


TV/WB/FM/AM Portable CD Player

Operating Instructions



Atrac3plus

“WALKMAN” is a registered trademark of Sony Corporation to represent Headphone Stereo products.  is a trademark of Sony Corporation.

D-NS921F

WARNING

To prevent fire or shock hazard, do not expose the AC power adaptor 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, tablecloths, curtains, etc. And don't place lighted candles on the apparatus.

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

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

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.

Owner's Record

The model number and the serial number are located at the rear of the CD player. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. D-NS921F

Serial No. _____

For the customers in the USA

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

Product registration

For the customers in the USA

Please register this product on line at www.sony.com/walkmanreg
<<http://www.sony.com/walkmanreg>>

Proper registration will enable us to send you periodic mailings about software upgrades, new products, services and other important announcements. Thank you.

If you have any questions about this product, contact:

www.sony.com/walkmansupport

Sony Network Portable Audio Support Line
1-(866)-456-7669

Sony Customer Information Services Center
12451 Gateway Blvd., Ft. Myers, FL 33913

Declaration of Conformity

Trade Name: SONY
Model No.: D-NS921F
Responsible Party: Sony Electronics Inc.
Address: 680 Kinderkamack Road,
Oradell, NJ 07649 USA
Telephone No.: 201-930-6972

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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Enjoy your ATRAC CD Walkman!

Thank you for purchasing the D-NS921F. This CD Walkman is called an “ATRAC CD Walkman,” because you can enjoy “ATRAC CDs” on it.

Create original ATRAC CDs!

You can make your own ATRAC CD.

The procedure is very simple. Just perform Steps 1, 2 and 3.

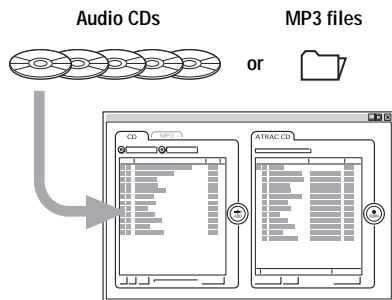
Step 1 Install

Install the supplied
“SonicStage Simple Burner”
software.



Step 2 Burn

Create a disc image and burn it on
a CD-R/RW using your PC.



Audio data is converted to the ATRAC3plus/
ATRAC3 format by the SonicStage Simple
Burner.

How to use the SonicStage Simple Burner

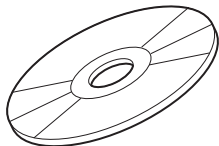
Refer to the supplied booklet “SonicStage Simple Burner.”

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 recording 4-minute tracks on a blank 700 MB CD-R/RW at 48 kbps (ATRAC3plus)

ATRAC CD



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 6 - 8 of this manual.

Music sources playable on this CD player

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

- Audio CDs
- ATRAC3plus/ATRAC3 format files
- MP3 files

Usable disc formats

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

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, you can still enjoy high quality sound. The available transfer bit rates are 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 or unnecessary groups on a disc that has ATRAC3plus/ATRAC3 files.

MP3 files

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. Since the MP3 encoding algorithm is public, there are various encoders/decoders that are compliant with this standard, including freeware that is available for no charge. Thus, the MP3 standard is widely used in the computer field.

The major specifications of the acceptable disc format are:

- Maximum directory levels: 8
- Acceptable characters for a file/folder name:
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 file name does not correspond to the ID3 tag*.
*ID3 tag is a format for adding certain information (track name, album name, artist name, etc.) to MP3 files.

The usable number of groups and files

- Maximum number of groups: 100
- Maximum number of files: 400

Settings for compression and writing software

- This CD player supports MP3 files with the following specifications: transfer bit rate: 16 - 320 kbps and sampling frequencies: 32/44.1/ 48 kHz. Variable Bit Rate (VBR) is also supported.
To compress a source for an MP3 file, we recommend setting the transfer bit rate of 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 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.

Difference between ATRAC3plus/ATRAC3 and MP3

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). This CD player is designed to recognize an MP3 file folder as a “group” so that it can play CD-Rs/RWs recorded in both the ATRAC3plus/ATRAC3 format and those recorded in the MP3 format with the same operation.

Displaying the track name, etc.

When playing a CD having ATRAC3plus/ATRAC3 files or MP3 files on this CD player, track names, artist names and album names are displayed. This CD player conforms to Version 1.1/2.2/2.3 of the ID3 tag format.

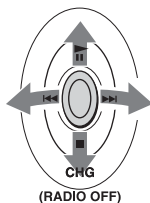
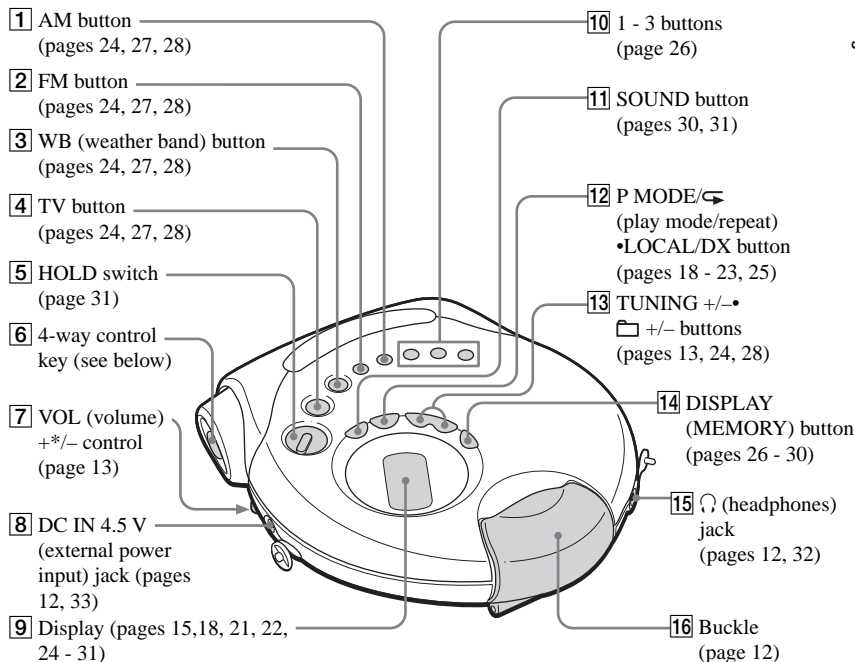
Notes

- 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.
- Playback capability may vary depending on the quality of the disc and the condition of the recording device.

