SONY

FM/AM Portable CD Player

Operating Instructions







"WALKMAN" is a registered trademark of Sony Corporation to represent Headphone Stereo products. Would is a trademark of Sony Corporation.

D-NF600

WARNING

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

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

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

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

CAUTION

The use of optical instruments with this product will increase eye hazard.

Certain countries may regulate disposal of the battery used to power this product. Please consult with your local authority.

CAUTION

- INVISIBLE LASER RADIATION WHEN OPEN
- DO NOT STARE INTO BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS
- CLASS 1M INVISIBLE LASER RADIATION WHEN OPEN
- DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS

The validity of the CE marking is restricted to only those countries where it is legally enforced, mainly in the countries EEA (European Economic Area).

ATRAC3plus and ATRAC3 are trademarks of Sony Corporation.

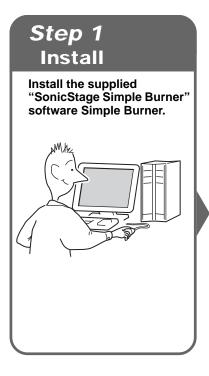
Table of Contents

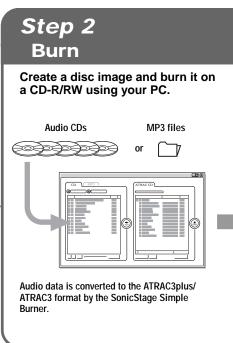
Enjoy your ATRAC CD Walkman!	Playing tracks in your favorite order (PGM play)	21
vvaikman!	Searching for groups or tracks/files	22
Music sources playable on this CD player 6 ATRAC3plus and ATRAC3	Available features	
MP3	Adjusting sound quality (Parametric equalizer) The G-PROTECTION function	24
Getting started Checking the supplied accessories	Protecting your hearing (AVLS)Stopping playback automatically (OFF TIMER)	
Locating the controls	Locking the controls (HOLD) Turning off the beep sound	25
Playing a CD	Saving power	26
1 . Insert a CD	Playing tracks continuously (SEAMLES (ATRAC CD only)	
3 . Play a CD	Using the radio	
Playback options	Listening to the radio	
Playing tracks repeatedly (Repeat play) 18	Presetting radio stations	
Playing all files in a selected group (Group play) (ATRAC CD/MP3 CD only)	Playing preset radio stations	
Playing a single track (Single play) 19	Connecting to a power source	
Playing tracks in random order (Shuffle play)19	Using the battery	32
Playing all files in a selected group in random order (Group shuffle play)	Notes on the power source	34
(ATRAC CD/MP3 CD only) 19	Additional information	
Playing your favorite play lists (m3u play list play) (MP3 CD only)19	List of menus	
Playing your favorite tracks by adding Bookmarks (Bookmark track play) 20	Maintenance	37
Playing the 10 tracks you have played most frequently (Auto ranking play)	Specifications Optional accessories	41
Playing tracks you have played most frequently in random order (Auto ranking shuffle play)21	optional accessories	42

Enjoy your ATRAC CD Walkman!

Thank you for purchasing the D-NF600. This CD Walkman is called an "ATRAC CD Walkman," because you can enjoy "ATRAC CDs" on it.

You can make your own ATRAC CD easily.





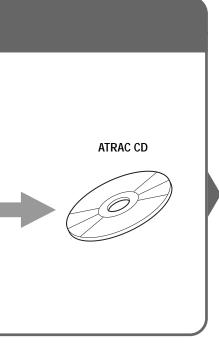
How to use the SonicStage Simple Burner

Refer to the supplied booklet "SonicStage Simple Burner."

What is an ATRAC CD?

An ATRAC CD is a CD-R/RW on which audio data compressed in the ATRAC3plus/ATRAC3 format has been recorded. About 30 audio CDs can be recorded on a CD-R/RW.* You can also record MP3 files by converting the files to the ATRAC3plus/ATRAC3 format.

* When total playing time of one CD (album) is estimated at 60 minutes and you are recording on a 700 MB CD-R/RW at 48 kbps in ATRAC3plus format.



Step 3 Listen

You can enjoy listening to your own ATRAC CDs on your ATRAC CD Walkman.



You can also enjoy audio CDs on your CD Walkman.

What is the ATRAC3plus/ATRAC3 format?

Refer to pages 7 - 9 of this manual.

Music sources playable on this CD player

You can play the following 3 music sources on this CD player:

- Audio CDs (CDDA format)
- CDs with ATRAC3plus/ATRAC3 format files (ATRAC CD)
- CDs with MP3 format files (MP3 CD)

Usable disc formats

You can use ISO 9660 Level 1/2 and Joliet extension format discs only.

About CD-Rs/RWs

This CD player can play CD-Rs/RWs recorded in the ATRAC3plus/ATRAC3, MP3 or CDDA* format, but playback capability may vary depending on the quality of the disc and the condition of the recording device.

* CDDA is the abbreviation for Compact Disc Digital Audio. It is a recording standard used for the Audio CDs

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.

Notes

- This CD player cannot record music content on recordable media, such as CD-Rs/RWs.
- CD-Rs/RWs recorded in the ATRAC3plus/ATRAC3 format cannot be played on your computer.

ATRAC3plus and ATRAC3

"ATRAC3plus," which stands for "Adaptive Transform Acoustic Coding3plus" is audio compression technology, developed from the ATRAC3 format. Though the ATRAC3plus format can compress music content to about 1/20 of its original size at 64 kbps, you can still enjoy high quality sound. The available transfer bit rates are 256 kbps, 64 kbps and 48 kbps.

"ATRAC3," which stands for "Adaptive Transform Acoustic Coding3" is audio compression technology that satisfies the demand for high sound quality and high compression rates. The ATRAC3 format can compress music content to about 1/10 of their original size, which contributes to reduction of the media volume. The available transfer bit rates are 132 kbps, 105 kbps and 66 kbps.

The usable number of groups and files

- Maximum number of groups: 255
- Maximum number of files: 999

For details, refer to the supplied booklet "SonicStage Simple Burner."

Note on saving files on the media

Do not save files in other formats (except MP3 files) and do not make unnecessary folders on a disc that has ATRAC3plus/ATRAC3 files.

MP3

MP3, which stands for MPEG-1 Audio Layer3, a standard for audio files compression supported by the Motion Picture Experts Group, an ISO (International Organization for Standardization) working group, enables compression of audio files to about 1/10 of the data size of a standard compact disc.

The major specifications of the acceptable disc format are:

- · Maximum directory levels: 8
- Acceptable characters: A Z, a- z, 0 9, _ (underscore)

Notes

- When naming files, be sure to add the file extension "mp3" to the file name.
- If you add the extension "mp3" to a file other than an MP3 file, the player will not be able to recognize the file properly.

The usable number of groups and files

- · Maximum number of groups: 255
- Maximum number of files: 999

Settings for compression and writing software

 This CD player is able to play MP3 files with the following specifications: Bit rate: 16 - 320 kbps, and sampling frequencies: 32/44.1/48 kHz. Variable Bit Rate (VBR) file can also be played.

