

SEE LASER RADIATION WHEN OPEN AND INTERLOCK OPERATED.
 DIRECT EXPOSURE TO BEAM.
 LASERSTRÅLNING VID ÖPPNING, NÄR SÄKERHETSÅSÄKRINGEN
 ÄR FUNKTIONELL. UNDVIK LÄSSTREIFAN FÖR STRÅLNING.
 FÖR SÄKERHETSÅSÄKRINGEN FÖR STRÅLNING.
 FÖR SÄKERHETSÅSÄKRINGEN FÖR STRÅLNING.
 FÖR SÄKERHETSÅSÄKRINGEN FÖR STRÅLNING.
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 FÖR SÄKERHETSÅSÄKRINGEN FÖR STRÅLNING.
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(En)

RQT6459-B
 F0302KN0

Panasonic

Portable MD Player
SJ-MJ50

Operating Instructions



EB

Note:

"EB" on the packaging indicates the United Kingdom.

Before connecting, operating or adjusting this product, please read these instructions completely. Please keep this manual for future reference.

RQT6459-B

Table of contents

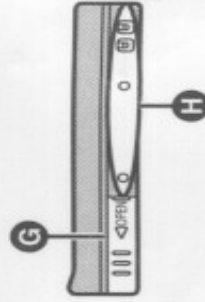
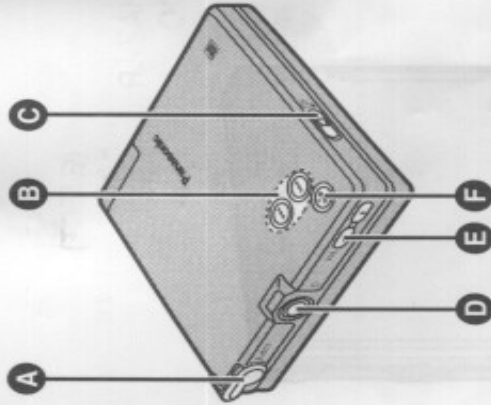
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Supplied Accessories

Check the packing carton for these accessories.

Stereo earphones	1
(LOBAB0000162)	
Wired remote control	1
(N2QCBD000020)	
Nickel-metal hydride rechargeable battery*	1
Battery carrying case	1
(RFA0475-Q)	
Remove the rechargeable battery from its case before use.	
Speaker/battery charger	1
(LOEAAAB000004)	
AC adaptor	1
(N0JCBDD000003)	
External battery case	1
(K3ZZ00200041)	
Soft case	1
(RFC0069-H)	

(Use numbers indicated in parentheses when asking for replacement parts.)
[Refer to "The rechargeable battery" (page 6) for the parts marked with an asterisk(*).]



Note:
EB on the packaging indicates the United States version.
Before connecting, operating or adjusting the device, please read the manual for future reference.

Location of controls

Main unit

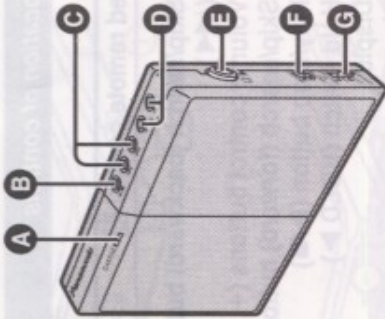
- A** Eject lever (EJECT)
- B** Skip/search buttons (◀◀, ▶▶)
- C** Hold switch (HOLD)
- D** Headphone jack (Ω)
- E** Volume control buttons (VOL, -, +)
- F** Play/stop button (▶/■)
- G** Rechargeable battery compartment
- H** Battery case and charger terminal



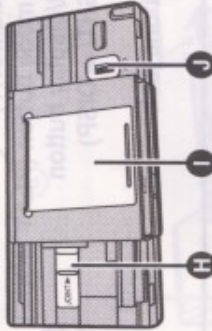
Location of controls

Speaker/battery charger

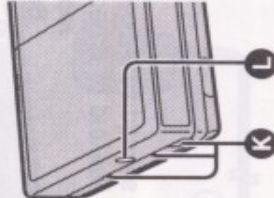
- A** Charge lamp (CHARGE)
- B** Play/stop button (▶/■)
- C** Skip/search buttons (◀◀, ▶▶)
- D** Volume control buttons (-, VOL, +)
- E** Headphone jack (Ω)
- F** Control select switch (MAIN KEY, REMOTE KEY)
- G** Sound quality/speaker switch (HIGH FILTER, SPEAKER ON/OFF)
- H** Connection switch (JOINT ▶)
- I** Stand
- J** Lock (▲ LOCK)
- K** Connection terminal for battery case
- L** DC IN jack (DC IN 3.5 V ◇-◇)



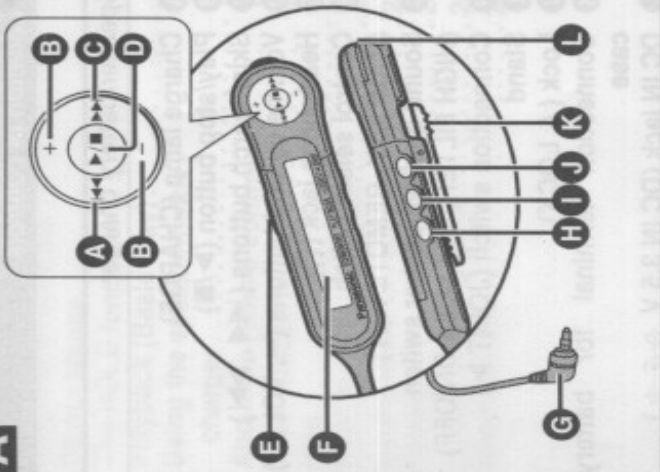
Back panel



Side panel



A

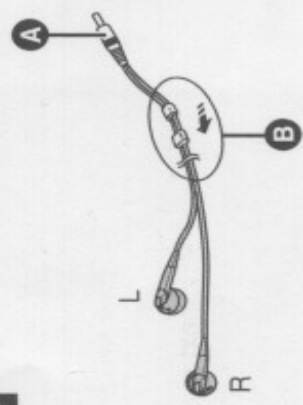


Location of controls

Wired remote control **A**

- A** Skip/search (backward) button (◀◀)
- B** Volume control buttons (+, -)
- C** Skip/search (forward) button (▶▶)
- D** Play/stop button (▶/■)
- E** Hold switch (HOLD ▶)
- F** Display
- G** Plug
- H** Tone control/memory button (EQ/MEMORY)
- I** Play mode button (PLAY MODE)
- J** Light/display button (•LIGHT/ = DISP)
- K** Clip
- L** Earphone jack

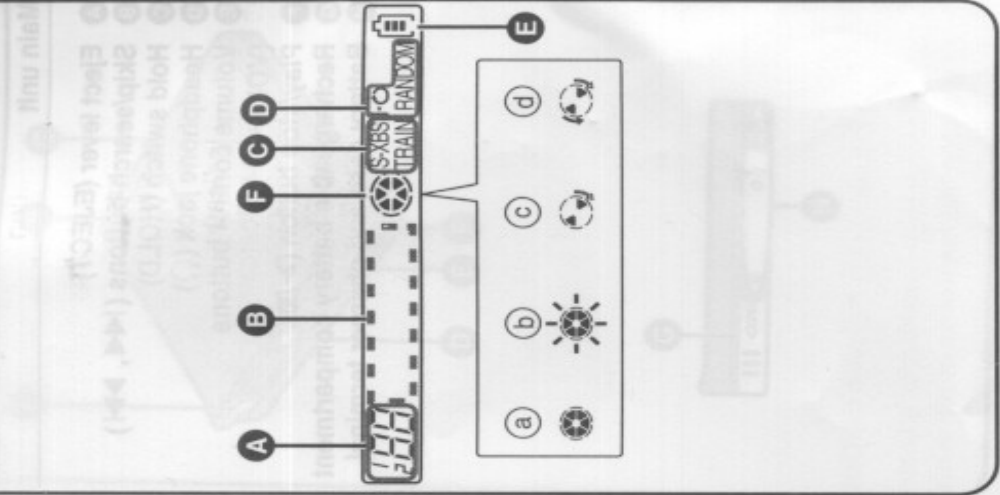
B



Stereo earphones **B**

- A** Plug
 - B** Slider
- Slide up to prevent tangling the cord when the earphones are not in use.

