

Mini Hi-Fi Component System

Operating Instructions



***MHC-GTX88
MHC-GTX77
MHC-GTX66***

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

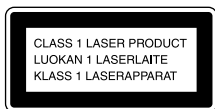
To prevent fire, do not cover the ventilation of the apparatus with newspapers, tablecloths, curtains, etc. And don't place lighted candles on the apparatus.

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

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

Batteries or batteries installed apparatus shall not be exposed to excessive heat such as sunshine, fire or the like.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet. Install this system so that the power cord can be unplugged from the wall socket immediately in the event of trouble.



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.

About this manual

The instructions in this manual are for models MHC-GTX88, MHC-GTX77 and MHC-GTX66. In this manual, the MHC-GTX88 is used for illustration purposes unless stated otherwise.

The MHC-GTX88 consists of:

- Unit HCD-GTX88
- Speaker System
 - Front speakers SS-GTX88
 - Surround speakers SS-RSX88
 - Subwoofer A SS-WG88A
 - Subwoofer B SS-WG88B

The MHC-GTX77 consists of:

- Unit HCD-GTX77
- Speaker System
 - Front speakers SS-GTX77

The MHC-GTX66 consists of:

- Unit HCD-GTX66
- Speaker System
 - Front speakers SS-GTX66

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MPEG Layer-3 audio coding technology and patents licensed from Fraunhofer IIS and Thomson.

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Playable discs

Format of discs Logo

- AUDIO CD



- CD-R/-RW in AUDIO CD format
- CD-R/-RW in DATA CD format, containing MP3 audio tracks¹⁾ that conforms to ISO 9660²⁾ Level 1/ Level 2, Joliet (in expansion format), or Multi Session³⁾



- ¹⁾MP3 (MPEG 1 Audio Layer 3) is a standard format defined by ISO/MPEG which compresses audio data. MP3 audio tracks must be in MPEG 1 Audio Layer 3 format.
- ²⁾A logical format of files and folders on CD-ROMs, defined by ISO (International Organization for Standardization).
- ³⁾This is a recording method that enables adding of data using the Track-At-Once method. Conventional discs begin at a disc control area called the Lead-in and end at an area called Lead-out. A Multi Session disc is a disc having multiple sessions, with each segment from Lead-in to Lead-out regarded as a single session.

Discs that cannot be played back

- Data part of CD-Extras¹⁾
- Data part of Mixed CDs²⁾
- CD-R/-RW discs that have not been correctly finalized (processing to allow played back by a normal CD player).
- CD-R/-RW discs recorded in Multi Session that have not ended by “closing the session”.
- A disc recorded in packet write format.
- Audio side of a DualDisc.
- A disc that has a non-standard shape (e.g., heart, square, star).
- A disc that has the adhesive cellophane tape or a sticker still left on it.

¹⁾ CD-Extra: This format records audio (AUDIO CD data) on the tracks in session 1 and data on the tracks in session 2.

²⁾ Mixed CD: This format records data on the first track and audio (AUDIO CD data) on the second and subsequent tracks of a session.

Note on DualDiscs

A DualDisc is a two sided disc product which mates DVD recorded material on one side with digital audio material on the other side. However, since the audio material side does not conform to the Compact Disc (CD) standard, playback on this product is not guaranteed.

Note on CD-R/-RW

In some cases, CD-Rs/-RWs cannot be played back on this system due to the recording quality or physical condition of the disc, or the characteristics of the recording device and authoring software. The disc will not be played back if it has not been correctly finalized. For more information, see the operating instructions of the recording device.

Music discs encoded with copyright protection technologies

This product is designed to play back 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.

Note on Multi Session disc

When you play back Multi Session discs with different formats for each session, the format of the first session is recognized as the disc type. Tracks in the second and subsequent sessions are played back if they are the same formats as the first session.

Playable/Recordable USB devices

You can use the following Sony USB devices on this system.

Verified Sony digital music player (as of April 2007)

Product name	Model name
Walkman®	NWD-B103/ B105/ B103F/ B105F

Verified Sony IC Recorder (as of April 2007)

Product name	Model name
IC Recorder	ICD-U50/ U60/ U70

Verified Sony USB storage media (as of April 2007)

Product name	Model name
MICROVAULT	USM256J/ 512J/ 1GJ/ 2GJ/ 4GJ
	USM512JX/ 1GJX/ 2GJX/ 4GJX
	USM256H/ 512H/ 1GH/ 2GH/ 4GH

Notes

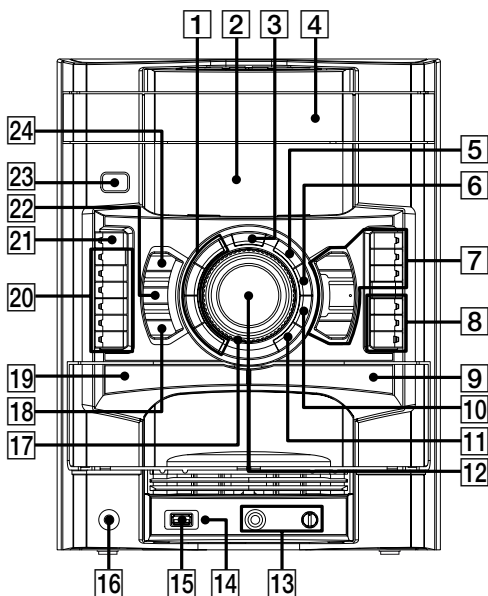
- Do not use USB devices other than these USB devices. Operation of models not listed here is not guaranteed.
- Operation may not always be ensured even when using these USB devices.
- Some of these USB devices may not be available for purchase in certain areas.
- See the operating instructions supplied with the USB device for details on the operation method.
- If you want to format the above USB devices, be sure to use the models or formatter software supplied with the USB device. However, if the formatting process is performed using other method, the recording may not be properly done.

Guide to parts and controls

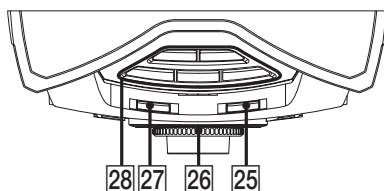
This manual mainly explains operations using the buttons on the unit, but the same operations can also be performed using the buttons on the remote having the same or similar names.

Unit

– Front view






– Top view




- 1** FLANGER (pages 35, 43, 48)
 DELAY (pages 35, 43, 48)
 CHORUS (pages 36, 43, 48)
 SOUND FLASH (page 35)
 Press to create a party atmosphere.
- 2** Display (pages 9, 38, 39, 49)
- 3** SURROUND SPEAKER MODE (MHC-GTX88 only) (page 34)
 Press to select the sound system.
- SURROUND (MHC-GTX77/MHC-GTX66 only) (page 34)
 Press to select the surround effect.
- 4** Disc tray (pages 9, 17, 44, 49)
- 5** AMP MENU (page 38)
 Press to change the spectrum analyser display or to adjust the brightness of the display.
- 6** RETURN (pages 17, 25)
 Press to return to the parent folder.
- 7** **▶||** (play/pause) (pages 17, 22, 24, 30, 44)
 Press to start or pause playback.
- (stop) (pages 17, 23, 25, 28, 29, 30, 32, 44)
 Press to stop playback or recording.
- ◀◀/▶▶** (go forward/go backward) (pages 17, 20, 23, 25, 27, 31, 48)
 Press to select a track.
- TUNING +/- (pages 28, 29)
 Press to tune in a radio station.
- ☰** +/- (pages 17, 20, 23, 25, 27, 31)
 Press to select a folder.
- ◀◀/▶▶** (rewind/fast forward) (page 30)
 Press to fast forward or rewind.
- 8** CD-**USB** SYNC/REC 1 (page 22)
 Press to record from a disc onto the connected optional USB device (Digital music player or USB storage media).
- CD-TAPE SYNC (page 31)
 TAPE REC PAUSE/START (page 31)
 Press to record onto a tape.
- 9** PUSH OPEN/CLOSE **▲** (Deck B) (page 30)
 Press to insert or eject a tape.
- Deck B (pages 30, 31, 37, 48)
- 10** ENTER (pages 23, 29, 33, 48)
 Press to enter the selection.
- 11** ERASE (page 23)
 Press to erase MP3 audio tracks or folders on the connected optional USB device (Digital music player or USB storage media).
- 12** MASTER VOLUME (pages 17, 24, 39, 43)
 Turn to adjust the volume.
- 13** MIC (jack) (pages 36, 43, 53)
 Connect an optional microphone.
- MIC LEVEL (pages 32, 36, 43)
 Turn to adjust the microphone volume.

Continued 

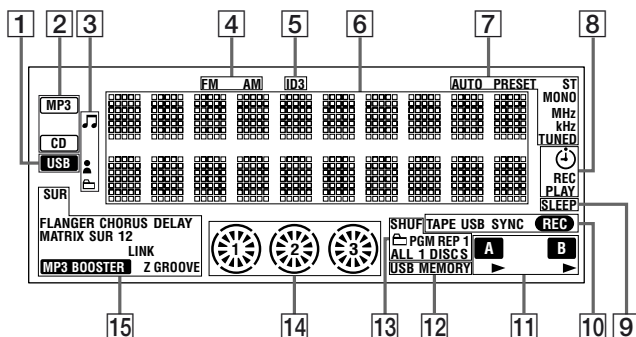
- 14** REC/ERASE (indicator) (pages 23, 25)
Lights up when recording from a disc onto the connected optional USB device (Digital music player or USB storage media).
Lights up when erasing MP3 audio tracks from the connected optional USB device (Digital music player or USB storage media).
- 15**  (USB) port (pages 22, 23, 24, 41, 53)
Connect an optional USB device (Digital music player or USB storage media).
- 16** PHONES (jack) (pages 43, 53)
Connect the headphones.
- 17** Power illuminator (pages 35, 39)
- 18** PRESET EQ (page 33)
Press to select a preset sound effect.
- 19**  PUSH OPEN/CLOSE (Deck A) (page 30)
Press to insert or eject a tape.

Deck A (pages 30, 48)
- 20** Function buttons:
CD (pages 14, 17, 22, 29, 31, 38)
TUNER/BAND (pages 29, 38)
TAPE A/B (pages 30, 38)
AUDIO (pages 38, 41)
VIDEO (pages 38, 41)
USB (pages 23, 24, 26, 38)
Press to select a function.
- 21**  (on/standby) (pages 13, 14, 29, 43, 48)
Press to turn the system on or off.
- 22** GROOVE (page 33)
Press to reinforce the bass.
- 23** IR Receptor (page 43)
- 24** EQ BAND/MEMORY (page 33)
Press to select a frequency band when adjusting the graphic equalizer.
- 25** DISPLAY (pages 38, 39, 40)
Press to change the information in the display.
- 26** OPERATION DIAL (pages 17, 25, 33, 35, 38)
Turn to select a track or folder.
Turn to select a setting.
- 27** ILLUMINATION (page 39)
Press to change the power illuminator pattern.
- 28** DISC SKIP/EX-CHANGE (pages 14, 17, 18, 20)
Press to skip a disc.
Press to exchange other discs during playback.