To compress a source for an MP3 file, we recommend setting the compression software to "44.1 kHz," "128 kbps," and "Constant Bit Rate."

- · To record up to the maximum capacity, set to "halting of writing."
- To record at one time up to the maximum capacity on media that has nothing recorded on it, set to "Disc at Once."

Notes on saving files on the media

- Do not save files in other formats (except MP3/ATRAC3plus/ATRAC3 format files) or unnecessary folders on a disc that has MP3 files.
- When a disc is inserted, the CD player reads all the information of folders and files on that disc. If there are many folders on the disc, it may take a long time for play to begin or for the next file to start playback.

The structure of ATRAC3plus/ATRAC3 and MP3 files

Groups and folders

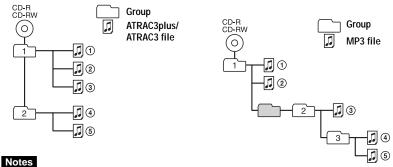
The ATRAC3plus/ATRAC3 format has a very simple structure. It consists of "files" and "groups." A "file" is equivalent to a "track" of an audio CD. A "group" is a bundle of files and is equivalent to an "album." A "group" has no directory-type structure (a new group cannot be made within an existing group).

When referring to MP3 CDs, a "file" is equivalent to a "track" and a "group" is equivalent to an "album." This CD player is designed to recognize an MP3 folder as a "group" so that it can play CD-Rs/RWs in the same manner as it plays ATRAC3plus/ATRAC3 files.

ATRAC3plus/ATRAC3/MP3 file structure and playing order

•ATRAC3plus/ATRAC3

•MP3



- · A group that does not include an MP3 file is skipped.
- If ATRAC3plus/ATRAC3 files and MP3 files are recorded on the same CD, this CD player plays the ATRAC3plus/ATRAC3 files first.
- · Depending on the method used to record MP3 files on the disc, the playing order may be different from the one shown above.

Getting started

Checking the supplied accessories

Earphones (1)



Rechargeable battery (1)

Remote control (1)



Battery carrying case (1)



Carrying pouch (1)



CD-ROM* (SonicStage Simple Burner) (1)



User's guide for SonicStage Simple Burner (1)

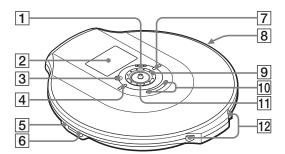


*Do not play a CD-ROM on an audio CD player.

Locating the controls

CD player

For details, see the pages in parentheses.



- 1 RADIO ON/BAND•MEMORY button (28 31)
 RADIO ON: Press to turn on the radio.
 BAND: Press to change the band.
 MEMORY: Press and hold to preset stations.
- **2** Display (12, 18, 19, 21 23, 28 30)
- 3 OPR (operation) lamp (25, 26, 33)
 Color of the lamp changes according to the type of music source being played.
 Red: Audio CD, Green: ATRAC3plus/
 ATRAC3 file, Orange: MP3 file
 For some time after the CD is inserted, the lamp lights up in red, orange and green in turn.
- 4 (group) /TUNE button (15, 21 23, 25, 28, 30)
- 5 DC IN 3 V (external power input) jack (14)
- 6 (headphones) jack (14, 28)
- (group) + /TUNE + button (15, 21, 22, 28, 30)
- B HOLD switch (rear) (25)
 Slide the switch in the direction of the arrow to disable the buttons on the CD player.

9 Jog dial (18 - 27, 31)
Use to select a file, play
mode, etc. The search
direction changes
according to the direction
in which the jog dial is
turned.



- 10 VOL (volume) $+^{*1}$ /- buttons (15)
- |11| 5-way control key (14, 15, 19- 23, 25, 28 31, 35)



DISPLAY/ MENU

- ►II: play/pause
 I :AMS*2/rewind/tune
 in a preset station
- ►►: AMS/fast forward/ tune in a preset station ■/CHG: stop/charge/turn
- off the radio DISPLAY/MENU: Use to select menu items and enter

the selection.

Push the control key toward >1, >>1,

or ■/CHG with your finger on DISPLAY/MENU.

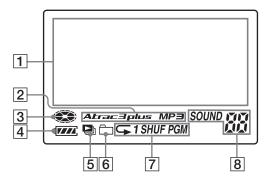
OPEN switch (14, 32) Squeeze the switch from both sides.

^{*1} The button has a tactile dot.

^{*2} Automatic Music Sensor

Display (CD player)

For details, see the pages in parentheses.



- 1 Character information display (16)
 While playing an audio CD, disc name, track name, etc. appear in 4 lines, if recorded on the CD.
 - While playing an ATRAC CD/MP3 CD, group name, file name, etc. appear in 4 lines, if recorded on the CD.

Menu items also appear in this display.

- 2 Atrac3plus/Atrac3/MP3 indication
- 3 Disc indication

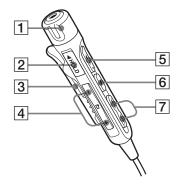
Lights up while the CD player is playing.

A Battery indication (32)
Roughly shows the remaining power of the battery. If "_____" flashes, the battery is depleted.

- 5 Play list indication For MP3 CD only
- 6 Group indication For ATRAC CD/MP3 CD only
- [7] Play mode indication
 Shows various play modes such as single play, shuffle play and program play. "
 shows repeat play.
- 8 SOUND indication Shows the SOUND setting which has been selected on the menu.

Remote control

For details, see the pages in parentheses.



- 1 VOL (volume) +/- control (15) Turn to adjust the volume.
- 2 HOLD switch (25)
- 3 Clip
- [5] >II (play/pause) button (15)
- [6] (stop)•RADIO ON/BAND•RADIO OFF button (15, 28)
- [7] | (AMS/search) PRESET -/+ buttons (15, 31)

Note

Use only the supplied remote control. You cannot operate this CD player with the remote control supplied with other CD players.

Playing a CD

1. Insert a CD.

1 Squeeze OPEN from both sides to open the CD player lid.



2 Place the CD on the tray and close the lid.

Label side up

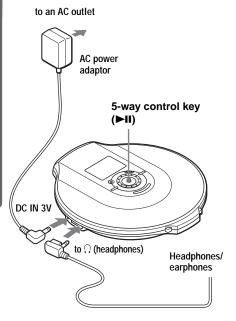
2. Connect your CD player.

You can use the following power sources:

- Rechargeable battery (page 32)
- LR6 (size AA) alkaline battery (page 32)
- · AC power adaptor

We explain how to use your CD player on house current on this page. Connect the plugs securely.

- **1** Connect the AC power adaptor.
- 2 Connect the headphones/earphones with the remote control to the CD player.



3. Play a CD.

5-way control key (►II)



VOL + / -

- 1 Push the control key toward ►II.
- 2 Adjust the volume by pressing VOL + or -.



