

# Mini HI-FI Component System

Operating Instructions  
MHC-EC78/EC68



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Printed in China

<http://www.sony.net/>

## 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 news papers, table-cloths, curtains, etc. And don't place lighted candles on the apparatus.

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

Install this system so that the power cord can be unplugged from the wall socket immediately in the event of trouble.

Do not install the appliance in a confined space, such as a bookcase or built-in cabinet.

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

The main plug is used as the disconnect device, the disconnect device shall remain readily operable.



**Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)**

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.



**Disposal of waste batteries (applicable in the European Union and other European countries with separate collection systems)**

This symbol on the battery or on the packaging indicates that the battery provided with this product shall not be treated as household waste. By ensuring these batteries are disposed of correctly, you will help prevent potentially negative consequences for the environment and human health which could otherwise be caused by inappropriate waste handling of the battery. The recycling of the materials will help to conserve natural resources.

In case of products that for safety, performance or data integrity reasons require a permanent connection with an incorporated battery, this battery should be replaced by qualified service staff only. To ensure that the battery will be treated properly, hand over the product at end-of-life to the applicable collection point for the recycling of electrical and electronic equipment.

For all other batteries, please view the section on how to remove the battery from the product safely. Hand the battery over to the applicable collection point for the recycling of waste batteries.

For more detailed information about recycling of this product or battery, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

## Notice for the customer in the countries applying EU Directives

The manufacturer of this product is Sony Corporation, 1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan. The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters please refer to the addresses given in separate service or guarantee documents.

### Note on DualDiscs

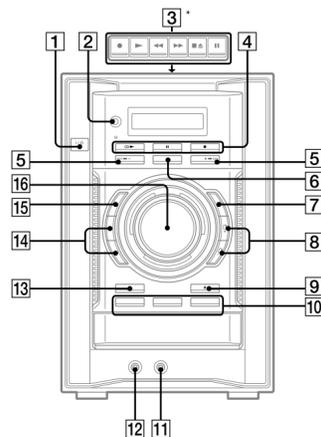
A DualDisc is a two sided disc product which mates DVD recorded material on one side with digital audio material on the other side. However, since the audio material side does not conform to the Compact Disc (CD) standard, playback on this product is not guaranteed.

### Music discs encoded with copyright protection technologies

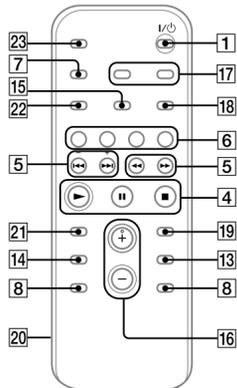
This product is designed to playback discs that conform to the Compact Disc (CD) standard. Recently, various music discs encoded with copyright protection technologies are marketed by some record companies. Please be aware that among those discs, there are some that do not conform to the CD standard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

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

## Basic Operations



\* Except for the UK model



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

## Selecting a music source

Press the following buttons (or press FUNCTION [6] repeatedly).

To select	Press
CD	CD [6].
Tuner	TUNER/BAND [6].
Tape <sup>1)</sup>	TAPE [6].
Component <sup>2)</sup> (connected using an audio cord)	FUNCTION [6] repeatedly until "AUDIO IN" appears.

<sup>1)</sup> Except for the UK model.  
<sup>2)</sup> If the component has the AVLS (Automatic Volume Limiter System) or BASS BOOST function, turn off the function to avoid distorted sound from the speakers.

## Adjusting the sound

### To adjust the volume

Press VOLUME +/- (or turn the VOLUME control on the unit) [16].

### To add a sound effect

To	Press
Generate a more dynamic sound (Dynamic Sound Generator X-tra)	DSGX [14] on the unit.
Set the sound effect	EQ [14].

## Playing a CD/MP3 disc

### 1 Select the CD function.

Press CD (or FUNCTION repeatedly) [6].

### 2 Place a disc.

Press ▲ (open/close) [9] on the unit, and place a disc with the label side up on the disc tray. To place additional discs, slide the disc tray with your finger as shown below.

To close the disc tray, press ▲ (open/close) [9] on the unit.

