Portable MiniDisc Player

Operating instructions

MZ-E3

Sony Corporation ©1995 Printed in Japan
WARNING
To prevent fire or shock hazard, do not expose the unit to rain or moisture.

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

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

Information
For 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 the 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.

For Customers in the United Kingdom
CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This MiniDisc Player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the bottom exterior.

For Customers in Australia
If the supply cord of AC power adaptor is damaged the AC power adaptor must be returned to the manufacturer of his agent for the cord to be replaced.

Owner's Record
The serial number is located inside the battery compartment and the model number is located at the bottom. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.
Model No. MZ-E3
Serial No.

"MD WALKMAN" is a trademark of Sony Corporation.

Welcome!
Welcome to the world of the MiniDisc! Here are some of the capabilities and features you’ll discover with the new MiniDisc Player.
• Display on the player – You can see play modes and battery condition.
• Remote controller with a display – You can see disc and track titles in the display. You can also play an MD using the remote controller equipped with the stereo headphones.
• Monaural playback – You can play the MD that is recorded with monaural sound.
Playing an MD right away!

If you want to play an MD right now, choose to use your player on house current. Other choices are dry batteries and two kinds of rechargeable batteries (see "Power sources"). The player automatically switches to play the stereo or monaural sound according to the recorded sound.

1 Make connections.

headphones with a remote controller (supplied)

to DC IN 4.5 V

AC power adaptor (supplied)

to a wall outlet
2 Insert an MD.

① Slide OPEN and open the lid.

② Insert an MD with the label side facing up, and press the lid down to close.

3 Play an MD.

① Press ➤
   The player starts to play the first track. A short beep sounds in the headphones.

② Press VOLUME +/- (VOL +/- on the remote controller) to adjust the volume.
   You can check the volume in the display of the remote controller.

To stop play, press ■STOP/CHG (■ on the remote controller).
A long beep sounds in the headphones.
To | Press (Beeps in the headphones)
---|----------------------------------
Pause | II (Continuous short beeps) Press II again to resume play.
Find the beginning of the current track | << or >> side of on the remote controller once (Three short beeps)
Find the beginning of the next track | >> or >> side of on the remote controller once (Two short beeps)
Go backwards while playing | keep pressing << side or >> of on the remote controller
Go forward while playing | keep pressing >> side or >> of on the remote controller
Remove the MD | STOP/CHG or on the remote controller and open the lid.

If the play does not start
Make sure the player is not locked. See "To lock the controls."

Display window while playing back
- Display window on the remote controller
  Track name or elapsed time of the track being played
- Display window on the player
  Track number

Various ways of playback
Playing tracks repeatedly
You can play tracks repeatedly in three ways—all repeat, single repeat, and shuffle repeat.

Press PLAY MODE while the player is playing an MD. Each time you press PLAY MODE, the play mode indication on the remote controller changes as follows.

Play mode indication

"(none)" (normal play)
All the tracks are played once.

" " (all repeat)
All the tracks are played repeatedly.

" " (single repeat)
A single track is played repeatedly.

" " (shuffle repeat)
All the tracks are played repeatedly in random order.
1) To go backward or forward quickly without listening, press II and keep pressing ◀◀ or ▶▶.
2) Once you open the lid, the point to start play will change to the beginning of the first track.
3) Appears only with MDs that have been electronically labeled.

Tips on playback

To know the track name and time
Press DISPLAY on the remote controller while the player is playing an MD. Each time you press DISPLAY, the display changes as follows.

**DISPLAY**

**Elapsed time**

**Track number** ✷ **Track name**

**TRACK:**

**Track number** ✷ **Disc name**

**DISC:**

Number of the track recorded on the MD.

Note
Disc and track names appear only with MDs that have been electronically labeled.

Continue to the reverse side→
To lock the controls
To prevent the buttons from being accidentally operated when you carry the player, use this function.

Slide HOLD in the direction of the
On the player, slide HOLD to lock the controls of the player. On the remote controller, slide HOLD to lock the controls of the remote controller.

To emphasize bass (Bass boost feature)
The Bass Boost feature intensifies low frequency sound for richer quality audio reproduction.

Slide BASS BOOST. Choose MED (middle effect) or MAX (strong effect). To cancel the effect, set BASS BOOST to NORM.

Note
If the sound is distorted when emphasizing bass, turn down the volume.

To protect your hearing (AVLS)
The AVLS (Automatic Volume Limiter System) function keeps the maximum volume to prevent excessive sound from harming your ears.

Set AVLS to ON.
The volume is kept at a moderate level, even if you try to turn the volume above the limited level.

Power sources
You can use the player on house current, dry batteries, a nickel metal hydride rechargeable battery, or a lithium ion rechargeable battery.

Using on dry batteries
Install two size AA (R6) alkaline batteries (not supplied), and close the lid.

