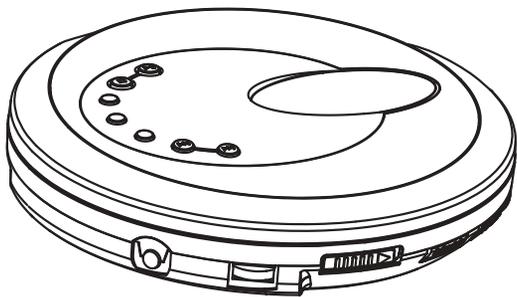


INSIGNIA

Compact Disc Player with Ultimate Skip Protection

IS-PA040717



INSTRUCTION MANUAL

PLEASE READ THE INSTRUCTIONS CAREFULLY BEFORE OPERATING THIS UNIT.

WARNING

To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

IMPORTANT

Since the CD circuitry may cause interference to other radio tuners nearby, switch this unit off when not in use or move it away from the affected radio tuner.

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

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

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

SAFETY CERTIFICATION

This Compact Disc Player is made and tested to meet safety standards of the FCC, requirements and compliance with safety performance of the U.S. Department of Health and Human Services, and also with FDA Radiation Performance Standards 21 CFR Subchapter J.



INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK FAILED OR DEFEATED. AVOID DIRECT EXPOSURE TO LASER BEAM.

LASER SAFETY

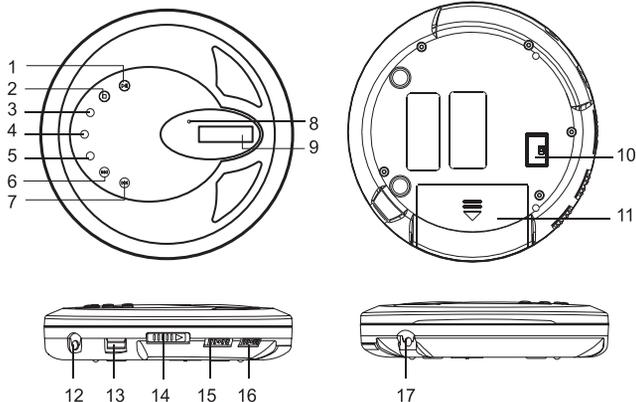
This unit employs an optical laser beam system in the CD mechanism, designed with built-in safeguards. Do not attempt to disassemble; refer to qualified service personnel. Exposure to this invisible laser light beam may be harmful to the human eye.

THIS IS A CLASS-1 LASER PRODUCT. USE OF CONTROLS, OR ADJUSTMENTS OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN, MAY RESULT IN HAZARDOUS LASER LIGHT BEAM EXPOSURE.

SAFETY PRECAUTIONS

1. Do not open the cabinet. Refer servicing to qualified personnel only.
2. Do not expose to excessive heat, direct sunlight, dust, moisture, vibration or shock.
3. Use ONLY the AC adaptor required; others may damage your unit. Disconnect from the wall outlet when the set is not to be used for an extended period of time.
4. When cleaning your unit, use a soft dry cloth, do not use solvents or commercially available cleaners as they may damage or discolor the finish.
5. Do not wear headphones while operating a motor vehicle, this could create a traffic hazard and is illegal in many areas.
6. The headphones supplied with your unit provide superior stereo listening while allowing you to hear outside sounds when listening at normally low volume levels. Listening at extremely high volume levels minimizes the intrusion of outside noise/sounds.
7. If you notice that the sound has become weak or distorted, this is an indication that your batteries are low. Replace with new or recharged batteries. (see "BATTERY OPERATION")

LOCATION OF CONTROLS

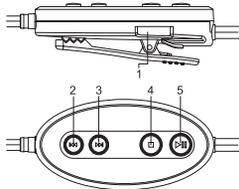


1. Play/Pause/Power On Button
2. Stop/Power Off Button
3. Program Button
4. Mode Button
5. Anti-Shock Button
6. Skip - Button
7. Skip + Button
8. Battery Charge Indicator
9. LCD Display

10. Charge On/Off Switch
11. Battery Door
12. Phones Jack
13. Volume Control
14. CD Door Open Switch
15. Bass Boost Switch
16. Hold Switch
17. DC Input Jack

Wire Remote Control

1. Volume Control
2. Skip - Button
3. Skip + Button
4. Stop/Power Off Button
5. Play/Pause/Power On Button



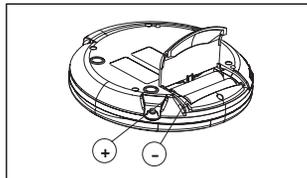
Note:

- Use only the supplied remote control unit with the player.
- You can also set the volume control of main unit to the proper sound level to the earphone.
- Operation is same as main unit.