Location of controls



Location of controls

Display information

- A** Number of tracks/track number
- B** Text/play time
- C** Sound quality
- D** Play mode
- E** Battery indication
- F** Operation indicator
 - a** Stopped: Fully lights
 - b** Reading TOC: Flashes
 - c** Playing: Rotates slowly
 - d** Skip/Search: Rotates quickly

Power source

The rechargeable battery

The battery needs to be recharged before first use.

- 1. Insert the battery into the unit.**
 - a** Nickel-metal hydride rechargeable battery (included)
- 2. Pull the speakers of the charger apart and connect the AC adaptor.**

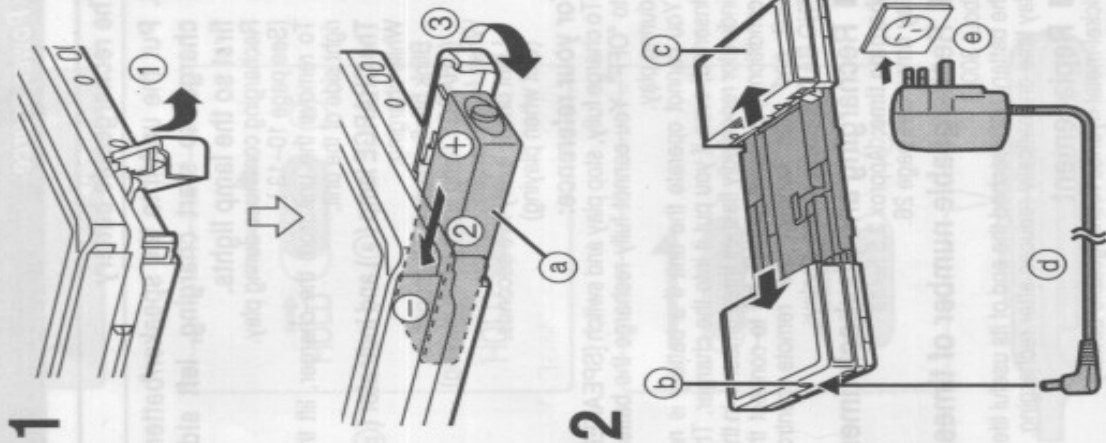
Pull apart gently.

 - b** DC IN jack (DC IN 3.5 V \leftrightarrow C \leftrightarrow)
 - c** Speaker/battery charger (included)
 - d** AC adaptor (included)
 - e** House hold mains socket (AC 230-240V)

Note

The unit is in the standby condition when the AC adaptor is connected. The primary circuit is always "live" as long as the AC adaptor is connected to an electrical outlet.

(Continued on next page)



Power source

The rechargeable battery

3. Put the unit into the speaker/battery charger to start charging, left side first so the lamp lights.

Recharging continues during play.

(See page 10–13.)

To remove the unit from the charger, lift the right side of the unit.

The CHARGE lamp (a) and indicator (b)

While charging:

Blink briefly every two seconds.

(CHARGE lamp lights when playing)

When fully charged:

Light briefly every five seconds.

(Out when playing)

For your reference:

- To charge fully, stop play and switch [SPEAKER] to "OFF". You cannot fully recharge the battery during play.

- You cannot operate the unit if a battery is not inserted, even if you put it into the charger. The indicator repeatedly flashes three times. If, in this condition, you move [JOINT ▶] to connect the unit and then connect the remote control, "NO BAT" appears on the display.

■ Recharging and playback times

Charging time: Approx 3.5 hours

Play time: See page 26.

■ Rechargeable number of times

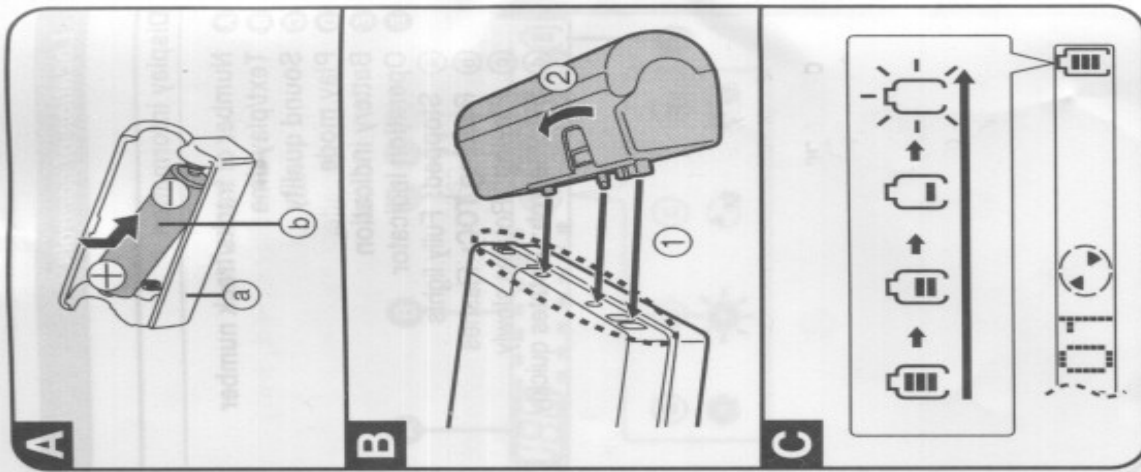
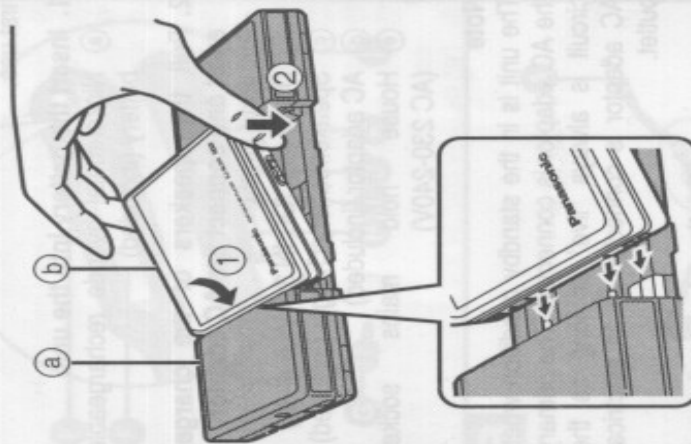
About 300

The battery has reached the end of its useful life if play time dramatically reduces after recharging.

■ Replacement

Nickel-metal hydride rechargeable battery (HHF-AZ01/HHF-1P)

3



Power source

The dry cell battery

1. Insert the battery into the battery case. Press in and down towards the minus end. **A**

- Ⓐ External battery case (included)
- Ⓑ One LR6, AA, UM-3 battery (not included)

2. Attach the case to the unit and fix in place with the screw. **B**

The battery indicator **C**

The illustration shows how the indicator on the remote control's display appears as the battery's power runs down.

