

# Portable MiniDisc Player

Operating instructions



MZ-E80

Sony Corporation © 1999 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

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY DIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE, OR LOSSES OR EXPENSES RESULTING FROM ANY DEFECTIVE PRODUCT OR THE USE OF ANY PRODUCT.



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## Welcome!

Welcome to the world of the MiniDisc! Here are some of the capabilities and features you'll discover with the new MiniDisc Player.

- Small body almost the size of a MiniDisc jacket - Ideal weight and size; fits in your shirt pocket.
- Shock-resistant memory offsets up to 40 seconds of optical read errors.
- Low power-consumption design enables long playback with a single "chewing-gum type" rechargeable battery.
- Shuttle dial remote control with backlit LCD - Keep the main unit in your pocket and operate the MiniDisc player through the shuttle dial on the remote control. The LCD displays track information, playback mode as well as battery condition.

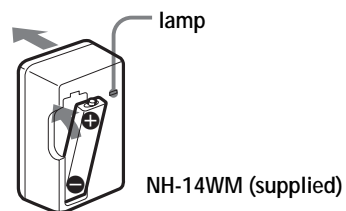
# Playing an MD right away! **A**

Before using the supplied rechargeable battery for the first time, charge it. Other choices are a dry battery and house current (see "Power sources"). The player automatically switches to play the stereo or monaural sound according to the recorded sound.

## 1 Charge the rechargeable battery.

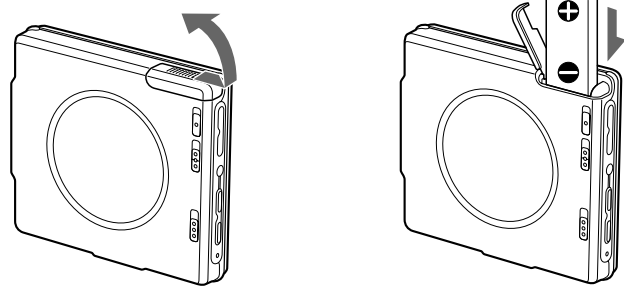
When the rechargeable battery is charged about 90%, the charger lamp goes off.

Full-charging takes about another hour (a total of about 2.5 hours).

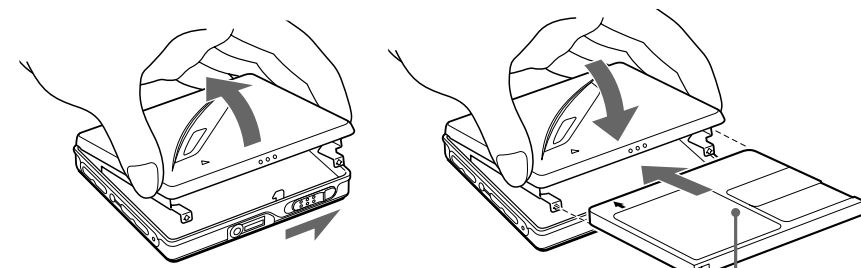


## 2 Insert the rechargeable battery.

- Slide open the battery compartment as shown in the illustration.
- Insert the battery with correct polarity.



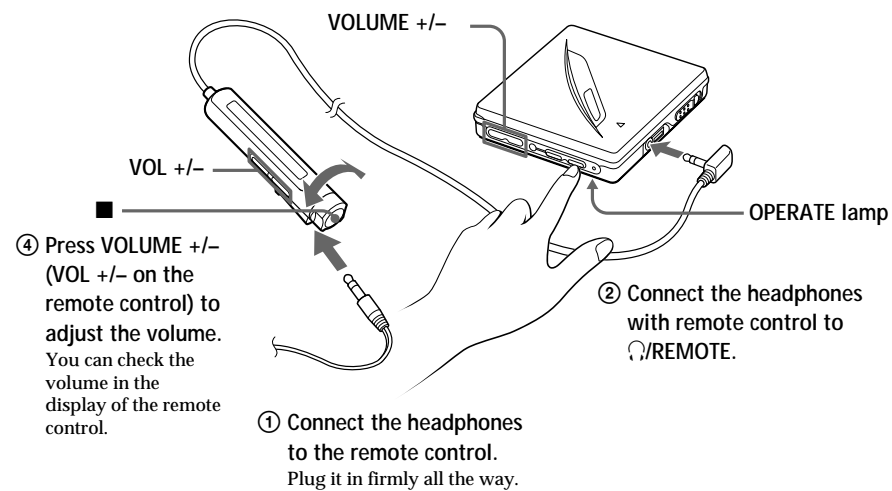
## 3 Insert an MD.



