

KENWOOD

PORTABLE COMPACT DISC PLAYER

DPC-451

INSTRUCTION MANUAL

KENWOOD CORPORATION

Note for use in automobiles

If you use the unit in your car, install it in a place not subject to direct sunlight. Also do not leave the unit in car when not in use, for this will cause damage to the unit such as deformation by direct sunlight.

COMPACT
disc
DIGITAL AUDIO

Introduction

Your choice of this product indicates that you are a devotee to excellence in sound reproduction. We appreciate your patronage and take pride in the long tradition of quality components that our company represents. So that you can get the most out of your unit, we suggest that you take the time to read through this manual before you hook up and operate your system. This will acquaint you with operating features and system-connection considerations so that your listening pleasure will be enhanced right from the start. You will notice that in all aspects of planning, engineering, styling, operating convenience and adaptability we have sought to anticipate your needs and desires.

Keep this manual handy for future reference.

For your records

Record the serial number, found on the bottom of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

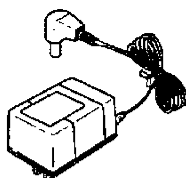
Model _____ Serial Number _____

Unpacking

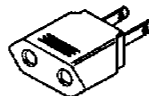
Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost. Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage. We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Accessories

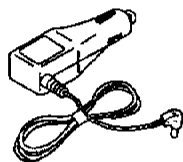
- AC adaptor (1)



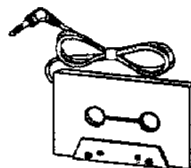
- AC plug adaptor (1)
(Except for the U.S.A. and Canada)



- Car battery adaptor (1)






- Car cassette adaptor (1)



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Caution: Read the pages marked  carefully to ensure safe operation.

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Special features

⚠ Caution: Read this page carefully to ensure safe operation.

- 1. Three Power Supply System** Dry batteries, car batteries, and household electric power can be used for the power supply. You can listen to music everywhere.
- 2. D.A.S.C. Function** The built-in D.A.S.C. (Digital Anti-Shock Circuit) function uses digital memory to prevent sound skip caused by shaking or shocks.
- 3. Program Playback** Up to 20 tracks can be stored at random for playback in the programmed sequence.
- 4. Versatile Playback Functions** Playback can be enjoyed with repetition of a single track, repetition of all tracks, introduction scanning, etc.

Before applying power

For the U.S.A. and Canada

Important!

Units shipped to the U.S.A. and Canada are designed for operation on 120 volts AC only.

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THE AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

For other countries

Important!

Units shipped to countries other than the above are equipped with an AC voltage selector switch on the bottom cover of the AC adaptor. Refer to the following paragraph for the proper setting of this switch.

AC voltage selection

AC adaptor operates on 110~120 volts or 220~240 volts AC. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

AC voltage selector switch


110V-120V 220V-240V 110V-120V 220V-240V

Move switch lever to match your line voltage with a small screwdriver or other pointed tool.

Note: _____
Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.

Safety precautions


WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

The marking of products using lasers (Except for some areas).

**CLASS 1
LASER PRODUCT**

This label is attached to the bottom panel and says that the component uses laser beams that have been classified as Class 1. It means that the unit is utilizing laser beams that are of a weaker class. There is no danger of hazardous radiation outside the unit.

IMPORTANT SAFEGUARDS

 **Caution: Read this page carefully to ensure safe operation.**

Please read all of the safety and operating instructions before operating this unit. For best results, follow all warnings placed on the unit and adhere to the operating and use instructions. These safety and operating instructions should be retained for future reference.

- 1. Power sources** — The unit should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
- 2. Power-cord protection** — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.
- 3. Enclosure removal** — Never remove the enclosure. If the internal parts are touched accidentally, a serious electric shock might occur.
- 4. Drop** — Do not drop the unit or apply strong shock to it. (Damage due to dropping the unit is not covered by the warranty.)
- 5. Ventilation** — Avoid hindering the ventilation of the unit by covering it with a cloth, etc.
- 6. Abnormal smell** — If an abnormal smell or smoke is detected, immediately turn the power OFF and pull out the power cord. Contact your dealer or nearest service center.
- 7. Heat** — Avoid placing the unit under direct sunlight or near a source of heat such as heating equipment. Particularly, never leave it in an automobile or on the dashboard.
- 8. Temperature** — The unit may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).
- 9. Water and moisture** — The unit should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.
- 10. Dust and moisture** — Avoid places where is dusty or where the humidity is high.
- 11. Vibrations** — Avoid placing the unit on an unstable place such as a shelf or in a place subject to vibrations.
- 12. Magnetic fields** — Keep the unit away from sources of magnetic fields such as TV sets, speaker systems, radios, motorized toys or magnetized objects.
- 13. Cleaning** — Do not use volatile solvents such as alcohol, paint thinner, gasoline, or benzine, etc. to clean the cabinet. Use a clean dry cloth.
- 14. Nonuse periods** — The power cord of the unit should be unplugged from the outlet when left unused for a long period of time.
- 15. Damage requiring service** — The unit should be serviced by qualified service personnel when:
 - A.** The power-supply cord or the plug has been damaged; or
 - B.** Objects have fallen, or liquid has been spilled into the unit; or
 - C.** The unit has been exposed to rain; or
 - D.** The unit does not appear to operate normally or exhibits a marked change in performance; or
 - E.** The unit has been dropped, or the enclosure damaged.
- 16. Servicing** — The user should not attempt to service the unit beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

In case of abnormality, immediately unplug the AC adaptor or car battery adaptor from the power outlet. Then please contact your nearest KENWOOD service center.