When the battery indicator begins to flash, the battery is almost flat and should be replaced or recharged.

For longer playback

- Use the two types of batteries at the same time.
(Refer to page 26 for battery duration.)
- We recommend using long-life Panasonic alkaline battery.

The HOLD function

This function causes the unit to ignore short, accidental button presses.

- Ⓐ Hold mode
- Ⓑ Release

Guards against the following

- The unit is powered on accidentally when not in use, causing the batteries to run down.
- A button is accidentally pressed during play, interrupting playback.

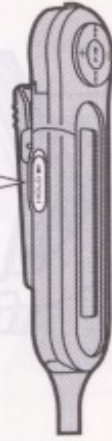
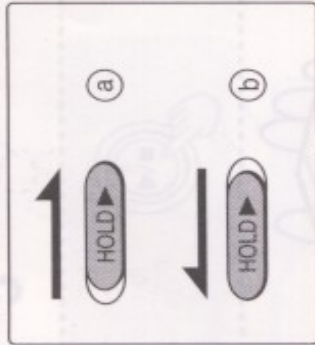
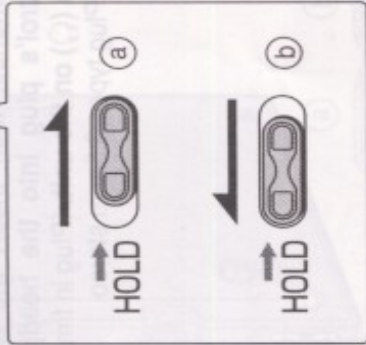
Note

You still can operate the unit with the remote control when the main unit's HOLD function is on and vice versa.

The "HOLD" display

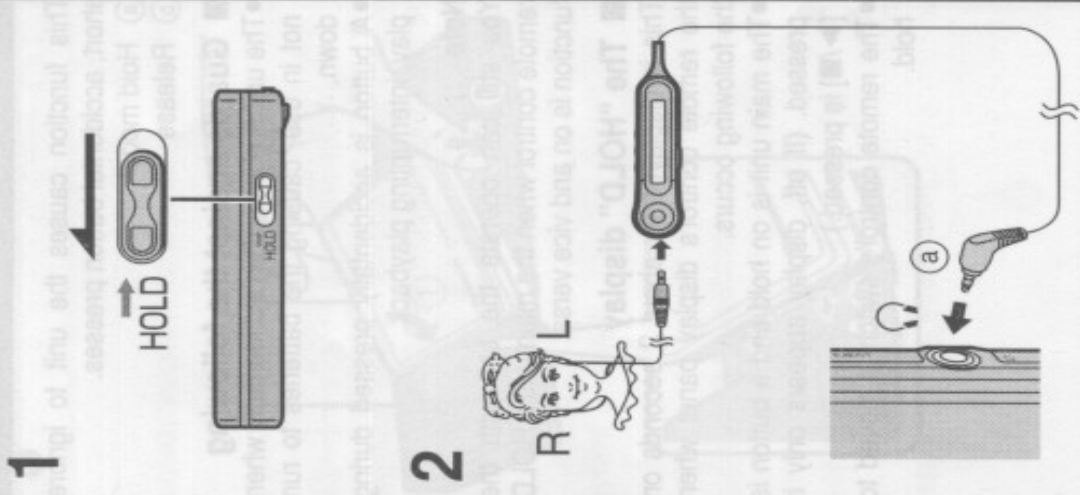
This is displayed for about 2 seconds on the remote control's display panel when the following occurs.

- The main unit is on hold and a button is pressed. (If off, display appears only if [▶/■] is pressed.)
- The remote control's switch is moved to hold.

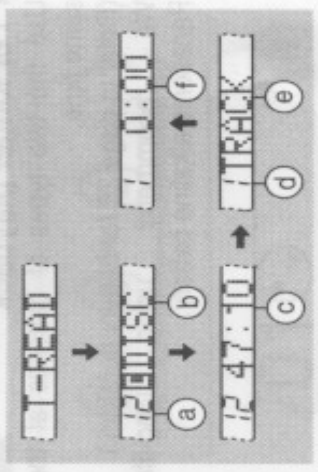
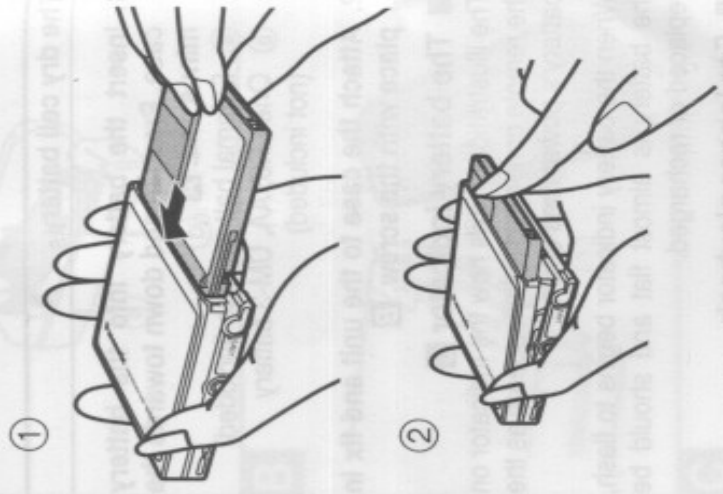


Playback (Basic Play)

1. Release the HOLD function.
2. Connect the remote control and earphones, then insert the remote control's plug into the headphone jack (a) on the unit. (Plug in firmly.)
a Plug type: 3.5 mm stereo



3



Playback (Basic Play)

3. Insert an MD.

- ① The lid opens when you push the disc in.
- ② Keep pressing on the edge above the label until the disc is fully inserted and the lid closes. The light at the center of the slot lights when you close the lid.

After an MD has been inserted, the unit turns on, reads the information from it, then, after a few seconds, the power goes off again. The name of the disc or song is shown on the display. The information scrolls from right to left across the display if it can not be displayed all at once.

(If this information has not been entered onto the disc, then "----" is shown instead.)

- Total number of tracks
- Disc title
- Total playing time
- Track number
- Track title
- Elapsed playing time of each track

Note

You may not be able to insert a disc that you didn't remove fully. Remove the disc fully first if this occurs.

Playback (Basic Play)

4. Press [▶/■].
"PLAY" is displayed. The unit stops automatically when all the tracks on the disc have been played.

5. Adjust the volume.

- To decrease the volume level
 - To increase the volume level
- Volume level is 0-25. Press and hold to change the volume successively.

To stop the disc [A]

Press [▶/■].

"STOP" is displayed.