Locating the controls

For details, see pages in parentheses.

CD player (front)



6 4-way control key

Push toward ►►, ◀◀, ►► or ◻•
CHG (RADIO OFF).

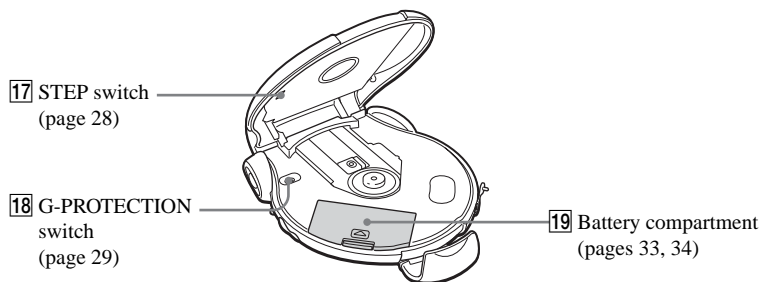
►►**: Play/pause (pages 13, 18, 20 - 23)
◀◀/►►: AMS/search (pages 13, 18, 21, 22, 27, 28)
◻•CHG (RADIO OFF):
Stop•charge (turn off the radio)
(pages 13, 24, 27, 31, 33)

* There is a tactile dot beside VOL to show the direction to turn up the volume.

** There is a tactile dot beside ►►.

(Continued)

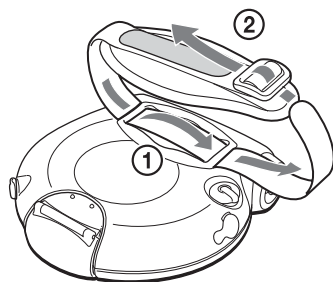
CD player (inside)



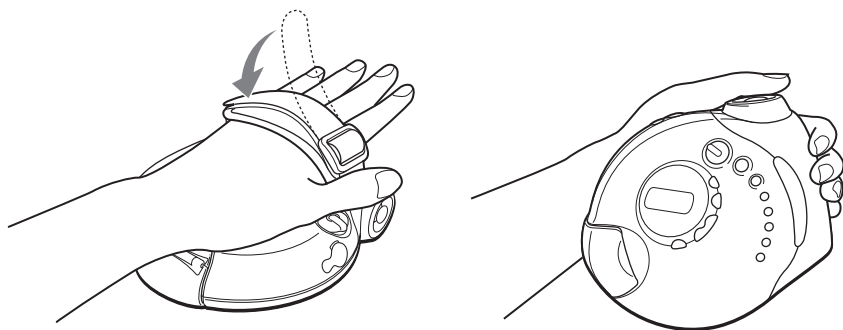
Using the hand strap

During active uses, use the supplied hand strap.

1 Pass the strap through the hooks.

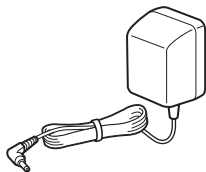


2 Put your hand between the player and the strap, then adjust the length of the strap and fix it using the Velcro tapes.

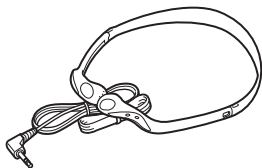


Checking the supplied accessories

AC power adaptor (1)



Headphones (1)



Hand strap (1)

CD-ROM (SonicStage Simple Burner) (1)

User's guide for SonicStage Simple Burner (1)

For US customers

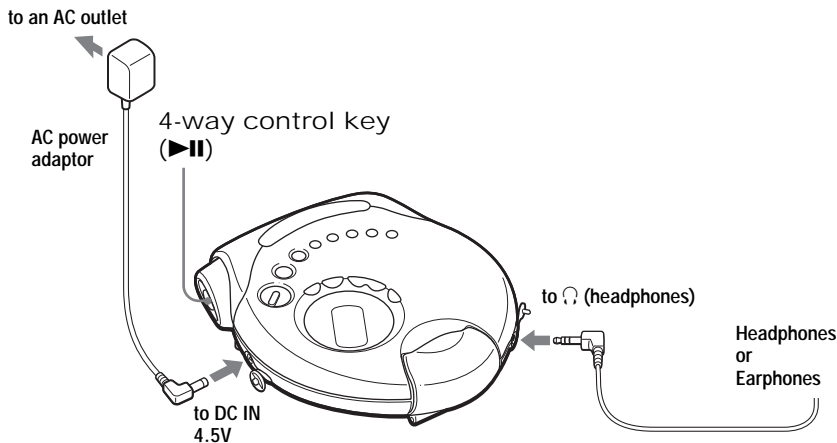
The AC power adaptor supplied is not intended to be serviced. Should the AC power adaptor cease to function in its intended manner, during the warranty period, the adaptor should be returned to your nearest Sony Service Center or Sony Authorized Repair Center for replacement, or after warranty period, it should be discarded.

Playing an audio CD or ATRAC3plus/ATRAC3/MP3 files

1. Connect your CD player.

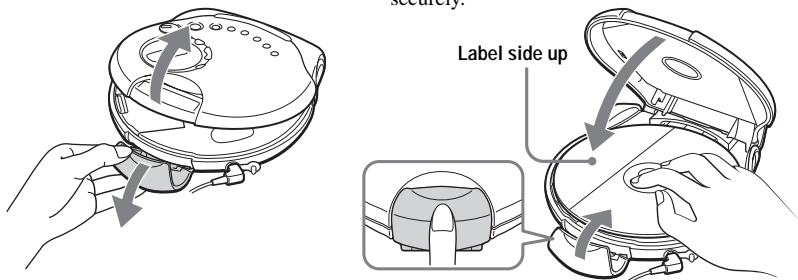
- 1 Connect the AC power adaptor.
- 2 Connect the headphones/earphones.

