 Press BASS/TREBLE repeatedly to select "BASS" or "TREBLE".**

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

BASS → TREBLE → Original display

- 2 Press ◀◀/▶▶ repeatedly to adjust the level while "BASS" or "TREBLE" appears.**

## Singing along

You can sing along by connecting an optional microphone.

Use buttons on the unit for the operation.

---

### Enjoying Karaoke

- 1 Connect an optional microphone to MIC jack.**
- 2 Press K.PON/MPX 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 L → MPX R → OFF (effect status)

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

- 3 Start playing the music.**
- 4 Adjust the volume and tone of the source.**
- 5 Press MIC/ECHO repeatedly to select "MIC X".**
- 6 Adjust the microphone volume by pressing ◀◀◀◀/▶▶▶▶ (or ◀◀/▶▶) on the remote) repeatedly.**

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

MIC OFF → MIC 1 → MIC 2 → ... → MIC 7

## Other operations

To	Do this
Use VIDEO CDs	Turn on your TV and switch it to the appropriate video input.
Cancel karaoke mode	Press MIC/ECHO repeatedly until "MIC X" or "ECHO X" disappears and disconnect the microphone from MIC jack, then press K.PON/MPX on the remote repeatedly until "OFF" appears.
Adjust the microphone echo	Press MIC/ECHO repeatedly to select "ECHO X", then press <b>◀◀◀◀/▶▶▶▶</b> (or <b>◀◀/▶▶</b> ) on the remote) repeatedly to adjust the echo effect. To cancel the echoing, press <b>◀◀◀◀</b> (or <b>◀◀</b> on the remote) repeatedly until "ECHO OFF" appears.
Adjust the key	Press KEY CONTROL on the remote, then press <b>◀◀◀◀/▶▶▶▶</b> (or <b>◀◀/▶▶</b> ) on the remote) repeatedly to suit your vocal range.  You can adjust the key higher or lower in 9 halftone steps (-4 - +4).

### Notes

- With some songs, vocals may not be canceled when you select "KARAOKE PON".
- 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.
- Keep microphone away from the speakers and adjust its volume to avoid acoustic feedback (howling) and distortion.
- The key can be adjusted only when the function is set to CD.
- The microphone volume and microphone echo turn off ("MIC OFF" and "ECHO OFF") when the function is changed.

## Mixing and recording sounds

- 1 Prepare the source you want to mix. Then, load a recordable tape.**
- 2 Press the function button of the source you want to record (e.g., CD).**
- 3 Press ●REC PAUSE/START.**  
The tape deck stands by for recording.
- 4 Press ●REC PAUSE/START and then start singing, speaking or playing the desired source.**  
Recording starts.

### To stop recording

Press ■.

### Note

If the microphone is connected during recording, its input is recorded mixed with the sound source.

### 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 disc.
- 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).
- The key can be adjusted only when the function is set to CD.

## 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. Use buttons on the remote for the operation.

#### Press SLEEP repeatedly.

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

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

\* The system automatically turns off in 100 minutes or after the current disc or tape finishes playing.

#### Other operations

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

\*\*You cannot check the remaining time if you select "AUTO".

#### Note

Do not set to "AUTO" during Synchro Recording on a tape.

#### Tip

You can use the Sleep Timer, even if you have not set the clock.

## 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 8).

Use buttons on the remote for the operation.

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

- CD: Load a disc. To start from a specific track, make a program (see "Creating your own program" on page 12).
- TAPE: Load a tape.
- TUNER: Tune in a radio station (see "Listening to the radio" on page 16).

#### 2 Press CLOCK/TIMER SET.

#### 3 Press ◀▶ repeatedly until "PLAY" appears, then press ENTER.

"ON TIME" appears and the hour indication flashes.

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

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

The minute indication flashes.