When to replace or charge the batteries
You can check the battery condition with the battery indication displayed while using the player:

- Used batteries
- Weak batteries. Replace all the batteries
- The batteries have gone out. "LoBat" flashes in the display on the remote controller, and the power goes off.

Battery life

<table>
<thead>
<tr>
<th>Batteries</th>
<th>Playback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two size AA (R6) alkaline batteries</td>
<td>Approx. 4 hours</td>
</tr>
<tr>
<td>Nickel metal hydride rechargeable battery</td>
<td>Approx. 3 hours</td>
</tr>
<tr>
<td>&quot;BP-DM20&quot;</td>
<td></td>
</tr>
<tr>
<td>Lithium ion rechargeable battery (LIP-12)</td>
<td>Approx. 4 hours</td>
</tr>
<tr>
<td>Two size AA (R6) alkaline batteries and a lithium ion rechargeable battery (LIP-12)</td>
<td>Approx. 8 hours</td>
</tr>
<tr>
<td>Nickel metal hydride rechargeable battery</td>
<td>Approx. 7 hours</td>
</tr>
<tr>
<td>&quot;BP-DM20&quot; and a lithium ion rechargeable battery (LIP-12)</td>
<td></td>
</tr>
</tbody>
</table>

* The battery life may be shorter due to operating conditions and the temperature of the location.

Using on a nickel metal hydride rechargeable battery
Before using the rechargeable battery (not supplied) for the first time, charge it.

1 Connect the supplied AC power adaptor.

AC power adaptor (supplied)

To wall outlet

To DC IN 4.5 V
Insert the battery, and close the lid.

Note: Do not recharge the battery, or the player may malfunction.

The projection on the battery comes on the right.

Press STOP/CRC on the player. CPR/CRC lamp flashes, and the battery indication appears in the display and charging. When charging is completed, CPR/CRC lamp and the battery indication go out.

Connect the AC power adapter. As long as the player is connected to the AC power, the power will be supplied from the AC source instead of the battery.

Notes:
- Be sure to use the supplied AC power adapter.
- Charging time will vary depending on the battery condition.
- When you use the battery for the first time or after a long period of use, the battery life may be shorter. In this case, charge and discharge for battery several times.
- The rechargeable battery capacity because half the normal life, update it with a new one.

Using on a lithium ion rechargeable battery

Before using the LIP-12 Lithium ion rechargeable battery (not supplied) for the first time, charge it with the ACP-056-011 battery charger (not supplied).

Attach the battery case (supplied).

Insert the charged battery into the battery case.

Additional information

Precautions on safety
- Since the laser beam used in this MD player is laser Class II, it is recommended that only trained personnel use the player. Also, do not attempt to disassemble the casing, as it is qualified for personal use only.
- Do not put any foreign objects in the DC IN 4.5 V jack.

On power sources
- Use the current output, two sets AA (88) batteries, nickel metal hydrogen rechargeable battery, lithium ion rechargeable battery, or car battery.
- For indoor use, the AC power adapter is recommended. You do not use any other AC power adapter, since it may cause the player to malfunction.

Polarity of the plug
- The player is not disconnected from the AC power source (main) as long as it is connected to the wall outlet, even if the player has been turned off.
- If you are not using this player for a long time, be sure to disconnect the power supply (AC power adapter, dry battery, rechargeable battery, or car battery).
- To remove the AC power adapter from the wall outlet, grasp the adapter plug itself, never pull the cord.
- For use in the car, use the CFA 6-car connecting pack (not supplied).

On heat build-up
- Heat may build up in the player if it is used for an extended period of time. In this case, leave the player to cool down.

On installation
- Never place the player where it will be subjected to extremes of light, temperature, moisture or vibration.
- Never place the player in any environment where it is being used with the AC power adapter. Heat build-up in the player may cause malfunction or injury.

On the head panel

Road safety
- Do not use headphones while driving, cycling, or operating any motorized vehicle. It may create a traffic hazard and is illegal in many areas. It can also be potentially dangerous to play your player 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 at high volume. Listening experts advise against continuous, loud and extended play. If you experience ringing in your ears, reduce the volume or discontinue use.

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

On the MiniDisc cartridge
- Do not open the shutter.
- Do not place the cartridge where it will be subject to light, temperature, moisture or dust.

On cleaning
- Clean the player casing with a soft cloth slightly moistened with water or a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine as it may harm the finish of the casing.
- When disc with a dry cloth to remove dust.
- Do not put the lens in a substance like dust or dirt, since the disc may not be inserted into the player.

On the batteries
- Incorrect battery usage may lead to leakage of battery fluid or bursting the battery. To prevent such accidents, observe the following precautions:
  - Make sure the voltage of the battery is correct.
  - Do not install new and used batteries or different kinds of batteries together.
  - Do not try to recharge the batteries.
  - Do not use the battery that is not to be used for a long time, be sure to remove the batteries.