 OPEN/CLOSE (pages 14, 17, 44)
Press to load or eject a disc.

DISC 1 ~ 3 (pages 18, 20)
Press to select a disc.
Press to switch to CD function from other function.

– Display



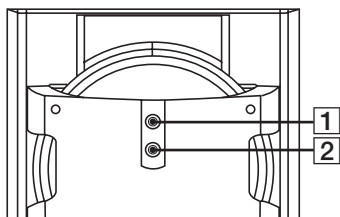
- 1** Lights up when the USB function is selected (page 24).
- 2** “MP3” lights up when an MP3 audio track is recognized. “CD” lights up when a disc is recognized.
- 3** Indicates the type of MP3 audio track information that displayed (page 39). “♪” lights up when a track name is displayed. “▲” lights up when an artist name is displayed. “□” lights up when a folder name is displayed.
- 4** Indicates the tuner band (page 28).
- 5** Lights up when the MP3 audio track contains ID3 tag information.
- 6** Displays the current status and information (page 39).
- 7** Indicators for the TUNER function (page 28).
- 8** Lights up when the Play Timer or Recording Timer is set (page 37).
- 9** Lights up when the Sleep Timer is activated (page 37).
- 10** Lights up during recording (pages 22, 31).
- 11** Indicators for the TAPE function (page 30). “A” and “B” lights up when the system is turned on. “▶” lights up when there is a tape in the deck.
- 12** Lights up when an optional USB device (Digital music player or USB storage media) is recognized (page 22).
- 13** Indicates the selected play mode (pages 19, 26).
- 14** Indicators for the disc tray (page 17). “○” lights up when the disc is selected. “⊗” lights up when there is a disc on the disc tray. “1”, “2” and “3” light up when the system is turned on.
- 15** Indicates the activated sound effect (pages 33, 35).

Note

“LINK”, “MATRIX SUR 1” and “MATRIX SUR 2” light up for MHC-GTX88 only.

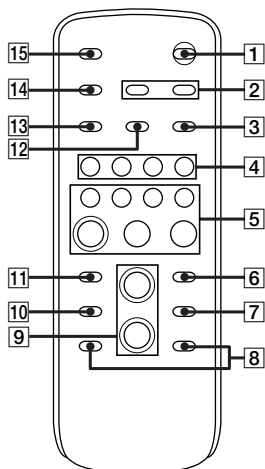
Continued

Subwoofer A (SS-WG88A)



- 1** SUBWOOFER ON/OFF (page 13)
Press to turn the subwoofer on or off.
- 2** SUBWOOFER LEVEL (page 13)
Turn to adjust the subwoofer level.

Remote



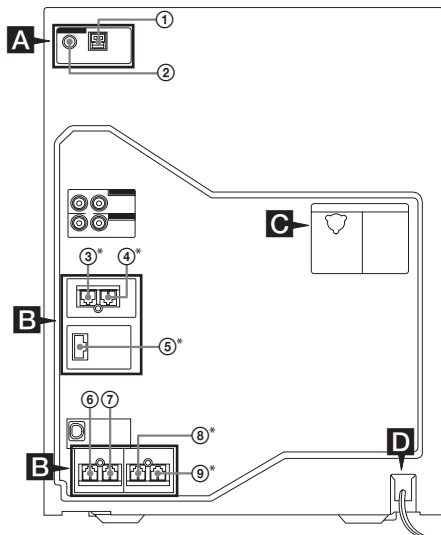
- 1** I/⏻ (on/standby) (pages 13, 16, 43)
Press to turn the system on or off.
- 2** CLOCK/TIMER SELECT (page 38)
CLOCK/TIMER SET (pages 16, 37)
Press to set the clock and the timers.
- 3** REPEAT/FM MODE (pages 21, 27, 29, 47)
Press to change the Repeat Play setting.
Press to select the FM monaural or stereo reception.
- 4** USB (page 24)
Press to select the USB function.
- CD (page 17)
Press to select the CD function.
- TUNER/BAND (page 28)
Press to select the TUNER function.
Press to select FM or AM band.
- FUNCTION (pages 30, 41)
Press to select a function.

- 5** **⏮/⏭** (go forward/go backward) (pages 17, 20, 23, 25, 27, 31, 37, 48)
Press to select a track.
- +/-** (tuning) (pages 28, 29)
Press to tune in a radio station.
- ⏮/⏭** (rewind/fast forward) (pages 17, 25, 30)
Press to find a point in a track.
- ▶** (play) (pages 17, 24, 30, 44)
- ⏸** (pause) (pages 17, 30)
- (stop) (pages 17, 25, 28, 30, 32)
Press to start, pause or stop playback.
- 6** **ENTER** (pages 16, 23, 28, 33, 37)
Press to enter the selection.
- 7** **DISC SKIP** (pages 18, 20)
Press to skip a disc.
- 8** **📁 +/-** (pages 17, 20, 23, 25, 27, 31)
Press to select a folder.
- 9** **VOLUME +/-*** (pages 17, 24, 39, 43)
Press to adjust the volume.
- 10** **EQ** (page 33)
Press to select a preset sound effect.
- 11** **CLEAR** (pages 21, 27)
Press to delete a pre-programmed track.
- 12** **PLAY MODE/TUNING MODE** (pages 19, 26, 28, 29, 44)
Press to select the play mode of CD or USB function.
Press to select the tuning mode.
- 13** **TUNER MEMORY** (page 28)
Press to preset a radio station.
- 14** **DISPLAY** (pages 38, 39, 40)
Press to change the information on the display.
- 15** **SLEEP** (page 37)
Press to activate the Sleep Timer.

* The VOLUME + button has a tactile dot.
Use the tactile dot as a reference when operating the system.

Getting Started

Hooking up the system

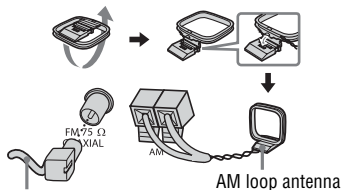


- ① To AM loop antenna
- ② To FM lead antenna
- ③ To subwoofer A
- ④ To subwoofer B
- ⑤ To subwoofer A
- ⑥ To front speaker (right)
- ⑦ To front speaker (left)
- ⑧ To surround speaker (right)
- ⑨ To surround speaker (left)

* MHC-GTX88 only.

A Antennas

Set up the AM loop antenna, then connect it.



Extend the FM lead antenna horizontally

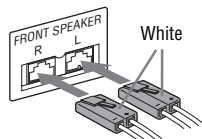
Note

Keep the antennas away from the speaker cords, the power cord and the USB cable to avoid picking up noise.

B Speakers

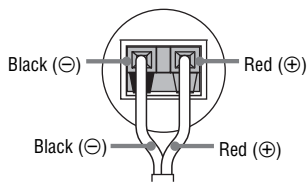
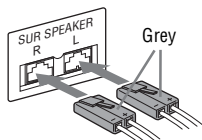
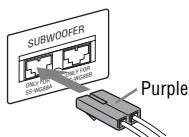
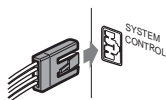
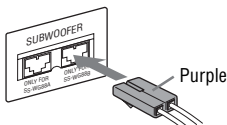
(MHC-GTX88 only) The speaker connectors are color-coded with their respective speaker terminals on the unit.

Front speakers



Tip (MHC-GTX77 only)

Connect the speaker cords to the terminals on the front speakers.

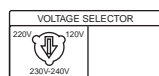
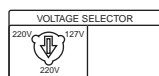
**Surround speakers (MHC-GTX88 only)****Subwoofer A (MHC-GTX88 only)****Subwoofer B (MHC-GTX88 only)****Notes**

- Be sure to use only the supplied speakers.
- Be sure to connect the speakers securely and correctly. When connecting speaker cords, insert the connector straight into the terminals.
- Be sure to connect both subwoofer A and subwoofer B to the unit.

C VOLTAGE SELECTOR

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

Depending on the model, the VOLTAGE SELECTOR may differ.

Brazil model only Other models**D Power**

Connect the power cord to a wall outlet. The demonstration appears in the display. When you press , the system turns on and the demonstration automatically ends.

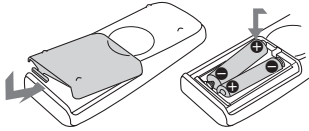
If the supplied adaptor on the plug does not fit your wall outlet, detach it from the plug (only for models equipped with an adaptor).

Using the subwoofers (MHC-GTX88 only)

You can use the subwoofers to enhance the bass.

- 1 Press SUBWOOFER ON/OFF on the subwoofer A to light up the indicator. The subwoofers are turned on.
- 2 Turn SUBWOOFER LEVEL on the subwoofer A to adjust the level.

Inserting two R6 (size AA) batteries into the remote



Note

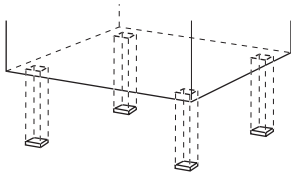
If you do not use the remote for a long period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

Tip

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

Attaching the speaker pads

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



When carrying the unit

Do the following procedure to protect the disc mechanism.

Use the buttons on the unit for the operation.

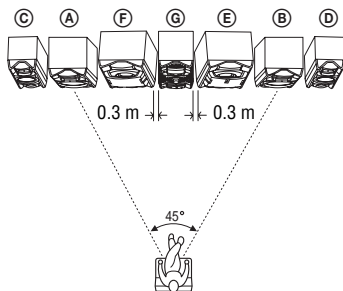
- 1 Press **I/⏻** to turn on the system.
- 2 Press **CD**.
- 3 Press **▲ OPEN/CLOSE** to open the disc tray and remove the disc. If there are more than one disc in the disc tray, press **DISC SKIP/EX-CHANGE** to remove the discs.
- 4 Press **▲ OPEN/CLOSE** again to close the disc tray. Wait until "CD No Disc" appears in the display.
- 5 Hold down **CD** and then press **I/⏻** until "STANDBY" appears in the display. Then, "MECHA LOCK" appears in the display.
- 6 Unplug the AC power cord.

Positioning the speakers

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

- Ⓐ Front speaker (left)
- Ⓑ Front speaker (right)
- Ⓒ Surround speaker (left)
- Ⓓ Surround speaker (right)
- Ⓔ Subwoofer A
- Ⓕ Subwoofer B
- Ⓖ Unit

MHC-GTX88 only



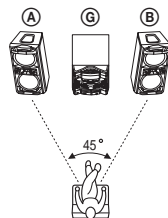
Note

Place the subwoofers at least 0.3 meter away from the unit.

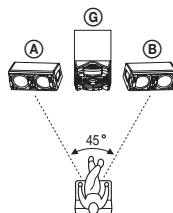
MHC-GTX77 only

There are 2 ways to place the front speakers.