Dear Customer:

Selecting fine audio equipment such as the unit you've just purchased is only the start of your musical enjoyment. Now it's time to consider how you can maximize the fun and excitement your equipment offers. This manufacturer and the Electronic Industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion — and, most importantly, without affecting your sensitive hearing.

Sound can be deceiving. Over time your hearing "comfort level" adapts to higher volumes of sound. So what sounds "normal" can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

To establish a safe level:

- Start your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

Once you have established a comfortable sound level:

- Set the dial and leave it there.

Taking a minute to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

We Want You Listening For A Lifetime

Used wisely, your new sound equipment will provide a lifetime of fun and enjoyment. Since hearing damage from loud noise is often undetectable until it is too late, this manufacturer and the Electronic Industries Association's Consumer Electronics Group recommend you avoid prolonged exposure to excessive noise. This list of sound levels is included for your protection.

Decibel

Level Example

30	Quiet library, soft whispers
40	Living room, refrigerator, bedroom away from traffic
50	Light traffic, normal conversation, quiet office
60	Air conditioner at 20 feet, sewing machine
70	Vacuum cleaner, hair dryer, noisy restaurant
80	Average city traffic, garbage disposals, alarm clock at two feet.

THE FOLLOWING NOISES CAN BE DANGEROUS UNDER CONSTANT EXPOSURE

90	Subway, motorcycle, truck traffic, lawn mower
100	Garbage truck, chain saw, pneumatic drill
120	Rock band concert in front of speakers, thunderclap
140	Gunshot blast, jet plane
180	Rocket launching pad

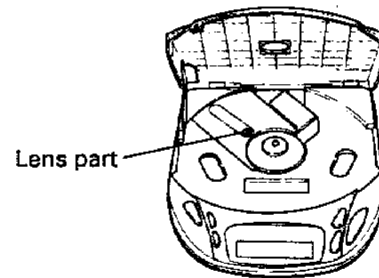
Information courtesy of the Deafness Research Foundation.

Before operation

■ Simple maintenance

Lens maintenance

Stain on the laser pickup lens may cause sound skip or other troubles making CD playback impossible. Clean the lens using a commercially-available camera blower, etc. Do not use commercially-available lens cleaner or disc cleaner.

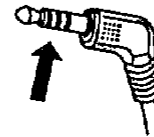


Cabinet maintenance

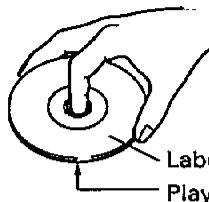
If the cabinet becomes dirty, wipe with a soft, dry cloth. Serious stain or dirt can be wiped with a wet cloth. Do not use benzine or thinner for these may damage the unit.

Taking care of the plug

Wipe the plug with a dry, soft cloth and always keep it clean. A dirty plug can cause noise or erroneous operation.



Disc handling precautions



Handling

Hold compact discs so that you do not touch the playing surface.

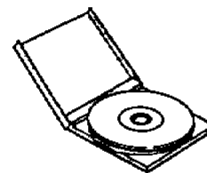


Cleaning

If fingerprints or foreign matter become attached to the disc, lightly wipe the disc with a soft cotton cloth (or similar) from the center of the disc outwards in a radial manner.



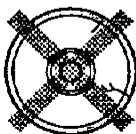
Do not attach paper or tape to either the playing side or the label side of compact discs.



Storage

When a disc is not to be played for a long period of time, remove it from the CD player and store it in its case.

Caution on disc used



Never play a cracked or warped disc.

During playback, the disc rotates at high speed in the player. Therefore, to avoid danger, never use a cracked or deformed disc or a disc repaired with tape or adhesive agent.

Condensation

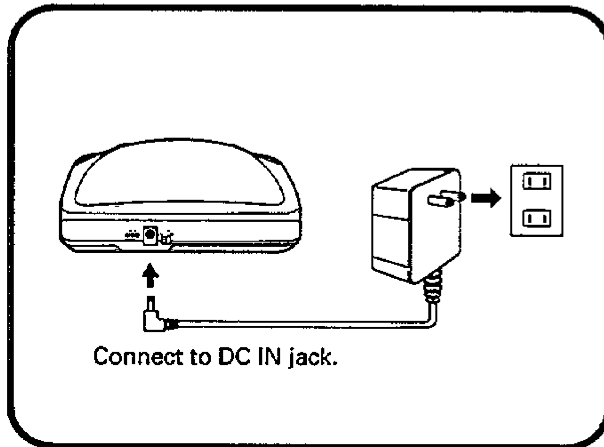
- When the unit is used immediately after a heater has been turned on, or if it is used in a damp or humid room, condensation may be formed on the lens inside the unit, resulting in malfunction. In such a case, leave the unit OFF for about an hour before inserting a disc and starting playback.

Power supplies

This unit can be powered with batteries, a household power supply, a car battery, and other power sources. For battery operation, use commercially-available alkaline batteries or rechargeable batteries (NB-77/NB-88).

When the unit is not used for a long time (a week or more), remove the batteries from the unit.