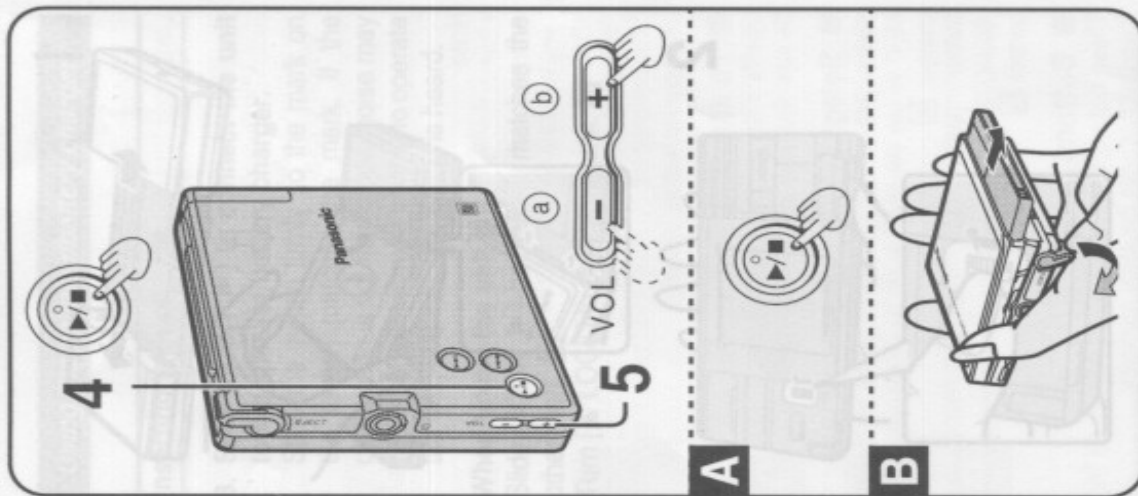
The unit powers itself off automatically in about 10 seconds.

Removing the disc [B]

Push [EJECT] in the direction indicated by the arrow. The disc springs out of the unit. If you have difficulty removing a disc, face the slot slightly downward.

MDLP

You can play tracks recorded with MDLP mode. The unit selects the play mode according to the recording mode: normal stereo, 2xplay stereo (LP2), or 4xplay stereo (LP4).



Playback (Basic Play)

■ Resume function

The unit stores the point at which play was stopped and if [▶/■] on the main unit or on the remote control is pressed again, play begins from that point. This does not work if the unit is opened or if the battery is removed. The unit starts play from the first track in these cases.

■ Monaural playback function

If a disc was recorded monaurally, the unit automatically switches to monaural playback mode.

■ The indicator

The indicator lights for about 6 seconds when you close the lid or press buttons on the unit and remote control.

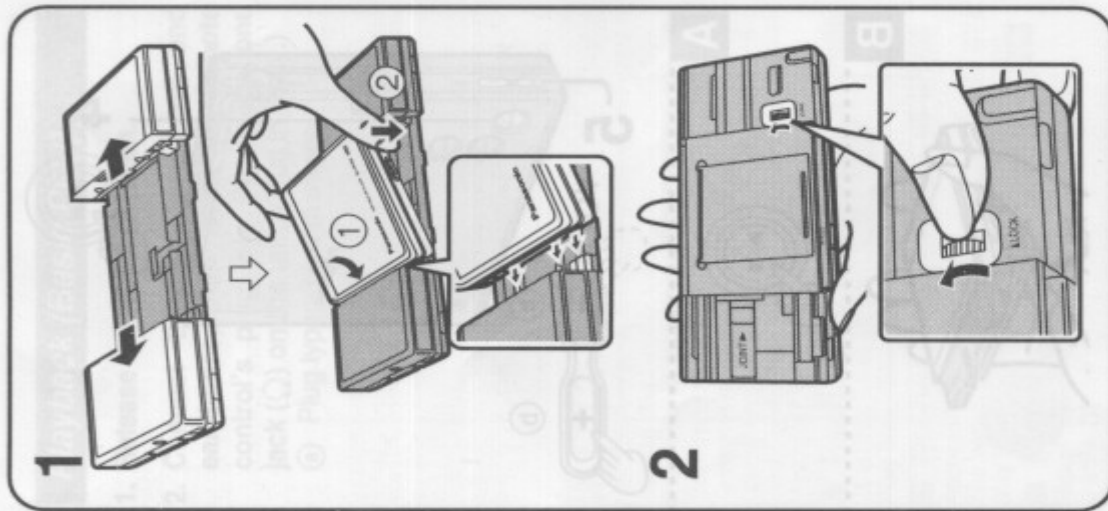
It blinks three times when you press a button on the unit while it is in hold mode.

Using the speaker/battery charger

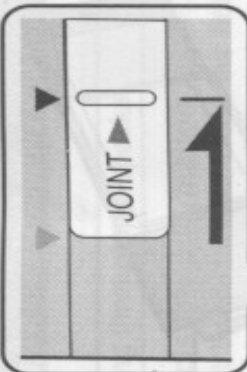
Inserting the unit

Preparation: Insert the battery into the unit.

1. Pull the speakers apart and put the unit in.
Pull apart gently.
2. Turn [▲ LOCK] to lock the unit in place.



3



3. Slide [JOINT ▶] to connect the unit to the speaker/battery charger.

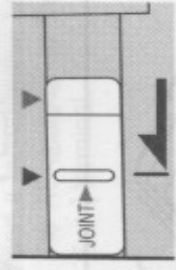
Slide the switch firmly so the mark on the switch matches the mark. If the connection is not fully made, noise may occur and you may be unable to operate the unit, even though sound is heard.

When taking the unit out

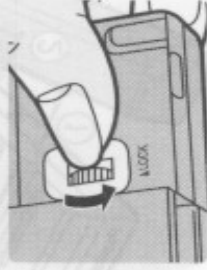
Slide [JOINT ▶] back so it matches the other mark. **A**

Turn [▲ LOCK] to unlock the unit. **B**

A



B



Using the speaker/battery charger

Inserting the unit



Using the speaker/battery charger

Listening through the speaker

Preparation: Insert a disc. Switch [SPEAKER] to "ON". **A**

When you are finished listening

Switch [SPEAKER] to "OFF". **B**
Sound will not be heard, but the unit is still on.
Press [▶/■] to stop play.

Note

- Switch [SPEAKER] to "OFF" when you are not using the speakers. The batteries will run down if you leave the speakers on.
- Remove the unit from the speaker/battery charger if you will not be using it for a long time. The batteries will run down if you leave the unit in the speaker/battery charger.

■ To stand the unit up **C**

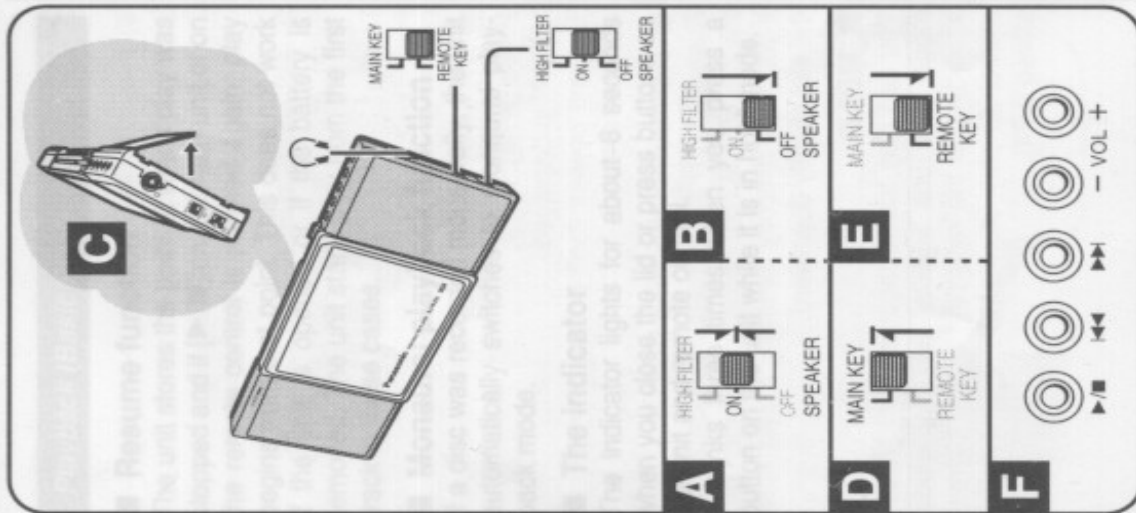
Open the stand on the back.
Be sure to use [▲ LOCK] to fix the unit in place.

