



SONY[®]

4-232-650-13 (1)

Mini Hi-Fi Component System

Operating Instructions



***MHC-DX70
MHC-DX50/RG80***

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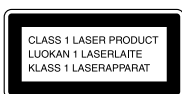


WARNING

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


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

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



This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

This stereo system is equipped with the Dolby B-type noise reduction system*. (MHC-DX70 only).

* Manufactured under license from Dolby Laboratories Licensing Corporation. DOLBY and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.



Don't throw a battery, dispose it as the injurious wastes.

NOTICE FOR THE CUSTOMERS IN CANADA

CAUTION:

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

FOR THE CUSTOMERS IN NORTH AMERICA



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

About this manual

The instructions in this manual are for MHC-DX70 and DX50/RG80. MHC-DX70 is the model used for illustration purposes only. The location of some buttons on MHC-DX50/RG80 is different, but the name of the buttons is the same.



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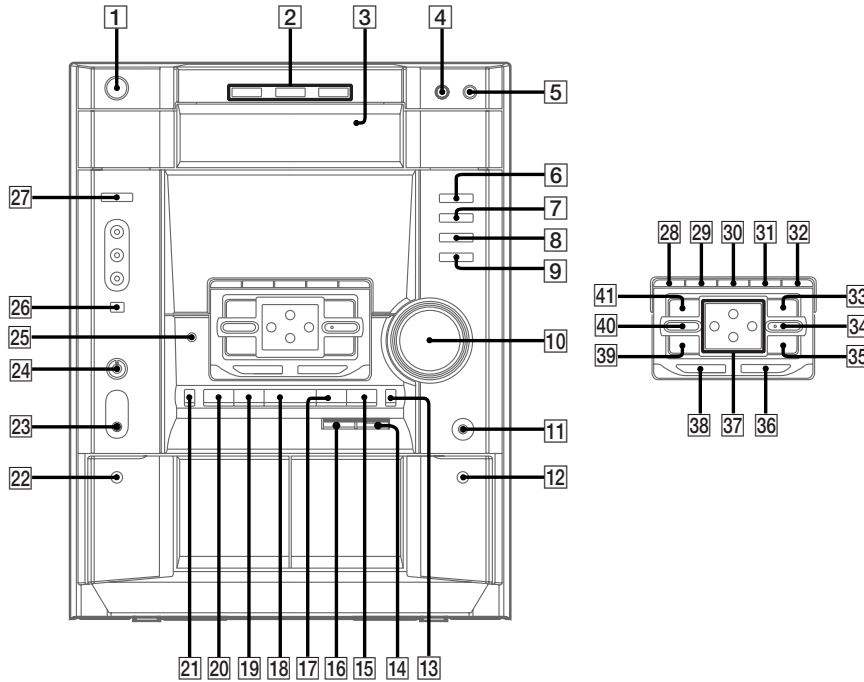
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Parts Identification

Main unit

The items are arranged in alphabetical order. Refer to the pages indicated in parentheses () for details.



CD **6** (7, 9, 10, 15, 16)
CD SYNC HI-DUB **16** (15, 16)

DECK A **▲ 22** (14~16)
DECK B **▲ 12** (15, 16)
DIRECTION **30** (14~16)
DISC 1~3 **2** (9, 10)
DISC SKIP EX-CHANGE **4** (9, 10)
Disc tray **3** (9)
DISPLAY **28** (8, 11, 13)
DOLBY NR (MHC-DX70 only) **31**
(14, 15, 16)

EDIT **30** (16)
ENTER **34** (10, 12, 16, 17, 19, 21,
22, 27)
EFFECT ON/OFF **40** (18, 20)

FM MODE **31** (13, 27)

GAME **27** (23)
GAME EQ **39** (18, 23)
GROOVE **38** (18)

KARAOKE PON **25** (20)
(Except MHC-RG80)

MD (VIDEO) **9** (23)
MIC **23** (20)
(Except MHC-RG80)
MIC LEVEL **24** (20)
(Except MHC-RG80)
MOVIE EQ **33** (18, 23)
MUSIC EQ **41** (18, 23)

P FILE **35** (19)
PHONES jack **11**
:to connect headphones
PLAY MODE **32** (9, 10, 16)

REC PAUSE/START **14** (15, 16)
REPEAT **31** (9)

SPECTRUM **29** (20)
SURROUND **36** (19)
SURROUND SPEAKER MODE
(MHC-DX70 only) **26** (18)

TAPE A/B **8** (14, 15)
TUNER/BAND **7** (12, 13, 15)
TUNER MEMORY **32** (12)

VOLUME control **10** (21)
: Adjusts the volume.

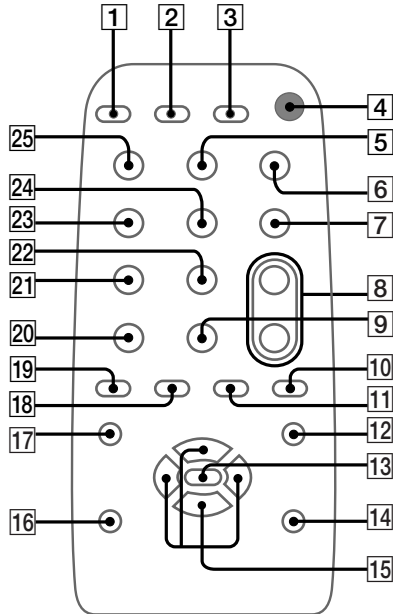
BUTTON DESCRIPTIONS

I/⏻ (power) **1** (7, 8, 13, 23, 27)
▲ OPEN/CLOSE (disc tray)
5 (9, 10)
■ (stop) **19** (9, 14, 15, 20, 27)
▶▶▶ (play) **18** (9, 10, 14, 15)
▶▶▶ (go forward) **15** (9, 10,
12~16)
|| (pause) **17** (9, 14)
◀◀ (go back) **20** (9, 10, 12~16)
◀◀/- (rewind) **21** (9, 12~14)
▶▶/+ (fast forward) **13**
(9, 12~14)
▲/▼/◀/▶ (cursor) **37** (8, 16, 17,
19, 21, 22)



Remote Control

The items are arranged in alphabetical order. Refer to the pages indicated in parentheses () for details.