- Press ►II.
- 2 Adjust the volume by turning VOL +/ -.

То	CD player	Remote control
Play (from a point where you stopped previously)	Push the control key toward II. Playback starts from the point where you stopped.	Press >II. Playback starts from the point where you stopped.
Play (from the first track)	While the CD player is stopped, push and hold the control key toward ►II until the play of the first track starts.	While the CD player is stopped, press and hold ►II until the play of the first track starts.
Pause/resume play after pause	Push toward ►II.	Press ►II.
Stop*2	Push toward ■ /CHG.	Press ■.
Find the beginning of the current track (AMS*1)*2	Push toward ►.	Press ►.
Find the beginning of previous tracks (AMS)*3	Push toward ◄ repeatedly.	Press ◄ repeatedly.
Find the beginning of the next track (AMS)*2, *3	Push toward ►►.	Press ►►1.
Find the beginning of succeeding tracks (AMS)*3	Push toward ►► repeatedly.	Press ►► repeatedly.
Go backwards quickly*2, *5	Push and hold toward ►.	Press and hold ◄ .
Go forward quickly*2, *5	Push and hold toward ►►.	Press and hold ►►.
Jump to succeeding groups*4	Press 🗀 + repeatedly.	Press 🗀 + repeatedly.
Jump to previous groups*4	Press 🗀 – repeatedly.	Press 🗀 – repeatedly.

^{*1} Automatic Music Sensor

^{*2} These operations can be carried out during both play and pause.

^{*3} After you have played the last track, you can return to the beginning of the first track by pushing the control key toward ▶►I (press ▶►I on the remote control). Similarly, if you are at the first track, you can locate the last track by pushing the control key toward ►◄ (press ►◄ on the remote control).

^{*4} Only when you play an ATRAC CD/MP3 CD

^{*5} These operations cannot be carried out when using an MP3 file recorded on a CD-R/RW in a packet write format.

Checking CD information on the display

You can check CD information by repeatedly pressing DISPLAY/MENU on the CD player. When you are playing a CD containing text information such as CD-TEXT, "track name," "album name," "artist name," etc. are displayed as shown in parentheses in the following table. When you are playing an ATRAC CD, information you input using the SonicStage Simple Burner software is displayed. When you are playing an MP3 CD containing MP3 files with an ID3 tag*1, ID3 tag information is displayed.

Each time you press DISPLAY/MENU, the display changes as follows:

Screen	Audio CD	ATRAC CD/MP3 CD
1	Track number, elapsed playing time (Track name, artist name, album name)	File name, artist name*3, group name, file number, elapsed playing time
Track number, remaining time of the current track (Track name, album name, artist name)		File name, CODEC information*4, file number, remaining time of the current file
3	The total number of tracks on the CD, the total playing time of the CD, the number of tracks left*2, the time remaining on the CD*2 (Artist name, album name)	Total number of files, total number of groups, file number, elapsed playing time
4	List of track names	List of group names/file names

^{*1} An ID3 tag is a format for adding certain information (track name, album name, artist name, etc.) to MP3 files. This CD player conforms to Version 1.1/2.2/2.3 of the ID3 tag format (for MP3 files only).

^{*2} Not displayed during Single play, Shuffle play, Bookmark track play, Auto ranking play, Auto ranking shuffle play, or PGM play.

^{*3} During play, "artist name" is not displayed if the disc does not have ID3 tag information.

^{*4} Bit rate and sampling frequencies. While an MP3 file made at VBR (variable bit rate) is being played, "VBR" appears on the display instead of a bit rate. In some cases, "VBR" appears halfway through playback, not from the beginning.

Notes

- The characters A Z, a z, 0 9, and $_$ can be displayed on this CD player.
- Before playing a file, the CD player reads all file and group (or folder) information on the CD. "READING" is displayed. Depending on the content of the CD, it may take some time to accomplish this reading.
- If the group does not have a group name, "ROOT" appears in the display.
- If the file does not have ID3 tag information, "- - -" appears in the display.

Removing the CD

Remove the CD while pressing the pivot in the center of the tray.



► Playback options

You can enjoy the following playback options using the menu function on the CD player.

- Playing tracks repeatedly (Repeat play)
- Playing all files in a selected group (Group play)
- Playing a single track (Single play)
- Playing tracks in random order (Shuffle play)
- Playing all files in a selected group in random order (Group shuffle play)
- Playing your favorite play lists (m3u play list play)
- Playing your favorite tracks by adding Bookmarks (Bookmark track play)
- Playing the 10 tracks you have played most frequently (Auto ranking play)
- Playing tracks you have played most frequently in random order (Auto ranking shuffle play)
- Playing tracks in your favorite order (PGM play)

Selecting playback options

Enter the PLAY MODE menu using the following procedures, then select each playback option.

1 Press DISPLAY/MENU until the MENU screen appears.

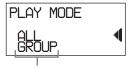


2 Turn the jog dial to select "PLAY MODE," then press DISPLAY/MENU.



Turn the jog dial to select the playback option you want.

The default setting is "ALL" (normal play).



Playback options appear.

Playing tracks repeatedly (Repeat play)

You can repeat various playback options.

1 Press DISPLAY/MENU until the MENU screen appears.



- **2** Turn the jog dial to select "REPEAT," then press DISPLAY/MENU.
- **3** Turn the jog dial to select "ON," then press DISPLAY/MENU to enter the selection.



Playing all files in a selected group

(Group play) (ATRAC CD/MP3 CD only)

Perform steps 1 and 2 of "Selecting playback options" (page 18), turn the jog dial to select "GROUP," then press DISPLAY/MENU to enter the selection.

Playing a single track

(Single play)

Perform steps 1 and 2 of "Selecting playback options" (page 18), turn the jog dial to select "1," then press DISPLAY/MENU to enter the selection.

Playing tracks in random order (Shuffle play)

Perform steps 1 and 2 of "Selecting playback options" (page 18), turn the jog dial to select "SHUFFLE," then press DISPLAY/MENU to enter the selection.

Playing all files in a selected group in random order (Group shuffle

play) (ATRAC CD/MP3 CD only)

Perform steps 1 and 2 of "Selecting playback options" (page 18), turn the jog dial to select "GROUP SHUF," then press DISPLAY/MENU to enter the selection.

Playing your favorite play lists (m3u play list play) (MP3 CD only)

You can play your favorite m3u play lists.*

* An "m3u play list" is a file for which an MP3 file playing order has been encoded. To use the play list function, record MP3 files on a CD-R/RW using encoding software that supports the m3u format.

- Perform steps 1 and 2 of "Selecting playback options" (page 18), turn the jog dial to select "PLAY LIST," then press DISPLAY/MENU to enter the selection.
- 2 Turn the jog dial to select a play list.



Push the 5-way control key toward

Playing your favorite tracks by adding Bookmarks (Bookmark track play)

While the CD player is playing, you can add Bookmarks to the tracks you want and play them only.