■ Operation on household power supply

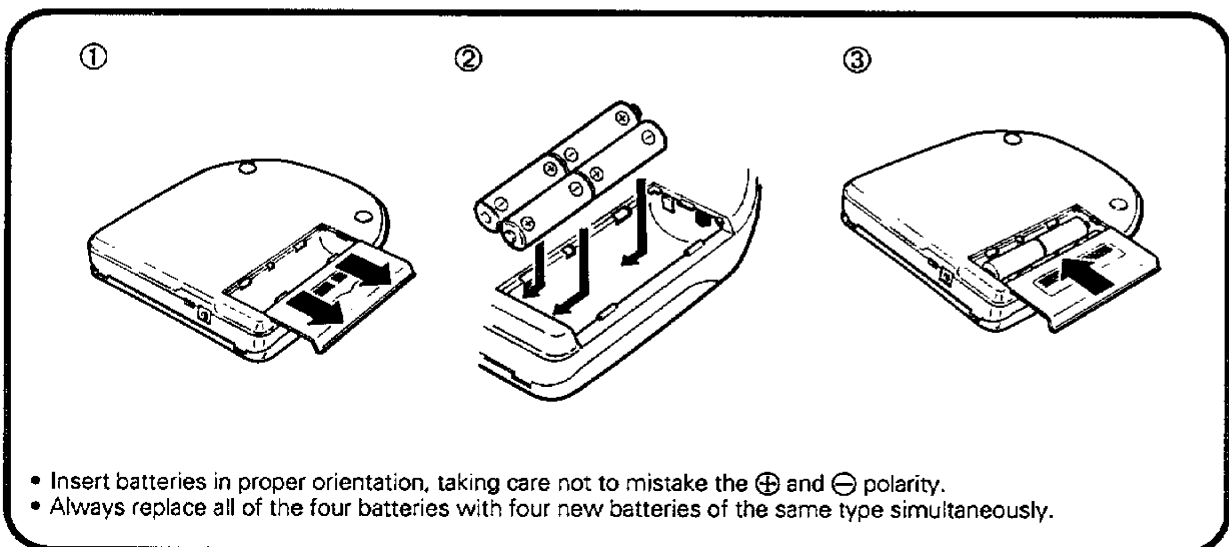


Caution in use of AC adaptor:

1. Never use other AC adaptor than that supplied with this unit.
2. When the unit is not to be used, unplug the AC adaptor from the power outlet.


■ Operation on alkaline batteries

When the unit is to be powered from batteries, use commercially sold "LR6" alkaline batteries. They make about 5 hours of playback possible under normal temperatures.

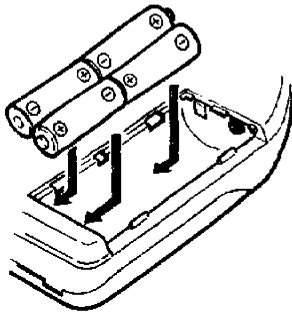


- Insert batteries in proper orientation, taking care not to mistake the \oplus and \ominus polarity.
- Always replace all of the four batteries with four new batteries of the same type simultaneously.

■ Operation on rechargeable batteries (OPTIONAL)

Be sure to recharge the batteries when they are used for the first time, when they have not been used for a long period or when the low voltage warning indicator () is blinking. When the batteries have been fully charged for about 8 hours, about 2 hours of playback can be obtained at normal temperatures. Use only NB-77/NB-88 rechargeable batteries, which are sold separately. Do not use batteries other than the specially designated rechargeable batteries.

1 Insert rechargeable batteries.



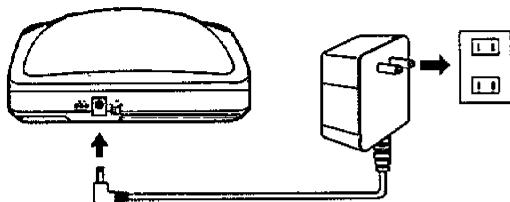
Blinks.



- Insert them taking care not to mistake the orientations of the \oplus and \ominus poles.
- Batteries cannot be recharged during playback.
- A rechargeable battery can be recharged about 500 times. When the operable period shortens, please purchase new optional rechargeable batteries (NB-77/NB-88).

2 Start recharging.

- ① Confirm that all indicator lights are OFF.
- ② Connect the AC adaptor.



Connect to DC IN jack.

- Recharging completes in about 8 hours.

- ③ After charging, disconnect the AC adaptor from the wall outlet and the unit.

- Be sure to shut the cover of the unit during recharging.
- Avoid recharging the battery for more than 8 hours.

ATTENTION

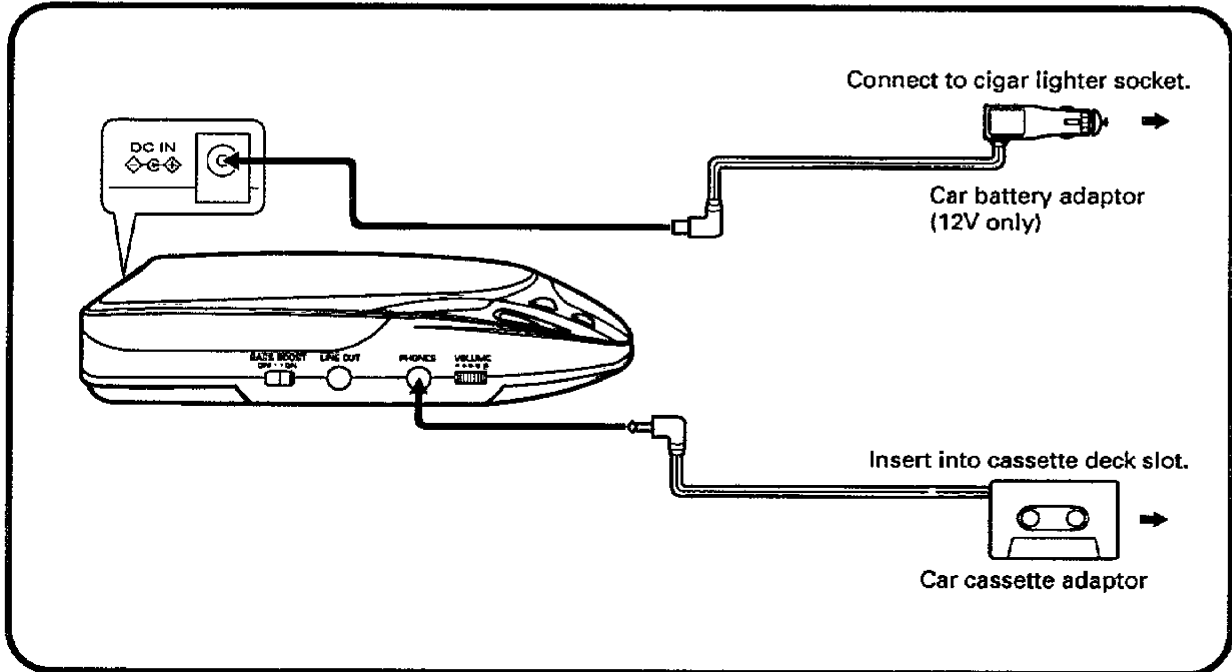
Nickel-Cadmium battery must be recycled or disposed of properly. State laws may vary regarding the handling and disposal of Nickel-Cadmium batteries.