You can also use rechargeable batteries or dry batteries as a power source. (See page 33.)

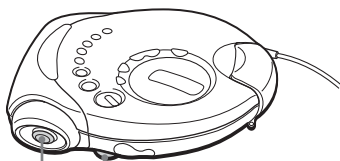


2. Insert a CD.

- 1 Unfasten the buckle.
- 2 Open the lid.
- 3 Fit the CD on the pivot and close the lid.
- 4 While holding the lid closed, fasten the buckle securely.



3. Play a CD.



Push the 4-way control key toward **▶||**.

Adjust the volume.

Basic operations

To	Do this
Play (from the point you stopped)	Push the 4-way control key toward ▶ . Playback starts from the point you stopped.
Play (from the first track)	While the CD player is stopped, push the control key toward ▶ and hold it for 2 seconds or more.
Pause/resume play after pause	Push the control key toward ▶ .
Stop	Push the control key toward ■•CHG (RADIO OFF) . ^{*2}
Find the beginning of the current track (AMS ^{*1})	Push the control key toward ◀◀ once quickly. ^{*2}
Find the beginning of the previous tracks (AMS)	Push the control key toward ◀◀ repeatedly. ^{*2, *3}
Find the beginning of the next track (AMS)	Push the control key toward ▶▶ once quickly. ^{*2, *3}
Find the beginning of the succeeding tracks (AMS)	Push the control key toward ▶▶ repeatedly. ^{*2, *3}
Go backwards quickly	Push the control key toward ◀◀ and hold it. ^{*2}
Go forward quickly	Push the control key toward ▶▶ and hold it. ^{*2}
Jump to succeeding groups ^{*4}	Press ◻ + repeatedly.
Jump to previous groups ^{*4}	Press ◻ - repeatedly.

^{*1} Automatic Music Sensor

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

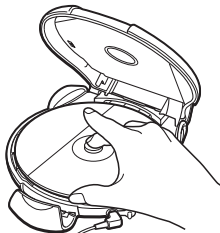
^{*3} After you have played the last track, you can return to the beginning of the first track by pushing the 4-way control key toward **▶▶**. Similarly, if you are at the first track, you can locate the last track by pushing the control key toward **◀◀**.

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

(Continued)

Removing the CD

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



About CD-Rs/RWs

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

* CD-DA 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.

About the display

While the CD player is playing, the following indications appear in the display.

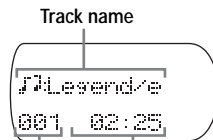
You can also check the remaining time, track name, etc. using DISPLAY (see pages 29 and 30).

While playing an audio CD



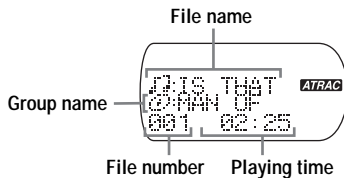
Track number Playing time

While playing an audio CD containing CD text information



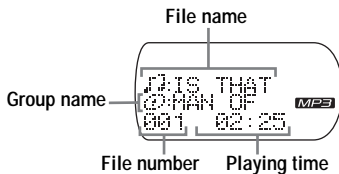
Track name
Track number Playing time

While playing an ATRAC3plus/ATRAC3 file



File name
Group name
File number Playing time

When playing an MP3 file



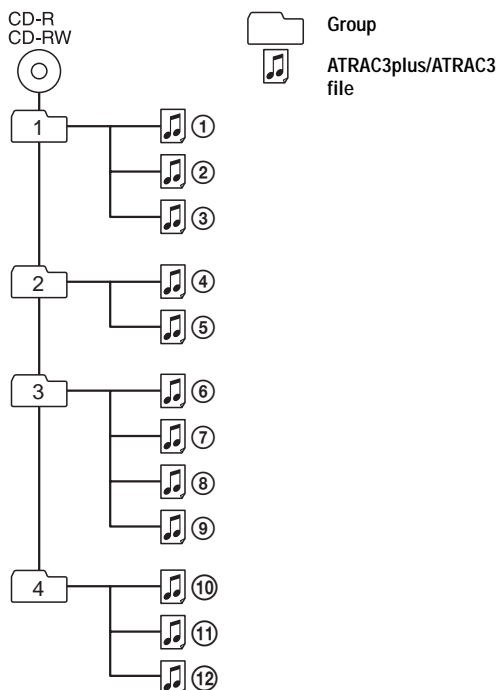
File name
Group name
File number Playing time

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 information on the CD. "READING" is displayed. Depending on the content of the CD, it may take some time to accomplish this reading.

(Continued)

Example of ATRAC3plus/ATRAC3 groups and files



File mode (normal play)

Plays all ATRAC3plus/ATRAC3 files from ①, ②, ③...⑪, ⑫.

Group mode (when selected "□" using P MODE/↔ (see page 18))

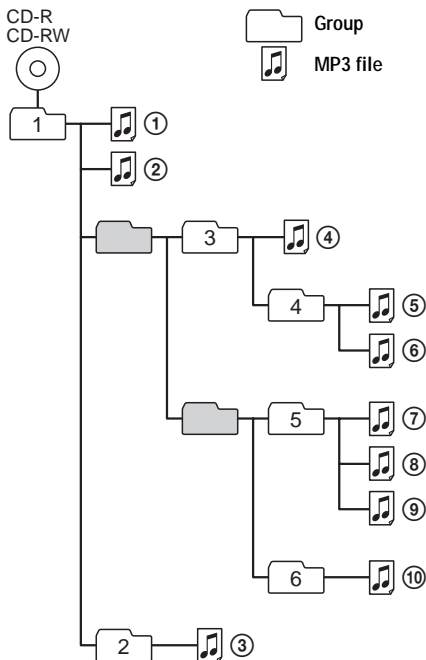
Plays all ATRAC3plus/ATRAC3 files in the selected group.