Audio CD: up to 99 tracks for each CD (up

to 10 CDs)

ATRAC CD: up to 999 tracks for each CD

(up to 5 CDs)

MP3 CD: up to 999 tracks for each CD

(up to 5 CDs)

Adding Bookmarks*

- 1 During play of the track to where you want to add a Bookmark, push and hold the 5-way control key toward ►II until "1" disappears and "*" flashes instead. When the Bookmark has been added successfully, "*" flashes slower.
- 2 Push the 5-way control key toward ◄ or ► to select the track to where you want to add a Bookmark, then repeat step 1 to add Bookmarks to the tracks you want.

Playing the tracks with Bookmarks

Perform steps 1 and 2 of "Selecting playback options" (page 18), turn the jog dial to select "BOOK MARK," then press DISPLAY/MENU.

The play of the tracks with the Bookmarks starts.

To remove the Bookmarks*

During play of the track with a Bookmark, push and hold the 5-way control key toward limit "a," disappears from the display.

To check the tracks with Bookmarks*

During playback of the tracks with Bookmarks, "A" flashes slowly in the display.

* Perform these operations only when Screen 1 or 2 is disaplyed (page 16).

Notes

- During play of tracks with Bookmarks, tracks are played in order of track number, and not in the order you added the Bookmarks.
- If you try to add Bookmarks to the tracks on the 11th CD (on a 6th CD when playing ATRAC CDs/MP3 CDs), the Bookmarks of the CD you played first will be erased.
- · All Bookmarks stored in memory will be erased:
 - if you remove all the power sources, or
 - if you continue playing the CD player on the rechargeable battery without charging the battery even though "Lobatt" is displayed.

Playing the 10 tracks you have played most frequently (Auto ranking play)

The CD player automatically memorizes up to 10 tracks you have played most frequently from the CD being played, and plays them from the 10th to the top.

Perform steps 1 and 2 of "Selecting playback options" (page 18), turn the jog dial to select "AUTO RANKING," then press DISPLAY/MENU to enter the selection.

Playing tracks you have played most frequently in random order (Auto ranking shuffle play)

The CD player plays up to 32 tracks which the player has automatically memorized as the most frequently played ones. In Auto ranking shuffle play, these tracks are played in random order.

Perform steps 1 and 2 of "Selecting playback options" (page 18), turn the jog dial to select "RANKING SHUF," then press DISPLAY/MENU to enter the selection.

Note

The CD player memorizes the tracks you have played from up to 10 CDs, whether you have changed the CDs or not. If the CD player tries to memorize tracks from an 11th CD, the data memorized first will be erased.

Playing tracks in your favorite order (PGM play)

You can program the CD player to play up to 64 tracks in your favorite order.

- 1 While play is stopped, perform steps 1 and 2 of "Selecting playback options" (page 18), turn the jog dial to select "PROGRAM," then press DISPLAY/MENU to enter the selection.
- 2 Turn the jog dial to select the track and press DISPLAY/MENU to enter the selection.

The track has been stored in memory. When playing an ATRAC CD/MP3 CD, you can also select a group using □ + or □ −.

Audio CD



When playing an ATRAC CD/MP3 CD, a playing order and a file name are displayed.

- Repeat step 2 to select the tracks in your favorite order.
- 4 Push the 5-way control key toward

 It o start PGM play.

Playing tracks in your favorite order

Checking the program While programming:

Before step 4, push and hold the 5-way control key toward ►II repeatedly, or press DISPLAY/MENU repeatedly.

While play is stopped:

Press DISPLAY/MENU repeatedly until "PROGRAM" and the track number appear. The list of the tracks programmed appears. To display tracks from the third track on, push the 5-way control key toward

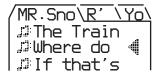
Notes

- When you finish entering the 64th track in step 3, the first selected track number (audio CD) or the first selected file name (ATRAC CD/MP3 CD) appears on the display.
- If you select 65 tracks or more, the first selected tracks are erased.

Searching for groups or tracks/files

While the CD player is playing, you can search for and play the group (ATRAC CD only) or track/file you want quickly using the jog dial on the CD player.

1 During play, turn the jog dial until the search screen appears.



Press : + or : - to select the group you want, then push the 5-way control key toward ►II.

The CD player starts playing from the first file in the group you selected.

Selecting the track/file you want

- 1 Perform step 1 above, then press ☐ + or ☐ to select the group you want.
- 2 Turn the jog dial to select the track/file you want, then push the 5-way control key toward ►II.

The CD player starts playing from the track/ file you selected.

To exit the search mode

Push the 5-way control key toward

/CHG. If about 40 seconds at most have
passed without any operation being
performed, the screen returns to the previous
one.

Note

If you try to operate the CD player using the remote control during a search, you cannot perform any operation.

Adjusting sound quality

(Parametric equalizer)

You can enjoy your favorite sounds by adjusting sound quality in the following two ways:

- Selecting a preset sound pattern →
 "Selecting the sound quality you want"
- Adjusting sound quality by yourself →
 "Customizing sound quality"

Selecting the sound quality you want

- 1 Press DISPLAY/MENU until the MENU screen appears.
- 2 Turn the jog dial to select "SOUND," then press DISPLAY/MENU.
- 3 Turn the jog dial to select the sound quality you want, then press DISPLAY/MENU to enter the selection.

Indication	Sound quality
SOFT	For vocals, stressing middle range audio
ACTIVE	Lively sounds, emphasizing high and low range audio
HEAVY	Powerful sounds, further emphasizing high and low ranges compared with ACTIVE sound
CUSTOM	Customized sound

Customizing sound quality

You can customize sound quality by adjusting the sound volume in the 3 frequency ranges "LOW" (low range audio), "MID" (middle range audio) and "HIGH" (high range audio). For each frequency range, you can select the wave pattern from among 3 patterns, and can also adjust the sound volume in 7 levels for the pattern you select.

Adjust sound quality by checking the shape of the wave on the display.

- Perform steps 1 3 of "Selecting the sound quality you want" and select "CUSTOM."
- Push the 5-way control key toward | ✓ or ► I for 2 seconds or more to select the frequency range.

The frequency range you selected flashes.



Turn the jog dial to select the sound volume, then push the 5-way control key toward I◄◄ or ▶►I repeatedly to select the shape of the wave from the 3 shapes stored in memory for each frequency range.



- (A): Frequency range
- B: Sound volume
- 4 Repeat steps 2 and 3 to make adjustment for the remaining 2 frequency ranges.
- 5 Press DISPLAY/MENU to enter the selection.

To return to the previous screen

Press \Box – on the CD player.

To cancel the adjustment operation
Push the 5-way control key toward ■/CHG.

Adjusting sound quality

Notes

- When you select CUSTOM sound, sound may be distorted depending on your sound settings when you turn up the volume. If this happens, turn the volume down.
- You may feel a difference in sound volume between the CUSTOM sound setting and other sound settings. Adjust the volume for your preference.
- When using the radio, the parametric equalizer function does not work.