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

#### 5 Set the time to stop playback following the same procedure as step 4.

#### 6 Press ◀▶ repeatedly depending on the sound source you want to play, then press ENTER.

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

CD → TAPE → TUNER

#### 7 Adjust the volume.

#### 8 Press I/⏻ to turn off the system.

## Other operations

To	Do this
Change the setting	Start over from step 1.
Activate the timer	Press CLOCK/TIMER SELECT repeatedly until "PLAY" appears, then press ENTER.
Cancel the timer	Press CLOCK/TIMER SELECT repeatedly until "OFF" appears, then press ENTER.

### Notes

- If you use the Daily Timer and the Sleep Timer at the same time, the Sleep Timer has priority.
- Do not operate the system from the time the system turns on until the play starts (about 15 seconds before the preset time).
- If the system is on about 15 seconds before the preset time, the Daily Timer will not be activated.
- You cannot use the optional component connected to MD IN jacks as sound sources for the Daily Timer.

## Timer recording radio programs

To timer record, you must first preset the radio station (see "Presetting radio stations" on page 14) and set the clock (see "Setting the clock" on page 8).

Use buttons on the remote for the operation.

- 1 Tune in the preset radio station (see "Listening to a preset station" on page 16).**
- 2 Press CLOCK/TIMER SET.**
- 3 Press ◀◀/▶▶ repeatedly until "REC" appears, then press ENTER.**  
"ON TIME" appears and the hour indication flashes.
- 4 Set the time to start recording.**  
Press ◀◀/▶▶ repeatedly to set the hour, then press ENTER.  
The minute indication flashes.  
Press ◀◀/▶▶ repeatedly to set the minute, then press ENTER.
- 5 Set the time to stop recording following the same procedure as step 4.**  
The ☹ REC indicator lights up.
- 6 Load a recordable tape.**
- 7 Press DIRECTION on the unit repeatedly to select "→" to record on one side or "↔" to record on both sides.**
- 8 Press I/⏻ to turn off the system.**

## Other operations

To	Do this
Change the setting	Start over from step 1.
Activate the timer	Press CLOCK/TIMER SELECT repeatedly until “REC” appears, then press ENTER.
Cancel the timer	Press CLOCK/TIMER SELECT repeatedly until “OFF” appears, then press ENTER.

### Notes

- You cannot activate the Daily Timer and recording timer at the same time. If the time settings overlap, the setting last made has priority.
- If you use the recording timer and the Sleep Timer at the same time, the Sleep Timer has priority.
- Do not operate the system from the time the system turns on until the recording starts (about 15 seconds before the preset time).
- If the system is on about 15 seconds before the preset time, the timer recording will not be activated.
- The volume is reduced to minimum during recording.

## Display

### Turning off the display

#### — Power Saving Mode

The clock display can be turned off to minimize the amount of power consumed during standby (Power Saving Mode).

**Press DISPLAY on the remote.**

To cancel Power Saving Mode

Press DISPLAY on the remote.

Note

You cannot perform the following operations in Power Saving Mode.

- setting the clock
- changing the AM tuning interval (except for Middle Eastern model)
- turning on the system by pressing the function buttons
- changing the CD power manage function

Tips

- The I/⏻ indicator lights up even in the Power Saving Mode.
- The timer continues to operate in Power Saving Mode.

### Adjusting the brightness of the display's backlight

You can change the brightness of the display's backlight.

Use buttons on the remote for the operation.

**1 Press DISPLAY repeatedly until "DIMMER X" appears.**

**2 Press ◀◀/▶▶ repeatedly.**

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

DIMMER 0 → DIMMER 1 → DIMMER 2

### Viewing information about the disc in the display

You can check the playing time of the current track or remaining time of the disc.

#### Checking the remaining time and titles (VIDEO CD/CD/MP3)

**Press DISPLAY on the remote repeatedly.**

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

##### ■ When playing a CD/MP3/VIDEO CD without PBC function (Ver. 1.1)

Current track number and elapsed playing time of the track → Remaining time of the disc\* → Track name of MP3 audio track → Album name of MP3 audio track → Clock display (for six seconds) → DIMMER X (for six seconds)

\* This is not displayed during playback of MP3 audio tracks.