CD **19** (7, 9, 10, 15, 16)
 CLEAR **7** (10, 16)
 CLOCK/TIMER SELECT **2**
 (17, 22)
 CLOCK/TIMER SET **3** (8, 16,
 21)
 D.SKIP **9** (9)
 ENTER **13** (10, 12, 16, 17, 19,
 21, 22, 27)
 EFFECT ON/OFF **14** (18, 20)
 GAME **20** (23)
 MD (VIDEO) **10** (23)
 PRESET EQ **17** (18, 23)
 P FILE **16** (19)

SURROUND SPEAKER MODE
 (MHC-DX70 only) **12** (18)
 SURROUND (MHC-DX50/RG80
 only) **12** (19)
 SLEEP **1** (21)
 TAPE A/B **11** (14, 15)
 TUNER/BAND **18** (12, 13, 15)
 VOL +/- **8** (21)
 : Adjusts the volume.

BUTTON DESCRIPTIONS

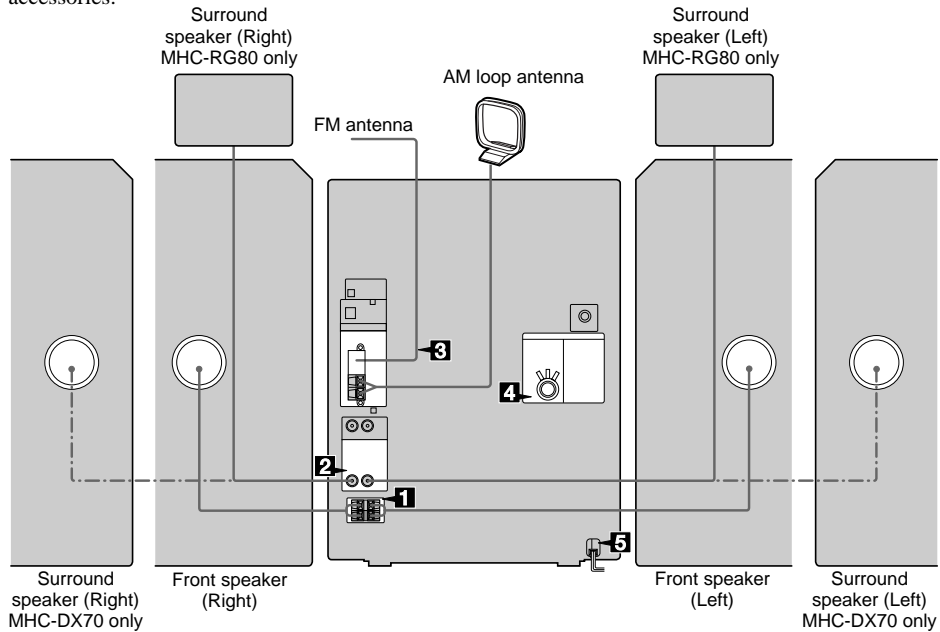
I/⏻ (power) **4** (7, 8, 13, 23, 27)
▶▶▶ (play) **25** (9, 10, 14, 15)
⏸ (pause) **5** (9, 14)
■ (stop) **6** (9, 14, 15, 20, 27)
◀◀ (go back)/PRESET - **23**
 (9, 10, 12~16)
▶▶ (go forward)/PRESET + **24**
 (9, 10, 12~16)
◀ (rewind)/TUNING - **21**
 (9, 12~14)
▶ (fast forward)/TUNING + **22**
 (9, 12~14)
▲▼/◀▶ (cursor) **15** (8, 16, 17,
 19, 21, 22)



Getting Started

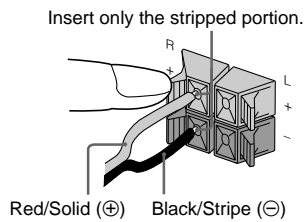
Hooking up the system

Do the following procedure **1** to **5** to hook up your system using the supplied cords and accessories.



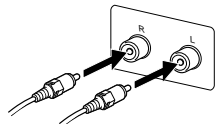
1 Connect the speakers.

Connect the speaker cords of front speakers to the SPEAKER jacks as below.



2 Connect the surround speaker (MHC-DX70/RG80 only).

Connect the speaker cords to SURROUND SPEAKER jacks.



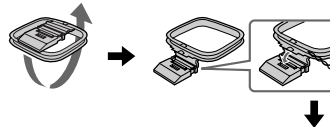
Note

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

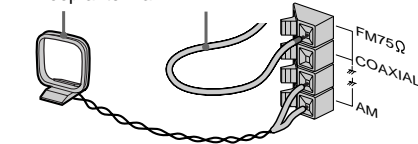
6

3 Connect the FM/AM antennas.

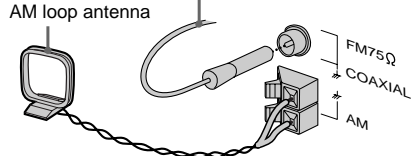
Set up the AM loop antenna, then connect it.



Jack type A Extend the FM lead antenna horizontally.

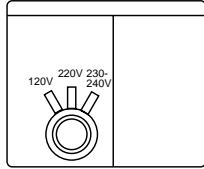


Jack type B Extend the FM lead antenna horizontally.





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



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

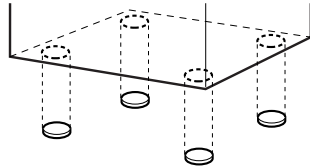
The demonstration appears in the display.
When you press **I/⏻**, the system turns on and the demonstration automatically ends.
If the supplied adaptor on the plug does not fit your wall outlet, detach it from the plug (only for models equipped with the adaptor).