The G-PROTECTION function

The G-PROTECTION function has been developed to provide excellent protection against sound skipping during many active uses.

- 1 While play is stopped, press DISPLAY/MENU until the MENU screen appears. Turn the jog dial to select "OPTION," then press DISPLAY/MENU.
- 2 Turn the jog dial to select "G-PROTECTION," then press DISPLAY/MENU to enter the selection.
- Turn the jog dial to select "G-PRO 1" or "G-PRO 2," then press DISPLAY/MENU to enter the selection.

If you select "G-PRO 2," the G-PROTECTION function will be enhanced compared to "G-PRO 1." To enjoy high quality CD sound, select "G-PRO 1."

Note

Sound may skip:

- if the CD player receives stronger continuous shock than expected,
- if a dirty or scratched CD is played, or
- when using poor-quality CD-Rs/RWs or if there is a problem with the original recording device or application software.

Protecting your hearing (AVLS)

The AVLS (Automatic Volume Limiter System) function keeps the maximum volume down to protect your hearing.

- Press DISPLAY/MENU until the MENU screen appears. Turn the jog dial to select "OPTION," then press DISPLAY/MENU.
- 2 Turn the jog dial to select "AVLS," then press DISPLAY/MENU to enter the selection.
- Turn the jog dial to select "ON," then press DISPLAY/MENU to enter the selection.

To cancel the AVLS function

Perform steps 1 - 3, changing the AVLS setting to "OFF."

Stopping playback automatically (OFF TIMER)

You can set the CD player to stop playback automatically within a range of 1 to 99 minutes by one minute. While the timer function is working, "4" appears at about 5-second intervals*.

- * When Screen 1, 2 or 3 is displayed (Audio CD: when Screen 1 or 2 is displayed) (page 16)
- Press DISPLAY/MENU until the MENU screen appears. Turn the jog dial to select "OPTION," then press DISPLAY/MENU.
- 2 Turn the jog dial to select "TIMER," then press DISPLAY/MENU to enter the selection.
- Turn the jog dial to select "10 min*," then press DISPLAY/MENU.
 - * Default setting. If you have changed the setting, the length of time already set appears.
- 4 Turn the jog dial to select the length of time you want to set from "01 min" to "99 min", then press DISPLAY/MENU to enter the selection.

To return to the previous screen

Press □ – on the CD player.

To cancel the setting operation

Push the 5-way control key toward **■**/CHG.

To check the length of time before the CD player stops playback

During play, perform steps 1 - 3.

To cancel the OFF TIMER function

The OFF TIMER function will be canceled:

- When you perform steps 1 3, changing the OFF TIMER setting to "OFF."
- · When you listen to the radio.

Locking the controls (HOLD)

You can lock the controls on your CD player to prevent accidental button presses. If you press any button when the HOLD function is activated, the OPR lamp flashes and "HOLD" also flashes in the display.

Slide HOLD in the direction of the arrow.

You can use the HOLD function with both the CD player and the remote control. You can still operate your CD player using the remote control when HOLD on the remote control is set to off.

To unlock the controls

Slide HOLD in the direction opposite to that of the arrow.

Turning off the beep sound

You can turn off the beep sound that is heard from your headphones/earphones when you operate your CD player.

- 1 Press DISPLAY/MENU until the MENU screen appears. Turn the jog dial to select "OPTION," then press DISPLAY/MENU.
- 2 Turn the jog dial to select "BEEP," then press DISPLAY/MENU to enter the selection.
- Turn the jog dial to select "OFF," then press DISPLAY/MENU to enter the selection.

To turn on the beep sound

Perform steps 1 - 3, changing the BEEP setting to "ON."

Saving power

You can select lighting options for the OPR lamp on the CD player so that you can save battery power.

- Press DISPLAY/MENU until the MENU screen appears. Turn the jog dial to select "OPTION," then press DISPLAY/MENU.
- 2 Turn the jog dial to select "LIGHT," then press DISPLAY/MENU to enter the selection.
- 3 Turn the jog dial to select "LIGHT OFF" or "LIGHT 2," then press DISPLAY/MENU to enter the selection.

About the LIGHT setting

Setting	OPR lamp
LIGHT OFF	Turned off
LIGHT 1	Lights up fully during play or during operation
LIGHT 2*	Lights up with less brightness during play or during operation

^{*} You can save power by selecting "LIGHT 2" rather than "LIGHT 1."

Playing tracks continuously (SEAMLESS)

(ATRAC CD only)

You can play live concert music, etc. without space between the tracks.

- 1 While play is stopped, press DISPLAY/MENU until the MENU screen appears. Turn the jog dial to select "OPTION," then press DISPLAY/MENU.
- Turn the jog dial to select "SEAMLESS," then press DISPLAY/MENU to enter the selection.
- Turn the jog dial to select "ON," then press DISPLAY/MENU to enter the selection.

Note

The tracks may not play continuously depending on how the source music was recorded.

Listening to the radio

You can enjoy FM and AM programs.

1 Press RADIO ON/BAND to turn on the radio.

Press RADIO ON/BAND until the band you want appears.

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



3 Press TUNE + or - (□ + or - for the remote control) to tune in the station you want and adjust the volume.

Turning off the radio

Push the 5-way control key toward ■/CHG (press and hold ■•RADIO ON/BAND•RADIO OFF for the remote control).

Tuning in the station quickly

Hold down TUNE + or - (-) + or - for the remote control) in step 3 until the frequency digits begin to change in the display. The CD player automatically scans the radio frequencies and stops when it finds a clear station.

Improving broadcast reception

For FM, extend the headphones/earphones cord.



For AM, reorient the CD player itself.

Note

Keep the headphones/earphones connected to the \bigcap jack of the CD player. The headphones/earphones cord works as the FM antenna.

If it is hard to hear the FM broadcast

 While listening to the radio, press and hold DISPLAY/MENU until the display changes.



- 2 Push the 5-way control key toward I
 or ►► to select "MONO," then press
 DISPLAY/MENU.
- 3 Push the 5-way control key toward ► or ► to select "ON," then press DISPLAY/MENU to enter the selection.

The noise will be reduced but the radio will play in monaural.

Protecting your hearing

The AVLS (Automatic Volume Limiter System) function keeps the maximum volume down to protect your hearing.

- While listening to the radio, press and hold DISPLAY/MENU until the display changes.
- 2 Push the 5-way control key toward I
 or ►► to select "AVLS," then press
 DISPLAY/MENU.
- 3 Push the 5-way control key toward I
 or ► to select "ON," then press
 DISPLAY/MENU to enter the selection.

To cancel the AVLS function

Perform steps 1 - 3, changing the AVLS setting to "OFF."

Turning off the radio automatically

You can set the radio to turn off automatically within a range of 10 to 99 minutes by 10 minutes. While the timer function is working, "(4)" appears at about 5 second intervals.

- While listening to the radio, press and hold DISPLAY/MENU until the display changes.
- 2 Push the 5-way control key toward ► or ► to select "TIMER," then press DISPLAY/MENU.
- 3 Push the 5-way control key toward ◄ or ► to select the length of time you want to set from "10" to "99," then press DISPLAY/MENU to enter the selection.

