

SANYO

INSTRUCTION MANUAL

CDP-350

Portable Compact Disc Player



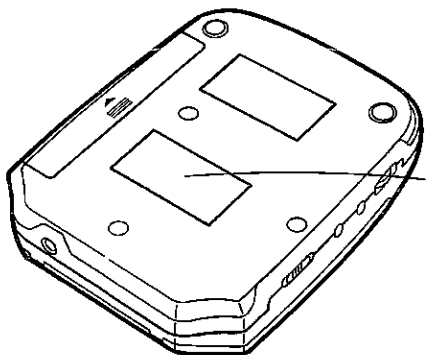
SAFETY CERTIFICATION

Laser Diode Properties

Material: Ga-Al-As

Wavelength: 755 ~ 815 nm (25°C)

Laser Output: Continuous Wave max. 0.5 mW



CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

CAUTION — USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

THE COMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT QUALIFIED SERVICE PERSONNEL.

WARNING!

- Unauthorized recording of copyrighted material may violate applicable copyright laws. SANYO assumes no responsibility for unauthorized duplication, use or other acts which infringe upon the rights of copyright owners.
- To avoid the hazards of fire or electrical shock, do not expose this appliance to rain or other moisture.

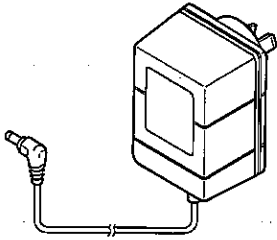
CAUTIONS:

- High volume settings can create potentially dangerous situations. Use caution when driving while operating this unit. Obey local regulations. It is not recommended to use this unit while bicycling or running.
- Do not place the unit in a position where it will be exposed to magnetic fields, water, or sources of heat. Avoid leaving the unit in direct sunlight for prolonged periods.

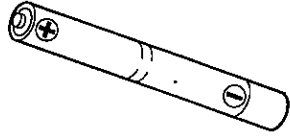
TABLE OF CONTENTS

Accessories	4
Safety Tips	5
Controls	6
Digital Anti-Shock Function	7
Sound Equalization System	8
Back Light Function	8
Auto Power On Function	8
Auto Power Off Function	8
Power Supply	9
Rechargeable Nickel-Cadmium Battery Installation	9
Alkaline Battery Installation	10
Handling Compact Discs	12
Playing A Disc	13
Track Search	15
Forward/Reverse Search	15
Time Display	17
Programmed Play	18
Repeat Play	22
Recording From The Line Out Jack	23
Cleaning	23
Specifications	24

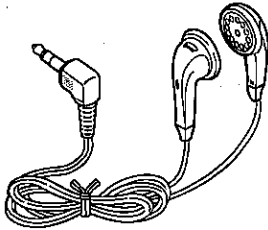
ACCESSORIES



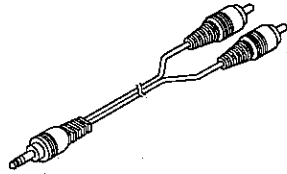
AC adaptor



Rechargeable nickel-cadmium
battery (NBP-30B)



Earphones



Patch cable

SAFETY TIPS

CAUTIONS FOR SAFETY

- Do not take the unit apart.
The laser beam used in the unit could harm your eyes.
- Do not insert pins, etc., inside the unit.
This unit is equipped with a safety device which automatically turns the laser beam off when the disc compartment is opened. If a pin or other metal object should get inside the unit, however, this safety device may be deactivated.
- Do not drop the unit.
Do not drop the unit or subject it to strong shocks. Doing so could result in damage.

Do not place the unit in the following locations:

- Locations where the temperature is high.
The unit's cabinet may warp or the unit may otherwise be damaged if it is placed in direct sunlight, near heaters (where the temperature is 60°C or greater) or in cars with the windows closed. (In the summer, the temperature may get as high as 100°C or more.)
Use the unit within a temperature range of 5°C to 35°C.
- In humid or dusty locations.
- In locations exposed to heavy vibrations.
- On unstable or tilted surfaces.

CONDENSATION

If cold water is poured into a glass, water droplets form on the outside of the glass. This is called condensation. Condensation may occur on internal operating parts of the lens.

Condensation occurs:

- When the unit is brought from the cold outdoors into a warm room, or if it is in a cold room which is heated quickly.
- In the summer, if the unit is moved suddenly from an air-conditioned room or car to a hot or humid location.