##### ■ When playing a VIDEO CD with PBC function (Ver. 2.0)

Elapsed playing time of the track\* → Clock display (for six seconds) → DIMMER X (for six seconds)

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



---

## Checking the total playing time and titles (VIDEO CD/CD/MP3)

Press **DISPLAY** on the remote repeatedly in stop mode.

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

### ■ When a CD/MP3/VIDEO CD is in Normal Play mode

Total playing time or total number of albums and tracks on the disc\* → Clock display (for six seconds) → DIMMER X (for six seconds)

\* For discs with MP3 audio tracks

#### Notes

- The total playing time is not displayed for a disc with MP3 audio tracks.
- In the following case, elapsed playing time may not be displayed accurately.
  - when an MP3 audio track of VBR (variable bit rate) is played.
  - when fast forward or fast reverse is performed.

## Viewing information about the disc in the on-screen display

You can check the current operating status and disc information of VIDEO CDs, audio CDs or MP3 during playback or in stop mode. Depending on conditions, some items are displayed and others are not.

### Press ON SCREEN on the remote repeatedly.

The remaining time of the disc or the elapsed playing time of the track is displayed.

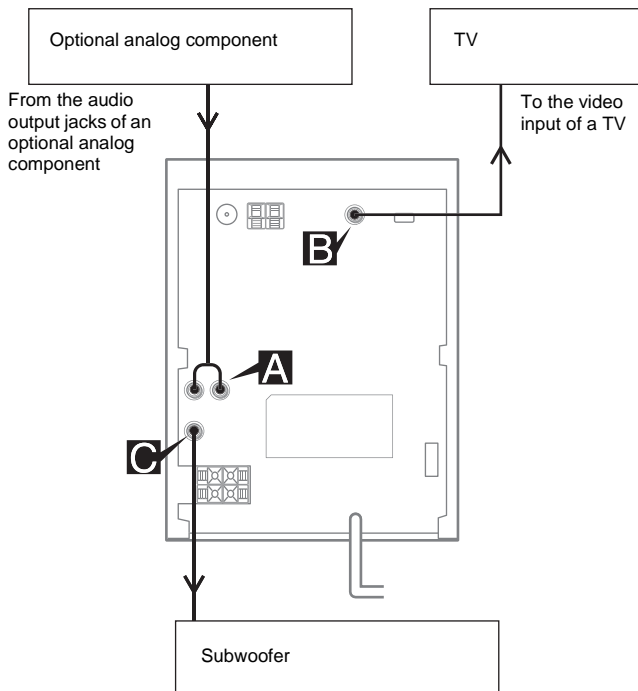
Album and track names are displayed for MP3 discs.

#### Note

The display information may differ depending on the disc.

### Hooking up optional components

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



#### **A** MD IN jacks

Use audio cords (not supplied) to connect an optional analog component (MD deck, etc.) to these jacks. You can then listen to the sound from the component.

#### **B** VIDEO OUT jack

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

#### **C** SUB WOOFER jack

Connect an optional powered subwoofer with a built-in amplifier to this jack.

---

#### Listening to audio from a connected component

- 1 Connect audio cords.  
See "Hooking up optional components" on page 26.
- 2 Press MD on the unit.  
Start playing the connected component.

---

#### Recording audio from a connected component

- 1 Connect audio cords.
- 2 Start recording manually.  
See "Recording on a tape manually" on page 18.

### Problems and remedies

Should you encounter a problem with your system, do the following:

- 1 Make sure the power cord and speaker cords are correctly and firmly connected.
- 2 Find your problem in the troubleshooting checklist below and take the indicated corrective action.

If the problem persists after doing all of the above, consult your nearest Sony dealer.

When the I/⏻ indicator flashes

Immediately unplug the power cord and check the following items.

- Is the voltage selector set to the correct voltage?  
Check the voltage for your region, then make sure the voltage selector is set correctly.
- Are the + and – speaker cords short-circuited?
- Are you using only the prescribed speakers?
- Is anything blocking the ventilation holes on the rear of the system?

After checking the above items and fixing any problems, connect the power cord again and turn on the system. If the indicator still flashes, or if the cause of the problem cannot be found even after checking all the above items, consult your nearest Sony dealer.