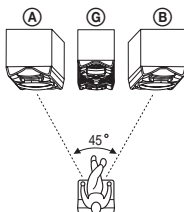
Example 1:



Example 2:



MHC-GTX66 only



Setting the clock

Use buttons on the remote for the operation.

1 Press I/⏻ to turn on the system.

2 Press CLOCK/TIMER SET.

The hour indication flashes in the display.

If “PLAY SET?” flashes in the display, press ◀◀ or ▶▶ repeatedly to select “CLOCK SET?”, then press ENTER.

3 Press ◀◀ or ▶▶ repeatedly to set the hour.

4 Press ENTER.

The minute indication flashes in the display.

5 Press ◀◀ or ▶▶ repeatedly to set the minute.

6 Press ENTER.

The clock starts functioning.

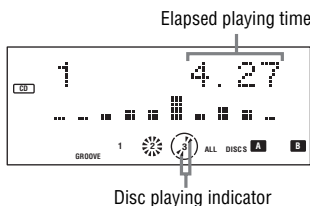
Note

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

Disc

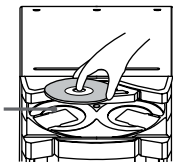
Playing a CD/MP3 disc

Example: When playing an AUDIO CD



- 1 Press **CD**.
- 2 Press **▲ OPEN/CLOSE**.
- 3 Load a disc with the label side facing up on the disc tray.

When you play back an 8 cm disc such as a CD single, place it on the inner circle of the tray.



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

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

Do not forcibly push the disc tray to close it as this may cause a malfunction.

- 5 Press **▶ II** (or **▶** on the remote).
- 6 Turn **MASTER VOLUME** (or press **VOLUME +/-** on the remote) to adjust the volume.

Other operations

To	Do this
Stop playback	Press ■ .
Pause playback	Press ▶ II (or II on the remote). Press ▶ II (or II on the remote) again to resume playback.
Select a track	Press ◀◀ or ▶▶ repeatedly during playback. For AUDIO CD, you can also turn OPERATION DIAL , then press ENTER . (TRACK SEARCH)
Select a folder on an MP3 disc	Press 📁 +/- repeatedly.
Select a track on an MP3 disc while viewing the folder and track names on the display (TRACK SEARCH)	<ol style="list-style-type: none">1 Turn OPERATION DIAL to select the folder you want, then press ENTER.2 Turn OPERATION DIAL to select the track you want, then press ENTER. To return to the previous operation, press RETURN .
Find a point in a track*	Hold down ◀◀ or ▶▶ on the remote during playback, then release it at the point you want.

Continued

To	Do this
Select a disc when playback is stopped	Press one of the DISC 1 ~ 3 buttons or DISC SKIP/EX-CHANGE (or DISC SKIP on the remote).
Switch to CD function from another source and start playback automatically	Press one of the DISC 1 ~ 3 buttons (Automatic Source Selection).
Exchange other discs while playing	Press DISC SKIP/EX-CHANGE.

* The elapsed playing time may not be displayed correctly depending on the MP3 audio tracks.

Notes

- The following discs/situations can increase the time it takes to start playback:
 - a disc recorded with a complicated tree structure.
 - a disc recorded in Multi Session.
 - a disc to which data can be added (non-finalized disc).
 - when the tracks in another folder have just been played back.
- When the disc is loaded, the system reads all the tracks on that disc. If there are many folders or non-MP3 audio tracks on the disc, it may take a longer time for playback to begin or for the next MP3 audio track to start playback.
- You are recommended not to save other types of tracks or unnecessary folders on a disc that has MP3 audio tracks.
- The system can only play back MP3 audio tracks with the extension “.MP3”.

- Attempting to play back non-MP3 format files that have the extension “.MP3” may result in noise or malfunction.
- A folder that does not include an MP3 audio track is skipped.
- The system can recognize the maximum of
 - 256 folders (including the root folder).
 - 511 MP3 audio tracks.
 - 512 MP3 audio tracks and folders on a single disc.
 - 8 folder levels.
- Depending on the encoding/writing software, recording device, or the recording media used to record an MP3 audio track, you may encounter problems such as cannot play back, sound interruptions and noise.

Tip

When you press CD or one of the DISC 1 ~ 3 buttons to switch to CD function from TUNER function, you may require a longer time to access the disc. In the case, set the CD/USB power manage function to “CD/USB POWER ON” (page 29).


Using play mode


Normal Play/Shuffle Play

You can play back the tracks on a disc in original order or random order.

1 Press CD.

2 When playback is stopped, press **PLAY MODE** on the remote repeatedly until the indication of the play mode you want lights up in the display.

Select	To play back
ALL DISCS (Normal Play)	The tracks on all discs in original order.
1 DISC (Normal Play)	The tracks on the disc you have selected in original order.
 (Normal Play)	The MP3 audio tracks in the folder on the disc you have selected in original order. For AUDIO CDs, this play mode performs the same operation as "1 DISC" play mode.
ALL DISCS SHUF (Shuffle Play)	The tracks on all discs in random order.
1 DISC SHUF (Shuffle Play)	The tracks on the disc you have selected in random order.

Select	To play back
 SHUF (Shuffle Play)	The MP3 audio tracks in the folder on the disc you have selected in random order. For AUDIO CDs, this play mode performs the same operation as "1 DISC SHUF" play mode.

3 Press **▶||** (or **▶** on the remote).

Note

- You cannot change the play mode during playback.
- Each time you perform Shuffle Play, the playing order may differ.

Creating your own program

— Program Play

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

You can synchro record the programmed tracks onto a tape or an USB device (page 22 or 31).

- 1 Press **CD**.
- 2 When playback is stopped, press **PLAY MODE** on the remote repeatedly until “**PGM**” lights up in the display.
- 3 Press one of the **DISC 1 ~ 3** buttons or **DISC SKIP/ EX-CHANGE** (or **DISC SKIP** on the remote) to select a disc.

To program all the tracks on a disc at once:

Proceed to step 5 while “**ALL**” appears in the display.

To program all the MP3 audio tracks on a folder at once:

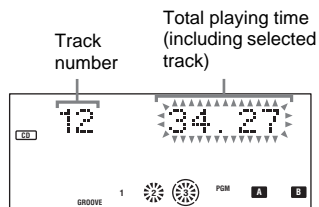
Press \square +/- repeatedly until the folder you want appears in the display, then proceed to step 5.

- 4 Press \lll or \ggg repeatedly until the track number you want appears in the display.

The total playing time flashes in the display.

To program an MP3 audio track:

Press \square +/- repeatedly until the folder you want appears in the display, then press \lll or \ggg repeatedly until the track number you want appears in the display.



- 5 Press **ENTER**.

The track(s) is(are) programmed. The programmed step number appears in the display.

- 6 **To program additional discs or tracks.**

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

- 7 Press \ggg (or \gg on the remote).

Program Play starts.

Other operations

To	Do this
Cancel Program Play	When playback is stopped, press PLAY MODE on the remote repeatedly until “PGM” disappear from the display.
Delete the last step from the program list	Press CLEAR on the remote when playback is stopped.

Tips

- The program you made remains in the system’s memory even after it has been played back. Press **▶||** (or **▶** on the remote) to play back the same program again.
- If “--:--” appears instead of the total playing time during programming, this means:
 - you have programmed a track in an **AUDIO CD** with track number exceeds 20.
 - the total playing time has exceeded 100 minutes.
 - you have programmed an **MP3 audio track**.



Playing repeatedly

— Repeat Play

You can play back all the tracks or a single track on a disc repeatedly.

Press REPEAT on the remote repeatedly during playback until “REP” or “REP 1” lights up in the display.

- **REP:** All the tracks on the disc(s), or all the tracks in the folder* are played back repeatedly up to five times.
- **REP 1:** A single track is played back repeatedly until “REP 1” is canceled.

* When “” or “ SHUF” is selected for MP3 audio tracks.

To cancel Repeat Play


Press **REPEAT** on the remote repeatedly until both “REP” and “REP 1” disappear from the display.

Note

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

USB Device

Recording from a disc onto a USB device

You can record music from a disc to an optional USB device (Digital music player or USB storage media) by connecting it to the  (USB) port on the unit.

You can record from an AUDIO CD or MP3 disc only. The audio format recorded by this system is MP3. The approximate size of the recording from an AUDIO CD is about 1 MB per minute of recording time.

See "Playable/Recordable USB devices" (page 5) for a list of USB devices that can be connected to this system.

Note

The tracks those are recorded onto the USB device is for personal use only.

There are two ways to record a disc onto an USB device.

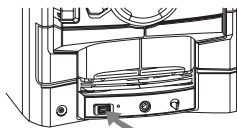
CD-USB Synchro Recording:

You can easily record an entire disc onto an USB device.

REC1 Recording:

You can easily record a single track that is currently being played back onto an USB device.

1 Connect a recordable USB device to the (USB) port on the unit.



USB device
(Digital music player or
USB storage media)

2 Prepare the recording source.


For CD-USB Synchro Recording:

Press CD, then load the disc you want to record on the disc tray.

You can record tracks on all the discs in the order you want using Program Play. Perform steps 2 to 6 of "Creating your own program" on page 20.


However, the play mode automatically changes to Normal Play, if you start recording in Program Play with no tracks are programmed, Shuffle Play or Repeat Play.

For REC1 Recording:


Press CD, then load the disc you want to record on the disc tray. Select the track you want to record, then press .

3 Set the USB device stand by for recording and the disc pauses for playback.

For CD-USB Synchro Recording:

Press CD-  SYNC/REC 1. "USB" and "SYNC" light up and "REC" flashes in the display. The display cycles through "CD-USB SYNCHRO", "Push ENTER" and "xxxxxxByte Free Space" (remaining space on the USB device)*.

For REC1 Recording:

Press CD-  SYNC/REC 1. "USB" lights up and "REC" flashes in the display. The display cycles through "CD-USB REC1", "Push ENTER" and "xxxxxxByte Free Space" (remaining space on the USB device)*.

* The display will only show an integer. For example, if the memory free space is 1.8 Gigabyte (Gb), it will only show as 1 Gb.

4 Press ENTER.

For CD-USB Synchro Recording:

Recording starts.

When the recording is completed, the disc and the USB device stop automatically.

For REC1 Recording:

Recording starts.

When the recording is completed, the disc continues to play.


To stop recording, press ■.

To remove the USB device

- 1 Check that the REC/ERASE indicator on the unit is light off.
- 2 Press I/⏻ to turn off the system.
- 3 Remove the USB device.

To erase MP3 audio tracks or folders from the USB device

You can erase MP3 audio tracks or folders from the USB device.

- 1 Connect a recordable USB device to the  (USB) port on the unit.
- 2 Press **USB** (or USB on the remote).
- 3 To erase an MP3 audio track, press **◀◀** or **▶▶** repeatedly to select the MP3 audio track.
To erase a folder, press **📁 +/-** repeatedly to select the folder.
- 4 Press ERASE.
“Track Erase ?” or “Folder Erase ?”, and “Push ENTER” appear alternatively in the display.
To cancel the erase operation, press ■.
- 5 Press ENTER.
The selected MP3 audio track or folder is erased.