Do not force the disc tray closed with your finger, as this may damage the unit.



### 3 Select a disc.

If the discs are currently stopped, press DISC SKIP [13]. To change discs while in other functions, press DISC 1 - 3 [10] on the unit.

### 4 Start playback.

Press ► (play) (or CD ► (play) on the unit) [4]. To exchange other discs during playback, press EX-CHANGE [10] on the unit.

To	Press
Pause playback	⏏ (pause) [3]. To resume play, press the button again.
Stop playback	■ (stop) [4].
Select a folder on an MP3 disc	⏏ (select folder) +/- [8].
Select a track or file	⏮/⏭ (go back/go forward) (or ⏪/⏩) on the unit) [5].
Find a point in a track or file	Hold down ◀/▶ (rewind/fast forward) [5] during playback, and release the button at the desired point.
Select Repeat Play	REPEAT [18] repeatedly until "REP" or "REP1" appears.

### To change the play mode

Press PLAY MODE [15] repeatedly while the player is stopped. You can select normal play (no display for all discs or "1 DISC" for a disc or "▶" for all MP3 files in the folder on the disc), shuffle play ("SHUF" for all discs shuffle, "1 DISC SHUF" for one disc shuffle or "▶ SHUF" for folder shuffle), or program play ("PGM").

<sup>1)</sup> When playing a CD-DA disc, ▶ (SHUF) Play performs the same operation as 1 DISC (SHUF) Play.

### Notes on Repeat Play

- All tracks or files on a disc are played repeatedly up to five times.
- You cannot select "REP" and "SHUF" (all discs shuffle) at the same time.
- "REP1" indicates that a single track or file is repeated until you stop it.

### Notes on playing MP3 discs

- Do not save other types of tracks or files or unnecessary folders on a disc that has MP3 files.
- Folders that have no MP3 files are skipped.
- MP3 files are played back in the order that they are recorded onto the disc.
- The system can only play MP3 files that have a file extension of ".MP3".
- If there are files on the disc that have the ".MP3" file extension, but that are not MP3 files, the unit may produce noise or may malfunction.
- The maximum number of:
  - folders is 150 (including the root folder).
  - MP3 files is 255.
  - MP3 files and folders that can be contained on a single disc is 300.
  - folder levels (the tree structure of files) is eight.

Compatibility with all MP3 encoding/writing software, recording device, and recording media cannot be guaranteed. Incompatible MP3 discs may produce noise or interrupted audio or may not play at all.

### Notes on playing multisection discs

- If the disc begins with a CD-DA (or MP3) session, it is recognized as a CD-DA (or MP3) disc, and playback continues until another session is encountered.
- A disc with a mixed CD format is recognized as a CD-DA (audio) disc.

## Listening to the radio

### 1 Select "TUNER FM" or "TUNER AM."

Press TUNER/BAND [6] repeatedly.

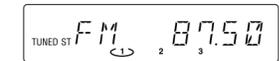
### 2 Select the tuning mode.

Press TUNING MODE [15] repeatedly until "AUTO" appears.

### 3 Tune in the desired station.

Press +/- (or TUNING +/- on the unit) [5].

Scanning stops automatically when a station is tuned in, and then "TUNED" and "ST" (for stereo programs) appear.



### To stop automatic scanning

Press ■ (stop) [4].

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

If "TUNED" does not appear and the scanning does not stop, press TUNING MODE [15] repeatedly until "MANUAL" appears, and then press +/- (or TUNING +/- on the unit) [5] repeatedly to tune in the desired station.

### To reduce static noise on a weak FM stereo station

Press FM MODE [18] repeatedly until "MONO" appears to turn off stereo reception.

## Playing a tape (Except for the UK model)

### 1 Select a tape function.

Press TAPE (or FUNCTION repeatedly) [6].

### 2 Insert a tape.

Press ■▲ (stop/eject) [3] on the unit, and insert the tape into the cassette holder. Make sure there is no slack in the tape to avoid damaging the tape or the tape deck.

### 3 Start playback.

Press ► (play) [3] on the unit.