To connect optional components

See page 23.

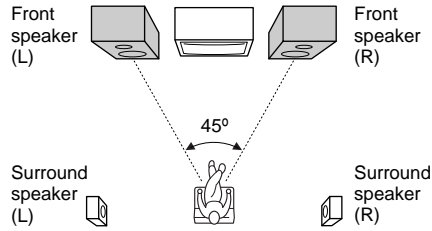
To attach the front speaker pads

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



Positioning the speakers (MHC-DX70/ RG80 only)

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



Getting Started

When carrying this system

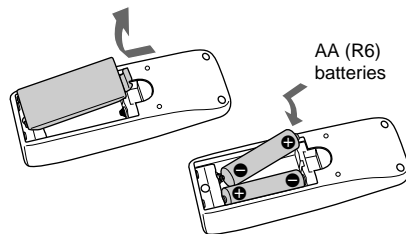
Do the following to protect the CD mechanism.

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





Inserting the batteries into the remote control



Tip

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

Note

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

Saving the power in standby mode

Press **DISPLAY** repeatedly when the power is off. Each time you press the button, the system switches cyclically as follows:
Demonstration → Clock → Power Saving Mode

Tips

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

Note

You cannot set the time in the Power Saving Mode.

To cancel the Power Saving Mode

Press **DISPLAY** once to show the demonstration, twice to show the clock display.

Setting the time

- 1 Turn on the system.**
- 2 Press CLOCK/TIMER SET on the remote.**
When you set the time for the first time, proceed to step 5.
- 3 Press cursor ▼/▲ repeatedly to select CLOCK SET.**
- 4 Press ENTER.**
- 5 Press cursor ▼/▲ repeatedly to set the hour.**
- 6 Press ENTER.**
- 7 Press cursor ▼/▲ repeatedly to set the minute.**
- 8 Press ENTER.**
The clock starts working.

Tip

If you have made a mistake or want to change the time, start over from step 2.

Note

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

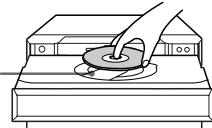


CD

Loading the CD

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

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



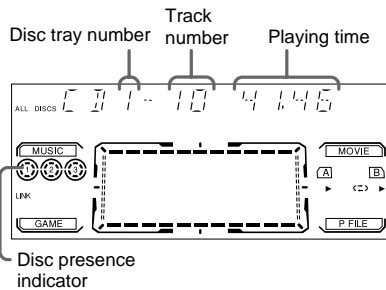
To insert additional discs, press **DISC SKIP EX-CHANGE** to rotate the disc tray.

- 3 Press **▲ OPEN/CLOSE** to close the CD compartment.

Playing the CD

—Normal Play/Shuffle Play/Repeat Play

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



- 1 Press **PLAY MODE** repeatedly until the mode you want appears in the display.

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

- 2 Press one of the **DISC 1-3** buttons.

If you press **◀▶** when CD is selected as the function (press **CD**) and the disc tray is closed, play starts from the CD loaded on tray whose disc tray number appears in the display.

Tip

You cannot change the play mode during playback.

Other Operations

To	Do this
Stop playback	Press ■ .
Pause	Press ⏸ . Press again to resume play.
Select a track	During play or pause, press ▶▶ (to go forward) or ◀◀ (to go back).
Find a point in a track	Press and hold down ▶▶ or ◀◀ . Release it when you reach the desired point.
Select a CD in stop mode	Press one of the DISC 1-3 buttons or DISC SKIP EX-CHANGE (or D. SKIP on the remote).
Switch to CD function from another source	Press DISC 1-3 (Automatic Source Selection).

continued



Playing the CD (continued)

To	Do this
Play repeatedly (Repeat Play)	Press REPEAT repeatedly to select "REPEAT" ^{*1} or "REPEAT 1" ^{*2} .
Cancel Repeat play	Press REPEAT until "REPEAT" or "REPEAT 1" disappears from the display.
Exchange other CDs while playing	Press DISC SKIP EX-CHANGE.
Remove the CD	Press \blacktriangle OPEN/CLOSE.

^{*1} All the tracks repeated up to five times.
You cannot use this function during SHUFFLE ALL DISCS.

^{*2} To repeat the current track you are playing.

Tip

Pressing the CD while the power is off automatically turns the power on and CD is selected as a function. When the system is in the power saving mode, this function does not work.

Programming the CD tracks

— Program Play

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

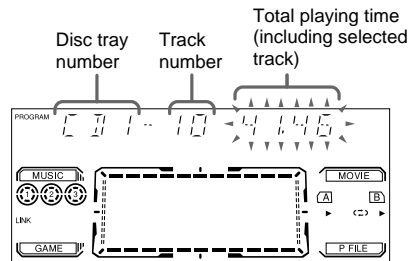
1 Press CD, then place a CD.

2 Press PLAY MODE repeatedly until "PROGRAM" appears in the display.

3 Press one of the DISC 1~3 to select a CD.

To program all the tracks on a CD at once, proceed to step 5 while "AL" appears on the display.

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



5 Press ENTER.

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

6 To program additional tracks, repeat steps 3 to 5.

Skip step 3 to select tracks from the same disc.

7 Press \lll .

To	Press
Cancel Program Play	PLAY MODE repeatedly until "PROGRAM" or "SHUFFLE" disappears from the display.
Clear a track from the end	CLEAR on the remote in stop mode.
Add a track to the program in stop mode	1 Select the disc tray with DISC 1~3 button. 2 Select the track by pressing \lll or \ggg . 3 Press ENTER.

Tips

- The program you made remains in the CD player even after it has been played back. Press \lll to play the same program again.
- If "--.--" appears instead of the total playing time during programming, this means:
 - you have programmed a track number which exceeds 20.
 - the total playing time has exceeded 100 minutes.



Using the CD display

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

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

Press DISPLAY.