■ Select how to control the unit

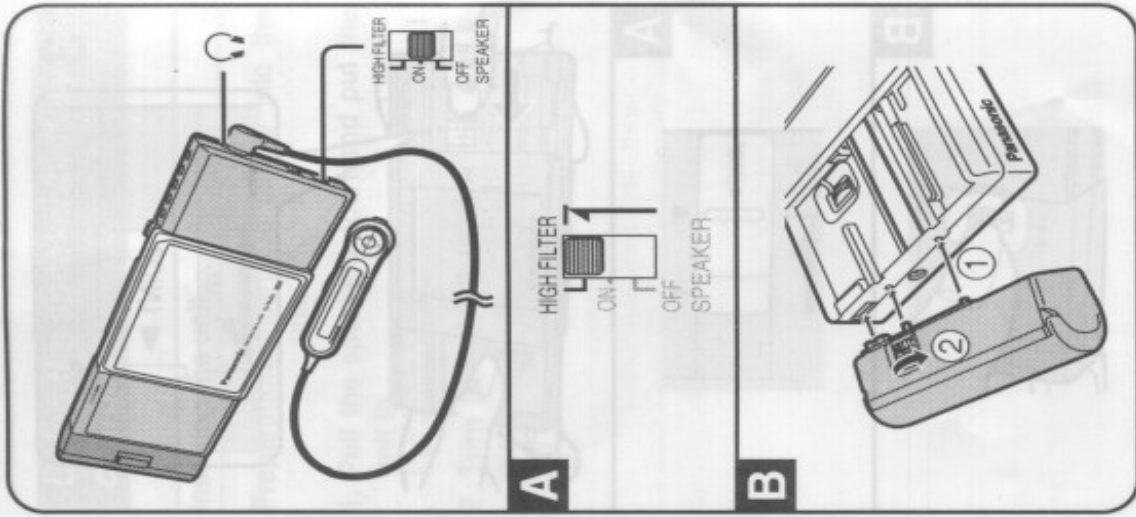
Switch [MAIN KEY, REMOTE KEY] to "MAIN KEY" to use the controls on the speaker/battery charger. **D**
Switch [MAIN KEY, REMOTE KEY] to "REMOTE KEY" to use the controls on the remote control. **E**

■ Buttons **F**

These buttons correspond to the buttons on the main unit that have the same markings.
(See page 9-10, 16-17 and 22.)



ROT6459



Using the speaker/battery charger

Listening through the speaker

- **To display information**
Connect the remote control to the headphone jack on the speaker/battery charger.
- **For a softer sound**
Switch [SPEAKER] to "HIGH FILTER". **A**
Listen through the earphones to enjoy XBS (see page 21).
- **For longer play**
 - Insert a battery into the battery case and attach it to the speaker/battery charger. **B**
 - To operate the unit on household AC power, insert a rechargeable battery and connect the AC adaptor to the [DC IN 3.5 V ⚡] terminal.

About the remote control

Basic operation

Preparation:

Release the hold mode. **A**
(The remote control can be operated regardless of the hold mode of the unit.)

To start playback **B**

Press [▶/■] once.
"PLAY" is displayed.

To adjust the volume **C**

Press [+] or [-].

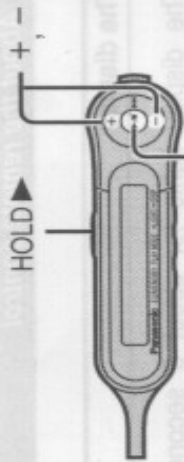
- a To increase the volume level
 - b To decrease the volume level
- Volume level is 0–25. Press and hold to change the volume successively.

To stop the disc **D**

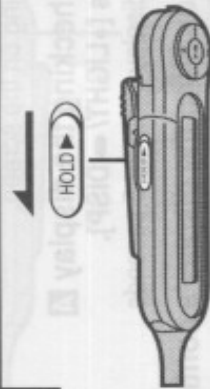
Press [▶/■] once during play.
"STOP" is displayed.

Note

If the display on the remote control disappears or seems unusual, disconnect the remote control then plug it in again firmly.



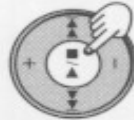
A



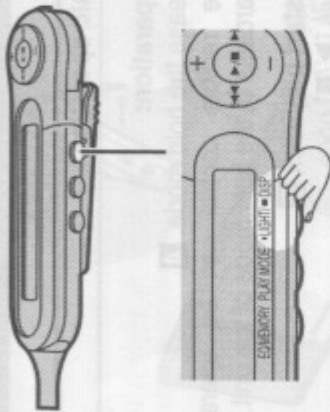
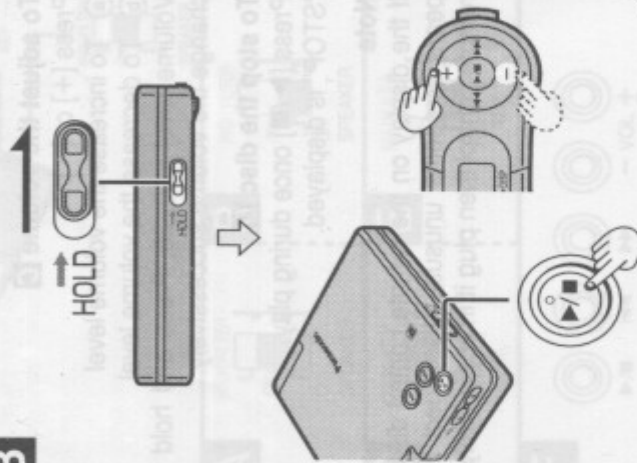
B



C



D

A**B**

About the remote control

The display

The display lights for about 5 seconds when an operation is done on the unit or remote control. It remains lit for up to 20 seconds while a track or disc name is scrolling on the screen.

■ Checking the display **A**

Press [**•LIGHT/** **DISP.**].

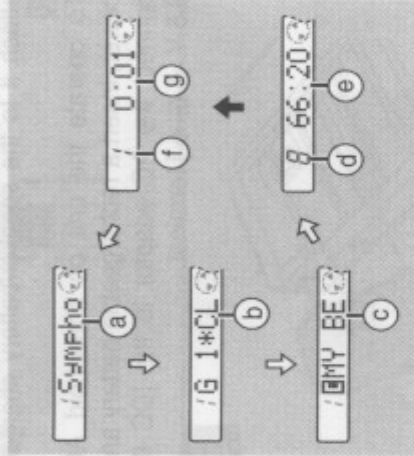
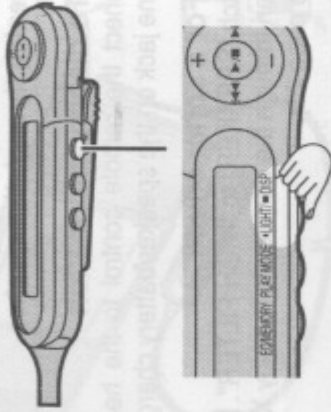
The display lights for 5 seconds.

■ Adjusting the display's contrast **B**

When the main unit is powered on:

1. Put the main unit in hold. (See page 7.)
2. Press and hold [**▶/■**] on the main unit and press [**+**] or [**-**] on the remote control to adjust the contrast.

+: darker, **-**: lighter



About the remote control

The display

■ Changing the remote control's display

Press and hold [•LIGHT/☉DISP].