To check the length of time before the radio is automatically turned off

While listening to the radio, perform steps 1 - 2.

To cancel the OFF TIMER function

The OFF TIMER function for the radio will be canceled:

- When you perform steps 1 3, changing the OFF TIMER setting to "OFF."
- When you turn off the radio.
- · When you start playing a CD.

When listening to the radio on battery

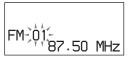
If you connect the external power source plug to the DC IN 3 V jack of your CD player, the CD player will turn off. Turn it on by pressing RADIO ON/BAND to continue listening to it.

Presetting radio stations

You can preset up to 40 stations: 30 for FM and 10 for AM.

- 1 Press RADIO ON/BAND to turn on the radio.
- Press RADIO ON/BAND to select the band.
- **3** Press MEMORY for 2 seconds or more.

The preset number will flash in the display.



Presetting radio stations

4 Press DISPLAY/MENU for 2 seconds or more.

The CD player starts scanning the stations from the lower frequencies and stops for about 3 seconds when a station is received.

If you want to preset the received station, press DISPLAY/MENU while the preset number is flashing.

The received station is preset on the preset number 1 and the CD player starts scanning for the next receivable station. If you do not press DISPLAY/MENU within the 3 seconds, the CD player will start scanning for the next receivable station without storing the station.

6 Repeat step 5 until all receivable stations are preset.

If the stations have already been stored, the newly preset stations will replace the old ones.

Presetting stations manually

- 1 Press RADIO ON/BAND to turn on the radio
- 2 Press RADIO ON/BAND to select the band.
- **3** Press and hold MEMORY until the preset number flashes in the display.



From this step on, start the next operation within 30 seconds after you finished the previous operation. If 30 seconds pass with nothing done, the preset number stops flashing which shows that the CD player has exited the preset memory standby mode. If this happens, start from step 3 again.

- 4 Push the 5-way control key toward I
 or ►►I repeatedly to select the preset
 number you want to store the station on
 while the preset number flashes.
- 5 Press TUNE + or (+ or for the remote control) to tune in the station you want while the preset number flashes.
- 6 Press DISPLAY/MENU.

When the station is preset successfully, the beep sounds. The new station replaces the old one.

- The preset number increases by one and the CD player enters the preset memory standby mode.
- 7 Repeat steps 4 to 6 when you preset the stations in the same band. When you preset the stations in the different band, press and hold MEMORY to exit the preset memory standby mode. Repeat steps 2 to 6 after the preset number stops flashing.

To exit the preset memory standby mode

When the radio is turned on, you can exit the preset memory standby mode using one of the following procedures. Preset stations, however, will remain stored in the CD player's memory.

- Hold down MEMORY until the preset number stops flashing.
- Do not press any button for 30 seconds. The preset number stops flashing.
- Push the 5-way control key toward ►II.
 The CD player enters the CD playing mode.
- Push the 5-way control key toward ■/ CHG. The radio turns off.

To cancel all preset stations

- 1 While the radio is turned off and CD playing is stopped, press and hold DISPLAY/MENU until the MENU screen appears.
- **2** Turn the jog dial to select "OPTION," then press DISPLAY/MENU.
- **3** Turn the jog dial to select "TUNER PRESET," then press DISPLAY/MENU to enter the selection.
 - "Clear?" appears in the display. When you press DISPLAY/MENU, all the preset stations are canceled.

Playing preset radio stations

You can tune in the station easily by pushing the 5-way control key toward ► or ► .

1 Press RADIO ON/BAND to select the band.

Push the 5-way control key toward l◄◄ or ▶►I to tune in a stored station.

Changing the tuning interval (Except European and

Chinese models)

When using the CD player abroad, change the AM tuning interval on the menu, if necessary.

9 kHz area: Asia and Europe 10 kHz area: the U.S.A., Canada and South America

Change it while the radio is turned off and CD playing is stopped, as follows.

- 1 Press and hold DISPLAY/MENU until the MENU screen appears.
- Turn the jog dial to select "OPTION," then press DISPLAY/ MENU.
- Turn the jog dial to select "AM STEP," then press DISPLAY/MENU to enter the selection.
- 4 Turn the jog dial to select "9 kHz" or "10 kHz," then press DISPLAY/ MENU to enter the selection.

Note

After changing the tuning interval, you need to preset radio stations again.

► Connecting to a power source

You can check the remaining power of the battery in the display.



* Beep sounds.

When the battery is depleted, charge the rechargeable battery or replace the dry battery with new one.

Notes

- The indicator sections of roughly show the remaining battery power. One section does not always indicate one-fourth of the battery power.
- Depending on operating conditions, the indicator sections of may increase or decrease.

For the battery life and charging time of the rechargeable battery, see "Specifications."

Using the battery

Use only the following batteries for your CD player.

Rechargeable battery

Charge the rechargeable battery before using it for the first time.

• NH-7WMAA (supplied)

Dry battery

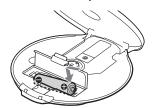
· LR6 (size AA) alkaline battery

Inserting the battery

Squeeze OPEN from both sides to open the lid of your CD player, then open the battery compartment lid inside the player.



2 Insert the battery by matching the
① to the diagram in the battery compartment and close the lid until it clicks into place.



Insert the

end first.

Charging the supplied rechargeable battery

- Connect the AC power adaptor to the DC IN 3 V jack of your CD player and an AC outlet.
- 2 Push the 5-way control key toward ■/
 CHG to start charging.
 The CD player charges the battery. The indicator sections of □ light up in succession and the OPR lamp flashes and then lights up. When the battery is completely charged, the OPR lamp and the □ indicator get turned off.

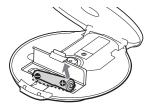
 If you push the 5-way control key toward ■/CHG after the charge has already been completed, the □ indicator
- display.

 3 Disconnect the AC power adaptor.

flashes and "FULL" appears in the

To remove the battery

Remove the battery as illustrated below.



When to replace the rechargeable battery

If the battery life becomes shorter by about half, replace the battery with new rechargeable battery.

Notes on the rechargeable battery

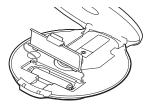
- To keep the original battery capacity for a long time, charge the battery only when it is completely depleted.
- If the battery is new or has not been used for a long time, it may not be charged completely until you charge and discharge it several times.
- When carrying the rechargeable battery, use the supplied battery carrying case to prevent unexpected heat. If the rechargeable battery and the metallic objects get contacted, heat or fire may occur due to a short circuit.

Notes on using the dry battery

- · Be sure to remove the AC power adaptor.
- When the battery is depleted, replace the battery with new one.

To attach the battery compartment lid

If the battery compartment lid is detached by an accidental drop, excessive force, etc., attach it as illustrated below.



Notes on the power source

Disconnect all power sources when the CD player is not used for a long time.