POWER SOURCES NORMAL BATTERIES / AC ADAPTOR (not included)

Battery Power Operation

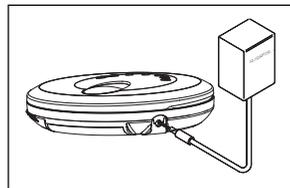
1. Open the battery compartment cover and insert two "AA" alkaline batteries inside the battery compartment. Follow the polarity as indicated in the battery compartment.
2. Close the battery compartment cover.



AC Operation (AC adaptor not included)

1. Insert the DC plug, at the end of the AC adaptor (not included) cord into the DC input jack.
2. Plug the AC adaptor (not included) into AC power outlet socket. Use only with the 6V AC adaptor required and make sure the local voltage corresponds to the adaptors's required AC input voltage.

Note: If the AC plug of this unit does not fit in your AC outlet, a plug adaptor should be used. Consult your local dealer on the type of plug adaptor required.



LOW BATTERY ALERT

When the Batt. Indicator appears in the LCD panel, this means that the batteries are losing their charge. In this case the CD player will not function properly and the batteries must be replaced. In case the rechargeable is being used, follow the instructions on how to recharge the batteries detailed in the owners manual.



Battery Type	Average Playing Time	
	Normal Play Mode	Anti-Skip Play
Alkaline "AA"	Approx. 9 hrs.	Approx. 8 hrs.
Rechargeable (min specification recommended 1.2V - 650mA)	Approx. 3.5 hrs.	Approx. 2.5 hrs.

Note: Zinc/Carbon, or Zinc Chloride type batteries are not recommended for this unit as their use will result in extremely short playing times.

CHARGING AND USE OF RECHARGEABLE BATTERIES

Rechargeable Battery Operation

This unit can fully recharge the specified rechargeable battery in approximately 15 hours. The rechargeable batteries (NOT supplied) should be recharged before they are used for the first time, if they are low in power or they have not been used for a long period (over 60 days).

1. Open the battery compartment cover and insert two of the recommended rechargeable batteries, matching the polarity. (1.2V 650mA)

BOTH BATTERIES MUST BE RECHARGEABLE.

2. Plug in the AC adaptor (not included). Set the Function Switch to CD mode and the Charge Switch to the ON position to start charging.

USE ONLY THE AC ADAPTOR (NOT INCLUDED) RECOMMENDED WITH THE UNIT FOR CHARGING.

Note: Charge indicator will illuminate.

3. After 15 hours, unplug the AC adaptor (not included) and switch the Charge Switch to the OFF position.

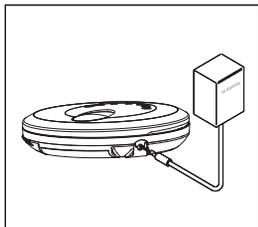
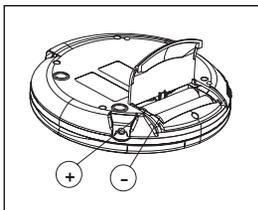
DO NOT CHARGE CONTINUOUSLY FOR 24 HOURS OR MORE. DOING SO CAN CAUSE THE PERFORMANCE OF THE RECHARGEABLE BATTERY TO DETERIORATE.

4. If the operating time decreases drastically even when the rechargeable nickel-cadmium batteries are properly recharged, purchase a new set of rechargeable nickel-cadmium batteries. Dispose of nickel cadmium according to local environmental laws.

5. When charging new batteries or if the batteries have not been charged for a long time, playing time may be reduced. In this case, charge and discharge the batteries several times.

NOTE:

- Do not attempt to recharge, short-circuit, disassemble, heat or throw the batteries into the fire.
- Do not mix battery types. e.g. alkaline with zinc carbonate.
- When inserting new batteries, replace all at the same time. Do not mix old and new batteries.
- Weak batteries can leak and severely damage the unit.