To	Press
Pause playback	⏏ (pause) [3] on the unit. To resume play, press the button again.
Stop playback	■▲ (stop/eject) [3] on the unit.
Rewind or fast forward*	◀/▶ (rewind/fast forward) [3] on the unit.

\* Be sure to press ■▲ (stop/eject) [3] on the unit after the tape has been wound or rewound to the end.

### Note

Do not turn off the system during playback or recording.

## Changing the display

To	Press
Change information on the display*	DISPLAY [7] repeatedly when the system is turned on.
Change Display mode (See below.)	DISPLAY [7] repeatedly when the system is turned off.

\* For example, you can view CD/MP3 disc information, such as:  
 —track or file number during normal play.  
 —artist name (▲) during normal play.  
 —album or folder name (▶) during normal play.  
 —total playing time while the player is stopped.

The system offers the following display modes.

Display mode	When the system is off,
Power Saving Mode <sup>1)</sup>	The display is turned off to conserve power. The timer and clock continue to operate.
Clock <sup>2)</sup>	The clock is displayed.

<sup>1)</sup> You cannot set the clock in Power Saving Mode.

<sup>2)</sup> The clock display automatically turns to Power Saving Mode after eight seconds.

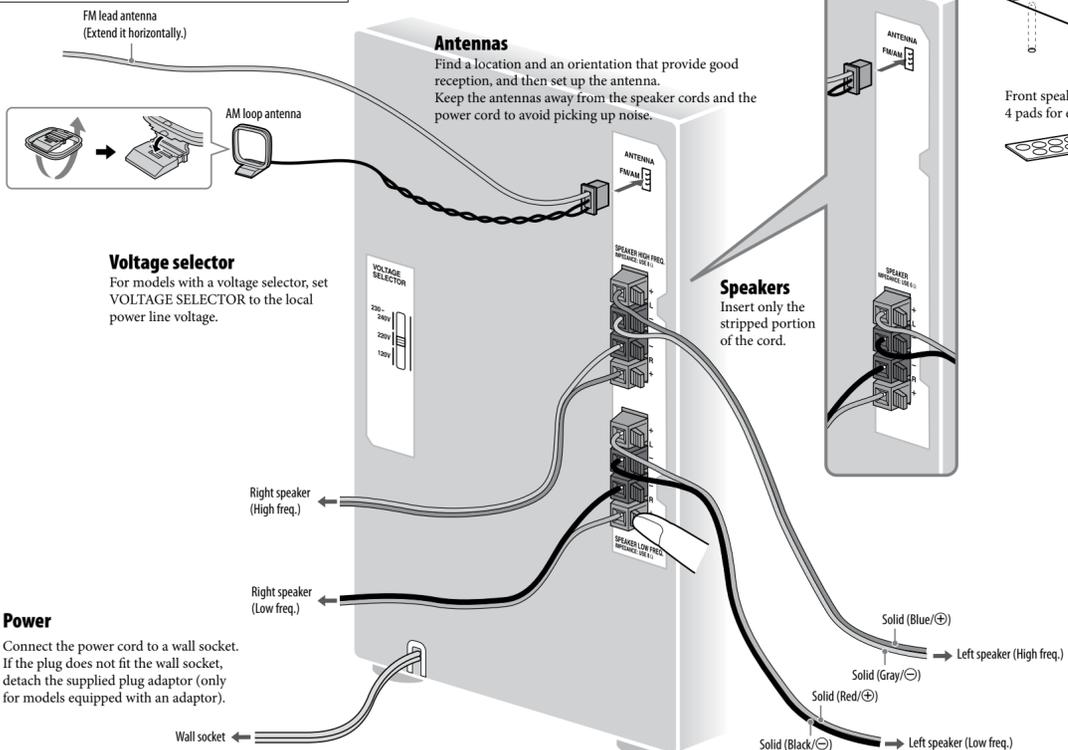
### Notes on the display information

- Characters that cannot be displayed appear as " \_".
- The following are not displayed:
  - total playing time for an MP3 disc.
  - remaining playing time for an MP3 file.
- The following are not displayed correctly;
  - elapsed playing time of an MP3 file encoded using VBR (variable bit rate).
  - folder and file names that do not follow either the ISO9660 Level 1, Level 2 or Joliet in the expansion format.
- The following are displayed:
  - total playing time for a CD-DA disc when the play mode is "1 DISC".
  - remaining playing time for a track.
  - ID3 tag information for MP3 files when ID3 version 1 and version 2 tags are used (ID3 version 2 tag information display has priority when both ID3 version 1 and version 2 tags are used for a single MP3 file).
  - up to 15 characters of ID3 tag information using uppercase letters (A to Z), numbers (0 to 9), and symbols (< > \* + - / @ [ \ ] \_).