- Slide OPEN and open the lid.
- Insert an MD with the label facing up and press the lid down to close.

## 4 Play an MD.

- Press **▶▶▶▶** (turn the control to **▶▶▶▶** on the remote control). The player starts to play the first track. When using the remote control, a short beep sounds in the headphones.

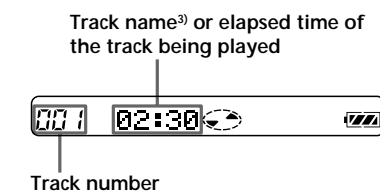


To stop play, press **■**. When using the remote control, a short beep sounds in the headphones. The OPERATE lamp on the main unit will go off. The display on the remote control will disappear after a while.

To	Do this (Beeps in the headphones)
Pause	Press <b>  </b> on the remote control. (Continuous short beeps) Press <b>  </b> again to resume play.
Find the beginning of the current track	Press <b>◀◀◀</b> once. Turn the control to <b>◀◀◀</b> on the remote control. (Three short beeps)
Find the beginning of the next track	Press <b>▶▶▶▶</b> once. Turn the control to <b>▶▶▶▶</b> on the remote control. (Two short beeps)
Go backwards while playing <sup>1)</sup>	Keep pressing <b>◀◀◀</b> . Keep the control turned to <b>◀◀◀</b> on the remote control.
Go forward while playing <sup>1)</sup>	Keep pressing <b>▶▶▶▶</b> . Keep the control turned to <b>▶▶▶▶</b> on the remote control.
Remove the MD	Press <b>■</b> and slide OPEN to open the lid. <sup>2)</sup>

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

Display window while playing back



### Tips

- The OPERATE lamp will light up on the main unit during playback. It will go off when **■** is pressed.
- The display on the remote control will disappear after a while after you have pressed **■**.

### Note

Do not slide OPEN during playback. If you do, the lid opens and playback will stop.

### When using optional headphones

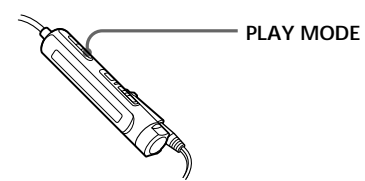
Use the headphones that have stereo-miniplug. You cannot use other types of headphones (microplug).

- If you press **◀◀◀** or **▶▶▶▶** during pause, the player will resume playback. If you keep pressing **◀◀◀** or **▶▶▶▶** during pause (keep the control turned to **◀◀◀** or **▶▶▶▶** on the remote control), you can fast forward/rewind without listening to the playback sound.
- Once you open the lid, the point to start play will change to the beginning of the first track.
- Appears only with MDs that have been electronically labeled.

## ▶ Various ways of playback

### Playing tracks repeatedly **B**

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 changes as follows.



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

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

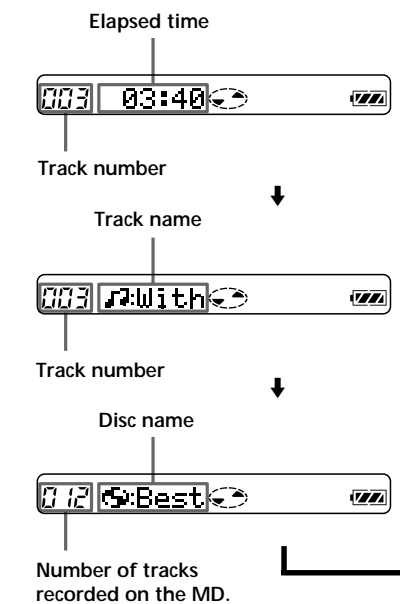
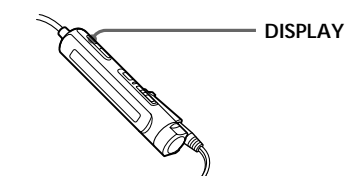
" 1 " (single repeat)  
A single track is played repeatedly.