Each time you press the button during normal playback or in the stop mode, the display changes cyclically as follows:

During normal playback

Playing time on the current track →
Remaining time on the current track →
Remaining time on current CD (1 DISC mode) or “--:--” display (ALL DISCS mode) → Title name of the current track* → Clock display (for eight seconds) → Effect status

In the stop mode

When the CD player is in program mode and there is a program:

The last track number of the program and the total playing time → Total number of programmed track (for eight seconds) → Title name and the artist name of the CD* → Clock display (for eight seconds) → Effect status

In other conditions:

Total number of tracks and total playing time → Title name and the artist name of the CD* → Clock display (for 8 seconds) → Effect status

* With CD TEXT discs only (certain characters cannot be displayed). Depending on the disc, some CD TEXT information may not appear.



CD



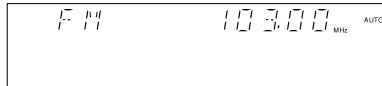
Tuner

Presetting radio stations

You can preset 20 stations for FM and 10 stations for AM.

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

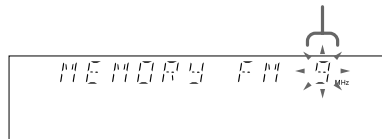
Scanning stops when the system tunes in a station. "TUNED" and "STEREO" (for a stereo program) appear.



- 3 Press TUNER MEMORY.**

A preset number appears in the display.

Preset number



- 4 Press ◀◀ or ►► to select the preset number you want to store.**
- 5 Press ENTER.**
"COMPLETE" appears in the display.
The station is stored.
- 6 Repeat steps 1 to 5 to store other stations.**

To tune in a station with a weak signal

Press ►► or ◀◀ (TUNING +/- on the remote) repeatedly to tune in the station manually.

To change the AM tuning interval

The AM tuning interval is factory set to 9 kHz (10 kHz in some areas). To change the AM tuning interval, select any AM station first, then turn off the power. While holding down the ENTER button, turn the power back on. When you change the interval, AM preset stations will be erased. To reset the interval, repeat the same procedure.

Tips

- The preset stations are retained for half a day even if you unplug the power cord or if a power failure occurs.
- Pressing TUNER/BAND while the power is off automatically turns the power on and TUNER is selected as a function. When the system is in the power saving mode, this function does not work.

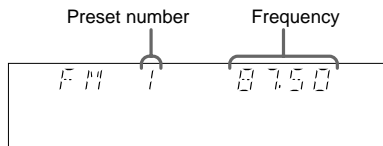


Listening to the radio

— Preset Tuning

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

- 1** Press TUNER/BAND repeatedly to select FM or AM.
- 2** Press ◀◀ or ▶▶ (or press PRESET +/- on the remote) to tune in the preset station you want.



To turn off the radio

Press I/⏻.

To listen to non-preset radio stations

Press ▶▶ or ◀◀ (or TUNING +/- on the remote) repeatedly for manual tuning or press and hold ▶▶ or ◀◀ (or TUNING +/- on the remote) for automatic tuning.

Tips

- When an FM program is noisy, press FM MODE so that "MONO" appears in the display. There will be no stereo effect, but the reception will improve.
- To improve broadcast reception, reorient the antennas.

Tuner

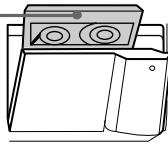


Tape

Loading a tape

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

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



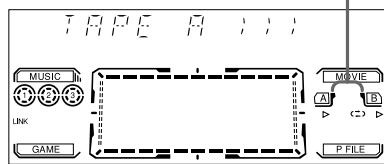
Playing a tape

You can use **TYPE I** (normal) or **TYPE II** (CrO₂)* tapes.

* MHC-DX70 only

- 1** Load a tape.
- 2** Press **DIRECTION** repeatedly to select **⇌** to play one side. Select **↔** to play both sides. Select **RELAY*** (relay play) to play both decks in succession.
- 3** Press **◀▶**. Press **◀▶** again to play the reverse side. The tape starts playing.

Tape presence indicator



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

To	Do this
Stop play	Press ■ .
Pause	Press ⏸ . Press again to resume play.
Fast-forward	Press ⏩ while playing the front side, or press ⏪ while playing the reverse side.
Rewind	Press ⏪ while playing the front side, or press ⏩ while playing the reverse side.

Tips

- During Cycle or Relay Play, the deck stops automatically after repeating the sequence five times.
- Pressing **TAPE A/B** while the power is off automatically turns the power on and **TAPE** is selected as a function. When the system is in the power saving mode, this function does not work.
- When you want to reduce the hiss noise in low-level high-frequency signals, press **DOLBY NR** so that "DOLBY NR" appears (MHC-DX70 only).
- When a tape (tapes) is (are) inserted, corresponding presence indicators light up.

Searching for the beginning of a track (AMS*)

During playback, press **⏪** or **⏩** repeatedly for the number of songs you want to skip forward (or backward).

The search direction, + (forward) or - (back), and number of songs being skipped (1-9) appear in the display.

Example: searching forward 2 songs

TAPE A: >>2

* AMS (Automatic Music Sensor)

Note

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

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



Recording to a tape

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

You can record from a CD, tape or radio. You can use TYPE I (normal) or TYPE II (CrO2)* tapes. The recording level is adjusted automatically.*

* MHC-DX70 only

Steps	Recording from a CD (CD Synchro Recording)	Recording from a tape (High-Speed Dubbing)	Recording Manually
1	Insert a recordable tape into deck B.		
2	Press CD.	Press TAPE A/B to select TAPE A.	Press CD, TAPE A/B or TUNER/BAND.
3	Load the CD you want to record.	Load the tape you want to record into deck A.	Load the CD/tape, or tune to the station you want to record.
4	Press CD SYNC HI-DUB.		Press REC PAUSE/START.
	DECK B stands by for recording. Press DOLBY NR to reduce the hiss noise in low level high frequency signals (for MHC-DX70 only) (except recording from a tape). REC PAUSE/START button flashes.		
5	Press DIRECTION repeatedly to select ⇄ to record on one side. Select ⇄ (or RELAY) to record on both sides.		
6	Press REC PAUSE/START. If you are recording manually, press ◀▶ to start playing the source. Recording starts.		
7	Press ■ to stop recording.		