## Hooking up the system securely

### When carrying this system

- Remove all discs to protect the CD mechanism.
- Hold down CD ► [4] on the unit, and press I/⏏ [1] until "STANDBY" appears.
- After "LOCK" appears, unplug the power cord.



### Antennas

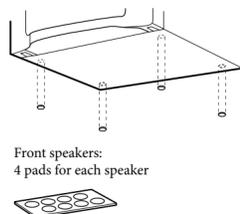
Find a location and an orientation that provide good reception, and then set up the antenna. Keep the antennas away from the speaker cords and the power cord to avoid picking up noise.

### Speakers

Insert only the stripped portion of the cord.

### Speaker pads

Attach the supplied speaker pads to the bottom of the front speakers to prevent slipping.

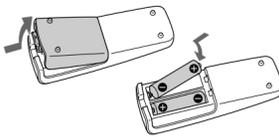


Front speakers:  
4 pads for each speaker

## Before using the system

### To use the remote

Slide and remove the battery compartment lid [20], and insert the two R6 (size AA) batteries (supplied), ● side first, matching the polarities shown below.



### Notes on using the remote

- With normal use, the batteries should last for about six months.
- Do not mix an old battery with a new one or mix different types of batteries.
- If you do not use the remote for a long period of time, remove the batteries to avoid damage from battery leakage and corrosion.
- Batteries installed devices shall not be exposed to excessive heat such as sunshine, fire or the like.

### To set the clock

#### 1 Turn on the system.

Press I/⏏ (on/standby) [1] to turn on the system.

#### 2 Select the clock set mode.

Press CLOCK/TIMER SET [17]. The hour indication flashes. If "PLAY SET" flashes, press ◀/▶ [5] repeatedly to select "CLOCK," and then press ENTER [19].

#### 3 Set the time.

Press ◀/▶ [5] repeatedly to set the hour, then press ENTER [19]. The minute indication flashes. Use the same procedure to set the minutes.

### Note

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

### Voltage selector

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

### Power

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

## Other Operations

### Creating your own CD program (Program Play)

Use buttons on the remote to create your own program.

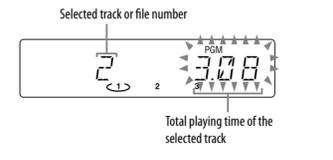
1 Press CD ⏏ to select the CD function.

2 Press PLAY MODE ⏮ repeatedly until “PGM” appears while the player is stopped.

3 Press DISC SKIP ⏮ to select a disc.

4 Press ⏮/⏭ (or ⏮/⏭/⏭ on the unit) ⏮ repeatedly until the desired track number appears.

When programming MP3 files, press ⏮ +/- ⏮ repeatedly to select the desired folder, and then select the desired file.



5 Press ENTER ⏮ to add the track or file to the program.

6 Repeat steps 3 through 5 to program additional tracks or files, up to a total of 25 tracks or files.

7 To play your program of tracks or files, press ▶ (or CD ▶ on the unit) ⏮.

The program remains available until you open the disc tray. To play the same program again, select the CD function, and then press ▶ (or CD ▶ on the unit) ⏮.

**To cancel Program Play**

Press PLAY MODE ⏮ repeatedly until “PGM” disappears while the player is stopped.

**To delete the last track or file of the program**
Press CLEAR ⏮ while the player is stopped.

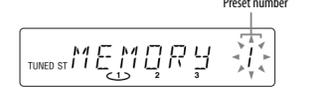
**To view program information, such as total track number of the program**
Press DISPLAY ⏮ repeatedly.