" SHUF " (shuffle repeat)  
All the tracks are played repeatedly in random order.

## Tips on playback

### To know the track name and time **C**

Press DISPLAY on the remote control while the player is playing an MD. Each time you press DISPLAY, the display changes as follows.

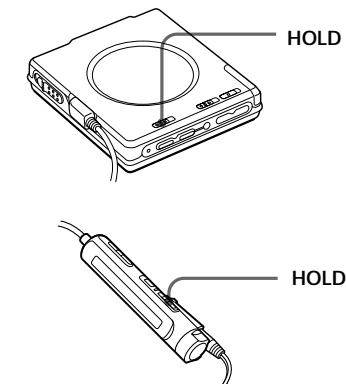


### Note

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

## To lock the controls **D**

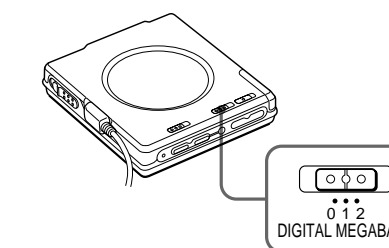
To prevent the buttons from being accidentally operated when you carry the player, use this function.



Slide the HOLD switch on the main unit in the direction of the **→** to lock the controls of the unit. Slide the HOLD switch on the remote control in the direction of the **→** to lock the controls of the remote control.

## To emphasize bass (DIGITAL MEGA BASS) **E**

The DIGITAL MEGA BASS function intensifies low frequency sound for richer quality audio reproduction.



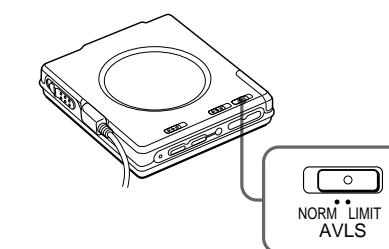
Slide DIGITAL MEGA BASS. Choose 1 (slight effect) or 2 (strong effect). To cancel the effect, set DIGITAL MEGA BASS to 0.

### Note

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

## To protect your hearing (AVLS) **F**

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



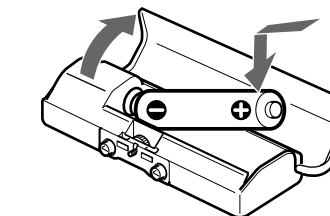
Set AVLS to LIMIT. The volume is kept at a moderate level, even if you try to turn the volume above the limited level.

## ▶ Power sources

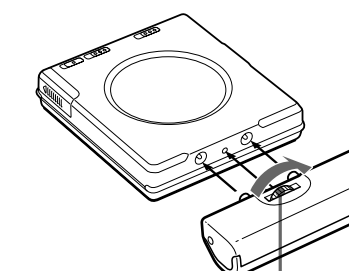
You can use the player on a dry battery, house current, or a Ni-MH rechargeable battery.

### Using on a dry battery **G**

- Insert one size LR6 (size AA) alkaline battery (not supplied) into the supplied battery case, and close the lid.



- Attach the battery case to the player.



Turn toward LOCK. To release the battery case, turn toward RELEASE.

### When to replace or charge the batteries

You can check the battery condition with the battery indication which is displayed while using the player.

- ▬ Battery power decreasing
- ⬇ Weak batteries. Replace/recharge the batteries
- ☀ The batteries have gone out. "LoBATT" flashes in the display of the remote control, and the power goes off.

### Battery life\*

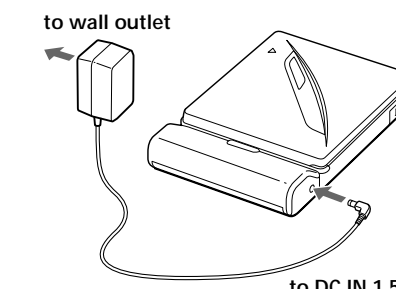
Batteries	Playback
Ni-MH rechargeable battery (NH-14WM)	Approx. 8.5 hours
One LR6 (size AA) alkaline battery	Approx. 10 hours
One LR6 (size AA) alkaline battery and a Ni-MH rechargeable battery (NH-14WM)	Approx. 21 hours

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

## Using on house current **H**

Before using the player, remove the rechargeable battery if it is installed.