Tape

Tips

- When you record on both sides, be sure to start from the front side. If you start from the reverse side, recording stops at the end of the reverse side.
- If you want to record from the reverse side, press TAPE A/B to select deck B after step 1. Press ◀▶ to start playback of the reverse side, then press ■ when you want to start recording. The TAPE B reverse side indicator lights up.
- If you set direction to ⇄ when the tapes you use have different lengths, the tapes in each deck reverses independently. If you select RELAY, the tapes in both decks reverse together.
- For recording from the radio:
If noise is heard while recording from the radio, move the respective antenna to reduce the noise.

- For recording from a CD to a tape manually, you can press ◀◀ or ▶▶ to select tracks during recording pause mode (after step 4 and before step 6).

Note

You cannot listen to other sources while recording.

continued





Recording to a tape (continued)

Recording a CD by specifying track order

— Program Edit

You can record tracks from all the CDs in the order you want. When programing, make sure the playing times for each side do not exceed the length of one side of the tape.

1 Load a CD and a recordable tape into deck B, then press CD.

2 Press PLAY MODE repeatedly until “PROGRAM” appears in the display.

3 Press one of the DISC 1–3 to select a CD.

To program all the tracks on a CD at once, proceed to step 6 while “AL” appears in the display.

4 Press ◀◀ or ▶▶ repeatedly until the tracks you want appears in the display.

5 Press ENTER.

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

6 To program additional tracks, repeat steps 3 to 5.

Skip step 3 to select tracks from the same disc.

7 Press CD SYNC HI-DUB.

Deck B stands for recording. To reduce hiss noise in low-level high frequency signals, press DOLBY NR so that “DOLBY NR” appears in the display. The REC PAUSE/START button flashes.

8 Press DIRECTION to select ⇄ to record on one side or ⇄⇄ (or RELAY) to record on both sides.

9 Press REC PAUSE/START.

Recording starts.

To	Press
Cancel Program Edit	PLAY MODE repeatedly until “PROGRAM” or “SHUFFLE” disappears from the display.
Clear a track from the end	CLEAR on the remote in stop mode.

Tip

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

Note

You cannot use Tape Select Edit for discs containing over 20 tracks.

Timer-recording radio programs

To timer-record, you must preset the radio station (see “Presetting radio stations” on page 12) and set the clock (see “Setting the time” on page 8) beforehand.

1 Tune in the preset radio station (see “Listening to the radio” on page 13).

2 Press CLOCK/TIMER SET on the remote.

“DAILY 1 SET” appears.

3 Press cursor ▼/▲ repeatedly to select “REC SET”, then press ENTER.

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

4 Set the time to start recording.

Press cursor ▼/▲ repeatedly to set the hour, then press ENTER.

The minute indication starts flashing.

Press cursor ▼/▲ repeatedly to set the minute, then press ENTER.

The hour indication flashes again.



5 Set the time to stop recording following the above procedure.

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

6 Insert a recordable tape into deck B.

Make sure the tape is in forward direction.

7 Turn off the power.

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



Tape

To	Do this
Check the setting	Press CLOCK/TIMER SELECT on the remote and press cursor ▼/▲ repeatedly to select "REC SEL". Then, press ENTER. To change the setting, start over from step 1.
Cancel timer operation	Press CLOCK/TIMER SELECT on the remote and press cursor ▼/▲ repeatedly to select "TIMER OFF". Then, press ENTER.

Notes

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

Sound Adjustment

Adjusting the sound

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

Press GROOVE.

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

GROOVE → V-GROOVE → GROOVE OFF

GROOVE

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

V-GROOVE

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

Selecting the sound system

(MHC-DX70 only)

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

Press SURROUND SPEAKER MODE to select the sound mode you want.

LINK : Reproduces the same sound with the different output level.

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

Selecting the audio emphasis effect

The audio emphasis menu lets you select the sound characteristics according to the sound you are listening to.

Selecting the preset effect from the music menu

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

The preset effect name appears in the display. See the chart "Music menu options".

To Cancel the effect

Press EFFECT ON/OFF repeatedly until "EFFECT OFF" appears.

Music menu options

"SURR" appears if you select an effect with surround effects.

MENU button	Effect	For
MUSIC EQ	ROCK POP JAZZ DANCE SOUL ORIENTAL*	standard music sources.
MOVIE EQ	ACTION DRAMA MUSICAL	soundtracks and special listening situations.
GAME EQ	ARCADE RACING ADVENTURE	Video games.

* CLASSIC for Canadian and Latin American models only.

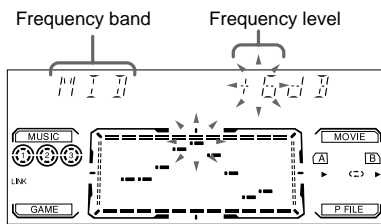


Adjusting the graphic equalizer

You can adjust the sound by raising or lowering the levels of specific frequency ranges.

Before operation, first select the audio emphasis you want for your basic sound.

1 Press one of the cursor ◀/▶/▲/▼.



2 Press cursor ◀/▶ to select the frequencies or surround, then press cursor ▲/▼ to adjust the frequencies level or to select the surround effect.

3 Press ENTER to exit.

Selecting the surround effect

You can enjoy this system's surround effect.

Press SURROUND.

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

SURR ON (SURR)
↑
↓
SURR OFF

Note

When you choose other sound effects, the surround effect will be canceled.

Making a personal audio emphasis file

— Personal file

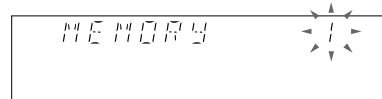
You can create a personal file of sound effect settings (surround effect and graphic equalizer) and store them in the memory of the unit. You can create up to three personal files.