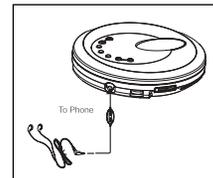


LISTENING WITH EARPHONES

Connect the plug of the stereo earphones into the PHONES (GREEN) socket.

Caution: Avoid excessive volume level and listening to sound for a long period of time when using headphones (not supplied).

- Adjust volume to the desired level.



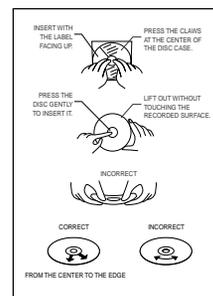
HANDLING COMPACT DISCS

This unit is designed to play only compact discs bearing the identification logo below.



Other discs may not conform to the CD standard and may not play properly.

- Dirty, scratched or warped discs may cause skipping or noise.
- Handle the disc only by the edges. To keep clean, do not touch its surface.
- Discs should be stored in their cases after use to avoid serious scratches.
- Do not expose disc to direct sunlight, high humidity, high temperature, dust, etc. Prolonged exposure to extreme temperatures can warp the disc.
- Do not stick or write anything on either side of disc. Sharp writing instruments or the inks used in some felt tip pens may damage its surface.



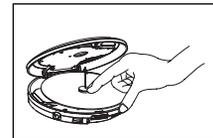
Remove the disc

Hold the edge and gently press the center pivot as illustrated to pick up the disc.

CAUTION:

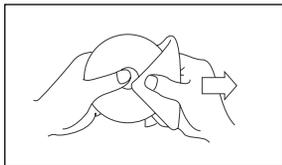
Wait for the disc to stop rotating before pressing the OPEN button.

Note: This unit can play 3" (8cm) single CDs without an adaptor (not included). Do not use a CD single adaptor for these discs.



CLEANING DISCS

- Fingerprints should be carefully wiped from the surface of disc with a soft cloth. Unlike conventional records, compact discs have no grooves to collect dust and microscopic debris, so gently wiping them with a soft cloth should remove most particles. Wipe in a straight motion from the center to the edge.
- Never use thinner, benzene, record cleaner or anti-static spray on a compact disc. Such chemicals can damage its plastic surface.



MAINTENANCE

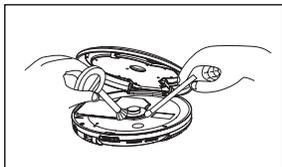
Cleaning the Cabinet

Wipe with a soft cloth. If the cabinet is very dirty, dampen the cloth with a weak solution of neutral detergent and water, and then wipe clean.

Cleaning the Lens

A dirty lens will cause sound skipping and if the lens is very dirty, the CD may not work. Open the disc cover and clean the lens as below:

- Dust or Dry Particles
Using a camera lens brush/blower, blow on the lens several times and wipe it lightly with the brush to remove dust. Blow on the lens one more time.
- Fingerprints
If the lens cannot be cleaned by using a brush/blower, use a dry cotton swab starting from the middle and working to the outside edge.



BASIC DISC PLAY

This CD-player can play Audio Discs such as CD-Recordables. Do not try to play a CD-ROM, CDi, VCD, DVD or computer CD.

- Connect the earphones to the PHONES (GREEN) socket.
- Press the OPEN button to open the CD compartment lid.
- Adjust the VOLUME to minimum.
- Insert the disc with the label side facing up.
- Close the lid securely until a click is heard.
- Press the PLAY button to start playing.

To Emphasize the bass sound

Set the BASS BOOST switch to the ON position.

Note: The bass boost performance will depend on the VOLUME control setting.



HOLD Switch

This switch prevents accidental selection of an unwanted function during Playback or Stop mode. In the HOLD "ON" position, no function button on the unit can be operated (except OPEN). Moving the switch to the "OFF" position will allow the unit to return to normal operation.



Turning Power on and off

This unit has no ON/OFF switch. To turn on and off, press the following buttons.

To turn on: Press >|| PLAY/PAUSE (playback starts).

To turn off: Press ■ STOP button once for standby mode.

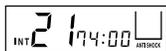
Press ■ STOP button twice to turn off the power.

Auto power-off function

When the unit is stopped (standby mode) for approximately 30 seconds, the power will automatically turn off.