Notes

- Maximum number of groups: 255
Maximum number of files: 999
- When referring to ATRAC CDs, "group" is equivalent to an "album" and "file" is equivalent to a "track."

Example of group structure and playing order (MP3 CD)

The playing order of groups and files is as follows:



File mode (normal play)

Plays all MP3 files from ①, ②, ③...⑨, ⑩.

Group mode (when selected "□" using P MODE/↵ (see page 18))

Plays all MP3 files in the selected group.

(Example: If you select group 3, the CD player plays file ④. If you select group 4, the CD player plays file ⑤ and ⑥.)

Notes

- A group that does not include an MP3 file is skipped.
- Maximum number of groups: 100
Maximum number of files: 400
- Maximum directory levels: 8
- When referring to MP3 CDs, "group" is equivalent to an "album" and "file" is equivalent to a "track."

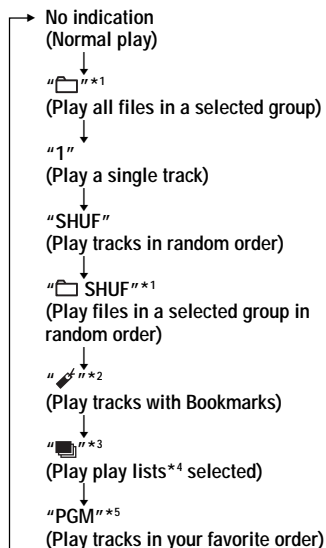
Playback options

You can enjoy various playback options using P MODE/↵ (play mode/repeat) and the 4-way control key.

P MODE/↵ button

If you press the button during playback, you can change the play mode.

During playback, if you press and hold the button until "↵" appears, you can play tracks repeatedly in the play mode that was selected using P MODE/↵.



*1 ATRAC/MP3 CD only

*2 Only when Bookmarks have been added to the tracks/files

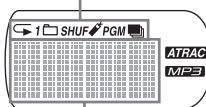
*3 MP3 CD only

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

*5 During playback, "PGM" appears only when certain tracks or files have been stored in memory.

Display

Play mode



CD text information, ATRAC3plus/ATRAC3/MP3 file information, playing time, etc. are displayed.

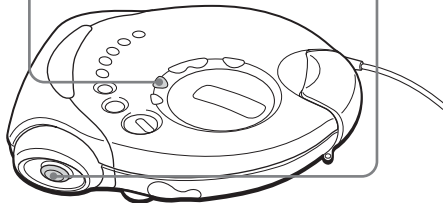
4-way control key

- Push the 4-way control key toward ►►► or ◀◀◀.

You can select tracks, files or groups you want. You can also select a play list you want.

- Push the control key toward ►◄.

You can add Bookmarks and also start bookmark track play and play list play. You can also enter selected



Playing tracks in random order (Shuffle play)

During playback, press **P MODE**/ repeatedly until “SHUF” appears.

When playing ATRAC3plus/ATRAC3/MP3 files

In shuffle mode, the CD player plays all files on a CD in random order.

Playing all files in a selected group in random order (Group shuffle play) (ATRAC/MP3 CD only)

During playback, press **P MODE**/ repeatedly until “ SHUF” appears.

When playing ATRAC3plus/ATRAC3/MP3 files

The CD player plays all files in a selected group in random order.

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

While playing an audio CD

You can add Bookmarks to up to 99 tracks for each CD. You can use this function for up to 10 CDs.



While playing an ATRAC CD

You can add Bookmarks to up to 999 tracks for each CD (up to 5 CDs).




While playing an MP3 CD

You can add Bookmarks to up to 400 tracks for each CD (up to 10 CDs).


To add Bookmarks

- 1 During playback of the track to which you want to add a Bookmark, push the 4-way control key toward **▶||** and hold it until “ (Bookmark)” flashes in the display. When the Bookmark has been added successfully, “” flashes slower.
- 2 Repeat step 1 to add Bookmarks to the tracks you want.


To listen to tracks with Bookmarks

- 1 Press P MODE/ repeatedly until “” flashes.
- 2 Push the 4-way control key toward **▶||**. “” lights up in the display and the playback of the tracks with the Bookmarks starts.

To remove the Bookmarks

During playback of a track with a Bookmark, push the 4-way control key toward **▶||** and hold it until “” disappears from the display.

To check tracks with Bookmarks

During playback of tracks with Bookmarks, “” flashes slowly in the display.



Notes

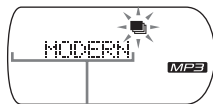
- During playback of tracks with Bookmarks, tracks are played in order of track number, and not in the order you added the Bookmarks.
- If you try to add Bookmarks to tracks on an 11th CD (on a 6th CD when playing ATRAC CDs), the Bookmarks of the CD you played back first will be erased.
- If you remove all power sources, all Bookmarks stored in memory will be erased.
- If you continue playing the CD player on the rechargeable batteries without charging the batteries even though “Lo batt” is displayed, all Bookmarks stored in memory will be erased.

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.

- 1** During playback, press **P MODE**/ repeatedly until “” appears.



Play list

- 2** Push the 4-way control key toward **◀◀** or **▶▶** to select a play list you want.



- 3** Push the 4-way control key toward **▶▶**.



Note

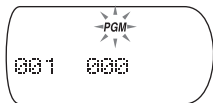
You can only play the top two play lists displayed on your screen on this CD player.

Playing tracks in your favorite order (PGM play)

You can program the CD player to play up to 64 tracks ("files" when playing an ATRAC/MP3 CD) in your favorite order.

- 1** During stop, press **DISPLAY**. While the indications are displayed, press **P MODE**/ \leftarrow repeatedly until "PGM" appears.

Audio CD



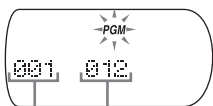
ATRAC/MP3 CD



- 2** Push the 4-way control key toward \lll or \ggg to select your favorite track or file, then push the control key toward \ggg and hold it until the playing order increases.

The playing order increases by one.