Before operation, first select the audio emphasis you want for your basic sound.

1 Obtain the sound effect you want by changing the graphics equalizer and surround effect.

2 Press and hold down P File.

The personal file number appears in the display.



3 Use cursor ◀/▶/▲/▼ to select the personal file number (P FILE) which you want to store the sound effect settings.

4 Press ENTER.

The adjusted sound effect are stored under the selected personal file. The settings previously stored at this memory location are erased and replaced by new settings.

To call up the personal file

Press P FILE repeatedly until the personal file number you want appears in the display.



Other features

Changing the spectrum analyzer display

You can enjoy changing the display while listening to the music.

Press SPECTRUM.

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

SPECTRUM 1 → SPECTRUM 2 →
SPECTRUM 3 → PATTERN 1 →
PATTERN 2 → PATTERN 3 →
PATTERN OFF*

* The display slightly dims

Singing along: Karaoke

(Except MHC-RG80)

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

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

2 Connect an optional microphone to MIC.

3 Press KARAOKE PON.

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

KARAOKE PON → Effect status before entering KARAOKE PON mode

The “🎤” indicator appears in the display when a karaoke mode is activated.

To sing karaoke by decreasing the vocal level of the music source, select “KARAOKE PON”.

4 Start playing the music and adjust the volume.

5 Adjust the microphone volume by turning MIC LEVEL.

When you are done

Turn MIC LEVEL to MIN and disconnect the microphone from MIC, then press KARAOKE PON again so that “🎤” disappears.

Notes

- With some songs, vocals may not be canceled when you select “KARAOKE PON”.
- During KARAOKE PON, equalizer and surround settings cannot be changed.
- If you press EFFECT ON/OFF or recall a sound effect, the karaoke mode is canceled.

Mixing and recording sound

To mix and record karaoke sound, do the procedure for singing along (steps 1~3). Then, record the sound (see “Recording Manually” on page 15.)

To stop recording

Press ■.

Tips

- If acoustic feedback (howling) occurs, move the microphone away from the speakers or change the direction of the microphone.
- If you want to record your voice through the microphone only, you can do so by selecting the CD function and not playing a CD.
- When high level sound signals are input, the unit automatically adjusts the recording level to prevent distortion of the recorded sound signal (Auto Level Control Function).

Notes

- The instrumental sound may be reduced as well as the singer's voice when the sound is recorded in monaural.
- The singer's voice may not be reduced when:
 - only a few instruments are playing.
 - a duet is being played.
 - the source has strong echoes or chorus.
 - the singer's voice deviates from the center.
 - the voice on the source is singing in high soprano or tenor.



Falling asleep to music

— Sleep Timer

You can let the system turn off at the preset time, so you can sleep to the music.

Press SLEEP on the remote.

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

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

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

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

Waking up to music

— Daily Timer

You can wake up to music at a preset time every day. Make sure you have set the clock (see "Setting the time" on page 8).

1 Prepare the music source you want to play.

- CD: Load a CD. To start from a specific track, make a program (see "Programming the CD tracks" on page 10).
- Tape: Load a tape with the side you want to play facing forward.
- Radio: Tune in the preset station you want (see "Presetting radio stations" on page 12).

2 Adjust the volume.

3 Press CLOCK/TIMER SET on the remote.

"DAILY 1 SET" appears.

4 Press cursor ▼/▲ repeatedly to select "DAILY 1 (2) SET", then press ENTER.

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

5 Set the time to start playback.

Press cursor ▼/▲ repeatedly to set the hour, then press ENTER.

The minute indication starts flashing.

Press cursor ▼/▲ repeatedly on the remote to set the minute, then press ENTER.

The hour indication flashes again.

6 Set the time to stop playback following steps 4 and 5 above.

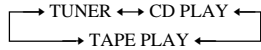
continued



Waking up to music (continued)

7 Press cursor ▼/▲ repeatedly until the music source you want appears.

The indications change as follows:



8 Press ENTER.

The type of timer (DAILY 1 or DAILY 2), followed by the start time, stop time and the music source, appears, then the original display appears.

9 Turn off the power.

To	Do this
Check the setting	Press CLOCK/TIMER SELECT on the remote and press cursor ▼/▲ repeatedly to select the respective mode (DAILY 1 or DAILY 2), then press ENTER.
Change the setting	Start from step 1.
Cancel the timer operation	Press CLOCK/TIMER SELECT on the remote and press cursor ▼/▲ repeatedly to select "TIMER OFF", then press ENTER.

Tip

The power turns on 15 seconds before the preset time.

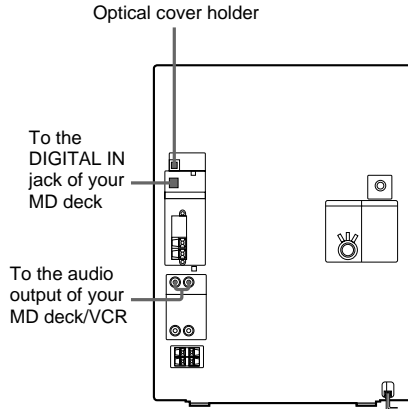
Notes

- When you use the Sleep Timer, Daily Timer will not turn on the system until the Sleep Timer turns it off.
- If the power is on at the preset time, the Daily Timer does not work.

Optional components

Connecting MD deck/VCR

You can connect your MD deck or VCR to this system. Be sure to match the color of the plugs and the connectors.



To	Do This
Make a digital recording from CD to MD	Connect the optical cable.
Listen to the connected MD deck	Press MD (VIDEO).
Listen to the connected VCR	Hold down MD (VIDEO) and press I/II when the power is on. This switches the "MD" function to "VIDEO". Once you enable the "VIDEO" function, just press MD (VIDEO).