## Presetting radio stations

You can preset your favourite radio stations and tune them in instantly by selecting the corresponding preset number.

1 Tune in the desired station (See “Listening to the radio”).

2 Press TUNER MEMORY ⏮.



3 Press +/- (or TUNING +/- on the unit) ⏮ repeatedly to select your desired preset number.

If another station is already assigned to the selected preset number, the station is replaced by the new stations.

4 Press ENTER ⏮.

5 Repeat steps 1 through 4 to store other stations. You can preset up to 20 FM and 10 AM stations. The preset stations are retained for about half a day even if you disconnect the power cord or if a power failure occurs.

6 To call up a preset radio station, press TUNING MODE ⏮ repeatedly until “PRESET” appears, and then press +/- (or TUNING +/- on the unit) ⏮ repeatedly to select the desired preset number.

### Recording onto a tape (Except for the UK model)

Use a TYPE I (normal) tape only.

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

Use buttons on the unit to control tape recording.

1 Insert a recordable tape into the cassette holder with the side you want to record facing up.

2 Prepare the recording source.

Select the desired source to record.

Place the disc you want to record and press DISC SKIP ⏮ to select a disc.

When recording a folder from an MP3 disc, press PLAY MODE ⏮ repeatedly to select “⏮,” and then press ⏮ +/- ⏮ repeatedly to select the desired folder.

To record only your favourite CD tracks or MP3 files in your desired order, perform steps 2 to 5 of “Creating your own CD program.”

3 Start recording.

Press ● (record) ⏮, and then start playing the desired recording source.

The CD starts playing automatically after 10 seconds have passed.

If there is noise while recording from the tuner, reposition the appropriate antenna to reduce the noise.

While recording, you cannot listen to other sources.

**To stop recording**

Press ■ ▲ ⏮.

**Tip**

We recommend that you press ■ ■ first, and then press ■ ▲ ⏮ to avoid noise being recorded when you stop recording.

## Using the timers

The system offers two timer functions. If you use both timers, the Sleep Timer has priority.

Use buttons on the remote to use the timer functions.

**Sleep Timer:**

You can fall asleep to music. This function works even if the clock is not set.

Press SLEEP ⏮ repeatedly. If you select “AUTO,” the system automatically turns off after the current disc or tape stops or in 100 minutes.

If the tape deck is still playing or recording at the set time, the system turns off after the tape deck stops.

**Play Timer:**

You can wake up to CD or tuner at a preset time. Make sure you have set the dock.

1 Prepare the sound source.

Press VOLUME +/- (or turn VOLUME on the unit) ⏮ to adjust the volume.

To start from a specific CD track or MP3 file, create your own CD program.

2 Press CLOCK/TIMER SET ⏮.

3 Press ⏮/⏭/⏭ (or ⏮/⏭/⏭ on the unit) ⏮ repeatedly to select “PLAY SET,” then press ENTER ⏮.

“ON TIME” appears, and the hour indication flashes.

4 Set the time to start playback.

Press ⏮/⏭/⏭ ⏮ repeatedly to set the hour, then press ENTER ⏮.

The minute indication flashes. Use the procedure above to set the minutes.

5 Use the same procedure as in step 4 to set the time to stop playback.

6 Select the sound source.

Press ⏮/⏭/⏭ ⏮ repeatedly until the sound source you want appears, then press ENTER ⏮. The display shows the timer settings.

7 Press I/⏮ ⏮ to turn off the system.

If the system is on at the preset time, the Play Timer will not play.

**To activate or check the timer again**

Press CLOCK/TIMER SELECT ⏮, press ⏮/⏭/⏭ ⏮ repeatedly until “PLAY SEL” appears, then press ENTER ⏮.

**To cancel the timer**

Repeat the same procedure as above until “OFF” appears, and then press ENTER ⏮.

**To change the setting**

Start over from step 1.

**Tip**

The Play Timer setting remains as long as the setting is not cancelled manually.

## Troubleshooting

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

2 Find your problem in the checklist below, and take the indicated corrective action.

If the issue persists, contact your nearest Sony dealer.