If a battery leak develops, carefully and thoroughly wipe away battery fluid from the battery compartment before inserting new ones.

Note on mechanical noise
- The player gives out mechanical noise while operating, which is caused by the power saving system of the player and it is not a trouble.

For the customers in USA

DISPOSAL OF NICKEL METAL HYDROXIDE BATTERY AND LITHIUM ION BATTERY.

NICKEL METAL HYDROXIDE BATTERY. LITHIUM ION BATTERY.

DISPOSE OF PROPERLY.

You can return your unamplified nickel metal batteries and lithium ion batteries to your nearest Sony Service Center.

Note: In some areas the disposal of nickel metal hydride batteries and lithium ion batteries in household or business trash may be prohibited.

For the Sony Service Center nearest you, call 1-800-222-SONY (United States only).

Caution: Do not handle damaged or leaking nickel metal hydride battery or lithium ion battery.

If you have any questions or problems concerning your player, please consult your nearest Sony dealer.

Troubleshooting

Should any problem persist after you have made the checks, consult your nearest Sony dealer.

The player does not work or works poorly.
- Audio sources may not be securely connected.
- Disconnect the power source once.
- Moisture has condensed inside the player.
- Take the MD out and leave the player in a warm place for several hours until the moisture evaporates.
- The rechargeable battery or dry batteries are weak (C-F "L-BAFF" batteries), Replace the dry batteries or rechargeable battery.
- The dry batteries have been installed incorrectly.
- Install the batteries correctly.
- You pressed a button while the disc indication was rotating quickly.
- Wait until the indication rotates slowly.
- The AC adapter was unplugged during playing or a power outage occurred.
- While operating, the player received a mechanical shock, too much static, abnormal power voltage caused by lighting, etc.
- Restart the operation as follows.
  1. Disconnect all the power sources.
  2. Leave the player for about 30 seconds.
  3. Connect the power source.

No sound comes through the headphones.
- The headphones plug is not firmly connected.
- Connect the headphones plug firmly to the player.
- Volume is too low. Adjust the volume by pressing the VOLUME +/ - (VOL +/ -) on the remote commander.
- AVLS is on. Turn off AVLS.
- Side AVLS to OFF.
- MD is not played from the first track.
  - Disconnect the player and then connect.
  - Reconnect the player and then connect.
  - Restart the player.
  - Push and hold the PLAY/STILL (PLAY/STILL) button for about 3 seconds.

Playback sound skips.
- The player is placed where it receives continuous vibration.
- Put the player on stable place.
- A very short track may cause sound to skip.

Sound has a lot of static.
- Strong magnetism from a television or other device is interfering with operation.
- Move away from the source of strong magnetism.

Charging the rechargeable battery does not.
- The rechargeable battery has been inserted incorrectly or the AC power adapter has been connected incorrectly.
- Insert the battery correctly or connect the AC power adapter correctly.

Specifications

System
Audio playing system MiniDisc digital audio system
- 5 bit D/A converter
- Sampling frequency: 44.1 kHz

Laser diode properties
- Wavelength: 780 nm
- Emission duration: continuous
- Laser output: 0.6 mW (class II)

Note: This output is the value measured at a distance of 25 cm from the lens surface on the optical pick-up block.

- Resolution: 16 pins (30 bits, 4.6 kHz)
- Coding: Adaptive Transition Acoustic Coding (ATAC)
- Modulation system: FM, (Eight to Fourteen Modulation)
- Number of channels: 2
- Number of channels: 1
- Channal separation: 20 kHz, 3 dB
- Below minimum level: 2-mW, 9-mW, load impedance: 10 Ohm

General
- Power requirements: Sony AC Power Adaptor (supplied) connected at the DC IN 4.5 V jack (18 V, 60 V, 78 V (U.S. model), 230-240 VAC, 50 Hz, 60 Hz (EC model), 240 V AC, 50 Hz (Australian model)) Two sets AA (8R) batteries (not supplied) Nickel metal hydride rechargeable battery BP-DM50 (not supplied)

General specifications:
- Recorded time: 60 minutes
- Number of discs: 1
- Power source: AC power adapter (1)
- Headphones with a remote control (1)
- Battery case (1, for LIP-12 Lithium-ion battery)
- Carrying case (1)
- Optional accessories:
  - R-0502 Nickel Metal Hydride Rechargeable battery
  - LIP-12 Lithium-ion Rechargeable Battery
  - ACP-056-011 AC Power Adaptor/ Battery Charger
  - CFA-6 Car Connecting Cord
  - MDR-DSR, MDR-107 Stereo Headphones
  - SRF-WX Sony Active Speakers
  - CI-770 MiniDisc Carrying Case
  - CI-CD90 MiniDisc Filing Box
  - "AC-770" can be used only as a battery charger. Cannot be used for an AC power adapter with this player.

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

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Design specifications are subject to change without notice.