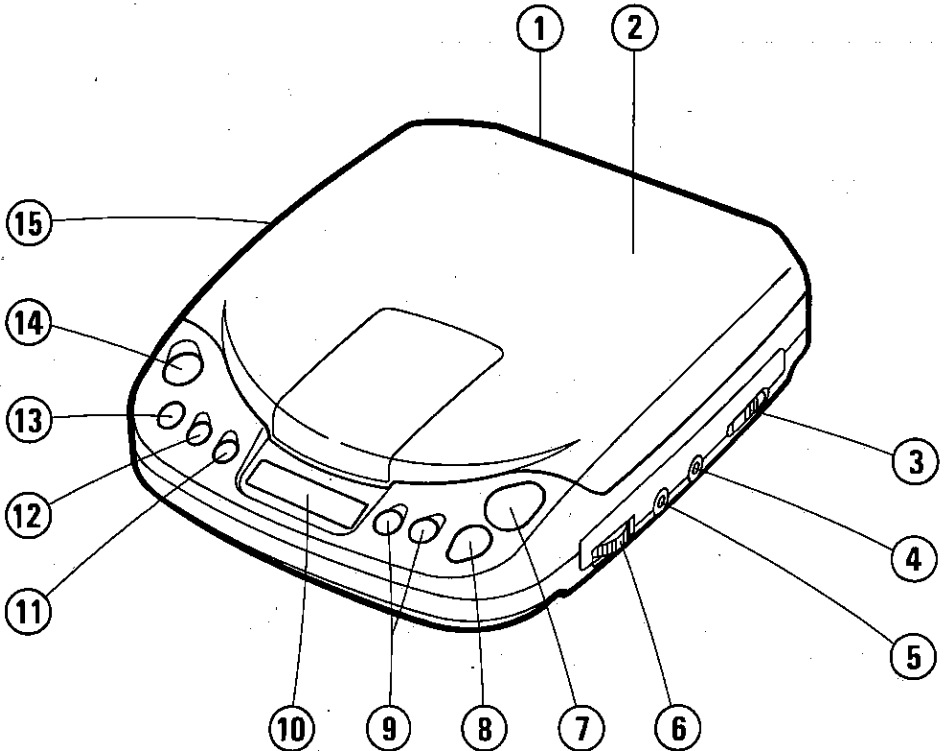
Should condensation occur:

The unit may not operate properly if condensation occurs.

Wait for 1 or 2 hours (to allow the internal parts to adjust to the surrounding temperature) before using the unit.

CONTROLS

- | | |
|---------------------|--------------------------------|
| ① DC 6V Jack | ⑨ F BACK/FFWD Buttons |
| ② Disc Compartment | ⑩ Display |
| ③ S.E.S Switch | ⑪ SET Button |
| ④ LINE OUT Jack | ⑫ P.MODE Button |
| ⑤ PHONES Jack | ⑬ ANTI-SHOCK Button |
| ⑥ VOLUME Control | ⑭ OPEN Button |
| ⑦ PLAY/PAUSE Button | ⑮ Battery Compartment (bottom) |
| ⑧ STOP Button | |

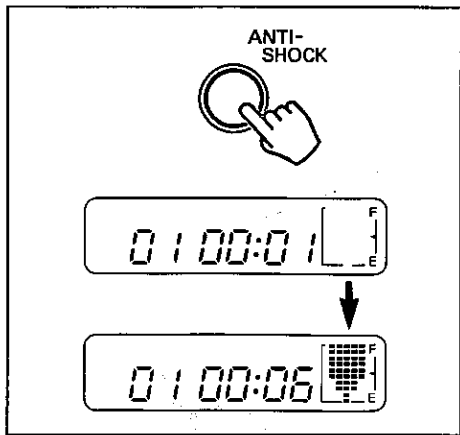


DIGITAL ANTI-SHOCK FUNCTION

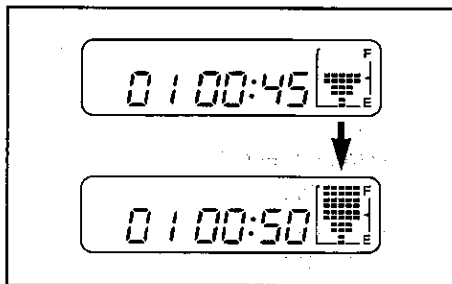
The digital anti-shock function uses semiconductor memory to prevent the sound from skipping when the unit is subjected to shocks and vibration during play.