Notes

- The program list is cleared when you perform the erase operation.
- You cannot erase MP3 audio tracks and folders in Shuffle Play mode or Program Play mode.

Folder and track generation rules

When recording to an USB device for the first time, a “MUSIC” folder is created directly below the “ROOT”. Folders and MP3 audio tracks are generated within this “MUSIC” folder as follows according to the recording method.

CD-USB Synchro Recording¹⁾

Recording source	Folder name	Track name
MP3 disc	Same as the recording source ²⁾	
AUDIO CD	FLDR001 ³⁾	TRACK001 ⁴⁾

REC1 Recording

Recording source	Folder name	Track name
MP3 disc	REC1 ⁵⁾	Same as the recording source ²⁾
AUDIO CD		TRACK001 ⁴⁾

¹⁾In Program Play mode, the folder name is “FLDRxxx”, and the track name depends on the recording source (AUDIO CD or MP3 disc).

²⁾Up to 32 characters of the name are assigned.

³⁾Folder numbers are assigned serially thereafter.

⁴⁾Track numbers are assigned serially thereafter.


⁵⁾A new track is recorded in the “REC1” folder each time REC1 Recording is performed.

Continued 



Notes

- Do not connect the system and the USB device through an USB hub.
- You cannot eject the disc during CD-USB Synchro Recording or REC1 Recording.
- When recording from an AUDIO CD, the tracks are recorded as 128 kbps MP3 audio tracks.
When recording from an MP3 disc, MP3 audio tracks are recorded with the same bit rate as the original MP3 audio tracks.
- While recording from an MP3 disc, no sound is output and “High Speed Recording” appears in the display.
- If you cancel the recording partway, an MP3 audio track is created up to the point when the recording was stopped.
- Recording stops automatically if:
 - the USB device runs out of space during recording.
 - the number of MP3 audio tracks on the USB device reaches the limit for the number that the system can recognize.
- A folder that contains non-MP3 format files or sub folders cannot be erased.
- The maximum number of MP3 folders that can be created on a single USB device by this system is 997.
The maximum number of MP3 audio tracks that can be created on a single USB device by this system is 999.
The maximum number of MP3 audio tracks and folders may vary depending on the MP3 audio track and folder structure.
- If a folder or track that you are trying to record already exists on the USB device with the same name, a sequential number is added after the name without overwriting the original folder or track.
- If you perform recording after the erase operation, the new recorded tracks or folders may have the name that same as the erased tracks or folders. Therefore, the playback sequence may differ from the recording sequence.

Listening to music of an USB device

You can listen to music stored in an optional USB device (Digital music player or USB storage media) by connect it to the  (USB) port on the unit. This system can only play back MP3* audio track of the USB device. See “Playable/Recordable USB devices” (page 5) for a list of USB devices that can be connected to this system.

* Files with copyright protection (Digital Rights Management) cannot be played back by this system.



- 1 Press  (or USB on the remote).**
- 2 Connect an optional USB device to the  (USB) port on the unit.**

When the USB device is connected, the display changes as follows:
Reading → volume label*

* “Storage Drive” appears when there is no volume label assigned to the USB device.

Note

Depending on the type of USB device, it may take a few seconds before “Reading” appears in the display.

- 3 Press  II (or  on the remote).**
- 4 Turn MASTER VOLUME (or press VOLUME +/- on the remote) to adjust the volume.**

To remove the USB device

- 1 Press **■** to stop playback.
- 2 Check that the REC/ERASE indicator on the unit is light off.
- 3 Press **I/⏻** to turn off the system.
- 4 Remove the USB device.

Other operations

To	Do this
Stop playback	Press ■ . To cancel resume playback, press ■ twice and check that "RESUME" disappears from the display.
Pause playback	Press ▶ (or on the remote). To resume playback, press ▶ (or on the remote) again.
Select the next or previous folder	Press □ +/- repeatedly.
Select the next or previous track	Press ◀◀ or ▶▶ repeatedly.
Select a track while viewing the folder and track names on the display (TRACK SEARCH)	1 Turn OPERATION DIAL to select the folder you want, then press ENTER. 2 Turn OPERATION DIAL to select the track you want, then press ENTER. To return to the previous operation, press RETURN.
Find a point in a track	Hold down ◀◀ or ▶▶ on the remote during playback, then release it at the point you want.

Notes on USB device

- The following situations can increase the time it takes to start playback:
 - the folder structure is complex.
 - the memory capacity is excessive.
- When the USB device is connected, the system reads all the tracks on the USB device. If there are many folders or tracks on the USB device, it may take a long time to finish reading the USB device.
- Do not connect the system and the USB device through an USB hub.
- Depending on the previous operation you have performed with the USB device, the operation time for the USB device may vary.
- If the system is turned off or a power failure occurs during "RESUME", then you turn on the system and start playback, the system will start playback from the beginning of the track where you stopped playback.
- This system does not necessarily support all the functions provided in a connected USB device.
- The playback order for the system may differ from the playback order of the connected digital music player.
- Be sure to turn off the system before removing the USB device. Removing the USB device while the system is turned on may corrupt the data on the USB device.
- You are recommended not to save other types of tracks or unnecessary folders on an USB device that has MP3 audio tracks.
- A folder that does not include an MP3 audio track is skipped.
- Tracks recorded by this system are played back in the order of folder creation. Tracks recorded by a device other than this system such as a computer may not be played back in the order in which they were recorded.
- The system can only play back MP3 audio tracks with the extension ".MP3".
- Attempting to play back non-MP3 format files that have the extension ".MP3" may result in noise or malfunction.
- The system can recognize the maximum of
 - 999 folders.
 - 999 MP3 audio tracks.
 The maximum number of MP3 audio tracks and folders may vary depending on the MP3 audio track and folder structure.

Continued 





- Compatibility with all MP3 encoding/writing softwares, recording devices, and recording media cannot be guaranteed. Incompatible USB device may produce noise or interrupted audio or may not play back at all.
- If you set the CD/USB power manage function to “CD/USB POWER OFF”, you cannot resume playback from the point you stopped playback after you switch to TUNER function.

Using play mode

Normal Play/Shuffle Play

You can play back the tracks on an USB device in original order or random order.

- 1 Press **USB** (or **USB** on the remote).**
- 2 When playback is stopped, press **PLAY MODE** on the remote repeatedly until the indication of the play mode you want lights up in the display**

Select	To play back
When “  ”, “SHUF”, “  SHUF” and “PGM” do not light up in display (Normal Play)	All the tracks in original order.
 (Normal Play)	All the tracks in the selected folder in original order.
SHUF (Shuffle Play)	All the tracks in random order.
 SHUF (Shuffle Play)	All the tracks in the selected folder in random order.

- 3 Press **▶ II** (or **▶** on the remote).**

Note

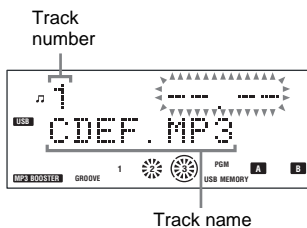
- You cannot change the play mode during playback.
- Each time you perform Shuffle Play, the playing order may differs.

Creating your own program

— Program Play

You can make a program of up to 25 steps in the order you want them to be played back.

- 1 Press **USB** (or **USB** on the remote).
- 2 When playback is stopped, press **PLAY MODE** on the remote repeatedly until “**PGM**” lights up in the display.
- 3 Press **Folder +/-** repeatedly until the folder you want appears in the display.
- 4 Press **Left/Right** repeatedly until the track number you want appears in the display.



- 5 Press **ENTER**.

The track is programmed.
The programmed step number appears in the display.

- 6 To program additional tracks.

To program	Repeat steps
Other tracks on the same folder	4 and 5
Other tracks on other folders	3 to 5

- 7 Press **Play/Pause** (or **Play** on the remote).

Program Play starts.

Other operations

To	Do this
Cancel Program Play	When playback is stopped, press PLAY MODE on the remote repeatedly until “ PGM ” disappear from the display.
Delete the last step from the program list	Press CLEAR on the remote when playback is stopped.

Note

The program list is cleared when you perform the erase operation.

Tip

The program you made remains in the system's memory even after it has been played back.
Press **Play/Pause** (or **Play** on the remote) to play back the same program again.

Playing repeatedly

— Repeat Play

You can play back all the tracks or a single track on an USB device repeatedly.

Press REPEAT on the remote repeatedly during playback until “REP” or “REP 1” lights up in the display.

- **REP**: All the tracks are played back repeatedly.
- **REP 1**: A single track is played back repeatedly until “**REP 1**” is canceled.

To cancel Repeat Play

Press **REPEAT** on the remote repeatedly until both “**REP**” and “**REP 1**” disappear from the display.

Tuner

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 radio station

Use buttons on the remote for the operation.

- 1 Press TUNER/BAND repeatedly until “FM” or “AM” lights up in the display.**
- 2 Press TUNING MODE repeatedly until “AUTO” lights up in the display.**
- 3 Press +/-.**

You can also use TUNING +/- on the unit.

Scanning stops automatically when a station is tuned in and “TUNED” lights up in the display. When a FM stereo program is tuned in, “ST” lights up in the display.

4 Press TUNER MEMORY.

A preset number flashes in the display. The stations are stored from preset number 1.



Preset number

5 Press +/- repeatedly to select the preset number you want.

You can also use TUNING +/- on the unit.

6 Press ENTER.

“Complete!” appears in the display. The station is stored.

7 Repeat steps 1 to 6 to store other stations.

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

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

8 To listen to a preset station, press TUNING MODE repeatedly until “PRESET” lights up in the display. Then, press +/- repeatedly to select the preset station you want.

To stop automatic scanning

Press ■.

To cancel presetting

Press TUNER MEMORY.

Listening to a non-preset radio station

You can use manual tuning to tune in a station with a weak signal if you know the frequency of the station.

Use buttons on the remote for the operation.

- 1 Press TUNER/BAND repeatedly until “FM” or “AM” lights up in the display.**
- 2 Press TUNING MODE repeatedly until “AUTO” and “PRESET” disappear from the display.**
- 3 Press +/- repeatedly to tune in the station you want.**

You can also use TUNING +/- on the unit.

To improve tuner reception

When tuner reception is poor, set the CD/USB power manage function to “CD/USB POWER OFF”. The default setting is “CD/USB POWER ON”. Use buttons on the unit for the operation.

- 1 Press CD.**
- 2 Press I/⏻ to turn off the system.**
- 3 When demonstration appears, hold down ■ and then press I/⏻.**
The system turns on automatically. “CD/USB POWER OFF” appears in the display.

To set to “CD/USB POWER ON”

Repeat the procedure above and “CD/USB POWER ON” appears in the display.

Notes

- When “CD/USB POWER OFF” is selected, disc and USB device access time are increased.
- There is no power supply to USB device during TUNER function with the CD/USB power manage function is set to “CD/USB POWER OFF”. Therefore, when an USB device is connected, it cannot be recognized.