INTRO PLAY

1. Press the MODE button ON three times and **INT** is displayed.
2. Press the PLAY/PAUSE button. Starts INTRO play from track no.01.
3. Select INTRO mode during play and **INT** starts flashing.
 - Press the PLAY/PAUSE button. Flashing stops and starts INTRO play from track no. 01.
 - Press **>>I** to play the current track. Flashing stops and starts INTRO play from next track.
 - Press **I<<**, flashing stops and starts INTRO play from current track.



PROGRAM PLAY

This allows selected tracks on the disc to be played in any desired order.

To set the program play

- Programming can be set in the STOP mode or normal play mode.
1. Press the PROG button and **PRG** starts flashing.
 2. Press **I<<** or **>>I** to select the desired track.
 3. When desired track is displayed, press the PROG button to register. The track No. display changes to 00 again.
 4. Repeat steps 2 and 3 to program the order of more tracks. Up to 20 tracks can be programmed into memory.



To complete programming and start play

Press the PLAY/PAUSE button. The **PRG** stops flashing and play will begin soon.

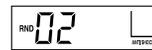
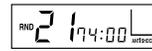
To clear programming

- Register 00 on the first program track.
- Open the door.
- Power Off

RANDOM PLAY

Enables all the tracks on a disc to be played in a Random(Shuffle) sequence.

1. Press the MODE button four times and **RND** will be displayed.
2. Press the PLAY/PAUSE button, The track No. is selected at random and will begin to play.
3. To select RANDOM mode during play, **RND** starts flashing.
 - Press the PLAY/PAUSE button **I<<** or **>>I** Flashing stops and RANDOM play begins.



SEARCH FUNCTION

Locating a Particular track

To go back to the beginning of the current or a previous track	Press I<< lightly and repeatedly.
To go to beginning of following track	Press >>I lightly and repeatedly.

Locating a Particular Point in a track

To search backward at high speed	Keep I<< depressed
To search forward at high speed	Keep >>I depressed

Low level audio will be heard during the search process to assist in locating the correct point in the track.

USING ANTI-SHOCK AND ULTIMATE SKIP PROTECTION FEATURE

Note the “” indicator appears on display as being empty when the player is first activated. It immediately begins to store sound data in memory bank. The indicator appears to be “” when the data buffer is full.

When the laser loses tracking due to mechanical shock, the data stream into the memory is interrupted but the data output from the memory buffer continues. The sound is not interrupted. As the data is read from the memory, the indicator changes from “” to “”.

Once the laser locks again on the CD track, the data stream is fed to the memory and joined to the previous data (see indicator changes) at higher speed.

CAUTION

If the unit is subject to excessive and continuous repeated shocks, it will cause the sound to skip. Also note the “” indicator will appear empty.

NOTES

- When the “ANTI-SHOCK” is operating, the battery consumption is higher because the disc rotates faster than normal and also the memory circuitry is activated.
- When the digital anti-shock function is switched “ON” or “OFF”, the sound will be interrupted. This is normal.
- Remember that conditions such as dirty, scratched or warped discs may cause skipping or noise thereby affecting performance of the “ANTI-SHOCK” system.
- Ultimate Skip Protection greatly reduces or eliminates skipping during active use. During active use, hold the compact disc player with the OPEN switch facing upward.

PRODUCT SPECIFICATIONS

PICK UP

System	Compact disc digital audio system
Laser diode	Material: GaAlAs
Properties	Wavelength: $\lambda=780\text{nm}$
	Emission duration: continuous
	Laser output: $< 44.6 \mu\text{W}$
Error correction	Cross-interleave Reed-solomon code

AUDIO

D/A conversion	DAC four times oversampling
Frequency response	20-20,000Hz (+1/-3 dB)
Wow and flutter	Below measurable limits
No. of Channel	2 Channels (Stereo)
Output level	Phones: 15mW (32 Ω)
Bass boost effect (100Hz)	+6 dB

GENERAL

Power requirements	-2x “AA” alkaline battery -DC in 6V 300 mA jack accepts AC power adaptor (not included) (center positive) with plug type EIAJ, center hole ϕ 1.7mm, outside ϕ 4.0mm
Power consumption	0.8W (DC 3V) under normal condition
Dimension	Approx. 140 (W) x 28.5 (H) x 144 (D) mm
Weight	Approx. 230g not including battery