On AC power adaptor

 Use only the AC power adaptor supplied. If your CD player is not supplied with the one, use the AC-E30HG AC power adaptor. Do not use any other AC power adaptor. It may cause a malfunction.

Polarity of the plug



- Do not touch the AC power adaptor with wet hands.
- Connect the AC power adaptor to an easily accessible AC outlet. Should you notice an abnormality in the AC power adaptor, disconnect it from the AC outlet immediately.

On rechargeable batteries and dry batteries

- · Do not charge the dry batteries.
- · Do not throw the batteries into fire.
- Do not carry the batteries with coins or other metallic objects. It can generate heat if the positive and negative terminals of the battery are accidentally contacted by a metallic object.
- Do not mix rechargeable batteries with dry batteries.
- · Do not mix new batteries with old ones.
- Do not use different types of batteries together.
- When the batteries are not to be used for a long time, remove them.
- If battery leakage occurs, wipe off any deposit in the battery compartment, and install new batteries. In case the deposit adheres to you, wash it off thoroughly.

List of menus

On the CD player, press DISPLAY/MENU until the MENU screen appears, then turn the jog dial to select the menu you want.



To return to the previous screen, press $\stackrel{\leftarrow}{=}$ $-^{*1}$ on the CD player. To cancel the setting operation, push the 5-way control key toward \blacksquare /CHG.

Items marked ● are default settings.

Setting playback options (page)	Menu 1 →	Menu 2
Playing tracks repeatedly (18)	REPEAT	● OFF
		ON
Normal play	PLAY MODE	ALL
Playing all files in a selected group (19)	PLAY MODE	GROUP*2
Playing a single track (19)	PLAY MODE	1
Playing track in random order (19)	PLAY MODE	SHUFFLE
Playing all files in a selected group	PLAY MODE	GROUP SHUF*2
in random order (19)		
Playing your favorite tracks by adding	PLAY MODE	BOOK MARK*3
Bookmarks (20)		
Playing your favorite play lists (19)	PLAY MODE	PLAY LIST*4
Playing the 10 tracks you have played	PLAY MODE	AUTO RANKING
most frequently (21)		
Playing tracks you have played most	PLAY MODE	RANKING SHUF
frequently in random order (21)		
Playing tracks in your favorite order (21)	PLAY MODE	PROGRAM*5

^{*1} When "PGM" is not displayed.

^{*2} For ATRAC CD/MP3 CD only

^{*3} Only when Bookmarks have been added to the tracks/files

^{*4} Play lists (m3u) recorded in MP3 format only

^{*5} You can make this setting while play is stopped.

List of menus

Setting sound (page)	Menu 1	→	Menu 2 →	Menu 3
Adjusting sound quality (23)	SOUND		● OFF	_
			SOFT	
			ACTIVE	
			HEAVY	
			CUSTOM	
Setting various functions (page)	Menu 1	→	Menu 2 →	Menu 3
Protecting against sound skipping (24)	OPTION		G-PROTECTION	N*1 ● G-PRO 1
				G-PRO 2
Protecting your hearing (24)	OPTION		AVLS	ON
				OFF
Stopping playback automatically (25)	OPTION		TIMER	10 min*2
				OFF
Turning off the beep sound (26)	OPTION		BEEP	● ON
				OFF
Saving power (26)	OPTION		LIGHT	LIGHT OFF
				LIGHT 1
				LIGHT 2
Playing tracks continuously (27)	OPTION		SEAMLESS*1, *	ON
				OFF
Setting when the radio is turned off (page)	Menu 1	→	Menu 2 →	Menu 3
Canceling all preset stations (31)	OPTION		TUNER PRESET	Clear?
Changing the tuning interval (31)	OPTION		AM STEP	9 kHz*4
				10 kHz

^{*1} You can make these settings while play is stopped.

^{*2} Default setting. If you have changed the setting, the length of time already set appears.

^{*3} For ATRAC CD only

^{*4} Default settings vary for each area you purchased the CD player.

Precautions

On safety

- Should any solid objects or liquid fall into the CD player, unplug it and have it checked by qualified personnel before operating it any further.
- Do not put any foreign objects in the DC IN 3 V (external power input) jack.

On the CD player

- Keep the lens on the CD player clean and do not touch it. If you do so, the lens may be damaged and the CD player will not operate properly.
- Do not put any heavy object on top of the CD player. The CD player and the CD may be damaged.
- Do not leave the CD player in a location near heat sources, or in a place subject to direct sunlight, excessive dust or sand, moisture, rain, mechanical shock, unleveled surface, or in a car with its windows closed.
- If the CD player causes interference to the radio or television reception, turn off the CD player or move it away from the radio or television.
- Discs with non-standard shapes (e.g., heart, square, star) cannot be played on this CD player. Attempting to do so may damage the CD player. Do not use such discs.

On handling CDs

- To keep the CD clean, handle it by its edge. Do not touch the surface.
- Do not stick paper or tape onto the CD.
- Do not expose the CD to direct sunlight or heat sources such as hot air ducts. Do not leave the CD in a car parked under direct sunlight.

On headphones/earphones Road safety

Do not use headphones/earphones while driving, cycling, or operating any motorized vehicle. It may create a traffic hazard and is illegal in some areas. It can also be potentially dangerous to play your headsets at high volume while walking, especially at pedestrian crossings. You should exercise extreme caution or discontinue use in potentially hazardous situations.

Preventing hearing damage

Avoid using headphones/earphones at high volume. Hearing experts advise against continuous, loud and extended play. If you experience a ringing in your ears, reduce volume or discontinue use.

Consideration for others

Keep the volume at a moderate level. This will allow you to hear outside sounds and to be considerate to the people around you.

Maintenance

To clean the casing

Use a soft cloth slightly moistened in water or a mild detergent solution. Do not use alcohol, benzine or thinner.

Troubleshooting

Should any problem persist after you have checked these symptoms, consult your nearest Sony dealer.