To change the AM tuning interval

The factory setting for AM tuning interval is 9 kHz (or 10 kHz for some areas). Use the buttons on the unit for the operation.

- 1 Press TUNER/BAND repeatedly until “AM” lights up in the display.**
- 2 Press I/⏻ to turn off the system.**
- 3 When demonstration appears, hold down ENTER and then press I/⏻.**
The system turn on automatically. “AM 9K STEP” or “AM 10K STEP” appears in the display.

When you change the interval, all the AM preset stations are erased.

Tips

- To improve broadcast reception, adjust the supplied antennas, or connect an external antenna.
- When an FM stereo program has static noise, press FM MODE on the remote repeatedly until “MONO” lights up in the display. There will be no stereo effect, but the reception will improve.

Tape

Playing a tape

You can use TYPE I (normal) tape.

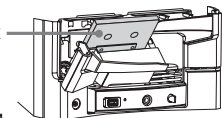
1 Select a tape deck.

Press TAPE A/B (or FUNCTION on the remote) repeatedly to select “TAPE A” or “TAPE B”.

2 Load a tape.

Push ▲ PUSH OPEN/CLOSE or PUSH OPEN/CLOSE ▲ to open Deck A or Deck B.

Load a tape into the deck with the side you want to play back or record facing forward.



Push ▲ PUSH OPEN/CLOSE or PUSH OPEN/CLOSE ▲ again to close the selected deck.

3 Press ►|| (or ► on the remote).

The tape starts playing.

Other operations

To	Do this
Stop playback	Press ■.
Pause playback	Press ► (or on the remote). Press ► (or on the remote) again to resume playback.
Fast forward or rewind	Press ◀◀ or ▶▶. To return to normal playback, press ► (or ► on the remote).
Remove a tape	Push ▲ PUSH OPEN/CLOSE or PUSH OPEN/CLOSE ▲ when playback is stopped.

Tip

If you press ►|| (or ► on the remote) when the TAPE A function is selected and there is no tape in Deck A, the system automatically switches to the TAPE B function when there is a tape in Deck B and vice versa. Then, playback will start.

Recording onto a tape

There are three ways to record on a TYPE I (normal) tape.

CD-TAPE Synchro Recording:

You can record an entire disc onto a tape. The recording level is adjusted automatically.

Manual Recording:

You can record just the portion you want from a sound source, including connected audio components.

Sound Mixing:

You can “mix” sound from any of the sound sources and singing or speaking into a microphone (not supplied). The mixed sound can be recorded onto a tape.



1 Load a recordable tape into Deck B.

Be sure to load the tape with the side you want to record facing forward.

2 Prepare the recording source.

For CD-TAPE Synchro Recording:

Press CD and load the disc you want to record.

- To record a folder of MP3 audio tracks, press PLAY MODE on the remote repeatedly until “” lights up in the display. Then, press  +/- repeatedly to select the folder you want.
- You can record tracks on all the discs in the order you want using Program Play. Perform steps 2 to 6 of “Creating your own program” (page 20). When programming, make sure the playing times do not exceed the length of one side of the tape.

For Manual Recording and Sound Mixing:

Press the function button to select the source you want to record. For Sound Mixing, if you want to record your voice through the microphone only, you can do so by selecting the TAPE A function and not playing any tape.





3 Set Deck B to stand by for recording.

For CD-TAPE Synchro Recording:

Press CD-TAPE SYNC. “TAPE” and “SYNC” light up and “REC” flashes in the display.

For Manual Recording and Sound Mixing:

Press TAPE REC PAUSE/START. “TAPE” lights up and “REC” flashes in the display.

- When recording from a disc, press  or  repeatedly to select a track during recording pauses.
- To record a folder of MP3 audio tracks, press PLAY MODE on the remote repeatedly until “” lights up in the display. Then, press  +/- repeatedly to select the folder you want.

4 Press TAPE REC PAUSE/START.

“REC” lights up in the display. Recording starts. You cannot listen to other sources while recording.

Continued 

5 For Manual Recording and Sound Mixing, start playing the source to be recorded.

Tip

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

6 For Sound Mixing, start singing along with the music and adjust the microphone volume by turning MIC LEVEL.

After you have finished, turn MIC LEVEL to MIN.

To stop recording

Press ■.

Notes

- You cannot eject the disc during CD-TAPE Synchro Recording.
- If you connect or disconnect a microphone or headphone during recording, the sound may cut off for a moment.
- If FLANGER, DELAY or CHORUS sound effect is selected while recording, the selected sound effect will be recorded onto the tape.

Tip

When high level sound signals are input, the system automatically adjusts the recording level to prevent distortion of the recorded sound signals (Auto Level Control Function).

Sound Adjustment

Adjusting the sound

Reinforcing the sound

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

Press **GROOVE** repeatedly.

GROOVE ON* → Z-GROOVE ON* → GROOVE OFF → GROOVE ON → ...

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

Tip

The default setting is “GROOVE ON”.

Selecting the preset effect

Press **PRESET EQ** (or **EQ** on the remote) repeatedly to select the preset effect you want.

Preset effect options

Effect	Category
ROCK, POP, JAZZ, DANCE, SOUL, TECHNO, HIP HOP, REGGAE, SAMBA, CLASSICAL	Standard music sources
FLAT	Original music source
USER EQ 1, USER EQ 2, USER EQ 3	User equalizer setting (see “Adjusting the graphic equalizer or selecting the surround effect”)

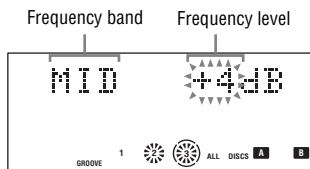
To cancel preset effect

Press **PRESET EQ** (or **EQ** on the remote) repeatedly to select “FLAT”.

Adjusting the graphic equalizer or selecting the surround effect

You can adjust the sound by raising or lowering the level of specific frequency band, then store up to three user equalizer settings in the memory.

- 1 Press **EQ BAND/MEMORY** repeatedly to select a frequency band or surround effect.
- 2 Turn **OPERATION DIAL** to adjust the level or select the surround effect you want.



- 3 Repeat steps 1 and 2 to adjust the level of other frequency bands and surround effect.
- 4 Press **ENTER**.
A user equalizer number flashes in the display.
- 5 Turn **OPERATION DIAL** to select a user equalizer number (1-3) you want to store the equalizer setting.
Select “EXIT?” to cancel storing.
- 6 Press **ENTER**.

This setting is automatically stored as the user equalizer setting you selected in step 5.

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

Continued

(MHC-GTX77/MHC-GTX66 only)

You can also press SURROUND repeatedly to select “SURROUND ON” or “SURROUND OFF”.

Notes

- When you select certain preset effects, the surround effect may be canceled.
- When the surround effect is selected, “SUR” lights up in the display.

Selecting the sound system

(MHC-GTX88 only)

You can enjoy different sounds by selecting the sound mode you want.

Press SURROUND SPEAKER MODE repeatedly.

LINK

Reproduces the same sound with different output levels.

“LINK” lights up in the display.

MATRIX SURROUND 1

Reproduces a wide range of sound that can actually sense the size of the room.

“MATRIX SUR 1” lights up in the display.

MATRIX SURROUND 2

Reproduces a wide range of sound that can actually sense the size of the room.

The surround sound is reinforced.
“MATRIX SUR 2” lights up in the display.

Enhancing the sound quality

This system is equipped with MP3 BOOSTER function.

When an MP3 audio track is played back, the MP3 BOOSTER function is automatically activated to enhance the sound quality.

“MP3 BOOSTER” lights up in the display when MP3 BOOSTER function is activated.

Creating a party atmosphere

— X-TRANCE

You can create a party atmosphere by using X-TRANCE.

Creating sound flash

— SOUND FLASH

With the sound flash function, you can flash the sound output. The sound cuts off periodically.

Hold down SOUND FLASH during playback.

The flashing effect is activated. Release SOUND FLASH to cancel the effect.

To change the sound flash speed

Hold down SOUND FLASH and turn OPERATION DIAL to change the sound flash speed (1 ~ 20).

The power illuminator will synchronize with the selected SOUND FLASH effect.

Creating flanging effect

— FLANGER

Press FLANGER repeatedly.

Select	To
FLANGER ON	create a deep flanging effect that is similar to the roar of a jet plane.
FLANGER OFF	cancel the FLANGER sound effect.

Notes

- You can only select the FLANGER sound effect in CD, USB, AUDIO and VIDEO function.
- The FLANGER sound effect is automatically set to "FLANGER OFF" when you:
 - turn off the system.
 - change the function.
 - select the DELAY or CHORUS sound effect.
- If you activate FLANGER during recording, the sound effect will be recorded onto the tape.

Creating delay effect

— DELAY

Press DELAY repeatedly.

Select	To
DELAY ON	create a "live" sound with full characteristic reverb effect.
DELAY OFF	cancel the DELAY sound effect.

Notes

- You can only select the DELAY sound effect in CD, USB, AUDIO and VIDEO function.
- The DELAY sound effect is automatically set to "DELAY OFF" when you:
 - turn off the system.
 - change the function.
 - select the FLANGER or CHORUS sound effect.
- If you activate DELAY during recording, the sound effect will be recorded onto the tape.

Adding chorus

— CHORUS

Press **CHORUS** repeatedly.

Select	To
CHORUS ON	create a slow and deep chorus effect.
CHORUS OFF	cancel the CHORUS sound effect.

Notes

- You can only select the CHORUS sound effect in CD, USB, AUDIO and VIDEO function.
- The CHORUS sound effect is automatically set to “CHORUS OFF” when you:
 - turn off the system.
 - change the function.
 - select the FLANGER or DELAY sound effect.
- If you activate CHORUS during recording, the sound effect will be recorded onto the tape.

Singing along

You can sing along with any audio source that play back on this system.

- 1 Turn MIC LEVEL to MIN to reduce the microphone volume.**
- 2 Connect an optional microphone to MIC jack.**
- 3 Start playing the music and adjust the volume.**
- 4 Turn MIC LEVEL to adjust the microphone volume.**

If acoustic feedback (howling) occurs, reduce the volume, move the microphone away from the speakers, or change the direction of the microphone.

After you have finished, disconnect the microphone from the MIC jack.

Other Operations

Using the timer

Falling asleep to music

— Sleep Timer

You can set the system to turn off after a certain time, so that you can fall asleep to music.

Press **SLEEP** on the remote repeatedly.

The minute display (turn-off time) changes.

If you select "AUTO", the system automatically turns off after the current disc, USB device or tape stops or in 100 minutes.

Do not select "AUTO" during CD-TAPE Synchro Recording, CD-USB Synchro Recording or the erase operation.

Tip

To check the remaining time, press **SLEEP** on the remote once. However, you cannot check the remaining time if you select "AUTO".

Setting the timer

— Play Timer/Recording Timer

You cannot activate both the Play Timer and the Recording Timer at the same time. Make sure you have set the clock. Use the buttons on the remote for the operation.