#### General

---

##### **The display or button remains lighted or flashes even after the system was turned off.**

- Press DISPLAY on the remote repeatedly until the clock display appears.

---

##### **The clock indication does not show the correct time.**

- A power interruption has occurred. Set the clock (page 8) and timer settings (pages 21 and 22) 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” (page 8)
    - “Presetting radio stations” (page 14)
- If you have set the timer, also redo “Waking up to music” (page 21) and “Timer recording radio programs” (page 22).

---

##### **There is no sound.**

- Press VOLUME + repeatedly.
- Make sure the headphones are not connected.
- Insert only the stripped portion of the speaker cord into the SPEAKERS terminal. Inserting the vinyl portion of the speaker cord will obstruct the speaker connections (page 6).

---

##### **There is no microphone sound.**

- Press MIC/ECHO on the unit repeatedly to select “MIC X”, then press ◀◀/▶▶ repeatedly to adjust the microphone volume.
- Make sure the microphone is connected to the MIC jack on the unit correctly.

---

##### **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 – terminals are connected correctly.

---

##### **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.
- Connect the system to a different wall outlet.
- Install a noise filter (commercially available) to the power line.

---

##### **The timer cannot be set.**

- Set the clock correctly (page 8).

---

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

- Set the timer correctly (pages 21 and 22).
- Cancel the Sleep Timer function (page 21).
- You cannot activate the timer recording and Daily Timer at the same time.

---

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

- Remove the obstacle.
- Move the remote closer to the system.
- Point the remote at the system’s sensor.
- Replace the batteries (R6/size AA).

---

**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.
- 

---

**VIDEO CD/CD/MP3 player**


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**The disc tray does not open and “LOCK” appears in the display.**

- Consult your nearest Sony dealer or local authorized Sony service facility.

---

**The disc tray does not close.**

- Place the disc correctly in the center of the tray.
- Always close the tray by pressing  on the unit. Trying to press the tray closed with your fingers may cause problems with the player.

---

**The disc does not eject.**

- Consult your nearest Sony dealer.




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**There is no picture.**

- Check that the system 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 on the remote to switch the function to CD.

---

**Play does not start.**

- Open the disc tray and check whether a disc is loaded.
- Wipe the disc clean (page 30).
- Replace the disc.
- Place the disc that this system can play (page 4).
- Place the disc correctly in the center of the tray.
- Place the disc in the tray with the label side up.
- Remove the disc and wipe away the moisture on the disc, then leave the system turned on for about an hour until the moisture evaporates.
- Press  (or CD   on the unit) to start play.

---

**Disc access takes a long time.**

- Set “ON” by the CD power manage function (page 15).

---

**The sound skips.**

- Wipe the disc clean (page 30).
- Replace the disc.
- Try moving the system to a place without vibration (e.g., on top of a stable stand).
- Try moving the speakers away from the system, or placing them on separate stands. When you listen to a track with bass sounds at high volume, the speaker vibration may cause the sound to skip.

---

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

- Press PLAY MODE/TUNING MODE on the unit repeatedly until both “PGM” and “SHUF” disappear to return to Normal Play.

---

**MP3 audio track cannot be played back.**

- Recording was not performed according to the ISO 9660 level 1 or level 2 format, Joliet in the expansion format.
- The MP3 audio track does not have the extension “.MP3”.
- The data is not stored in MP3 format.
- Discs containing files other than MPEG 1 Audio Layer-3 files cannot be played.
- Files that are too small (64 kB or less) cannot be played back.

---

**MP3 audio tracks take longer to play back than others.**

- After the system reads all tracks on the discs, playback may take more time than usual if:
  - the number of albums or tracks on the disc is very large.
  - the album and track organization structure is very complex.