- a Track title
 - b Group name
 - c Disc title
 - d Total number of tracks
 - e Total playing time
 - f Track number in play
 - g Elapsed time of the current track
- ⏪: Changes each time the button is pressed.
- ⏩: Changes automatically after a few seconds.

For your reference:

- "→→→" is displayed when the disc contains no track, group, or disc titles.
- "*" indicates group names. "■" indicates disc titles.
- "G--*" indicates that the current track is not in a group. "*" is displayed after this.
- "MEMO" is displayed instead of the elapsed play time while playing a program. (See page 20.)

About the remote control

The operation tone

A tone sounds when a button on the remote control is pressed.

Skip

forward: Beep Beep

backward: Beep Beep Beep

Other functions

Beep

The tone can be turned on and off.

a To turn on:

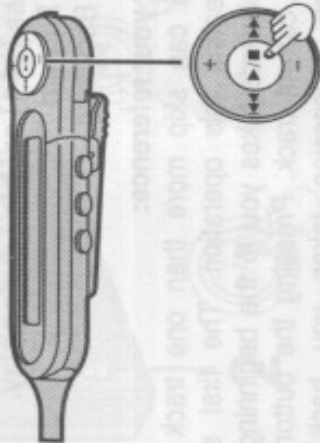
Press and hold [▶/■] until "Beep ON" appears.

b To turn off:

Press and hold [▶/■] until "Beep OFF" appears.

Note

If the above is done during play, play stops and power automatically goes off in about ten seconds.



a BeepON

b BeepOFF

Other functions

Skip

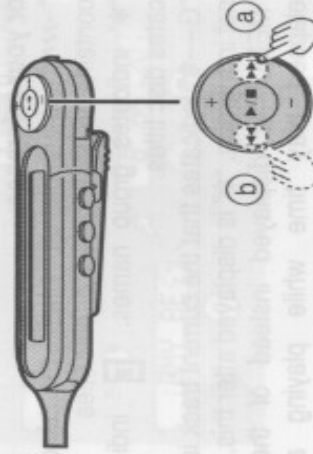
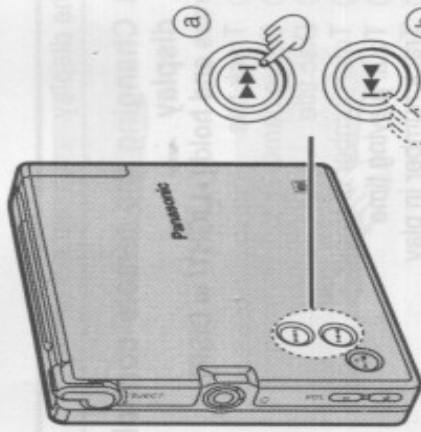
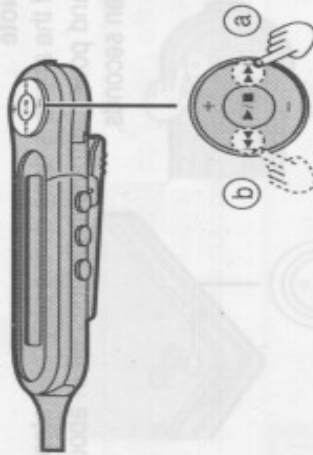
This function skips tracks and play begins from the beginning of the selected track.

Press [**◀◀**] or [**▶▶**] during play.

- a Forward
- b Backward

For your reference:

You can skip more than one track by repeating this operation. The first skip backwards takes you to the beginning of the current track. Pressing the button in quick succession takes you back to previous tracks.



Other functions

Search

This function allows you to fast-forward or rewind through tracks.

Press and hold [◀◀] or [▶▶] during play.

- a Forward
- b Backward

For your reference:

- You cannot fast-forward past the end of the last track. If you release the button at this point, the unit stops.
- You cannot rewind beyond the beginning of the first track. The unit starts playing the first track if the button is released at this point.

Other functions

Track select

This function allows you to begin listening from a selected track.

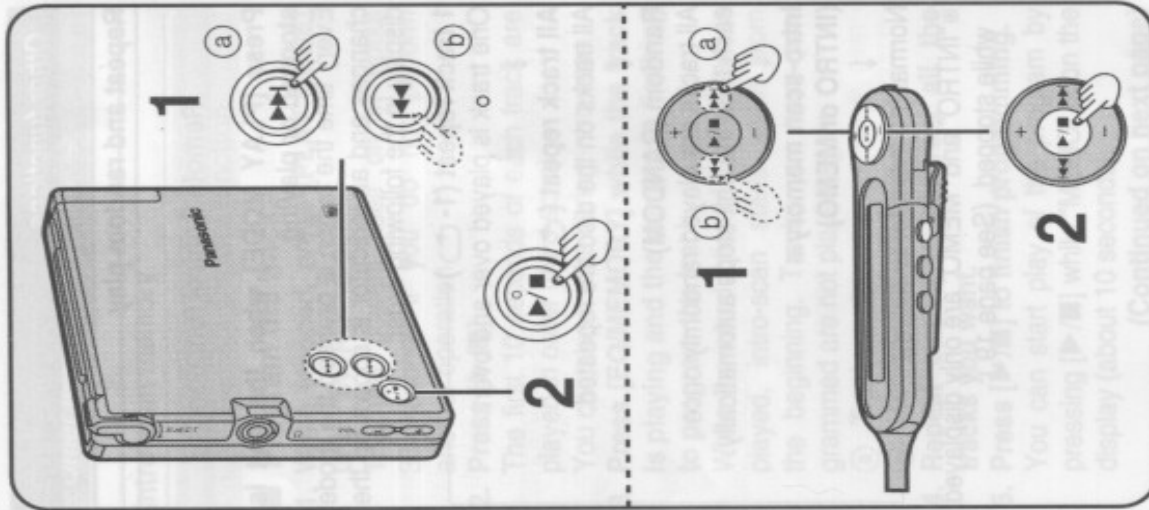
1. Select a track by pressing [◀◀] or [▶▶] while stopped.

- a Forward
- b Backward

2. Press [▶/■].

For your reference:

- If [◀◀] is pressed while the first track is selected then the last track is selected.
- If [▶▶] is pressed while the last track is selected then the first track is selected.



Other functions

Repeat and random play

Remote Control function

Press **[PLAY MODE]** when the unit is stopped or playing.

Every time the button is pressed the mode changes and an indicator is shown on the display in the following order.

1 track repeat (1-↻)
One track is played over and over.

All track repeat (↻)
All tracks on the disc are repeated.

Random (RANDOM)
All tracks are played randomly once each then the unit stops automatically.

Intro-scan memory* (INTRO or MEMO)

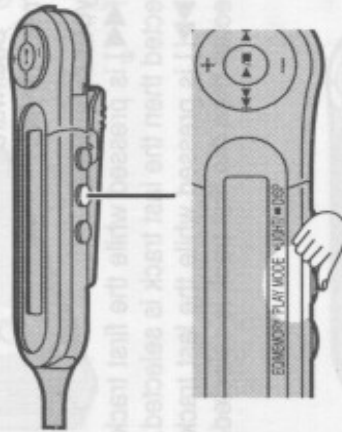
Normal (no indicator is shown)

*"INTRO" and "MEMO" are only displayed while stopped. (See page 19.)

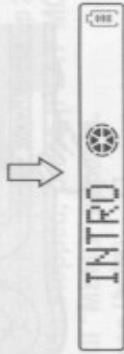
Note
If you selected the mode when the unit was stopped, press **[▶/■]**.