When the ANTI-SHOCK button is pressed during play, the "L" indicator appears in the display and the digital anti-shock function turns on. The digital data equivalent to approximately 3 seconds of music is stored in a "read-ahead" memory buffer before it is decoded and played.

The "L" mark changes to the "E" mark, indicating that the data buffer is full.

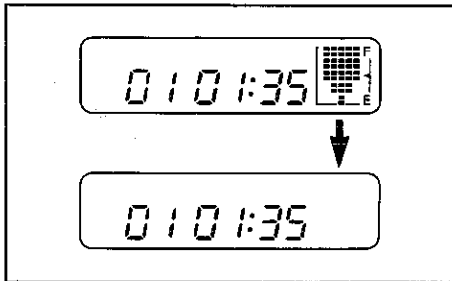


- When the unit is subjected to a shock during play, the data stored in memory continues to be decoded and played. This gives the pickup time to stabilize and continue reading new data. As the data is read from memory, the indicator changes from "L" to "E". Once the pickup returns to its original position, new data is stored in memory and the display changes back to the "L" mark.



- If the unit is subjected to repeated shocks and all the data stored in memory is used up, the "L" mark is displayed and the sound will skip.

Press the ANTI-SHOCK button again to turn the digital anti-shock function off.



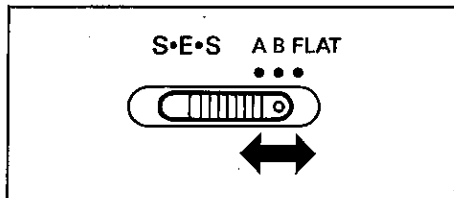
- Keep the digital anti-shock function off when using the unit in a stable location where it will not receive shocks. The battery power consumption is less when the anti-shock function is turned off.

NOTE:

When the digital anti-shock function is switched on or off, the sound will be interrupted for 1 ~ 2 seconds. This is normal.

SOUND EQUALIZATION SYSTEM

Use the Sound Equalization System to adjust the frequency response of the system to match the type of music you are listening to.



A
This setting provides a large bass boost (low frequency output), and also increases the treble (high frequencies).

B
This setting is similar to the A position, but uses a smaller bass boost.

FLAT
This setting maintains flat (even) frequency response.

BACK LIGHT FUNCTION

When the supplied AC adaptor is connected and play begins, the back light on the display turns on.

When the batteries are used and play begins, the back light turns on for approximately 5 seconds when a function button, except for the OPEN button, is pressed. The back light will go out automatically.

AUTO POWER ON FUNCTION

The power turns on automatically when the PLAY/PAUSE, P.MODE, FBACK or FFWD button is pressed.

AUTO POWER OFF FUNCTION

The power turns off automatically when all tracks on a disc have been played or when the STOP button is pressed to stop play.

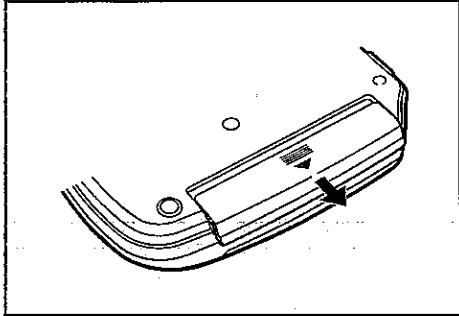
- The power turns off automatically after the P.MODE, FBACK or FFWD button is pressed if no other operation is performed.
- The power turns off immediately after the OPEN button is pressed and the disc compartment is opened.

POWER SUPPLY

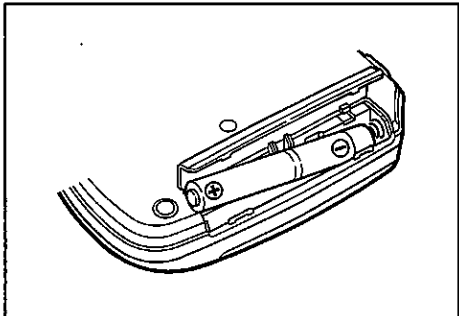
RECHARGEABLE NICKEL-CADMIUM BATTERY INSTALLATION

- Fully charge the rechargeable nickel-cadmium battery before using it for the first time.