---

**The album title and track title do not appear correctly.**

- Use a disc that conforms with ISO 9660 level 1, level 2 or Joliet in the expansion format.
  - The characters that can be displayed by this unit are as follows:
    - Upper cases (A to Z)
    - Numbers (0 to 9)Other characters may not be displayed correctly.
-

## Tuner

---

### **Severe hum or noise/stations cannot be received.**

- Set the proper band and frequency (page 16).
- Connect the antenna properly (page 6).
- Find a place and an orientation that provide good reception, then set up the antenna again. If you cannot obtain good reception, we recommend you connect a commercially available external antenna.
- The supplied FM lead antenna receives signals along its entire length, so make sure you extend it fully.
- Locate the antennas as far away from the speaker cords as possible.
- Consult your nearest Sony dealer if the supplied AM antenna has come off the plastic stand.
- Try turning off surrounding electrical equipment.
- Set “OFF” by the CD power manage function (page 15).

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

- Press REPEAT/FM MODE on the unit until “STEREO” appears in the display.

## Tape deck

---

### **The tape does not record or play, or there is a decrease in sound level.**

- The heads are dirty. Clean them (page 31).
- The record/playback heads are magnetised. Demagnetise them (page 31).

### **The tape does not erase completely.**

- The record/playback heads are magnetised. Demagnetise them (page 31).

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

- The capstans in the tape deck are dirty. Clean them using a cleaning cassette (page 31).

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

- The record/playback heads are magnetised. Demagnetise them (page 31).

### **The tape does not record.**

- No cassette is loaded. Load a cassette.
- The tab has been removed from the cassette. Cover the broken tab with adhesive tape (page 31).
- The tape has wound to the end.

## Optional components

---

### **There is no sound.**

- Refer to General item “There is no sound.” (page 27) and check the condition of the system.
- Connect the component properly (page 26) while checking:
  - if the cords are connected properly.
  - if the cord plugs are firmly inserted all the way.
- Turn on the connected component.
- Refer to the operating instructions supplied with the connected component and start playing.
- Press MD on the unit (page 26).

### **The sound is distorted.**

- Set the volume of the connected component lower.

If the system still does not operate properly after performing the above measures, reset the system as follows:

- 1 Turn off the system.
- 2 While pressing and holding ■, turn on the system.

The system is reset to the factory settings. You should set the settings you made, such as the preset stations, clock, and timer.

## Messages

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

### VIDEO CD/CD/MP3

---

#### **NO DISC**

There is no disc in the player.

#### **PGM FULL**

You tried to program 31 tracks or more.

#### **PROTECT**

Consult your nearest Sony dealer.

## Additional Information

### Precautions

#### On operating voltage

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

#### On safety

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

- 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 high 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.

In case color irregularity is observed on nearby a TV screen

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

If color irregularity is observed...

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

If color irregularity is observed again...

Place the speakers farther away from the TV set.

#### 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 VIDEO CD/CD player. Should this occur, the system will not operate properly. Remove the disc and leave the system turned on for about an hour until the moisture evaporates.
- When you move the system, take out any disc.

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

#### Notes on discs

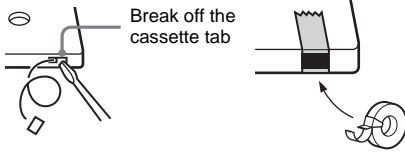
- Before playing, clean the disc with a cleaning cloth. Wipe the disc from the center out.
- Do not use solvents such as benzene, thinner, commercially available cleaners or anti-static spray intended for vinyl LPs.
- Do not expose the disc to direct sunlight or heat sources such as hot air ducts, nor leave it in a car parked in direct sunlight.
- Do not use discs encircled with a protection ring. This may cause a malfunction to the system.
- When using discs that have glue or similar tacky substance on the label side of the disc or that used a special ink when the label was printed, there is a chance that the disc or label may become attached to parts inside this unit. When this occurs, it may not be possible to remove the disc, and may also cause this unit to malfunction. Be sure to check that the label side of the disc is not sticky before using.  
The following types of disc should not be used:
  - Rental or used discs with attached seals where the glue extends beyond the seal. The perimeter of the seal on the disc is tacky.
  - Discs that have labels printed using a special ink that feels tacky when touched.
- 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

Clean the cabinet, panel and controls with a soft cloth slightly moistened with mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as thinner, benzene or alcohol.