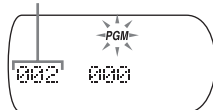
Audio CD



Playing order Track number

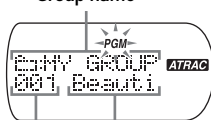


Playing order



ATRAC/MP3 CD*

Group name



Playing order File name



Group name



Playing order

*You can also select another group using \square + or -.

- 3** Repeat step 2 to select the tracks or files in your favorite order.

- 4** Push the 4-way control key toward \ggg to start PGM play.

To check the program

During programming:

Push the 4-way control key toward ►|| and hold it until the playing order and the track number programmed appear in the display.

During stop:

Press DISPLAY. While the indications are displayed, press P MODE/◀ repeatedly until “PGM” flashes, then push the 4-way control key toward ►|| and hold it until the playing order and the track number programmed appear.

Each time you push the 4-way control key toward ►|| and hold it, the next playing order and the next track number programmed appear.

Notes

- When you finish entering the 64th track in step 2, the first track selected appears in the display.
- If you select more than 64 tracks, the first tracks selected are erased.

When playing ATRAC3plus/ATRAC3/MP3 files

In PGM mode, you can program up to 64 files the same as you would for audio CD tracks.

Using the radio

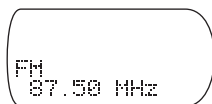
Once you've stored your favorite stations, you can easily tune in the station with any band and frequency setting by pressing one of the 1 - 3 buttons.

Listening to the radio

You can enjoy TV, WB (weather band), FM and AM programs.

1 Press TV, WB, FM or AM to select the band (direct power-on).

2 Press TUNING + or – to tune in the station you want and adjust the volume.



To turn off the radio

Push the 4-way control key toward **■•CHG** (RADIO OFF).

To tune in the station quickly

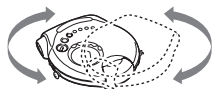
Press and hold TUNING + or – in step 2 until the frequency digits begin to change in the display. The CD player automatically scans the radio frequencies and stops when it finds a clear station.

To improve broadcast reception

For TV/WB/FM, extend the headphones/earphones cord.



For AM, reorient the CD player itself.



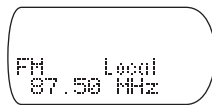
Note

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

If it is hard to hear the FM broadcast

Press and hold P MODE/↵ until "Local" appears in the display.

Under the normal conditions, press and hold P MODE/↵ until "Local" disappears from the display.



When listening to the radio on batteries

If you connect the external power source plug to the DC IN 4.5 V jack of your CD player, the CD player will turn off. Turn it on by pressing TV, WB, FM or AM to continue listening to it.

Presetting your favorite radio stations

You can store your favorite radio stations into the CD player's memory. You can store up to 3 stations with any band and frequency setting.

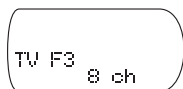
1 Tune in the station you want.

2 Press and hold one of the 1 - 3 buttons that you want to store the new station on for 2 seconds or more.

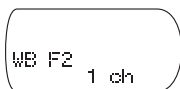
When the station is preset successfully, the beep sounds and the indication "F1," "F2" or "F3" appears in the display. The new station replaces the old one.

Example:

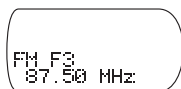
TV:



WB (weather band):



FM:



AM:



To play your favorite stations

Press one of the 1 - 3 buttons.

To cancel all preset stations

- 1 Disconnect the power source (AC power adaptor, rechargeable batteries or alkaline batteries).
- 2 While holding down DISPLAY (MEMORY), connect the power source again.
"CLEAR" keeps flashing until all preset stations are cleared, then stops flashing and disappears from the display.

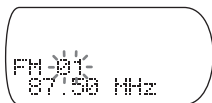
Presetting radio stations

You can preset up to 51 stations: 7 for TV, 4 for WB, 30 for FM and 10 for AM.

1 Press TV, WB, FM or AM to select the band (direct power-on).

2 Press TV, WB, FM or AM for 2 seconds or more.

Preset number 1 will flash in the display.



3 Press DISPLAY (MEMORY) 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.

4 If you want to preset the received station, press DISPLAY (MEMORY) 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 (MEMORY) within the 3 seconds, the CD player will start scanning for the next receivable station without storing the station.

5 Repeat step 4 until all receivable stations are preset.

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

To stop scanning

- Press TV, WB, FM or AM for 2 seconds or more.
- Push the 4-way control key toward **■•CHG** (RADIO OFF). The radio is turned off at the same time.

To play preset stations

1 Press TV, WB, FM or AM.

2 Push the 4-way control key toward **◀◀** or **▶▶** to tune in a stored station.

(Continued)

To preset stations manually

If the stations cannot be preset automatically, preset the stations manually.

1 Press TV, WB, FM or AM to select the band (direct power-on).

2 Press TV, WB, FM or AM for 2 seconds or more to enter the preset mode.

The preset number 1 will flash in the display.



3 While the preset number 1 is flashing, tune in a station you want by pressing TUNING + or -, and select a preset number by pushing the 4-way control key toward ◀◀ or ▶▶.

4 To store, press DISPLAY (MEMORY) while the preset number is flashing.

If there was a station stored on this preset number, the newly preset station will replace the old one and the preset number increases by one.

5 To continue storing, repeat steps 3 and 4.

Note

If you cannot complete step 3 or 4 while the preset number is flashing in the display, repeat from step 2.

To stop storing

- Press TV, WB, FM or AM for 2 seconds or more.
- Push the 4-way control key toward ■•CHG (RADIO OFF).

The radio is turned off at the same time.

To play preset stations

1 Press TV, WB, FM or AM.

2 Push the 4-way control key toward ◀◀ or ▶▶ to tune in a stored station.

Changing the tuning interval

When using the CD player abroad, change the AM tuning interval, if necessary. Set the STEP switch (inside the lid) to “9 kHz” or “10 kHz” using a pointed material.

9 kHz area: Asia and Europe

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

Notes

- The interval will not change until you once turn off the radio and then turn it on again.
- After changing the tuning interval, you need to preset radio stations again.