<p><b>If “PROTECT” appears on the display</b> Immediately unplug the power cord, and check the following items after “PROTECT” disappears.</p> <ul style="list-style-type: none"><li>• If your system has a voltage selector, is the voltage selector set to the correct voltage?</li> <li>• Are the + and – speaker cords short-circuited?</li> <li>• Is anything blocking the ventilation holes on the top or back of the system?</li></ul> <p>After you have checked these above items and found to be all right, reconnect the power cord, and turn on the system. If the issue persists, contact your nearest Sony dealer.</p>
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### General

**The system does not turn on.**

- Is the power cord plugged in?
- Is the voltage selector set correctly to match the local power line voltage?

**There is no sound.**

- Are the + and – speaker cords short-circuited?
- Are you using only the supplied speakers?
- Is anything blocking the ventilation holes on the top or back of the system?

**Sound comes from one channel, or the left and right volumes are unbalanced.**

- Place the speakers as symmetrically as possible.
- Connect only the supplied speakers.

**Severe hum or noise.**

- Move the system away from sources of noise.
- Connect the system to a different wall socket.
- Install a noise filter (available separately) to the power cord.

**The remote does not function.**

- Remove any obstacles between the remote and the remote sensor ⏮ on the unit, and position the unit away from fluorescent lights.
- Point the remote at the system’s sensor.
- Move the remote closer to the system.

### CD/MP3 player

**The sound skips, or the disc will not play.**

- Wipe the disc clean, and replace it.
- Move the system to a location away from vibration (for example, on top of a stable stand).
- Move the speakers away from the system, or place them on separate stands. At high volume, speaker vibration may cause the sound to skip.

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

- Return to Normal Play by pressing PLAY MODE ⏮ repeatedly until both “PGM” and “SHUR” disappear.

**Starting playback takes more time than usual.**

- The following discs take a longer time to start playback.
  - a disc recorded with a complicated tree structure.
  - a disc recorded in multisession mode.
  - a disc that has not been finalized (a disc to which data can be added).
  - a disc that has many folders.

**The disc tray does not open and “LOCKED” appears.**

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

### Tuner

**Severe hum or noise, or stations cannot be received. (“TUNED” or “ST” flashes on the display.)**

- Connect the antenna properly.
- Find a location and an orientation that provide good reception, and then set up the antenna again.
- Keep the antennas away from the speaker cords and the power cord to avoid picking up noise.
- Turn off nearby electrical equipment.

### Tape deck (Except for the UK model)

**The sound exhibits excessive wow or flutter or dropout.**

- Clean the capstans and pinch rollers. Also, clean and demagnetize the tape heads. See “Precautions” for details.

### To change the AM tuning interval

The AM tuning interval is factory-preset to 9 kHz or 10 kHz (for some areas; this function is not available on the European and Russian models). Use buttons on the unit to change the AM tuning interval.

1 Tune in any AM station, and then turn off the system.

2 Press DISPLAY ⏮ to display the clock.

3 While holding down TUNING + ⏮, press I/⏮ ⏮. All the AM preset stations are erased. To reset the interval to the factory preset, repeat the procedure.

**To improve tuner reception**

Turn off CD player power by using the CD power management function. By default, CD power is turned on.

1 Press CD on the remote (or FUNCTION repeatedly) ⏮ to select the CD function.

2 Press I/⏮ ⏮ to turn off the system.

3 After “STANDBY” stops flashing, press DISPLAY ⏮ to display the clock and then press I/⏮ ⏮ while holding down ■ ⏮ on the unit.

“CD POWER OFF” appears. With CD player power turned off, disc access time is increased. To turn on CD player power, repeat the procedure until “CD POWER ON” appears.

### To reset the system to factory settings

If the system still does not operate properly, reset the system to factory settings.

Use buttons on the unit to reset the unit to its factory default settings.

1 Disconnect and reconnect the power cord, and then turn on the system.

2 Press ■ ⏮, FUNCTION ⏮, and I/⏮ ⏮ at the same time.

All user-configured settings, such as preset radio stations, timer, and the clock, are deleted.