Tip

When you remove the optical cover, keep it at the optical cover holder provided.

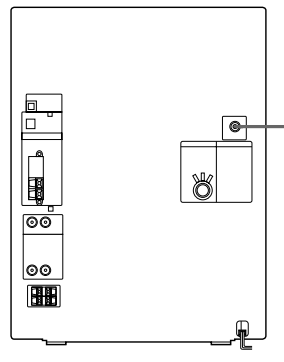
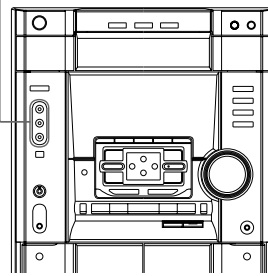
Notes

- Pressing the MD (VIDEO) while the power is off automatically turns the power on and MD is selected as a function. When the system is in the power saving mode, this function does not work.
- If the sound is distorted or too loud when selecting "VIDEO", or you want to switch back to "MD", repeat the operation described above to switch to "MD".

Connecting a Video Game Player

You can enjoy the video games with audio emphasis by connecting a video game player.

To the audio/video output of a video game player.



To	Press
Listen or watch the game	GAME (or GAME on the remote).
Select the music menu.	GAME EQ/MUSIC EQ/MOVIE EQ (or PRESET EQ on the remote). (See "Selecting the audio emphasis effect" page 18)

Notes

- Pressing the GAME while the power is off automatically turns the power on and GAME is selected as a function. When the system is in the power saving mode, this function does not work.
- If you press GAME, your last selected GAME EQ preset effect (ARCADE, RACING or ADVENTURE) will be restored.

Optional components



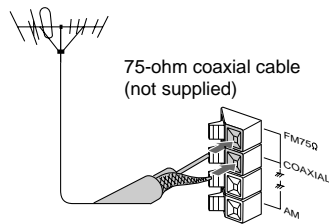
Connecting external antennas

Connect an external antenna to improve the reception.

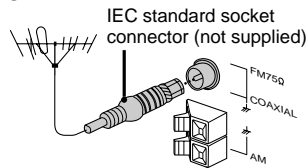
FM antenna

Connect an optional FM external antenna. You can also use the TV antenna instead.

Jack type ①



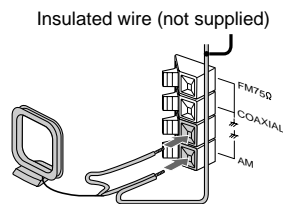
Jack type ②



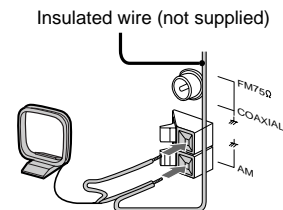
AM antenna

Connect a 6- to 15- meter (20- to 50- feet) insulated wire to the AM antenna terminal. Leave the supplied AM loop antenna connected.

Jack type ①



Jack type ②





Additional Information

Precautions

On operating voltage

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

On safety

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

On placement

- Place the unit in a location with adequate ventilation to prevent heat build-up in the unit.
- Do not place the unit in an inclined position.
- Do not place the unit in locations where it is:
 - extremely hot or cold
 - dusty or dirty
 - very humid
 - vibrating
 - subject to direct sunlight

On operation

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

Notes on CDs

- Before playing, clean the CD with a cleaning cloth. Wipe the CD from the center out.
- Do not use solvents.
- Do not expose the CD to direct sunlight or heat sources.

Note on CD-R/CD-RW playback

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

To save a tape permanently

To prevent a tape from being accidentally recorded over, break off the cassette tab, refer to attached instruction with the tape.

Cleaning the cabinet

Use a soft cloth slightly moistened with mild detergent solution.

Before placing a cassette in the tape deck

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

When using a tape longer than 90 minutes

The tape is very elastic. Do not change the tape operations such as play, stop, and fast-winding etc. frequently. The tape may get entangled in the tape deck.

Cleaning the tape heads

Clean the tape heads after every 10 hours of use. Make sure to clean the tape heads before you start an important recording or after playing an old tape. Use separately sold dry-type or wet-type cleaning cassette. For details, refer to the instructions of the cleaning cassette.

Demagnetizing the tape heads

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

Troubleshooting

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

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

Should any problem persist, consult your nearest Sony dealer.

General

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

Press DISPLAY when the power is turned off.

The demonstration mode appears automatically the first time you plug in the power cord or if there is a power outage.

continued



Precautions (continued)

The clock setting is canceled.

- The power cord is disconnected or a power failure occurs. Redo "Setting the time" (on page 8). If you have set the timer, redo "Waking up to music" (on page 21) and "Timer-recording radio programs" (on page 16).

The radio presetting/timer setting is canceled.

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

There is no sound.

- Turn VOLUME clockwise.
- The headphones are connected.
- Insert only the stripped portion of the speaker cord into the SPEAKER jack. Inserting the vinyl portion of the speaker cord will obstruct the speaker connections.
- The protective device on the amplifier has been activated because of short circuit. ("PROTECT" and "PUSH POWER" flash alternately.) Turn off the unit, eliminate the short-circuit problem and turn on the power again.
- There is no audio output during timer recording.

There is severe hum or noise.

- A TV or VCR is placed too close to the stereo system. Move the stereo system away from the TV or VCR.

The sound from the connected source is distorted.

- If "VIDEO" appears in the display when you press MD (VIDEO), switch the display to "MD" (see "Note: Connecting MD deck/VCR" on page 23).

"-- --:-- --" flashes in the display.

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

The timer does not function.

- Set the clock correctly.

DAILY 1 SET, DAILY 2 SET, and REC SET do not appear when you press the CLOCK/TIMER SET button.

- Set the timer correctly.
- Set the clock.

The remote does not function.

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

There is acoustic feedback.

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

The color irregularity on a TV screen persists.

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

"PROTECT" and "PUSH POWER" appear alternately.