For your reference:

- When the unit is in the all-track repeat mode, you can skip and search beyond the first and last track.
- You cannot skip or search back to a track that has already been played when in the random mode.
- The mode is reset after changing discs.



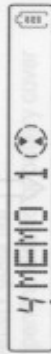
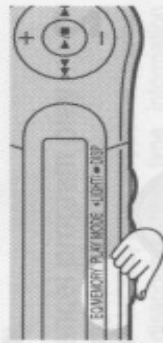
1



2



3



5



Other functions

Intro-scan memory

Remote Control function

Program the tracks

1. While stopped, press [PLAY MODE] until "INTRO" appears.

The unit powers itself off in about 30 seconds if you do not perform another operation.

2. Press [▶/■].

The first 10 seconds of each track are played in order (intro-scan). You can skip tracks during intro-scan.

3. Press [EQ/MEMORY] while the track is playing and the number is flashing to program the track.

When the introduction of the last track is played, intro-scan starts again from the beginning. Tracks you have programmed are not played again.

- a Track number
- b Memory number

4. Repeat step 3 to program all the tracks you want.

5. Press [▶/■] to finish programming.

You can start play of the program by pressing [▶/■] while "MEMO" is on the display (about 10 seconds).

(Continued on next page)

Other functions

Sound quality

EQ/MEMORY

Press [EQ/MEMORY] when the unit is stopped or playing.

Even when the unit is in a mode other than "MEMORY" in the follow-up mode.

XBS-1

Increases the power of the bass.

XBS-2

Increases the XBS-1 effect.

TRAIN

RECALL SOURCE

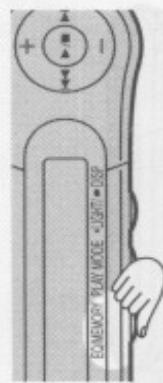
Recalls the source you are listening to in a public place.

NORMAL (default)

For your reference.

• You cannot change sound quality during intro-scan or while stopped while "MEMO" is displayed. (See page 19.)

• XBS is ineffective while using the speaker/battery charger's speakers. Listen through the earphones.

A

CLEAR 



INTRO 

Other functions

Intro-scan memory

■ To make a new program (Clear all tracks)

While stopped and "MEMO" is on the display, press and hold [EQ/MEMORY] for about 3 seconds.

"CLEAR" is displayed and all tracks are cleared. "INTRO" appears on the display after this. Start from step 2 (see page 19).

■ If "END" or "FULL" is displayed

You cannot program any more tracks.

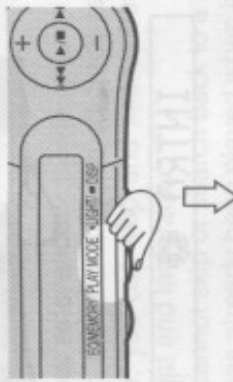
END: you have programmed all tracks on the disc

FULL: you have programmed the maximum of 24 tracks
These are displayed for 2 seconds and programming ends.

■ To cancel intro scan

Press [PLAY MODE] while stopped. ("INTRO" disappears, the time information is shown, and normal play is restored.)

While stopped, "INTRO" is displayed on the display. Press [PLAY MODE] while stopped. ("INTRO" disappears, the time information is shown, and normal play is restored.)

1

MEMO 

2

4 MEMO 

a

Other functions

Intro-scan memory

■ Playing the program

If "MEMO" is on the display, start from step 2.

1. While stopped, press [PLAY MODE] until "MEMO" appears.
2. Press [▶/■].

The tracks are played in the programmed order. During program play, "MEMO" is displayed after the track's title.

- ⓐ Track number

■ To stop play

Press [▶/■].

■ To cancel program play

(The program is stored)

Press [PLAY MODE] while stopped or playing. ("MEMO" disappears, the time information is shown, and normal play is restored.)

■ The program is cleared if:

- You Clear all tracks (See page 20.)
- The battery goes flat
- You open the disc lid or battery cover

For your reference:

- You can change sound quality while playing the program, but not during intro-scan or while stopped while "MEMO" is displayed.
- Random and repeat play do not work while playing the program.
- You cannot search or select groups during intro-scan.

Other functions

Sound quality

Remote Control function

Press [EQ/MEMORY] when the unit is stopped or playing.

Every time the button is pressed the mode changes and is shown on the display in the following order.

XBS-1

Increases the power of the bass.

XBS-2

Increases the XBS-1 effect.

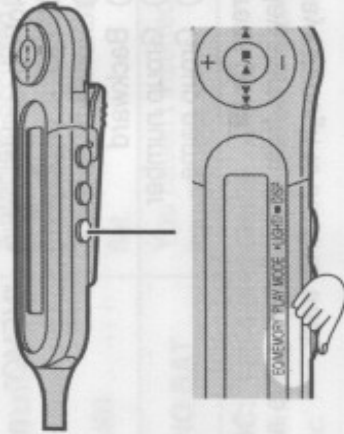
TRAIN

Reduces sounds that may annoy others when you are using the unit in a public place.

NORMAL (cancel)

For your reference:

- You cannot change sound quality during intro-scan or while stopped while "MEMO" is displayed. (See page 19.)
- XBS is ineffective while using the speaker/battery charger's speakers. Listen through the earphones.



Other functions

Group select

When you have created groups on an MD recorder, you can start play from a specified group. You cannot make groups with this unit.

1. Press and hold [◀▶] or [▶▶] while stopped to select a group.

(Not possible while "MEMO" and "INTRO" is displayed.)

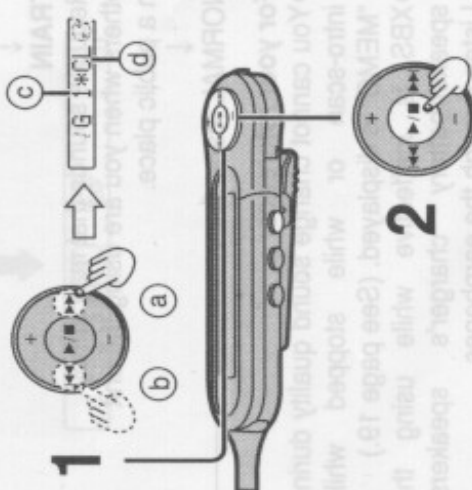
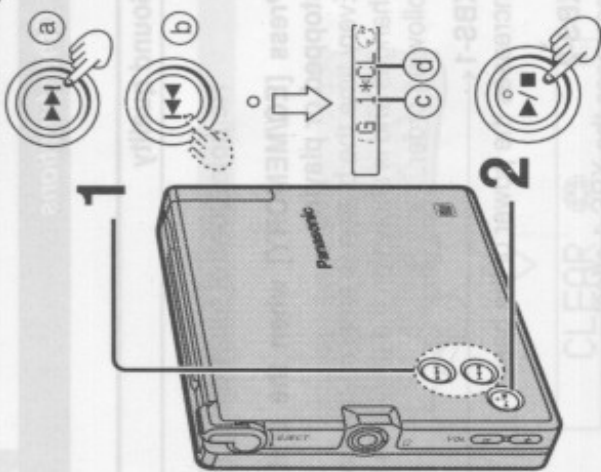
- a Forward
- b Backward
- c Group number
- d Group name

2. Press [▶/■].

Play starts from the selected group and plays through to the final track.

For your reference:

- Continue to hold down the button to skip successive groups.
- You can move backward from the first group to the last group and vice versa.