The G-PROTECTION function

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

When you set the G-PROTECTION switch on your CD player to “2,” the G-PROTECTION function will be enhanced compared to “1.”

To walk with the CD player and enjoy high quality CD sound using the G-PROTECTION function, set the G-PROTECTION switch to “1.” While taking harder exercise, it is recommended that you set it to “2.”

Note

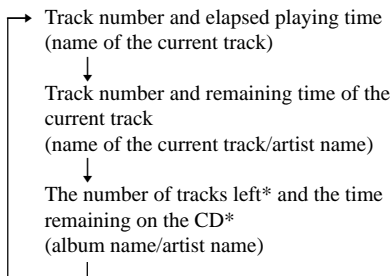
Sound may skip:

- 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/CD-RWs or if there is a problem with the original recording device or application software.

Checking the time remaining on the CD and the number of tracks left (audio CD)

Each time you press DISPLAY, the display changes as follows.

For an audio CD containing CD text information, information in parentheses also appears.



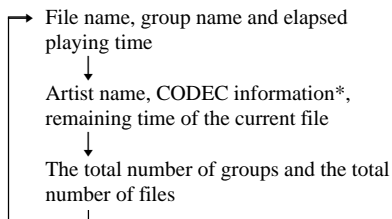
* Not displayed during Single play, Shuffle play or Bookmark track play.

Checking information on a CD with ATRAC3plus/ATRAC3/MP3 files

You can check information on a CD with ATRAC3plus/ATRAC3/MP3 files using DISPLAY.

You can also check ID3 tag information if the file has that information stored.

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



*Variable bit rate and sampling frequencies

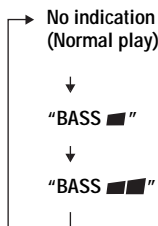
Notes

- 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.

Emphasizing the bass sound (SOUND)

You can emphasize the bass-boosted sound.

Press SOUND to select "BASS ■" or "BASS ■■."



The selected sound mode is displayed.



"BASS ■■" enhances the bass sound more than "BASS ■".

Note

If the sound is distorted when using the SOUND function, turn down the volume.

Protecting your hearing (AVLS)

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

Press and hold SOUND until “AVLS ON” appears in the display.



Flashes when the volume is turned up beyond a certain level.

To turn off the AVLS function

Press and hold SOUND until “AVLS OFF” appears in the display.

Note

If you use the SOUND function and the AVLS function at the same time, sound may be distorted. If this happens, turn down the volume.

Locking the controls (HOLD)

You can lock the controls on your CD player to prevent accidental button presses.

Slide HOLD in the direction of the arrow.

“HOLD” flashes if you press any button when the HOLD function is activated.

To unlock the controls

Slide HOLD in the opposite direction of the arrow.

Turning off the operation beep sound

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

1 Remove the power source (AC power adaptor, rechargeable batteries or dry batteries) from the CD player.

2 Connect the power source while pushing the 4-way control key toward ■•CHG (RADIO OFF) for about one second or more.

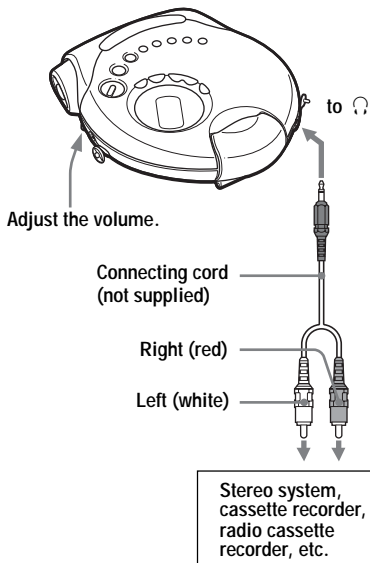
To turn on the beep sound

Remove the power source and then connect the power source without pushing the 4-way control key toward ■•CHG (RADIO OFF).

Connecting a stereo system

You can listen to CDs through a stereo system and record CDs on a cassette tape. For details, see the instruction manual that comes with the connected device.

Be sure to turn off all connected devices before making connections.



Notes

- Before you play a CD, turn down the volume of the connected device to avoid damaging the connected speakers.
- Use the AC power adaptor for recording. If you use dry batteries as a power source, batteries may become completely depleted during recording.
- Adjust the volume properly on the CD player and the connected device so that the sound will not be distorted or noisy.

About the G-PROTECTION function when using the connecting cord

To record high quality CD sound, set the G-PROTECTION switch to "1."

▶ Connecting to a power source

You can use the following power sources:

- AC power adaptor (see “Playing an audio CD or ATRAC3plus/ATRAC3/MP3 files”)
- Rechargeable batteries
- LR6 (size AA) alkaline batteries

For the battery life, see “Specifications.”

Using the batteries

Use only the following batteries for your CD player.

Rechargeable batteries (not supplied)

Charge the rechargeable batteries before using them for the first time.

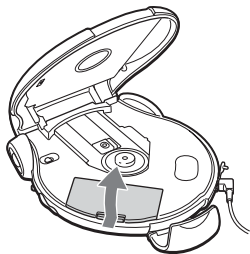
- NH-WM2AA (NH-WMAA × 2)

Dry batteries

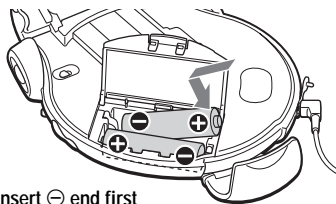
- LR6 (size AA) alkaline batteries

To insert the batteries

- 1** Open the battery compartment lid inside your CD player.






- 2** Insert two batteries by matching the ⊕ to the diagram in the battery compartment and close the lid until it clicks into place.



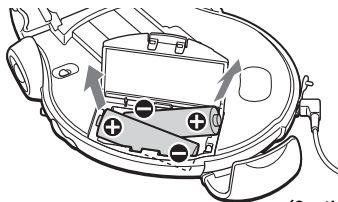
Insert ⊖ end first
(for both batteries).