- Attach the supplied battery case to the player.
- Connect the AC-E15L AC power adaptor (not supplied) to the DC IN 1.5V jack of the battery case.
- Connect the AC power adaptor to a wall outlet.



to DC IN 1.5 V

### Note

The battery indication **■** is displayed while using the AC power adaptor.

## ►Additional information

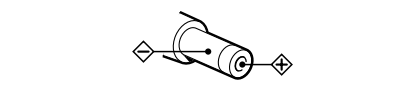
## Precautions

### On safety

- Do not put any foreign objects in the DC IN 1.5 V jack.

### On power sources

- For use in your house: Use the AC power adaptor AC-E15L (not supplied). Do not use any other AC power adaptor since it may cause the player to malfunction.



#### Polarity of the plug

- The player is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the player itself has been turned off.
- If you are not going to use this player for a long time, be sure to disconnect the power supply (AC power adaptor, dry battery, or rechargeable battery). To remove the AC power adaptor from the wall outlet, grasp the adaptor plug itself; never pull the cord.

### On charging

- Be sure to use the supplied battery charger.
- Charging time may vary depending on the battery condition.
- When you use the battery for the first time or after a long period of disuse, the battery life may be shorter. In this case, charge and discharge the battery several times. The battery life will be restored.
- If the rechargeable battery capacity becomes half the normal life, replace it with a new one.
- Remove the rechargeable battery when the unit is not to be used for a long time. Do not carry the rechargeable battery in your pocket or a bag, etc., with metallic objects such as key rings.

#### On the battery case attachment terminals on the main unit

- Do not short-circuit the battery case attachment terminals on the main unit with metallic objects, etc., when the rechargeable battery is inserted, as this may cause heat and can be dangerous.
- When carrying the player in a bag, be sure to put it in the supplied carrying pouch.

### 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 use the player where it will be subjected to extremes of light, temperature, moisture or vibration.
- Never wrap the player in anything when it is being used with the AC power adaptor. Heat build-up in the player may cause malfunction or injury.

### On the headphones

#### 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. Hearing experts advise against continuous, loud and extended play. If you experience a 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 to be considerate of the people around you.

### On the MiniDisc cartridge

- Do not break open the shutter.
- Do not place the cartridge where it will be subjected 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 benzene as it may mar the finish of the casing.
- Wipe the disc cartridge with a dry cloth to remove dirt.
- Dust on the lens may prevent the unit from operating properly. Be sure to close the disc compartment lid after inserting or ejecting an MD.

#### On dry batteries and the battery case

Incorrect battery usage may lead to leakage of battery fluid or bursting batteries. To prevent such accidents, observe the following precautions:

- Install batteries with the + and – poles aligned correctly.
- Do not try to recharge dry batteries.
- When the player is not to be used for a long time, be sure to remove the batteries.
- If a battery leak should develop, carefully and thoroughly wipe away battery fluid from the battery compartment before inserting new ones.
- Do not carry the dry battery in your pocket or a bag, etc., with metallic objects such as key rings. The terminals of the battery or the battery case may heat up from a short-circuit and can be dangerous.

#### 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.

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 these checks, consult your nearest Sony dealer.

#### The player does not work or works poorly.

- You tried to play with no disc in the player (“No DISC” flashes).
  - Insert an MD.
- The remote control is locked.
  - Slide HOLD against the arrow to unlock the remote control.
- 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 battery is weak (“LoBATT” flashes).
  - Replace the dry battery or recharge the battery.
- The rechargeable battery or dry battery has been installed incorrectly.
  - Install the battery correctly.
- An MD with no recording on it is inserted (“BLANK” flashes).
  - Insert a recorded MD.
- The player cannot read the disc (it’s scratched or dirty) (“ERROR” flashes on the remote control).
  - Reinsert or replace the disc.
- While operating, the player received a mechanical shock, excessive static electricity, abnormal power voltage caused by lightning, etc.
  - Restart as follows.
    - Disconnect all the power sources.
    - Leave the player for about 30 seconds.
    - Connect the power source.