CD player

Symptom	Cause and/or corrective action	
The volume does not increase even if you press VOL + repeatedly (or even if you turn VOL +/- in the + direction repeatedly on the remote control).	→ AVLS is set to "ON."Set it to "OFF." (page 24)	
No sound, or noise is heard.	 Connect the headphones/earphones plugs firmly. (page 14) Plugs are dirty. Clean the headphones/earphones plugs with a dry soft cloth periodically. 	
Certain files cannot be played.	→ You tried to play files saved in a format that is not compatible with this CD player. (page 6)	
The playing time is too short when powered with the dry battery.	 → Check that you are using an alkaline battery and not manganese battery. (page 32) → Replace the battey with a new LR6 (size AA) alkaline battery. (page 32) 	
The playing time is too short when powered with the rechargeable battery.	→ Charge and discharge the rechargeable battery several times. (pages 32, 33)	
"Lobatt" appears in the display. The CD does not	→ The rechargeable battery is used up completely. Charge the battery. (pages 32, 33)	
play.	→ Replace the battery with a new LR6 (size AA) alkaline battery. (page 32)	
"HI dc In" appears in the display.	→ An AC power adaptor which is rated higher than the one supplied or recommended is being used. Use only the supplied AC power adaptor or the car battery cord recommended in "Optional accessories." (page 42)	

Symptom	Ca	use and/or corrective action
The CD does not play or "No disc" appears in the display when a CD is placed in the CD player. OPR lamp flashes on the CD player when you press a button, and the CD does not		The CD is dirty or defective. Check that the CD is inserted with the label side up. (page 14) Moisture condensation has occurred. Leave the CD player aside for several hours until the moisture evaporates. Close the lid of the battery compartment firmly. (page 32) Make sure the battery is inserted correctly. (page 32) Connect the AC power adaptor to an AC outlet securely. (page 14) Push the 5-way control key toward ►II (Remote control: Press ►II) after one second or more has passed since the AC power adaptor was connected. The CD-R/RW is blank. There is a problem with the quality of the CD-R/RW, recording device, or application software. The buttons are locked. Slide the HOLD switch back. (page 25)
play. The rechargeable battery cannot be charged.	→ →	The rechargeable battery is not inserted in the battery compartment. The CD is playing. Turn it off.
Playback starts from the point you stopped. (resume function)	→	The resume function is working. To start play from the first track, push and hold the 5-way control key toward ►II (Remote control: press and hold ►II) until the first track starts playing, or open the lid of the CD player. Or remove all power sources, then insert the battery or connect the AC power adaptor again. (pages 14, 15, 32)
Rustling noise is heard from the CD.	→	Close the lid of the battery compartment firmly. (page 32)

Troubleshooting

Symptom	Cause and/or corrective action
During playback of an ATRAC CD or MP3 CD, the CD does not rotate but you can hear the sound normally.	→ The CD player is designed to stop the rotation of an ATRAC CD or MP3 CD during playback to reduce the power consumption. The player is not malfunctioning.
"NO FILE" appears on the display after you push the 5-way control key toward ▶II (Remote control: after you press ▶II) or when the lid of the CD player is closed.	 → There are no ATRAC3plus/ATRAC3/MP3 files in the CD. → A CD-R/RW from which the data has been erased is being used. → The CD is dirty.
When closing the lid of the CD player, the CD starts to rotate.	→ The CD player is reading the information on the CD. The player is not malfunctioning.
The LCD display becomes hard to see or slows down.	→ You are using your CD player at high temperatures (above 40°C/104°F) or at low temperatures (below 0°C/32°F). At room temperature, the display will return to its normal operating condition.
You cannot operate the CD player properly using the remote control.	→ The buttons on the CD player are kept pressed by mistake.
Play stopped abruptly.	→ OFF TIMER has been set. Change the setting to "OFF."
The OFF TIMER function is canceled.	→ The OFF TIMER function for the CD is canceled if you start listening to the radio. The OFF TIMER function for the radio is canceled if you turn off the radio or start playing a CD.

Radio

Symptom	Cause and/or corrective actions
The audio is weak or has poor quality.	 Charge the rechargeable battery. (pages 32, 33) Replace the battery with a new LR6 (size AA) alkaline battery. (page 32) Move the CD player away from electronic appliances (TVs, PCs, etc). Keep the AC power adaptor away from the CD player.

Specifications CD player

System

Compact disc digital audio system

Laser diode properties

Material: GaAlAs

Wavelength: $\lambda = 770 - 800 \text{ nm}$ Emission duration: Continuous Laser output: Less than 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.)

D-A conversion

1-bit quartz time-axis control

Frequency response

 $20 - 20\ 000\ Hz_{-2}^{+1}\ dB$ (measured by JEITA)

Output (at 3 V input level)

Headphones (stereo minijack)

Approx. 5 mW + Approx. 5 mW at 16 Ω (Approx. 1.5 mW + Approx. 1.5 mW at 16 Ω)*
*For the customers in Europe

Radio

Frequency range

● European/Chinese models

FM: 87.5 - 108.0 MHz AM: 531 - 1 602 kHz

Other models

•9 kHz step:

FM: 87.5 - 108.0 MHz AM: 531 - 1 602 kHz

•10 kHz step:

FM: 87.5 - 108.0 MHz AM: 530 - 1 710 kHz

Antenna

FM: Headphones/earphones cord antenna

AM: Built-in ferrite bar antenna

General

Power requirements

- Sony NH-7WMAA rechargeable battery: 1.2 V DC × 1
- LR6 (size AA) battery: 1.5 V DC × 1
- AC power adaptor (DC IN 3 V jack): 220 V, 50 Hz (Model for China) 120 V, 60 Hz (Model for Mexico)

Battery life*1 (approx. hours)

When you use the CD player on a flat and stable surface.

When LIGHT mode and SOUND mode are set to "OFF"

Playing time varies depending on how the CD player is used.

When using one NH-7WMAA (charged for about 5 hours*2)

	G-PROTECTION			
	"G-PRO 1"	"G-PRO 2"		
Audio CD	10	9		
ATRAC CD*3	15	15		
MP3 CD*4	13	13		
RADIO ON	20			

When using one alkaline battery*5 G-PROTECTION "G-PRO 1" "G-PRO 2" Audio CD 26 23 ATRAC CD*3 42 42 MP3 CD*4 34 34 RADIO ON 58

- *1 Measured value by the standard of JEITA (Japan Electronics and Information Technology Industries Association)
- *2 Charging time varies depending on how the rechargeable battery is used.
- *3 Recorded at 48 kbps
- *4 Recorded at 128 kbps
- *5 When using Sony alkaline battery LR6 (SG) (produced in Japan)

Specifications

Operating temperature

5°C - 35°C (41°F - 95°F)

Dimensions (w/h/d) (excluding projecting parts and controls)

Approx. $129 \times 29 \times 140.1 \text{ mm}$ (5 $\frac{1}{8} \times 1 \frac{3}{16} \times 5 \frac{5}{8} \text{ in.}$)

Mass (excluding accessories)

Approx. 188 g (6.7 oz.)

US and foreign patents licensed from Dolby Laboratories.

Design and specifications are subject to change without notice.

Optional accessories

AC power adaptor*1	AC-E30HG			
Active speaker system	SRS-Z1			
	SRS-Z30			
Car battery cord*2	DCC-E345			
Car battery cord with car connecting pack*2				
	DCC-E34CP			
Car connecting pack*2	CPA-9C			
Connecting cord	RK-G129			
	RK-G136			
Earphones (except for the customers in France)				
	MDR-EX71SL			
	MDR-Q55SL			
Earphones (for the customers in France)				
-	MDR-E808SP			

^{*1} Specifications for AC power adaptors vary for each area. Check your local voltage and the shape of the plug before purchasing.

Your dealer may not handle some of the accessories listed above. Please ask the dealer for detailed information about the accessories in your country/region.

^{*2} When listening to the radio, noise may occur.
We recommend only to play a CD when using those accessories.