Play Timer:

You can wake up to music from disc, tape, tuner or optional USB device at a preset time.

Recording Timer:

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

1 Prepare the sound source.

For Play Timer:

Prepare the sound source and then press **VOLUME +/-** to adjust the volume.

To start from a specific track, create your own program (page 20 or 27).

For Recording Timer:

Tune in the preset radio station you want (page 28).

2 Press **CLOCK/TIMER SET**.

3 Press **◀◀** or **▶▶** repeatedly to select "PLAY SET?" or "REC SET?", then press **ENTER**.

"ON" appears and the hour indication flashes in the display.

4 Set the time to start playback or recording.

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

The minute indication flashes in the display. Use the procedure above to set the minute. "OFF" appears and the hour indication flashes in the display.

5 Set the time to stop playback or recording using the same procedure as step 4.

6 Select the sound source or prepare the tape.

For Play Timer:

Press **◀◀** or **▶▶** repeatedly until the music source you want appears in the display, then press **ENTER**. The display will show the timer settings.

For Recording Timer:

The display will show the timer settings. Load a recordable tape into Deck B.

Continued 

7 Press I/⏻ to turn off the system.

The system turns on 15 seconds before the preset time. If the system is on at the preset time, the Play Timer and the Recording Timer will not play or record.

Other operations

To	Do this
Check the setting	<ol style="list-style-type: none">1 Press CLOCK/TIMER SELECT. “SELECT” appears in the display.2 Press ◀◀ or ▶▶ repeatedly to select “PLAY SELECT?” or “REC SELECT?”, then press ENTER.
Change the setting	Start from step 1.
Cancel the Play Timer or Recording Timer	<ol style="list-style-type: none">1 Press CLOCK/TIMER SELECT. “SELECT” appears in the display.2 Press ◀◀ or ▶▶ repeatedly to select “TIMER OFF?”, then press ENTER.

Notes

- If you use the Play Timer or Recording Timer and the Sleep Timer at the same time, the Sleep Timer has priority.
- The Play Timer and Recording Timer will not be activated if the system is turned on or if “STANDBY” flashes in the display.
- The volume is reduced to minimum during Recording Timer.

Changing the display

1 Press AMP MENU repeatedly to select the item you want.

The last selected item setting appears in the display.

SPECTRUM

Turn on or off the spectrum analyzer display.

DIMMER

Adjust the brightness of the display.

2 Turn OPERATION DIAL to select the setting you want.

3 Press ENTER.

Turning off the display

— Power Saving Mode

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

Press DISPLAY repeatedly while the system is turned off.

Demonstration¹⁾ → No display (Power Saving Mode) → Clock²⁾ → Demonstration → ...

¹⁾The display changes and the indicators flash even when the system is turned off.

²⁾The clock display automatically turns to Power Saving Mode after 8 seconds.

Note

You cannot perform the following operations during Power Saving Mode:

- Setting the clock (page 16).
- Changing the AM tuning interval (page 29).
- Turning on the system by pressing the function buttons (CD, TUNER/BAND, TAPE A/B, AUDIO, VIDEO or **USB**).
- Changing the CD/USB power manage setting (page 29).

Changing the power illuminator pattern

Press ILLUMINATION repeatedly to select the power illuminator pattern you want when the system is turned on.

Notes

- When you turn MASTER VOLUME (or press VOLUME +/- on the remote), the power illuminator shows the current volume level.
- During the demonstration display, you can turn on or off the power illuminator by pressing ILLUMINATION.

Viewing information in the display

Checking the elapsed playing time, remaining time and titles

Press DISPLAY repeatedly during playback.

Each time you press DISPLAY, the display changes from ① → ② → ... → ① → ...

When playing an AUDIO CD:

- When "1 DISC" or "□" play mode is selected
 - ① Elapsed playing time of the current track
 - ② Remaining time of the current track
 - ③ Remaining time of the current disc
 - ④ Clock display (for 8 seconds)
 - ⑤ Effect name (for 8 seconds)
- When play mode other than above is selected
 - ① Elapsed playing time of the current track
 - ② Remaining time of the current track
 - ③ Clock display (for 8 seconds)
 - ④ Effect name (for 8 seconds)

Continued 

When playing MP3 audio tracks in CD or USB function:

- ① Elapsed playing time of the current track
- ② For MP3 audio tracks with ID3 tag:
Elapsed playing time of current track and track name from the ID3 tag
For MP3 audio tracks without ID3 tag:
Elapsed playing time of current track and file name
- ③ For MP3 audio tracks with ID3 tag:
Track name and artist name from ID3 tag
For MP3 audio tracks without ID3 tag:
File name and "NO ARTIST"
- ④ For MP3 audio tracks with ID3 tag:
Track name and folder name from ID3 tag
For MP3 audio tracks without ID3 tag:
File name and folder name
- ⑤ Clock display (for 8 seconds)
- ⑥ Effect name (for 8 seconds)

Checking the total playing time and titles

Press DISPLAY repeatedly when playback is stopped.
Each time you press DISPLAY, the display changes from ① → ② → ... → ① → ...

AUDIO CD or MP3 audio tracks with "PGM" play mode is selected:

- ① The last programmed item information
- ② Total number of programmed step¹⁾²⁾ (for 8 seconds)
- ③ Memory free space of connected USB device³⁾
- ④ Clock display (for 8 seconds)
- ⑤ Effect name (for 8 seconds)

AUDIO CD with play mode other than "PGM":

- ① Total number of tracks and total playing time
- ② Clock display (for 8 seconds)
- ③ Effect name (for 8 seconds)

MP3 audio tracks:

- When "□" or "□ SHUF" play mode is selected
 - ① Total number of tracks of the current folder and folder name
 - ② Memory free space of connected USB device³⁾
 - ③ Clock display (for 8 seconds)
 - ④ Effect name (for 8 seconds)
- When play mode other than "□", "□ SHUF" or "PGM" is selected
 - ① Total number of folders²⁾ and volume label of the disc^{2)/USB device³⁾}
 - ② Memory free space of connected USB device³⁾
 - ③ Clock display (for 8 seconds)
 - ④ Effect name (for 8 seconds)

¹⁾ "NO STEP" appears in the display if you have not program the tracks.

²⁾ Appears during CD function only.

³⁾ Appears during USB function only.
The display will only show an integer.
For example, if the memory free space is 1.8 Gigabyte (Gb), it will only show as 1 Gb.

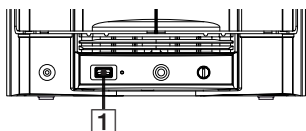
Notes

- Some text characters may not be displayed.
- If the MP3 audio track title contains characters which cannot be displayed, these characters will be displayed as "_".
- The elapsed playing time of MP3 audio tracks may not be displayed correctly.
- ID3 tag information for MP3 audio tracks is displayed when the tracks have ID3 version 1 or ID3 version 2. If there are ID3 version 1 and version 2 tags, ID3 version 2 tag information has priority.

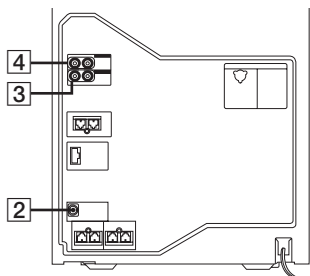
Hooking up the optional components

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

Front panel



Rear panel



1 (USB) port

Connect an optional USB device (Digital music player or USB storage media).

2 D-LIGHT SYNC OUT jack (Except for Oceanian model)

Connect the D-LIGHT SYNC controller. You need to connect the D-LIGHT SYNC controller to a lighting device* (not supplied). The lighting device will react according to the control signals transmitted by the D-LIGHT SYNC controller upon receiving music source from the system. For details on the use of the D-LIGHT SYNC controller and lighting device, refer to the operating instructions supplied with the respective device.

D-LIGHT SYNC controller cord



* Refer to the operating instructions supplied with the D-LIGHT SYNC controller for the recommended lighting device.

Note

The lighting effect may be different depending on the connected lighting device or the type of music being played back.

3 VIDEO (AUDIO IN) L/R jacks

Use an audio cord to connect to the audio output jacks of an optional component (such as a TV or VCR).

4 AUDIO (AUDIO IN) L/R jacks

Use an audio cord to connect to the audio output jacks of an optional component (such as an MD deck).

Listening to a connected TV or VCR

Press VIDEO (or press FUNCTION repeatedly on the remote to select "VIDEO").

Listening to a connected MD deck

Press AUDIO (or press FUNCTION repeatedly on the remote to select "AUDIO").

Additional Information

Troubleshooting

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

- 1 Make sure the power cord and speaker cords are connected correctly and firmly.
- 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.

Note that if service personnel changes some parts during repair, these parts may be retained.

When the I/⏻ indicator flashes


Immediately unplug the power cord and check the following items.

- (MHC-GTX88 only) Is the system control cable connected correctly?
- If your unit have a voltage selector, is the voltage selector set to the correct voltage?
Check the voltage for your region, then make sure the voltage selector is set correctly.
- (MHC-GTX77 only) Are the + and – speaker cords short-circuited?
- Are you using the supplied speakers?
- Is anything blocking the ventilation holes on the rear of the unit?

After checking the above items and fixing any problems, plug in the power cord again and turn on the system. If the I/⏻ 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 starts flashing as soon as you plug in the power cord even though you have not turned on the system.

- The demonstration mode started. Press  (page 13).

The clock or timer setting is canceled.

- The power cord is disconnected or a power failure occurred. Redo “Setting the clock” (page 16). If you have set the timer, redo “Setting the timer” (page 37).

“- -: -” appears in the display.

- The clock is not set. Set the clock (page 16).
- A power failure has occurred. Set the clock (page 16) and timer settings (page 37) again.

There is no sound.

- Turn MASTER VOLUME clockwise (or press VOLUME + repeatedly on the remote).
- The headphones are connected to the PHONES jack.
- Check the speaker connections (page 12).
- There is no audio output during Recording Timer.

There is no microphone sound.

- Turn MASTER VOLUME clockwise (or press VOLUME + repeatedly on the remote) or turn MIC LEVEL clockwise to adjust the microphone volume.
- Make sure the microphone is connected to the MIC jack correctly.

There is severe hum or noise.

- A TV or VCR is placed too close to the unit. Move the unit away from the TV or VCR.
- Move the unit away from the source of noise.

- Connect the unit to a different wall outlet.
- Install a noise filter (commercially available) to the power cord.

The timer does not function.

- Check the timer setting and set the correct time (page 37).
- Cancel the Sleep Timer function (page 37).
- You cannot select the Play Timer and the Recording Timer at the same time.

The remote does not function.

- Remove the obstacles between the remote and the unit.
- Move the remote closer to the unit.
- Point the remote at the unit’s sensor.
- Replace the batteries (R6/size AA).
- Move the unit away from the fluorescent light.

There is acoustic feedback.

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

The sound from the music source has echo effects.

- Press FLANGER, DELAY or CHORUS repeatedly until “FLANGER”, “DELAY” and “CHORUS” disappear from the display.