#### The MD is not played normally.

- The player is set to the repeat mode (“↶” is displayed).
  - Press PLAY MODE repeatedly until “↶” disappears, then start playing.

#### An MD is not played from the first track.

- Disc playing stopped before it came to the last track.
  - Press ◀◀ repeatedly or eject and reinsert the MD once to go back to the beginning of the disc, and restart playing after checking the track number in the display.

#### Playback sound skips.

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

#### Sound has a lot of static.

- Strong magnetism from a television or such device is interfering with operation.
  - Move the player away from the source of strong magnetism.

#### The rechargeable battery does not start charging (in case of a charger with a lid).

- The lid of the battery charger is not closed properly.
  - Close the lid and slide the lock.

#### No sound comes through the headphones.

- The headphones plug is not firmly connected.
  - Connect the headphones plug firmly to the remote control. Then connect the remote control plug firmly to the ◻/REMOTE jack.
- Volume is too low.
  - Adjust the volume by pressing VOLUME +/- (VOL +/- on the remote control).
- AVLS is on.
  - Slide AVLS to NORM.

## Specifications

### System

Audio playing system

MiniDisc digital audio system

Laser diode properties

Material: GaAlAs

Wavelength: λ = 790 nm

Emission duration: continuous

Laser output: less than 44.6 μW\*

\* This output is the value measured at a distance of 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.

Revolutions

400 rpm to 900 rpm (CLV)

Error correction

Advanced Cross Interleave Reed Solomon Code (ACIRC)

Sampling frequency

44.1 kHz

Coding

Adaptive TTransform Acoustic Coding (ATRAC)

Modulation system

EFM (Eight to Fourteen Modulation)

Number of channels

2 stereo channels

1 monaural channel

Frequency response

20 to 20,000 Hz ± 3 dB

Wow and Flutter

Below measurable limit

Outputs

Headphones: stereo mini-jack, maximum output level 5 mW + 5 mW, load impedance 16 ohms

### General

Power requirements

Nickel metal hydride rechargeable battery

NH-14WM (supplied)

One LR6 (size AA) battery (not supplied)

Sony AC Power Adaptor AC-E15L <sup>1)</sup> (not supplied) connected to the DC IN 1.5 V jack

Battery operation time

See “When to replace or charge the batteries”

Dimensions

Approx. 81 x 15.7x 72.9 mm (w/h/d) (3 <sup>1</sup>/<sub>4</sub> x <sup>5</sup>/<sub>8</sub> x 2 <sup>7</sup>/<sub>8</sub>in.) not including projecting parts and controls

Mass

Approx. 103 g (3.7 oz.) the player only

Approx. 145 g (5.2 oz.) incl. a premastered MD

and a nickel metal hydride rechargeable battery

NH-14WM

Supplied accessories

Battery Charger (1)

Rechargeable battery (1)

Rechargeable battery carrying case (1)

Headphones with a remote control (1)

Dry battery case (1)

Carrying pouch (1)

### Optional accessories

AC-E15L AC power adaptor <sup>1)</sup>

Nickel metal hydride rechargeable battery

NH-9WM, NH-14WM

MDR-series Stereo headphones <sup>2)</sup>

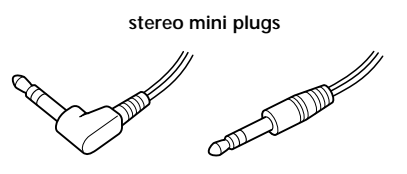
SRS-Z500, Z750, Z1000 Sony Active Speakers

CK-MD4 MiniDisc Carrying Case

CK-MD10 MiniDisc Filing Box

- The operative voltage for the AC power adaptor varies depending upon the country in which it is sold. Therefore, purchase the AC power adaptor in the country you intend to use it.

- Whether you should plug the headphones directly to ◻/REMOTE on the main unit or to a remote control, use only headphones with stereo mini plugs.



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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