Please contact your Authorized KENWOOD Dealer for more information.

Note:

As an inherent characteristic of rechargeable batteries, the charging capacity drops if a battery is recharged several times while the charge remaining in it is large. In such a case, the original charging capacity can be recovered gradually by recharging it only after the charge has been exhausted completely several times.

■ When a car battery is used



- Place the unit in a stable position not subject to the vibrations of the car.
- The plug may not match the cigarette lighter socket of some car models.
- If sound is not produced, change the tape playing direction of the car stereo.
(Sound is not produced if the car stereo is set to play tape side B.)
- The sound reproduction may not be possible with some car stereo models.

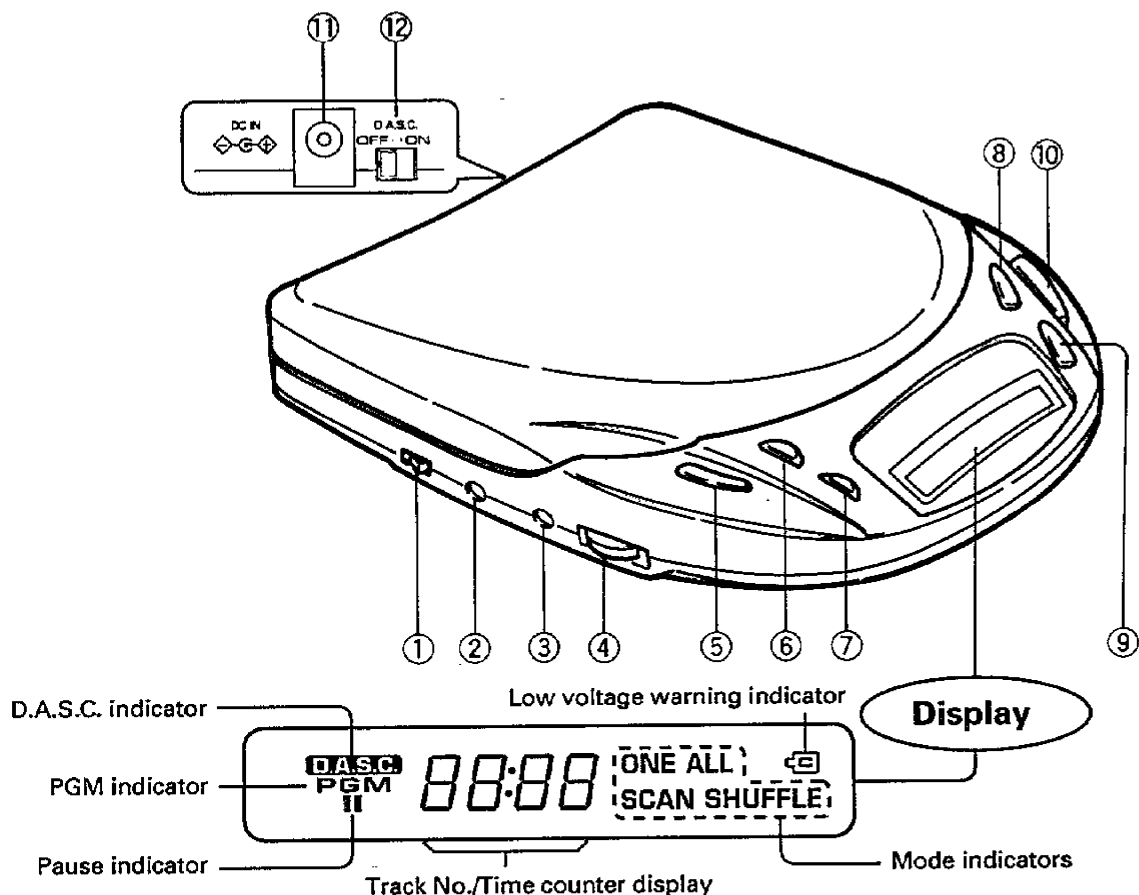
Notes:

1. If the unit cannot be operated with the car battery adaptor connected, suspect the possibility of a blown fuse. The fuse can be replaced by turning the electrode on the tip of the adaptor plug. When replacing the fuse, be sure to use a fuse with a rating of 1 A.
2. Do not leave the products or batteries in the car, particularly above the dashboard, for this may lead to malfunction or damage due to solar heat.
3. When the unit is not used, unplug the car battery adaptor. (Otherwise, the car battery may run out, with some car models.)
4. If the unit is connected to a car stereo using an audio cord, noise may sometimes interfere.

In case of abnormality such as smoke production, immediately unplug the car battery adaptor from the cigarette lighter socket.

Controls and indicators

■ Main unit



① **BASS BOOST switch**

Changes the sound quality.

② **LINE OUT jack**

This is used for connection of other equipment.