Speakers

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

- Place the speakers as symmetrically as possible.
- Check that the speaker are connected securely and correctly.
- The source being played back is monaural.

(MHC-GTX88 only)

There is no sound from the subwoofers.

- Adjust the subwoofer level to the appropriate level.
- Check that the subwoofers are connected securely and correctly.
- Check that both subwoofer A and subwoofer B are connected to the unit.

(MHC-GTX88 only)

There is no sound from the surround speaker.

- Check that the surround speakers are connected securely and correctly.

(MHC-GTX77 only)

Sound lacks bass.

- Check that the speaker's + and – terminals are connected correctly.

Disc player

The disc tray does not open and "LOCKED" appears in the display.

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

The disc tray does not close.

- Load the disc correctly.
- Always close the disc tray by pressing **▲ OPEN/CLOSE**. Do not forcibly push the disc tray to close it as this may cause a malfunction.

The disc does not eject.

- You cannot eject the disc during CD-USB Synchro Recording, CD-TAPE Synchro Recording, or REC1 Recording. Press **■** to cancel the recording, then press **▲ OPEN/CLOSE** to eject the disc.
- Consult your nearest Sony dealer.

Playback does not start.

- Open the disc tray and check whether a disc is loaded.
- Wipe the disc clean (page 50).
- Reload the disc.
- Load the disc that this system can play back (page 4).

- Load the disc on the disc tray with the label side facing up.
- Remove the disc and wipe away the moisture on the disc, then leave the system turned on for a few hours until the moisture evaporates.
- Press **▶||** (or **▶** on the remote) to start playback.

Disc access take a longer time.

- Set the CD/USB power manage function to "CD/USB POWER ON" (page 29).

The sound skips.

- Wipe the disc clean (page 50).
- Reload the disc.
- Move the unit to a place without vibration (e.g., on top of a stable stand).
- Move the speakers away from the unit, or place 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.

Playback does not start from the first track.

- The system is in Program Play or Shuffle Play mode. Press **PLAY MODE** on the remote repeatedly until "ALL DISCS", "1 DISC" or "**□**" lights up in the display.

The MP3 audio tracks cannot be played back.

- The MP3 audio track is not recorded in a format that conforms to ISO 9660 Level 1/Level 2, or Joliet (expansion format).
- The MP3 audio track does not have the extension ".MP3".
- The MP3 audio tracks in format other than MPEG 1 Audio Layer 3 cannot be played back.
- The system can play back to a depth of 8 folders only.
- The disc contains more than 256 folders.
- The disc contains more than 511 MP3 audio tracks.
- MP3 audio tracks in MP3 PRO format cannot be played back.

The MP3 audio tracks take a longer time to play back than others.

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

The folder name, track name and ID3 tag characters do not appear properly.

- Use a disc that conforms to ISO 9660 Level 1/Level 2, or Joliet (expansion format).
- The ID3 tag is not version 1 or version 2.
- The character code that can be displayed by this system are as follows:
 - Upper cases (A to Z)
 - Lower cases (a to z)
 - Numbers (0 to 9)
 - Symbols (<> * +, ? / [] \ _)
 Other characters may not be displayed correctly.

USB device**You cannot start recording to an USB device.**

- The following problems may have occurred.
 - The USB device is full.
 - The number of MP3 audio track and folder that system can recognize has reached the upper limit.
 - The USB device is write-protected.

Recording is stopped before it is finished.

- You are using an unsupported USB devices. See “Playable/Recordable USB device” (page 5) for the supported device types.
- The USB device is not formatted correctly. Refer to the USB device operating instructions for how to format.

- Turn off the system and remove the USB device. Then, turn on the system. If the USB device has a power switch, turn the USB device off and then on again after removing it from the system. Then perform recording again.
- If the recording and erase operations are repeated multiple times, the file structure within the USB device becomes complex. Refer to operating instructions of the USB device on how to remedy this problem.

Recording to an USB device results in an error.

- You are using an unsupported USB device. See “Playable/Recordable USB devices” (page 5) for the supported device types.
- The USB device was disconnected or the power was turned off during recording. Delete the partially-recorded track, and record again. If this does not fix the problem, the USB device may be broken. Refer to operating instructions of the USB device on how to remedy this problem.
- Turn off the system and remove the USB device. If the USB device has a power switch, turn the USB device off and then on again after removing it from the system. Then perform recording again.

Playback sequence is not follow the recording sequence.

- If you perform recording after the erase operation, the new recorded tracks or folders may have the name that same as the erased tracks or folders. Therefore, the playback sequence may different from the recording sequence.

Continued 



MP3 audio tracks or folders on the USB device cannot be erased.

- Check if the USB device is write-protected.
- The USB device was disconnected or the power was turned off during the erase operation. Delete the partially-erased track. If this does not fix the problem, the USB device may be broken. Refer to operating instructions of the USB device on how to remedy this problem.

Are you using a supported USB device?

- If you connect an unsupported USB device, the following problems may occur. See “Playable/Recordable USB devices” (page 5) for the supported device types.
 - The USB device is not recognized.
 - Track or folder names are not displayed on this system.
 - Playback is not possible.
 - The sound skips.
 - There is noise.
 - A distorted sound is output.
 - Recording stops before it is finished.

“Over Current” appears in the display.

- A problem has been detected with the level of electrical current from the  (USB) port. Turn off the system and remove the USB device from the  (USB) port. Make sure there is no problem with the USB device. If this display pattern persists, contact your nearest Sony dealer.

There is no sound.

- The USB device is not connected correctly. Turn off the system, then connect the USB device again and check if “USB MEMORY” lights up in the display.

There is noise, skipping, or distorted sound.

- Turn off the system, then connect the USB device again.
- The music data itself contains noise, or the sound is distorted. Noise may have entered during the recording process. Delete the track, and try recording again.

The USB device cannot be connected into the (USB) port.

- The USB device is being connected backwards. Connect the USB device in the correct orientation.

“Reading” is displayed for an extended time, or it takes a long time before playback starts.

- The reading process can take a long time in the following cases.
 - There are many folders or tracks on the USB device.
 - The file structure is extremely complex.
 - The memory capacity is excessive.
 - The internal memory is fragmented.Thus, we recommend following these guidelines.
 - Total folders on USB device: 100 or less
 - Total tracks per folder: 100 or less

Erroneous display.

- The data stored in the USB device may have been corrupted, perform the recording again.
- The character code that can be displayed by this system are as follows:
 - Upper cases (A to Z)
 - Lower cases (a to z)
 - Numbers (0 to 9)
 - Symbols (< > * +, ? / [] \ _)Other characters may not be displayed correctly.

The USB device is not recognized.

- Turn off the system, then reconnect the USB device.
- Connect the supported USB device (page 5).

The USB device does not work properly. Refer to the USB device operating instructions for how to deal with this problem. If the problem persists, contact your nearest Sony dealer.

Playback does not start.

- Turn off the system, then connect the USB device again.
- Connect the supported USB device (page 5).
- Press **▶||** (or **▶** on the remote) to start playback.

Playback does not start from the first track.

- Set the play mode to Normal Play (page 26).

The MP3 audio tracks cannot be played back.

- The MP3 audio track does not have the extension “.MP3”.
- The data is not stored in MP3 format.
- USB storage media formatted with file systems other than FAT16, or FAT32 (cluster size 512 byte – 32 kbyte) are unsupported.*
- If you use partitioned USB storage media, only MP3 audio tracks on the first partition can be played back.
- Playback is possible up to 8 folder levels.
- The number of MP3 folders has exceeded 997.
- The number of MP3 audio tracks has exceeded 999.
- Files that are encrypted or protected by passwords, etc. cannot be played back.

* This system supports FAT16 and FAT32, but some USB storage media may not support all of these FAT. For details, see the operating instructions of each USB storage media or contact the manufacturer.

Tuner**The radio presetting is canceled.**

- The power cord is disconnected or a power failure occurred for longer than half a day. Redo “Listening to a preset radio station” (page 28).

There is severe hum or noise. (“TUNED” or “ST” flashes in the display)

- Set the proper band and frequency (page 28).
- Connect the antenna properly (page 12).
- Find a place and an orientation that provide good reception, then set up the antenna again. If you cannot obtain good reception, we recommend that 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.
- Try turning off the surrounding electrical equipment.
- Set the CD/USB power manage function to “CD/USB POWER OFF” (page 29).

A stereo FM program cannot be received in stereo.

- Press FM MODE on the remote repeatedly until “MONO” disappears from the display.

Tape deck**The tape does not record or playback, or there is a decrease in sound level.**

- The tape heads are dirty (see “Cleaning the tape heads” on page 51).
- The record/playback heads are magnetized (see “Demagnetizing the tape heads” on page 51).

Continued 

The tape does not erase completely.

- The record/playback heads are magnetized (see “Demagnetizing the tape heads” on page 51).

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 51).

Noise increases or the high frequencies are erased.

- The record/playback heads are magnetized (see “Demagnetizing the tape heads” on page 51).

The tape does not record.

- No tape is loaded. Load a tape.
- The tab has been removed from the tape. Cover the broken tab with adhesive tape (page 51).
- The tape has reeled to the end.

The system cannot play back the reverse side of the tape in Deck A or Deck B.

- The system only can play back front side of the tape in Deck A and Deck B. This is not a malfunction.

The system cannot record the reverse side of the tape in Deck B.

- The system only can record front side of the tape in Deck B. This is not a malfunction.

When you press ◀◀ or ▶▶, “Not in Use” flashes in the display.

- The system does not have AMS (Automatic Music Sensor) function. This is not a malfunction.

The recorded sound has echo effect.

- Before you start recording, press FLANGER, DELAY or CHORUS repeatedly until “FLANGER”, “DELAY” and “CHORUS” disappear from the display.

Optional components

There is no sound.

- Refer to General item “There is no sound.” (page 43) and check the condition of the system.
- Connect the component properly (page 41) 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.

If the system still does not operate properly after performing the above measures or other troubles not described above occur, reset the system as follows:

Use the buttons on the unit for the operation.

- 1** Unplug the power cord.
- 2** Plug the power cord back in.
- 3** Press I/⏻ to turn on the system.
- 4** Press ■, ENTER and I/⏻ at the same time.
“COLD RESET” appears in the display.

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.

Disc/ Tape/ Timer

No Disc

There is no disc on the disc tray.

No Tab

You cannot record onto the tape because the tab has been removed from the tape.

No Tape

There is no tape in the tape deck.

Not in Use

You have pressed a button whose operation is not allowed or invalid at that time.

OFF TIME NG!

The on time and off time of Play Timer or Recording Timer is the same.

PUSH SELECT!

You tried to set the clock or timer during timer operation.

Push STOP!

You have pressed PLAY MODE on the remote during playback.

Reading

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

NO STEP

You have cleared all the steps you programmed.

OVER

You have reached the end of the disc while pressing ►► during playback or pause.

Step Full!

You tried to program more than 25 steps.

SET CLOCK!