To charge the rechargeable batteries (not supplied)

- 1** Connect the AC power adaptor to the DC IN 4.5 V jack of your CD player and an AC outlet.
- 2** Push the 4-way control key toward ■CHG (RADIO OFF) to start charging. The CD player charges the batteries. The indicator sections of  light up in succession and “Charging” appears in the display. When the batteries are completely charged, “Charging” and the  indicator get turned off. If you push the 4-way control key toward ■CHG (RADIO OFF) after the charge has already been completed, the  indicator flashes and “FULL” appears in the display.
- 3** Disconnect the AC power adaptor.

To remove the batteries

Remove the batteries as illustrated below.




(Continued)

Using the batteries

To check the remaining power of the batteries

You can check it in the display.



Replace the batteries when “” flashes.



Lo batt*

* Beep sounds.

Notes

- The indicator sections of  roughly shows 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.

When to replace the rechargeable batteries

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

Notes on the rechargeable batteries

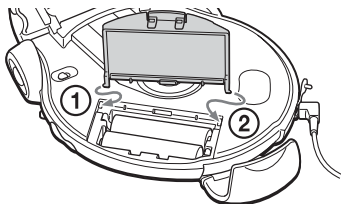
- To keep the original battery capacity for a long time, charge the batteries only when they are completely depleted.
- If the battery is new or has not been used for a long time, it may not be charged completely until you charge and discharge it several times.
- When carrying the rechargeable batteries,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

Notes on using the dry batteries

- Be sure to remove the AC power adaptor.
- When the batteries are depleted, replace both batteries with new ones.

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-E45HG 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.

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 4.5 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, unlevelled 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.



Not these ways

- 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.

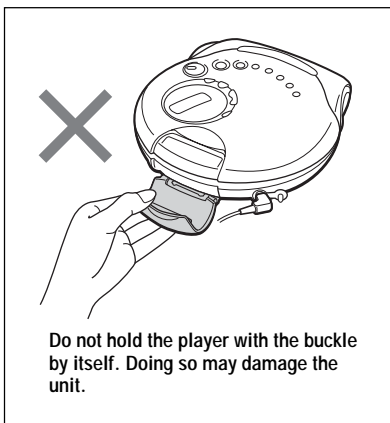
On the water resistance

- Before unfastening the buckle to open the lid, be sure to wipe off water, dust or sand on the exterior of the unit. Open and close the lid where water or sand cannot fall in the unit, and make sure that your hands are dry. If water or sand falls in the unit, trouble may occur.
- When closing the lid, check that there is no dust or sand on the rubber packing around the lid. Then close the lid firmly with the buckle.
- The supplied headphones are not meant to be immersed in water or come in continuous contact with water. If they are accidentally dropped into water or get wet, dry them with a soft cloth. Never use an electric hair dryer.

- The supplied AC power adaptor is not water resistant. To prevent shock hazard, avoid using the player near water during AC operation.
- Cover the DC IN 4.5 V jack and Ω jack with the attached rubber caps when nothing is connected to these jacks. If the inside of the jacks are contaminated with water or sand, rust may develop and cause trouble.

Notes

- Since the unit is airtight, you may not be able to open the lid when there is a sudden change in air pressure inside the unit. This happens when the unit is transported on a plane or moved from a warm place to a cold place. In this case, open the rubber cap on the DC IN 4.5 V jack.
- To prevent water from leaking in, the buckle is designed to be slightly stiff. Be careful not to catch a fingernail on the buckle when unfastening the lid.



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.

To clean the headphones/earphones plug

Keep the plug of your headphones/earphones clean to obtain optimum sound. Wipe it with a dry, soft cloth.

To remove any dust or sand from the rubber packing

Any sand or dust on the rubber packing will prevent the lid from shutting tightly, and water may leak in. Brush off the dust once in a while.

We recommend the replacement of the rubber packing every year which is available optionally at an authorized Sony service facility.

Troubleshooting

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

CD player





Symptom	Cause and/or corrective actions
The volume does not increase even if you push the VOL control in the + direction repeatedly.	→ If “AVLS” flashes in the display, press and hold SOUND until “AVLS OFF” appears in the display. (page 31)
No sound, or noise is heard.	→ Connect the plugs firmly. (page 12) → Plugs are dirty. Clean the 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 batteries.	→ Check that you are using alkaline batteries and not manganese batteries. (page 33) → Replace the batteries with new LR6 (size AA) alkaline batteries. (page 33)
The playing time is too short when powered with the rechargeable batteries.	→ Charge and discharge the rechargeable batteries several times. (pages 33)
“Lo batt” appears in the display. The CD does not play.	→ The rechargeable batteries are used up completely. Charge the batteries. (page 33) → Replace the batteries with new LR6 (size AA) alkaline batteries. (page 33)
“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 AC power adaptor supplied or recommended, or the car battery cord recommended in “Optional accessories.” (page 42)

CD player

Symptom	Cause and/or corrective actions
The CD does not play or "No disc" appears in the display when a CD is placed in the CD player.	<ul style="list-style-type: none">→ The buttons are locked. Slide the HOLD switch back. (page 31)→ The CD is dirty or defective.→ Check that the CD is inserted with the label side up. (page 12)→ 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 33)→ Make sure the batteries are inserted correctly. (page 33)→ Connect the AC power adaptor to an AC outlet securely. (page 12)→ Push the 4-way control key toward ► 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.→ Files in two or more formats have been recorded on the CD-R/RW. (pages 6, 7)
"HOLD" flashes on the display when you press a button, and the CD does not play.	<ul style="list-style-type: none">→ The buttons are locked. Slide the HOLD switch back. (page 31)
The CD player does not start charging.	<ul style="list-style-type: none">→ While the CD player is stopped, push the 4-way control key toward ■•CHG (RADIO OFF). (page 33)
Playback starts from the point you stopped. (resume function)	<ul style="list-style-type: none">→ The resume function is working. To start play from the first track, push the 4-way control key toward ► during stop until the first track starts playing, or open the lid of the CD player. Or remove all power sources, then insert the batteries or connect the AC power adaptor again. (pages 12, 13, 33)
Rustling noise is heard from the CD.	<ul style="list-style-type: none">→ Close the lid of the battery compartment firmly. (page 33)
When using with a connected stereo system, the sound is distorted or noisy.	<ul style="list-style-type: none">→ Adjust the volume of the CD player and the connected device. (page 32)

(Continued)

CD player

Symptom	Cause and/or corrective actions
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 in the display after you push the 4-way control key toward  or you close the lid of the CD player.	<ul style="list-style-type: none"> → There are no ATRAC3plus/ATRAC3/MP3 files in the CD. → A CD-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.
" 	→ The CD player has entered the Bookmark track play. Press P MODE/  repeatedly until " 

Radio

Symptom	Cause and/or corrective actions
The audio is weak or has poor quality.	<ul style="list-style-type: none"> → Charge the rechargeable batteries. (page 33) → Replace the batteries with new LR6 (size AA) alkaline batteries. (page 33) → Move the CD player away from the TV.