③ **PHONES jack (Headphones)**

Insert a car cassette adaptor or a headphone mini-plug.

④ **VOLUME knob**

Adjusts volume.

⑤ **OPEN key**

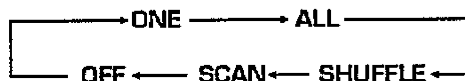
Press to open the top cover.

⑥ **MEMORY key**

Used to program track sequence.

⑦ **MODE key**

Enables various playback operations.



⑧ **PLAY/PAUSE key**

When pressed, power is automatically turned ON and playback starts. When pressed during playback, playback is paused; when pressed again, playback is resumed.

⑨ **STOP key**

Stops playback. Power is automatically turned OFF when playback is stopped.

⑩ **SKIP/SEARCH keys**

Used to skip a track or for fast forward/rewind operation.

⑪ **DC IN jack (External DC power input)**

For use with an external power supply.

⑫ **D.A.S.C. switch**

Guard against sound skip operates when the switch is set to ON.

Guard against sound skip

The D.A.S.C. stores digital data corresponding to about 1 second of CD playback in memory and reads this data as it plays music. This guards the listener from being troubled by sound skip even in case signal reading error occurs.

D.A.S.C.: "Digital Anti-Shock Circuit"

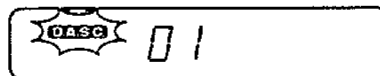
■ For setting to guard against sound skip

D.A.S.C.
OFF • • ON



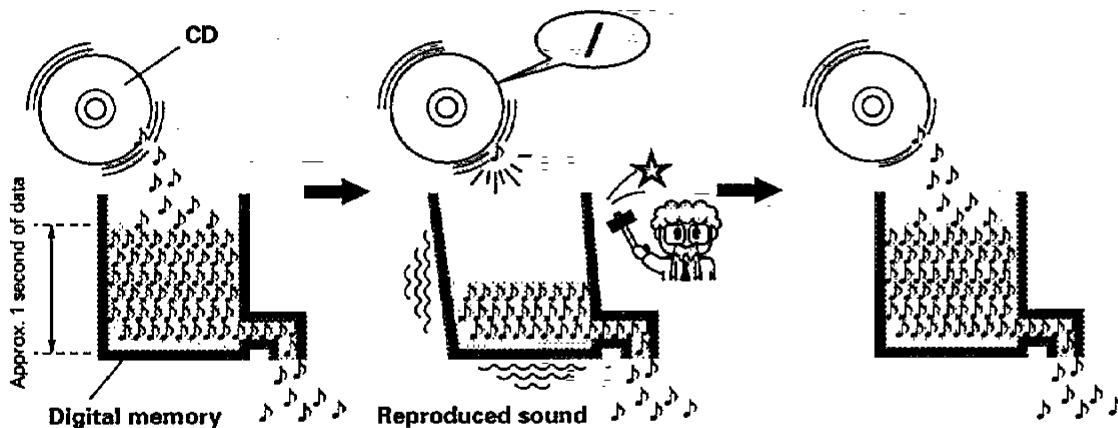
- Playback sound is interrupted when the switch position is changed.

Lights.



- In case of vibration above a certain degree, the memory data may be exhausted and the guard from sound skip may become temporarily ineffective.
- The use of the D.A.S.C. consumes the battery power quickly. When playing the unit in a place not subject to vibration, be sure to set the switch to the OFF position.

Mechanism of D.A.S.C.

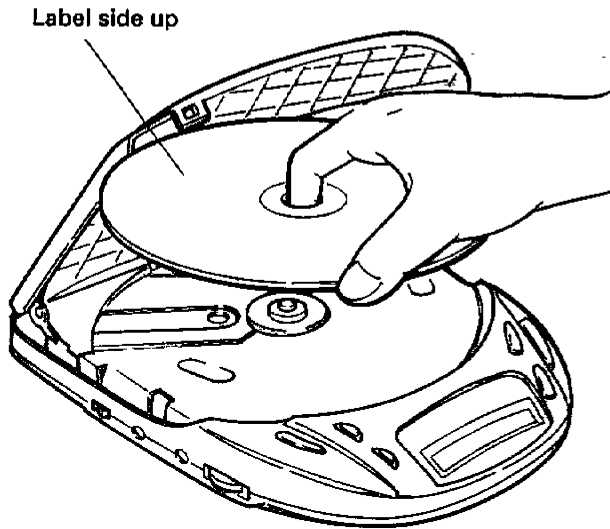


During playback, the CD is rotated at double the normal speed and the sound data of approx. 1 second beyond the present playback position is stored in memory.

When the readout from the CD is interrupted due to a vibration or shock, the sound data read from the memory is not interrupted.

The amount of stored data recovers so that the circuit can deal with the next possible shock.

Preparation for playback

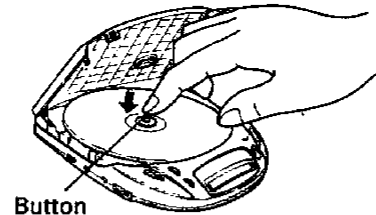


■ To insert a disc

1 Open the cover.

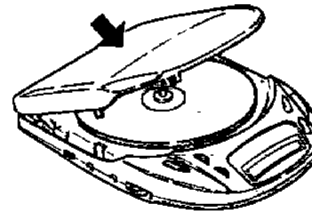


2 Insert a disc.



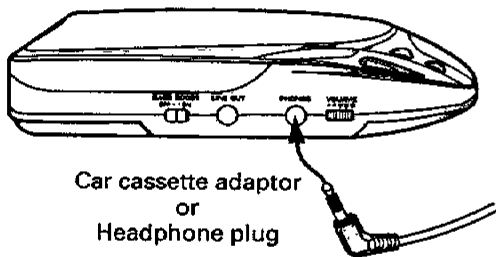
- Fit the center pivot into the disc hole and press the button.