MDs

■ To maintain the best quality sound

Take care with storage

Do not place the disc in the following places:

- Places where it is exposed to direct sunlight, or extremely hot places like cars
- Humid places like bathrooms
- Sandy or dusty locations

Leave the shutter closed.

If the shutter is accidentally opened, close it again as quickly as possible. Do not touch the disc inside.

- (a) Shutter

Disc care

Wipe with a soft, dry cloth if the cartridge gathers dust.

- (b) Cartridge

What the displays mean

Display	Meaning
BLANK	Nothing is recorded on the disc currently loaded.
HOLD	Hold is on.
NoDISC	There is no disc in the unit.
T-READ	Reading TOC
ERROR	A problem occurred while the unit was reading TOC, or during play.
U01	The rechargeable battery or dry cell battery is flat.
NO BAT	You haven't inserted the rechargeable battery into the unit.

TOC: Table of contents

Information about the position, division, and order of tracks on the disc.

Maintenance

■ If the surfaces are dirty

To clean this unit, wipe with a soft, dry cloth.

- Never use alcohol, paint thinner or benzine to clean this unit.
- Before using chemically treated cloth, read the instructions that came with the cloth carefully.

Cautions

■ The main unit

Avoid the following as they may damage the unit.

- Dropping and other strong impacts
- Rain
- High humidity areas such as bathrooms
- Dusty areas such as warehouses
- High temperatures such as near heating appliances
- This unit is resistant to the effects of vibration but sound may skip if the vibration is constant.

■ Speaker/battery charger

- Do not keep this speaker/battery charger and magnetized cards (bank cards, commuter passes, etc.) close together.
- This speaker does not have magnetic shielding.

Do not place it near televisions, personal computers or other devices easily influenced by magnetism.

■ The earphones

Leave a reasonable amount of slack in the cord if you wind it around the main unit.

■ The rechargeable battery

- If rechargeable battery play time is short after recharging, the battery has reached the end of its service life. Replace it with the recommended replacement.
- Play time may be shorter than usual after recharging the battery for the first time or after it has been unused for a long time. Repeatedly recharge and discharge the battery if this occurs to restore it to normal.
- Do not peel off the covering on battery and do not use if the covering has been peeled off.
- The battery may heat up while charging but this is normal.
- The charger can cause interference to radio reception so do not recharge the battery near a radio in use.

■ Dry cell battery/rechargeable battery

- Align the poles ⊕ and ⊖ correctly when inserting the battery.
- Remove the battery if you do not intend to use the unit for a long time.
- Do not throw into fire, short-circuit, disassemble, or subject to excessive heat.
- Do not allow metal objects to touch the battery terminals as this may cause short-circuiting which is dangerous.
- When carrying battery in a pocket or bag, ensure no metal objects such as necklaces are placed together with them. Contact with metal may cause short-circuiting which can cause a fire.

For safety, carry the rechargeable battery in the battery carrying case.

■ Precautions for Listening with the Headphones or Earphones

- Do not play your headphones or earphones at a high volume. Hearing experts advise against continuous extended play.
- If you experience a ringing in your ears, reduce volume or discontinue use.
- Do not use while operating a motorized vehicle. It may create a traffic hazard and is illegal in many areas.
- You should use extreme caution or temporarily discontinue use in potentially hazardous situations.
- Even if your headphones or earphones are the open-air type designed to let you hear outside sounds, don't turn up the volume so high that you can't hear what's around you.
- Discontinue use if you experience discomfort with the earphones or any other parts that directly contact your skin. Continued use may cause rashes or other allergic reactions.

Troubleshooting guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation. If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the directory of Authorized Service Centers (enclosed with this unit) to locate a convenient service center, or consult your dealer for instructions.

Problem	Check this
A disc is in the slot and cannot be inserted.	<p>Are you trying to insert a disc you didn't remove fully? (Remove it fully before trying to insert it.)</p>
The unit doesn't operate at all.	<ul style="list-style-type: none"> ● Is the hold function on? ● Is there a disc loaded? ● Have the battery run down? ● Has condensation formed on the disc or lens? (Wait an hour before use.)
No sound from the earphones. No response from the remote control.	<ul style="list-style-type: none"> ● Has the volume been turned down too far? ● Have the plugs on the earphone and remote control been inserted correctly? (Try plugging it in again.) ● Are the plugs dirty? (Wipe away dirt on plug.)
The unit doesn't play in order from the first track.	<ul style="list-style-type: none"> ● Has the play mode been switched to RANDOM? ● Did you stop the disc part way through the last time you listened to it?
Noise	<ul style="list-style-type: none"> ● Are you using the unit near a strong magnet, such as may be found in a television? ● Separate the unit from mobile phones.
No sound from the speakers.	<ul style="list-style-type: none"> ● Is the [JOINT ▶] switch on the back of the speaker/battery charger fully engaged? ● Is [SPEAKER] set to "ON"?

Specifications

■ AUDIO

System: MiniDisc digital audio system

Laser: Semiconductor laser ($\lambda=780\text{ nm}$)

Sampling frequency: 44.1 kHz

Coding: Adaptive Transform Acoustic Coding (ATRAC/ATRAC 3)

No. of channels: 2 (left and right, stereo)
1 (monaural)

Frequency response: 20 Hz to 20,000 Hz (+0 dB to -6 dB)
Wow and flutter: Below measurable limit

■ GENERAL

Headphone output level: 3.5 mW+3.5 mW/22 Ω

Speaker output level: 55 mW+55 mW/16 Ω

Speakers: 3.6 cm (16 Ω) \times 2

Power supply

Rechargeable battery: DC 1.2 V

(included rechargeable battery)

Battery: DC 1.5 V (One LR6, AA, UM-3 battery)

Recharging time: About 3.5 hours

Play time

[Approximate operating time in hours (in hold mode, at 25 $^{\circ}\text{C}$, on a flat, stable surface)]

Battery type	Using earphones			Using the speakers
	Normal	LP2	LP4	Normal/LP2/LP4
Rechargeable*	29	41	48	9.5
Panasonic alkaline	55	74	93	15
Both together*	83	110	130	26

*When the rechargeable battery (included) is fully recharged.

Dimensions (W \times H \times D)

Cabinet dimensions: 79.9 \times 72.7 \times 13.7 mm

incl. projecting parts: 81.1 \times 74.6 \times 14.9 mm

Mass: 97 g (with battery)

70 g (without battery)

■ AC adaptor and charger

AC adaptor input:

AC 230-240 V

50/60 Hz, 5 W

DC 3.5 V, 0.5 A

DC 2 V, 0.5 A

AC adaptor output and charger input:

Charger output:

Note

● The play time may be less depending on the operating conditions.

● Specifications are subject to change without notice.

Mass and dimensions are approximate.

CAUTION!

THIS PRODUCT UTILIZES A LASER. USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

Marking sign is located on bottom of the unit.

THIS UNIT IS INTENDED FOR USE IN MODERATE CLIMATES.

This product may receive radio interference caused by mobile telephones during use. If such interference is apparent, please increase separation between the product and the mobile telephone.

WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

CAUTION!

- DO NOT INSTALL, OR PLACE THIS UNIT, IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.
- DO NOT OBSTRUCT THE UNIT'S VENTILATION OPENINGS WITH NEWSPAPERS, TABLECLOTHS, CURTAINS, AND SIMILAR ITEMS.
- DO NOT PLACE SOURCES OF NAKED FLAMES, SUCH AS LIGHTED CANDLES, ON THE UNIT.
- DISPOSE OF BATTERIES IN AN ENVIRONMENTALLY FRIENDLY MANNER.