Specifications

CD player

System

Compact disc digital audio system

Laser diode properties

Material: GaAlAs

Wavelength: $\lambda = 780 \text{ nm}$

Emission duration: Continuous

Laser output: Less than $44.6 \mu\text{W}$

(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 ± 1 dB (measured by JEITA CP-307)

Output (at 4.5 V input level)

Headphones (stereo minijack)

Approx. 5 mW + Approx. 5 mW at 16 Ω

Radio

Frequency range (STEP switch)

9 kHz step:

TV: 2 - 13 ch

WB (weather band): 1 - 7 ch

FM: 87.5 - 108.0 MHz

AM: 531 - 1 710 kHz

10 kHz step:

TV: 2 - 13 ch

WB (weather band): 1 - 7 ch

FM: 87.5 - 108.0 MHz

AM: 530 - 1 710 kHz

Antenna

TV/WB/FM: Headphones/earphones cord antenna

AM: Built-in ferrite bar antenna

General

Power requirements

For the area code of the model you purchased, check the upper left side of the bar code on the package.

- Sony NH-WM2AA rechargeable batteries: 1.2 V DC \times 2
- Two LR6 (size AA) batteries: 1.5 V DC \times 2
- AC power adaptor (DC IN 4.5 V jack): U, U2, CA, CA2, E92, MX2, TW2 and CA2/C models: 120 V, 60 Hz
CED, CED/4, CE7, CE7/C, EE, EE1, E, E13 and E13/2 models: 220 - 230 V, 50/60 Hz
CEK model: 230 V, 50 Hz
AU2 model: 240 V, 50 Hz
EU8, EU8/C, JE.W, E18, KR4 and EE8 models: 100 - 240 V, 50/60 Hz
HK4 model: 230 V, 50 Hz
CNA model: 220 V, 50 Hz

Battery life*1 (approx. hours)

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

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

When using two Sony alkaline batteries LR6 (SG) (produced in Japan)

	G-PROTECTION function	
	"1"	"2"
Audio CD	48	43
ATRAC3plus files*2	75	75
MP3 files*3	70	70
RADIO ON	62	

*1 Measured value by the standard of JEITA (Japan Electronics and Information Technology Industries Association)

*2 When recorded at 48 kbps or 64 kbps

*3 When recorded at 128 kbps

(Continued)

Specifications

Operating temperature

5°C - 35°C (41°F - 95°F)

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

Approx. 148.4 × 134.0 × 36.7 mm

(5 7/8 × 5 3/8 × 1 1/2 in.)

Mass (excluding accessories)

Approx. 345 g (12.2 oz.)

Design and specifications are subject to change without notice.

Optional accessories

AC power adaptor	AC-E45HG
Active speaker system	SRS-Z1
Car battery cord	DCC-E345
Car battery cord with car connecting pack	DCC-E34CP
Car connecting pack	CPA-9C
Rechargeable battery	NH-WM2AA
Earphones	MDR-E931LP MDR-EX71SL MDR-Q55SL

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

This warranty is valid only in the United States.

SONY[®]

Portable Memory Stick Audio Player/
Portable MiniDisc Recorder/
Portable CD Player

LIMITED WARRANTY

Portable Audio

Sony Electronics Inc. ("Sony") warrants this Product (including any accessories) against defects in material or workmanship as follows:

1. **LABOR:** For a period of 90 days from the date of purchase, if this Product is determined to be defective, Sony will repair or replace the Product, at its option, at no charge, or pay the labor charges to any Sony authorized service facility. After the Warranty Period, you must pay for all labor charges.

2. **PARTS:** In addition, Sony will supply, at no charge, new or rebuilt replacements in exchange for defective parts for a period of one (1) year. After 90 days from the date of purchase, labor for removal and installation is available from Sony authorized service facilities or a Sony Service Center at your expense.

To obtain warranty service, you must take the Product, or deliver the Product freight prepaid, in either its original packaging or packaging affording an equal degree of protection, to any authorized Sony service facility.

This warranty does not cover customer instruction, installation, set up adjustments or signal reception problems.

This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of, or to any part of the Product, including the antenna. This warranty does not cover damage due to improper operation or maintenance, connection to improper voltage supply, or attempted repair by anyone other than a facility authorized by Sony to service the Product. This warranty does not cover Products sold AS IS or WITH ALL FAULTS, or consumables (such as fuses or batteries). This warranty is valid only in the United States.

Proof of purchase in the form of a bill of sale or receipted invoice which is evidence that the unit is within the Warranty period must be presented to obtain warranty service.

This warranty is invalid if the factory applied serial number has been altered or removed from the Product.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. SONY SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON THIS PRODUCT. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

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For your convenience, Sony Electronics Inc. has established telephone numbers for frequently asked questions:

To locate the servicer or dealer nearest you, or for service assistance or resolution of a service problem, or for product information or operation, contact:

www.sony.com/walkmansupport

Sony Network Portable Audio Support Line
1-(866)-456-7669

Sony Customer Information Service Center
12451 Gateway Blvd.
Fort Myers, FL 33913

For an accessory or part not available from your authorized dealer, call:

1-(800)-488-SONY (7669)

D 324343302

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

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