- A strong signal was input. Press I/⏻ to turn off the power, leave the system turned off for a while, then press I/⏻ again to turn on the power.
- Check the speaker cables in case "PROTECT" and "PUSH POWER" appear alternately again after you turn the system on.

Speakers

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

- Check the speaker connection and speaker placement.

Sound lacks bass.

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

CD Player

The CD tray does not close.

- The CD is not placed properly.

The CD will not play.

- The CD is not lying flat in the disc tray.
- The CD is dirty.
- The CD is inserted label side down.
- Moisture condensation has built up. Remove the CD and leave the system turned on for about an hour until the moisture evaporates.

Play does not start from the first track.

- The player is in program or shuffle mode. Press PLAY MODE repeatedly until "PROGRAM" or "SHUFFLE" disappears.

"OVER" is displayed.

- You have reached the end of the CD. Press ◀◀.



Tape Deck

The tape does not record.

- The tab has been removed from the cassette (see “To save a tape permanently” on page 25).
- The tape has reeled to the end.

The tape does not record nor play or there is a decrease in sound level.

- The heads are dirty. (See “Cleaning the tape heads” on page 25).
- The record/playback heads are magnetized. (See “Demagnetizing the tape heads” on page 25).

The tape does not erase completely.

- The record/playback heads are magnetized. (See “Demagnetizing the tape heads” on page 25).

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 25).

Noise increases or the high frequencies are erased.

- The record/playback heads are magnetized. (See “Demagnetizing the tape heads” on page 25).

Tuner

Severe hum or noise (“TUNED” or “STEREO” flashes in the display).

- Adjust the antenna.
- The signal strength is too weak. Connect the external antenna.

A stereo FM program cannot be received in stereo.

- Press FM MODE so that “MONO” disappears.

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

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

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

Specifications

Amplifier section

MHC-DX70

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

DIN power output (rated) 160 + 160 watts
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference)
200 + 200 watts
(6 ohms at 1 kHz, 10% THD)

MHC-DX50

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

DIN power output (rated) 100 + 100 watts
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference)
140 + 140 watts
(6 ohms at 1 kHz, 10% THD)

MHC-RG80

Continuous RMS power output (reference)

140 + 140 watts
(6 ohms at 1 kHz, 10% THD)

Total harmonic distortion less than 0.07%
(6 ohms at 1 kHz, 50 W)

Inputs

GAME (VIDEO): 1 Vp-p, 75 ohms

(phono jack)

GAME (AUDIO): Voltage 250 mV,
impedance 47 kilohms

MD/VIDEO (AUDIO) IN: voltage 450 mV/250 mV,
impedance 47 kilohms

MIC: sensitivity 1 mV,
impedance 10 kilohms

(phone jack)

Outputs

VIDEO OUT: max. output level 1 Vp-p,
unbalanced, Sync.
negative load impedance
75 ohms

PHONES: accepts headphones of
8 ohms or more

FRONT SPEAKER: accepts impedance of 6 to
16 ohms

SURROUND SPEAKER: accepts impedance of
24 ohms or more

(MHC-DX70/
MHC-RG80 only)

CD player section

System Compact disc and digital
audio system

Laser Semiconductor laser
($\lambda=795\text{nm}$)

Laser Output Max. 44.6 μW^*
*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 2 Hz – 20 kHz (± 0.5 dB)

Wave length 780 – 790 nm

Signal-to-noise ratio More than 90 dB

Dynamic range More than 90 dB

CD OPTICAL DIGITAL OUT
(Square optical connector jack, rear panel)

Wave length 660 nm

Output Level –18 dBm



Specifications (continued)

Tape player section

Recording system	4-track 2-channel stereo
Frequency response (DOLBY NR OFF*)	40 – 13,000 Hz (± 3 dB), using Sony TYPE I cassette 40 – 14,000 Hz (± 3 dB), using Sony TYPE II cassette*
Wow and flutter	$\pm 0.15\%$ W.Peak (IEC) 0.1% W.RMS (NAB) $\pm 0.2\%$ W.Peak (DIN)

* MHC-DX70 only

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 – 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohm unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

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

Speaker

Front speaker SS-DX50 for MHC-DX70/DX50 Front speaker SS-RG80 for MHC-RG80

Speaker system	3-way, 3-unit, bass-reflex type
Speaker units	
Super Woofer:	15 cm, cone type
Woofer:	15 cm, cone type
Tweeter:	5 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 250 x 385.4 x 326 mm
Mass	Approx. 6.2 kg net per speaker

Surround speaker SS-RS70 for MHC-DX70

Speaker system	2 way, 2 unit, bass-reflex type
Speaker units	
Woofer	13 cm, cone type
Tweeter	4 cm, cone type
Nominal impedance	24 ohms
Dimensions (w/h/d)	Approx. 174 x 360 x 260 mm
Mass	Approx. 3.2 kg net per speaker

Surround speaker SS-RS50 for MHC-RG80 (Canadian models)

Speaker system	Full range, bass reflex type, magnetically shielded
Speaker units	
Woofer	8 cm, cone type
Nominal impedance	24 ohms
Dimensions (w/h/d)	Approx. 180 x 102.2 x 198 mm
Mass	Approx. 0.8 kg net per speaker

General

Power requirements	
Canadian models:	120 V AC, 60 Hz
Australian models:	230 - 240 V AC, 50/60 Hz
Mexican models:	120 V AC, 60 Hz
Thailand 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-DX70	250 watts
MHC-DX50	220 watts
MHC-RG80	300 VA

Dimensions (w/h/d)	
HCD-DX70/DX50/RG80	Approx. 280 x 360 x 425 mm

Mass :	
HCD-DX70/DX50/RG80	Approx. 10.5 kg

Supplied accessories:	AM loop antenna (1) Remote commander (1) Batteries (2) FM lead antenna (1) Front speaker pads (8) Surround speaker pads (8) (MHC-DX70 only)
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Design and specifications are subject to change without notice.

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