3 Close the cover.



- Press down the left front side of the cover until it locks in place with a click.

■ Connecting to PHONES jack

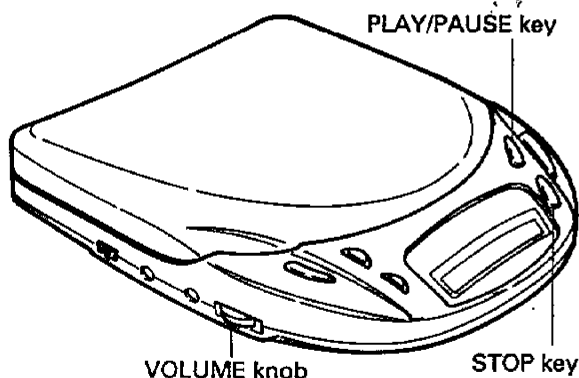


- Use headphones equipped with a stereo mini-plug.
- The unit does not include headphones as an accessory.

8 cm single CD

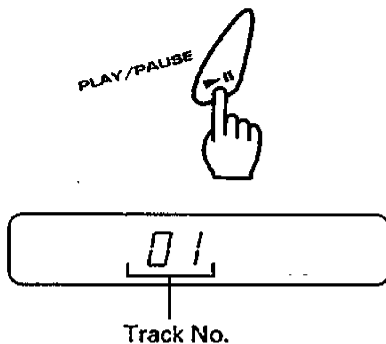
- This unit can play 8 cm single CD directly, without the help of an adaptor. (Do not use single CD adaptor sold in audio or record stores, for this may lead to malfunction.)

Basic operation



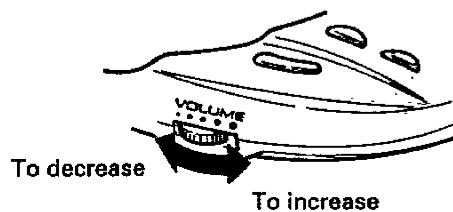
■ Normal playback

1 Start playback.

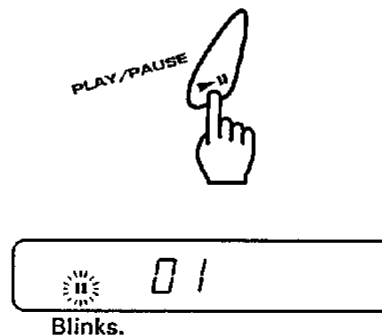


- When the key is pressed, the power comes ON and playback starts.
- Each time the **MEMORY** key is pressed, the track No. and time of the selection being played are displayed alternately.

2 Adjust the volume.

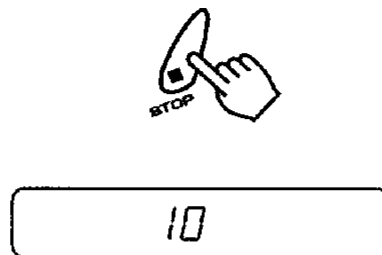


Pausing playback



- Press again to resume playback.

To stop playback

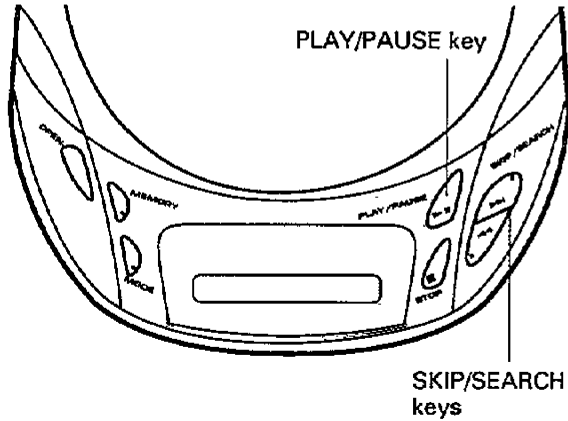


- Total track No. and total playing time are displayed alternately.
- The power will go OFF after about 5 sec.

AUTO POWER OFF

- When the key is pressed during playback, the power will be automatically turned OFF within about 5 sec.
- The power will be automatically turned OFF within about 5 sec. after the track has ended.

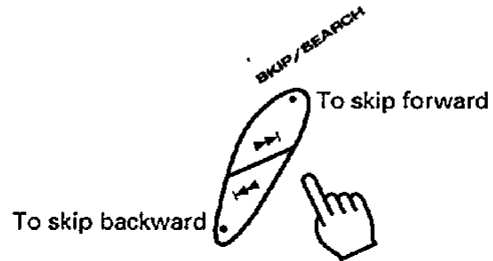
Starting playback from the desired track







Track search

Specifying the skip destination track

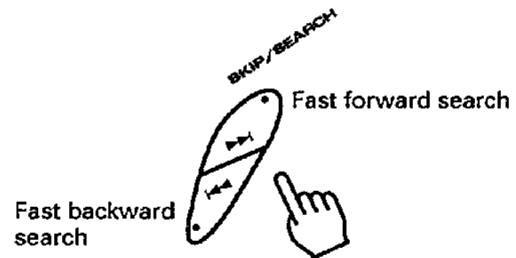
Tap lightly the SKIP/SEARCH keys corresponding to the direction you want to skip during playback.



- The same number of tracks as the number of times the key is tapped are skipped.
- When the  key is tapped once during playback, the track being played will be replayed from the beginning.
- To skip the track in the stop mode, press the ,  key, then press the  key.