## To save a tape permanently

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



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

## Before placing a cassette in the tape deck

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

## When using a tape longer than 90 minutes

The tape is very elastic. Do not change the tape operations such as play, stop, and fast-winding 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.

## Demagnetising the tape heads

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

# Specifications

## Main unit

### Amplifier section

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

DIN power output (rated): 20 + 20 W  
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference):  
30 + 30 W  
(6 ohms at 1 kHz, 10% THD)

### Inputs

MD IN (phono jacks): Sensitivity 500 mV,  
impedance 47 kilohms

MIC (phone jack): Sensitivity 1 mV,  
impedance 10 kilohms

### Outputs

PHONES (stereo minijack): Accepts headphones with  
an impedance of 8 ohms or  
more

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

SPEAKERS: Accepts impedance of 6 to  
16 ohms.

## VIDEO CD/CD player section

System Compact disc and digital  
audio system

Laser Semiconductor laser  
( $\lambda=780$  nm)  
Emission duration:  
continuous

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

Wavelength 780 – 790 nm

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	50 – 13,000 Hz ( $\pm 3$ dB), using Sony TYPE I cassettes
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 balanced
Intermediate frequency	10.7 MHz

### AM tuner section

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

## Speaker

Speaker system	2 way, bass-reflex type
Speaker units	
Woofer:	10 cm dia., cone type
Tweeter:	2 cm dia., dome type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 155 × 250 × 200 mm
Mass	Approx. 2.6 kg net per speaker

## General

Power requirements	
Saudi Arabian model:	120 – 127/220 V AC, 50/ 60 Hz Adjustable with voltage selector
Other models:	110 – 120/220 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	70 watts
Dimensions (w/h/d)	Approx. 190 × 250 × 295 mm
Mass	Approx. 4.7 kg
Supplied accessories	Remote (1) R6 (size AA) batteries (2) AM loop antenna (1) FM lead antenna (1) Video cable (1)

Design and specifications are subject to change without notice.



# Glossary

## Album

Section of a music piece or an image on a data CD containing MP3 audio tracks.

## Auto Pause

An automatical pauses according to the signal encoded on the disc while playing a VIDEO CD. If the VIDEO CD/CD player does not resume play for a long time, press ► (or CD ►|| on the unit) 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 (Ver. 2.0) to control playback. By using menu screens recorded on VIDEO CDs with PBC functions, you can enjoy playing simple interactive programs, programs with search functions, and so on.

This system conforms to Ver. 1.1 and Ver. 2.0 of VIDEO CD standards. You can enjoy two kinds of playback depending on the disc type.

### **VIDEO CDs without PBC functions (Ver. 1.1 discs)**

Enjoy video playback (moving pictures) as well as music.

### **VIDEO CDs with PBC functions (Ver. 2.0 discs)**

Play interactive software using menu screens displayed on the TV screen (PBC Playback), in addition to the video playback functions of Ver. 1.1 discs. Moreover, you can play high-resolution still pictures, if they are included on the disc.

## Scene

On a VIDEO CD with PBC (playback control) functions, the menu screens, moving pictures, and still pictures are divided into sections called “scenes”.

## Track

Sections of a picture or a music piece on a CD, VIDEO CD or MP3. Each track is assigned a track number enabling you to locate the track you want.

## VIDEO CD

A compact disc that contains moving pictures. The picture data uses the MPEG 1 format, one of the worldwide standards for digital compression technology. The picture data is compressed to about 1/140 of its original size. Consequently, a 12 cm VIDEO CD can contain up to 74 minutes of moving pictures.

VIDEO CDs also contain compact audio data. Sounds outside the range of human hearing are compressed while the sounds we can hear are not compressed. VIDEO CDs can hold 6 times the audio information of conventional audio CDs.

There are 2 versions of VIDEO CDs.

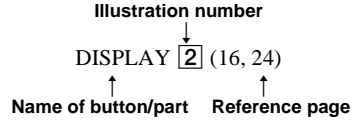
- Ver. 1.1: You can play only moving pictures and sounds.
- Ver. 2.0: You can play high-resolution still pictures and enjoy PBC functions.