You pressed CLOCK/TIMER SELECT on the remote before the clock is set.

SET TIMER!

You pressed CLOCK/TIMER SELECT on the remote before Play Timer or Recording Timer is set.

USB device

Reading/USB Reading

The system is reading information of the USB device. Some buttons are not available.

Data Error

You tried to play back a MP3 audio track that is not playable (page 47).

Device Error

The USB device could not be recognized or an unknown device is connected.

Fatal Error!

The USB device was removed during recording or erase operation, and may have been damaged.

NO STEP

All of the programmed tracks have been erased.

Not Supported

An unsupported USB device is connected or the USB device is connected through an USB hub.

No Track

No playable MP3 audio track is loaded in the system.

Not in Use

You tried to perform a specific operation under conditions where that operation is prohibited.

Over Current

An over current was detected.

Protected!

The USB device is write-protected.

Continued 

Push STOP!

You tried to perform an operation that can be performed only when the playback is stopped.

REC Error!

Recording did not start, stopped partway, or otherwise could not be performed (page 45).

Removed

The USB device has been removed.

Step Full!

You tried to program more than 25 tracks (steps).

Track Full!

You cannot record onto the USB device because the number of track has reached its maximum.

Folder Full!

You cannot record onto the USB device because the number of folder has reached its maximum.

Device Full!

The memory of the USB device is full.

Precautions

Discs that this system CANNOT play

- Discs of non-standard shape (for example, heart, square, star).
- Discs that have adhesive tape, paper, or sticker attached to them.
- Rental or used discs with attached seals where the glue extends beyond the seal.
- Discs that have labels printed using ink that feels tacky when touched.

Notes on discs

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

On safety

- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall socket, even if the unit itself has been turned off.
- Completely disconnect the power cord (mains lead) from the wall socket (mains) if it is not going to be used for an extended period of time. When unplugging the unit, always grip the plug. Never pull the cord itself.
- Should any solid object or liquid get into the system, unplug the system, and have it checked by qualified personnel before operating it again.
- The AC power cord can be changed only by a qualified service facility.

On placement

- Do not place the system in an inclined position or in locations that are extremely hot, cold, dusty, dirty, or humid or lacking adequate ventilation, or subject to vibration, direct sunlight or a bright light.
- Be careful when placing the unit or speakers on surfaces that have been specially treated (for example, with wax, oil, polish) as staining or discoloration of the surface may result.
- 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 unit, and cause the system to malfunction. In this situation, remove the disc, and leave the system turned on for about an hour until the moisture evaporates.

On heat buildup

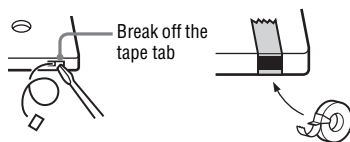
- Heat buildup on the unit during operation is normal and is not a cause for alarm.
- Do not touch the cabinet if it has been used continuously at a high volume because the cabinet may have become hot.
- Do not obstruct the ventilation holes.

Cleaning the cabinet

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

To prevent a tape from being accidentally recorded over

Break off the tape's overwrite protection tab from side A or B as illustrated.



To later reuse the tape for recording, cover the broken tab with adhesive tape.

About a tape longer than 90 minutes

The use of the tape with more than 90 minutes of play time is not recommended except for long, continuous recording or playback.

Cleaning the tape heads

Use a dry-type or wet-type cleaning tape (available separately) after every 10 hours of use, before you start an important recording, or after playing an old tape. Failure to clean the tape heads can cause degraded sound quality or an inability of the system to record or play tapes. For details, refer to the instructions of the cleaning tape.

Demagnetizing the tape heads

Use a demagnetizing tape (available separately) after every 20 to 30 hours of use. Failure to demagnetize the tape heads can cause an increase in noise and a loss of high frequency sound and an inability to completely erase tapes. For details, refer to the instructions of the demagnetizing tape.

Specifications

Amplifier section

MHC-GTX88 (HCD-GTX88)

Brazil model only

The following are measured at
AC 127 V or 220 V, 50/60 Hz

Front/Surround speaker

RMS output power:
205 W + 205 W (at 8 Ω , 1 kHz,
10% THD)

Subwoofer

RMS output power:
130 W + 130 W (at 6 Ω , 100 Hz,
10% THD)

Other models

The following are measured at

Mexican model:

AC 127 V, 60 Hz

Other models:

AC 120, 220, 240 V, 50/60 Hz

Front/Surround speaker

Power Output (rated):
175 W + 175 W (at 8 Ω , 1 kHz,
1% THD)

RMS output power (reference):
255 W + 255 W (per channel at 8 Ω ,
1 kHz, 10% THD)

Subwoofer

RMS output power (reference):
130 W + 130 W (at 6 Ω , 100 Hz,
10% THD)

MHC-GTX77 (HCD-GTX77)

Brazil model only

The following are measured at
AC 127 V or 220 V, 50/60 Hz

Front speaker

RMS output power:
300 W + 300 W (at 4 Ω , 1 kHz,
10% THD)

Other models

The following are measured at

Mexican model:

AC 127 V, 60 Hz

Other models:

AC 120, 220, 240 V, 50/60 Hz

Front speaker

Power Output (rated):
225 W + 225 W (at 4 Ω , 1 kHz,
1% THD)

RMS output power (reference):
380 W + 380 W (per channel at 4 Ω ,
1 kHz, 10% THD)

MHC-GTX66 (HCD-GTX66)

Brazil model only

The following are measured at
AC 127 V or 220 V, 50/60 Hz

Front speaker

RMS output power:
280 W + 280 W (at 4 Ω , 1 kHz,
10% THD)

Other models

The following are measured at

AC 120, 220, 240 V, 50/60 Hz

Front speaker

Power Output (rated):
210 W + 210 W (at 4 Ω , 1 kHz,
1% THD)

RMS output power (reference):
340 W + 340 W (per channel at 4 Ω ,
1 kHz, 10% THD)

Inputs

VIDEO (AUDIO IN) L/R:


Voltage 250 mV, impedance
47 kilohms

AUDIO (AUDIO IN) L/R:

Voltage 450 mV, impedance
47 kilohms

MIC:

Sensitivity 1 mV, impedance
10 kilohms

 (USB) port:
Type A

Outputs

PHONES:

accepts headphones of 8 Ω or more

Disc player section

System

Compact disc and digital audio system

Laser

Semiconductor laser ($\lambda = 770 - 810$
nm)

Emission duration: continuous

Laser Output

Max. 44.6 μ W*

* This output is the value measured at
a distance of 200 mm from the
objective lens surface on the Optical
Pick-up Block with 7 mm aperture.

Frequency response

20 Hz – 20 kHz

Wave length

770 – 810 nm

Signal-to-noise ratio

More than 90 dB

Dynamic range

More than 88 dB

Tape deck section

Recording system

4-track 2-channel stereo

Frequency response

50 – 13,000 Hz (± 3 dB),
using Sony TYPE I tape

Wow and flutter

$\pm 0.35\%$ W.Peak (IEC)
0.3% W.RMS (NAB)
 $\pm 0.4\%$ W.Peak (DIN)

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range

Brazil model:

87.5 – 108.0 MHz (100 kHz step)

Other models:

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

Latin American and Oceanian models:

530 – 1,710 kHz (with the interval set
at 10 kHz)

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

Other models:

531 – 1,602 kHz (with the interval set
at 9 kHz)

530 – 1,610 kHz (with the interval set
at 10 kHz)

Antenna

AM loop antenna

Antenna terminals

External antenna terminal

Intermediate frequency

450 kHz

Continued 

USB section

Supported bit rate

MP3 (MPEG 1 Audio Layer 3):
32 – 320 kbps, VBR

Sampling frequencies

MP3 (MPEG 1 Audio Layer 3):
32/44.1/48 kHz

Transfer speed

Full-Speed

Supported USB device

Mass Storage Class

Maximum current

500 mA

Speakers

For MHC-GTX88

Front speaker SS-GTX88

Speaker system

2-way, 2-unit, bass-reflex type

Speaker units

Woofer: 20 cm, cone type
Tweeter: 2.5 cm, horn type

Rated impedance

8 Ω

Dimensions (w/h/d)

Approx. 281 × 415.2 × 313 mm

Mass

Approx. 6.9 kg net per speaker

Surround speaker SS-RSX88

Speaker system

2-way, 2-unit, bass-reflex type

Speaker units

Woofer: 10 cm, cone type
Tweeter: 4 cm, horn type

Rated impedance

24 Ω

Dimensions (w/h/d)

Approx. 176 × 361.7 × 222.5 mm

Mass

Approx. 2.9 kg net per speaker

Subwoofer A SS-WG88A/

Subwoofer B SS-WG88B

Subwoofer system

1-way, 1-unit, bass-reflex type

Speaker units

Subwoofer: 25 cm, cone type

Rated impedance

6 Ω

Dimensions (w/h/d)

SS-WG88A:

Approx. 351 × 415.2 × 350.2 mm

SS-WG88B:

Approx. 351 × 415.2 × 342.8 mm

Mass

Approx. 8.2 kg

For MHC-GTX77

Front speaker SS-GTX77

Speaker system

2-way, 3-unit, bass-reflex type

Speaker units

Woofer: 20 cm, cone type × 2
Tweeter: 2.5 cm, horn type

Rated impedance

4 Ω

Dimensions (w/h/d)

Approx. 300 × 600 × 343 mm

Mass

Approx. 10.8 kg net per speaker

For MHC-GTX66

Front speaker SS-GTX66

Speaker system

2-way, 2-unit, bass-reflex type

Speaker units

Woofer: 20 cm, cone type
Tweeter: 2.5 cm, horn type

Rated impedance

4 Ω

Dimensions (w/h/d)

Approx. 281 × 415.2 × 313 mm

Mass

Approx. 7.2 kg net per speaker

General

Power requirements

Mexican model: 127 V AC, 60 Hz

Brazil model: 127 V or 220 V AC,
50/60 Hz, adjustable with voltage
selector

Oceanian model: 230 – 240 V AC,
50/60 Hz

Argentina models: 220 V AC,
50/60 Hz

Other models: 120 V, 220 V or
230 – 240 V AC, 50/60 Hz, adjustable
with voltage selector

Power consumption

MHC-GTX88: 430 W

MHC-GTX77/MHC-GTX66: 300 W

Dimensions (w/h/d) (Approx.)

HCD-GTX88/HCD-GTX77/

HCD-GTX66: 281 × 361 × 417 mm

Mass (Approx.)

HCD-GTX88: 14.2 kg

HCD-GTX77/HCD-GTX66: 12.4 kg

Supplied accessories

Remote Commander (1)

R6 (size AA) batteries (2)

AM loop antenna (1)

FM lead antenna (1)

Front speaker pads (8)

Surround speaker pads (MHC-GTX88
only) (8)

Subwoofer pads (MHC-GTX88 only)
(Black) (8)

Speaker cords (MHC-GTX77 only) (2)

Design and specifications are subject to
change without notice.

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