Fast forward or fast backward search

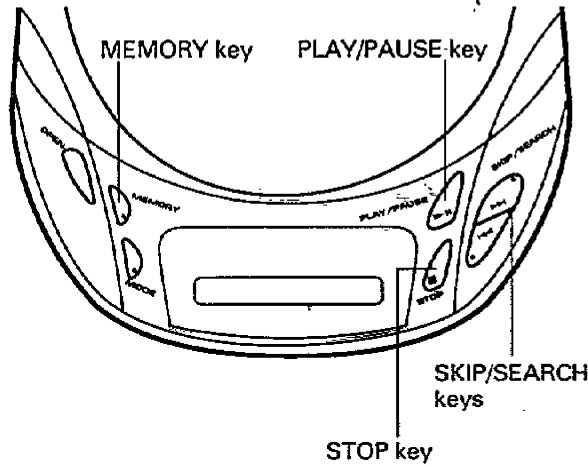
Press and hold the SKIP/SEARCH keys corresponding to the direction you want to search during playback.



- Normal playback resumes from the position you release the key.

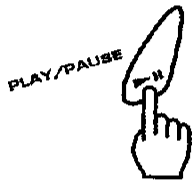
Programmed playback

20 tracks can be programmed into the memory in any order. Once 20 tracks have been programmed into the memory, **FULL** is displayed, indicating that no more tracks can be programmed.



Programmed playback procedure

1 Start playback.



- The power comes ON and playback starts.

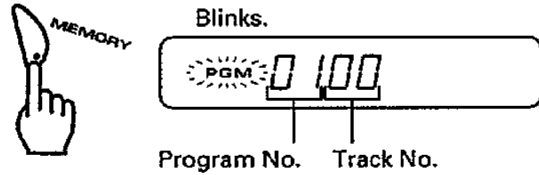
2 Enter the stop mode.



- Proceed to step 3 within about 5 sec.

3 Initiate the program mode.

Press the MEMORY key.



- Carry out step 4 within about 30 sec.

4 Program desired tracks in the desired order.

① Select a track.

To select track No. 3 as program No. 1:



Press three times.

Blinks.

- Carry out step ② within about 30 sec.

② Press the MEMORY key.



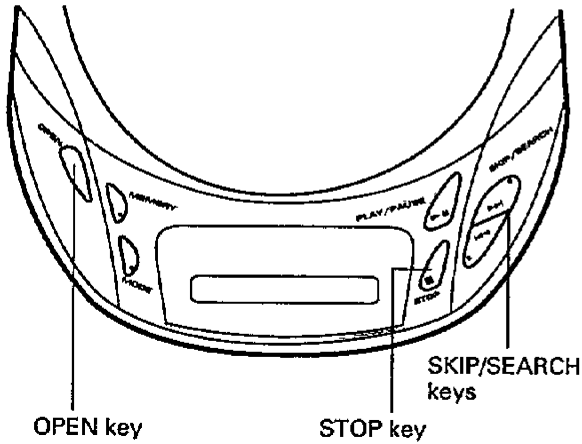
Blinks.

- Program other desired tracks by repeating steps ① and ② for each track.
- Up to 20 tracks can be programmed.
- Proceed to step 5 within about 30 sec.

5 Start playback.

Press the PLAY/PAUSE key.

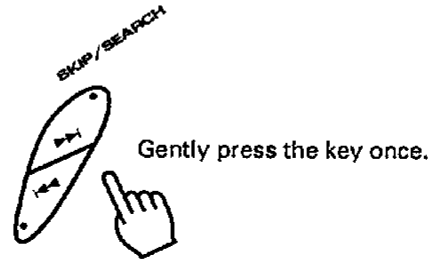
- Pressing the key once again will cause playback to pause.



■ Checking the program contents

1 Enter the playback mode.

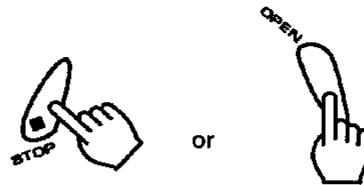
2 Press the SKIP/SEARCH keys.



- The programmed track is displayed each time the key is pressed.

■ Canceling the program

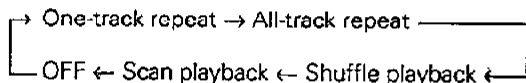
Press the STOP key twice or OPEN key.





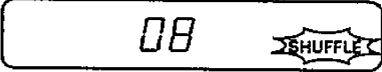
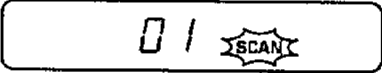
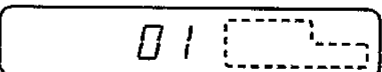
- The program is canceled even during AUTO POWER OFF operation.

Special playback operations

Various playback operations are available by pressing the **MODE** key during playback operation.



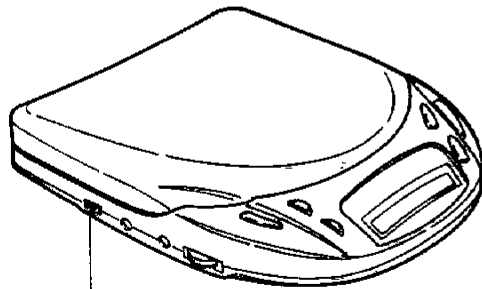
Each time the **MODE** key is pressed, the play mode is switched to the next mode.