This system conforms to both versions.

# 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 - M

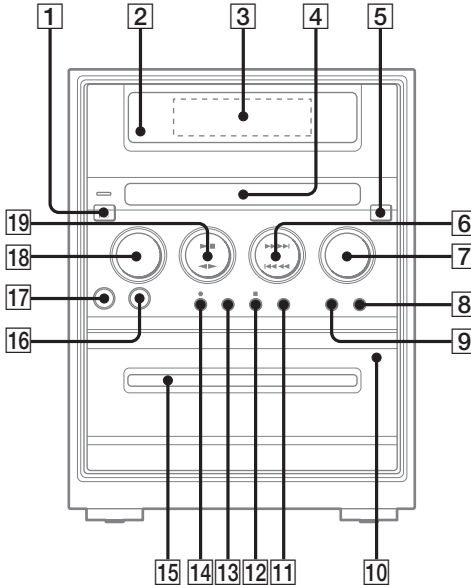
- Cassette compartment **15**
- CD SYNC **13** (18)
- DIRECTION **9** (17, 18, 22)
- Disc tray **4**
- Display window **3**
- MD **18** (26)
- MIC/ECHO **11** (19)
- MIC jack **16**

#### P - Z

- PHONES jack **17**
- PLAY MODE/TUNING MODE **9** (9, 12, 14, 16)
- Remote sensor **2**
- REPEAT/FM MODE **8** (12, 16)
- TUNER/BAND **18** (14, 16)
- TUNING +/- **6** (14, 16)
- VOLUME +/- **7** (19, 21)

### BUTTON DESCRIPTIONS

- I/⏏ (power) **1** (7, 8, 15, 21, 22)
- ⏪⏪/⏩⏩ (go back/go forward or fast forward/rewind) **6** (8, 10, 12, 13, 17, 18, 19, 21, 22, 24)
- (stop) **12** (10, 11, 13, 15, 17, 18, 20, 29)
- REC PAUSE/START **14** (18, 20)
- CD ▶▶ (play/pause) **19** (9, 11, 12, 15, 33)
- TAPE ◀▶ (play) **19** (17, 18)
- ▲ (CD open/close) **5** (9, 10)
- ▲ PUSH (tape open/close) **10** (17)



# Remote control

## ALPHABETICAL ORDER

### A - K

- ALBUM +/- **14** (10)
- BASS/TREBLE **21** (19)
- CD **24** (9, 12, 15)
- CLEAR **18** (13, 15)
- CLOCK/TIMER SELECT **20** (22, 23)
- CLOCK/TIMER SET **4** (8, 21, 22)
- DISPLAY **2** (16, 24)
- DSG **13** (19)
- ENTER **3** (8, 12, 15, 21, 22)
- KEY CONTROL **7** (20)
- K.PON/MPX **19** (19)

### N - Z

- NEXT **9** (11)
- Numeric buttons **6** (10, 11, 13, 16)
- ON SCREEN **27** (25)
- PICTURE EFFECT\* **26**
- PREV **9** (11)
- SELECT **10**
- SLEEP **17** (21)
- SPECIAL MENU **16** (13)
- TAPE **23** (17)
- TUNER BAND **22** (14, 16)
- TUNING MEMORY **5** (14)
- VOLUME +/- **12** (19, 21)

## BUTTON DESCRIPTIONS

- I/⏻ (power) **1** (7, 8, 15, 21, 22)
- ◀▶ (fast forward/rewind) **8** (10, 13, 17)
- ◀▶▶▶ (go back/go forward) **9** (8, 10, 12, 18, 19, 21, 22, 24)
- (stop) **11** (10, 11, 13, 15, 17, 18, 20, 29)
- ⏸ (pause) **15** (10, 17)
- ▶ (play) **10** (9, 11, 12, 17, 18, 33)
- +/- **9**
- RETURN ↻ **25** (11)

\* This button cannot be used in this system.