## Messages

**CANNOT LOCK** : The system cannot be locked after you have done the procedure of “When carrying this system.”

**COMPLETE** : The preset operation ended normally.

**FULL** : You tried to program more than 25 tracks or files (steps).

**LOCKED** : The disc tray does not open. Contact your nearest Sony dealer.

**NO DISC** : There is no disc in the player, or you have loaded a disc that cannot be played.

**NO STEP** : All of the programmed tracks have been erased.

**OVER** : You have reached the end of the disc while pressing ▶▶ ⏮ during playback or pause.

**PROTECT** : The following causes can be considered:

- The voltage selector may not be set to the correct local power line voltage.
- Speaker cords may be short-circuited.
- The ventilation holes may be blocked.
  - See “If “PROTECT” appears on the display” to check what to do if this message appears.

**PUSH SELECT** : You tried to set the clock or timer during timer operation.

**PUSH STOP** : You pressed PLAY MODE ⏮ during playback.

**READING** : The system is reading information from the disc. Some buttons are not available.

**SET CLOCK** : You tried to select the timer when the clock is not set.

**SET TIMER** : You tried to select the timer when the Play Timer is not set.

**TIME NG** : The Play Timer start and end times are set to the same time.

## Precautions

**Discs that this system CAN play**

- Audio CD
- CD-R/CD-RW (audio data/MP3 files)

**Discs that this system CANNOT play**

- CD-ROM
- CD-R/CD-RW other than those recorded in music CD format or MP3 format conforming to ISO9660 Level 1/Level 2, Joliet
- CD-R/CD-RW recorded in multisession that have not ended by “closing the session”
- CD-R/CD-RW of poor recording quality, CD-R/CD-RW that have scratches or are dirty, or CD-R/CD-RW recorded with an incompatible recording device
- CD-R/CD-RW which is finalized incorrectly
- Discs containing files other than MPEG 1 Audio Layer-3 (MP3) files
- 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 benzine 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 outlet, 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.
- AC power cord must be changed only at a qualified service shop.

**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 CD player, 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 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.

**On the speaker system**

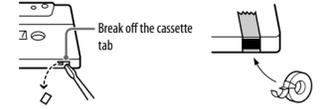
This speaker system is not magnetically shielded, and the picture on nearby TV sets may become magnetically distorted. In this situation, turn off the TV, wait 15 to 30 minutes, and turn it back on. If there is no improvement, move the speakers far away from the TV.

**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, benzine, or alcohol.

**To prevent a tape from being accidentally recorded over (Except for the UK model)**

Break off the cassette’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 (Except for the UK model)**

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 (Except for the UK model)**

Use dry- or wet-type cleaning cassette (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 unit to record or play tapes. For details, refer to the instructions of the cleaning cassette.

**Demagnetizing the tape heads (Except for the UK model)**

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

## Specifications

**Amplifier section**

**MHC-EC78**

European and Russian models:

Power output (rated):
Low channel
55 W + 55 W (at 8 Ω, 1 kHz, 1% THD)
High channel
55 W + 55 W (at 8 Ω, 8 kHz, 1% THD)

RMS output power (reference):

Low channel
75 W + 75 W (per channel at 8 Ω, 1 kHz, 10% THD)
High channel
75 W + 75 W (per channel at 8 Ω, 8 kHz, 10% THD)

Other models:

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

Power output (rated):

Low channel
50 W + 50 W (at 8 Ω, 1 kHz, 1% THD)
High channel
50 W + 50 W (at 8 Ω, 8 kHz, 1% THD)

RMS output power (reference):

Low channel
70 W + 70 W (per channel at 8 Ω, 1 kHz, 10% THD)
High channel
70 W + 70 W (per channel at 8 Ω, 8 kHz, 10% THD)

**MHC-EC68**

European and Russian models (except for the UK model):

Power output (rated):
50 W + 50 W (at 6 Ω, 1 kHz, 1% THD)

RMS output power (reference):

70 W + 70 W (per channel at 6 Ω, 1 kHz, 10% THD)
Other models:

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

Power output (rated):

50 W + 50 W (at 6 Ω, 1 kHz, 1% THD)

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