ONE	<p>One-track repeat The track being played will be played back repeatedly.</p>	
ALL	<p>All-track repeat All tracks on the disc will be played repeatedly.</p>	
SHUFFLE	<p>Shuffle All tracks on the disc are selected and played back at random.</p> <ul style="list-style-type: none"> • If the shuffle playback mode is initiated during normal playback, the shuffle playback starts after the track being played has completed. • The SHUFFLE mode cannot be selected during program play. 	
SCAN	<p>Scan playback The intro to each track will be played for 10 sec. each.</p> <ul style="list-style-type: none"> • If the intro scan mode is initiated, intro-scan playback starts from the beginning of the first track on the disc. 	
OFF	<p>Cancellation Normal playback mode resumes.</p>	

Varying the tone

This unit has the Bass Boost function which allows to enjoy more powerful sound by enhancing the low frequencies. Switch this function ON or OFF to select the tone you like.

■ BASS BOOST



BASS BOOST switch

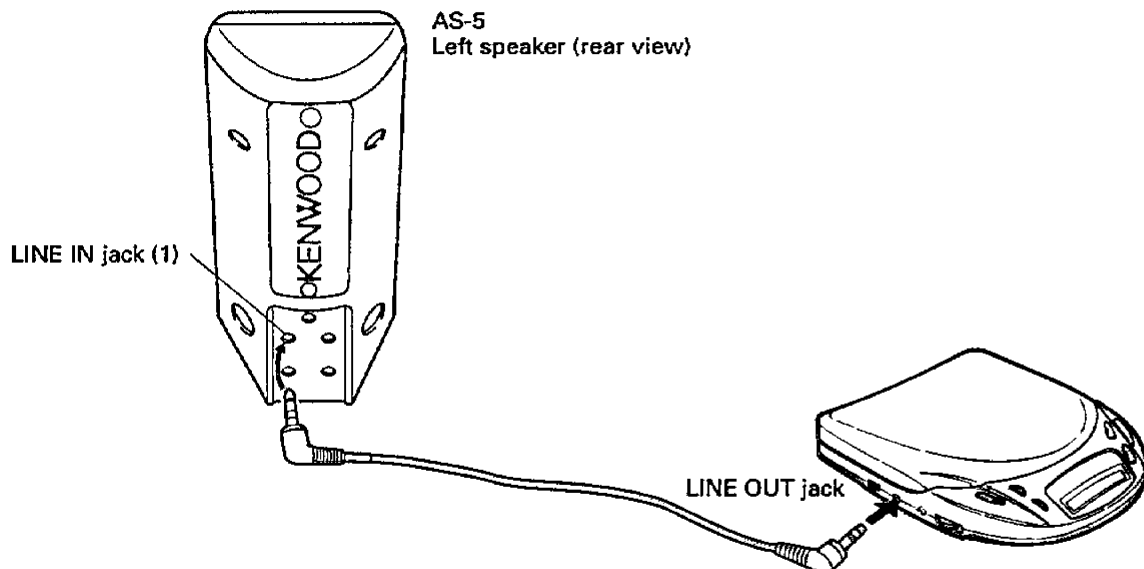
BASS BOOST
OFF •• ON



- Set the **BASS BOOST** switch to ON if you want to enhance the low frequencies.

Listening through speaker system (option)

This unit can be connected to the KENWOOD's Active Speaker (AS-5, AS-7 etc.).



Notes:

1. Be sure to turn the power of the speakers OFF before connecting them to this unit.
2. The playback volume should be adjusted on the speakers.
3. The Bass Boost function of this unit is defeated while the speaker system is connected.

In case of difficulty

What seems to be a serious trouble is often due to simple mistake. In case of trouble, check it again by referring to the table below.

Note that servicing may be charged if it is requested based on the following symptoms.

Symptom	Cause	Remedy
Operation does not occur when an operation key is pressed.	<ul style="list-style-type: none"> The batteries are exhausted. The disc is placed upside down. Dew is condensed inside the unit. The AC adaptor is disconnected. 	<ul style="list-style-type: none"> Replace both of the four alkaline batteries, or recharge the rechargeable batteries. Place the disc with the label side facing upward. Leave the unit for about an hour before use. Connect it properly.
No sound is output through headphones.	<ul style="list-style-type: none"> The headphones plug is connected incompletely. The volume is OFF. 	<ul style="list-style-type: none"> Insert it securely into the PHONES jack. Adjust the volume.
Sound skips or interrupts.	<ul style="list-style-type: none"> The D.A.S.C. switch is set to "OFF". A strong vibration that exceeds the capacity of the D.A.S.C. occurred. The disc is dirty. The internal lens is dirty. The headphones plug is dirty. The batteries are exhausted. 	<ul style="list-style-type: none"> Set the D.A.S.C. switch to "ON". Place the unit in a place not subject to vibrations. Clean it. Clean it. Clean it. Recharge or replace them.
Noise is heard.	<ul style="list-style-type: none"> The headphones plug is dirty. The batteries are exhausted. The headphones plug is connected incompletely. 	<ul style="list-style-type: none"> Clean it. Recharge or replace them. Insert it securely into the PHONES jack.
Charging is not possible.	<ul style="list-style-type: none"> Rechargeable batteries other than the special ones are being used. 	<ul style="list-style-type: none"> Please use the special rechargeable batteries (NB-77/NB-88).

Notes:

- Since this unit is equipped with a microcomputer, miscellaneous noise or interference noise from external sources may cause the unit to malfunction. In such a case disconnect the battery and AC adaptor, then reconnect them and operate the unit.
- Do not use contact cleaners because it could cause a malfunction. Be specially careful against contact cleaners containing oil, for they may deform the plastic components.

For the U.S.A.

CAUTION:

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

In compliance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

KENWOOD CORPORATION
2967-3, ISHIKAWA-CHO
HACHIOJI-SHI,
TOKYO, JAPAN

KENWOOD CORP. CERTIFIES THIS EQUIPMENT
 CONFORMS TO DHHS REGULATIONS NO. 21
 CFR 1040.10, CHAPTER I, SUBCHAPTER J.

Location: Bottom Panel