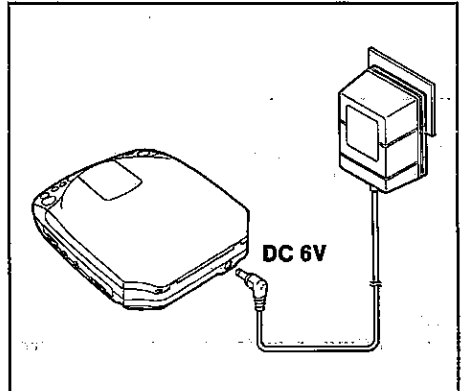
- 1 Slide the battery compartment on the bottom of the unit to the right, then swing the battery compartment open.



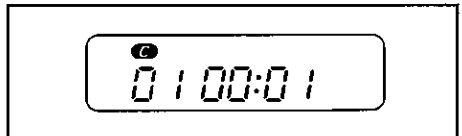
- 2 Insert the rechargeable nickel-cadmium battery into the battery compartment. Be sure to observe the proper polarity (the "+" and "-" signs, as indicated inside the battery compartment).



- 3 Close the battery compartment.
- 4 Plug one end of the supplied AC adaptor into the DC 6V jack, then plug the other end into an AC wall outlet.



- The battery is fully charged approximately 8 hours after the AC adaptor is connected.
- More time may be required for charging in cold temperatures.
- You can listen to CDs while the battery is charging, but more time is required for charging. "C" appears in the display during charging when the PLAY/PAUSE button is pressed.



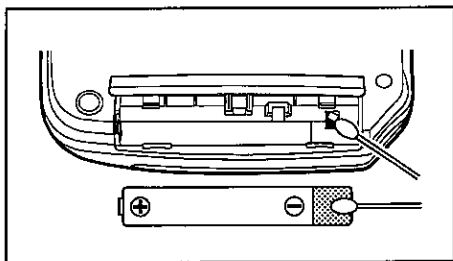
- 5 When charging is completed, disconnect the AC adaptor plugs from both the CDP-350 and the AC outlet.

Cautions on the AC Adaptor

- Use this unit only with the supplied AC adaptor. Use with other AC adaptors could damage the unit.
- Do not touch the AC adaptor with wet hands. Doing so is dangerous, as this could result in an electrical shock.
- If the AC adaptor is connected when the batteries are installed, the power supply automatically switches to the AC power source and the batteries are disconnected.

Notes on the Rechargeable Nickel-Cadmium Battery

- Always keep the charging terminal clean.

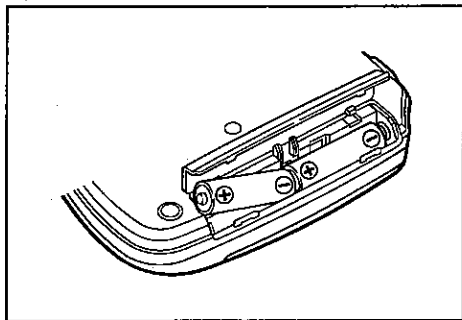


- Only use the rechargeable nickel-cadmium battery (NBP-30B) with the CDP-350. Under normal usage conditions, this battery can be recharged approximately 500 times.
- If the operating time decreases drastically even when the rechargeable nickel-cadmium battery is properly recharged, purchase a new rechargeable nickel-cadmium battery (NBP-30B).
- Do not use any AC adaptor other than the one supplied with the CDP-350.
- Do not charge continuously for 24 hours or more. Doing so can cause the performance of the rechargeable nickel-cadmium battery to deteriorate.

- Do not short-circuit the "+" and "-" terminals of the rechargeable nickel-cadmium battery.
- Do not put rechargeable nickel-cadmium batteries in water or fire.
- Do not disassemble rechargeable nickel-cadmium batteries.

ALKALINE BATTERY INSTALLATION

Insert two AA batteries (not supplied) into the battery compartment on the bottom of the unit. Be sure to observe the proper polarity (the "+" and "-" signs, as indicated inside the battery compartment).



Notes on Alkaline Batteries

- When replacing the alkaline batteries, use two new batteries of the same type. Do not mix a used battery with a new one or mix different types of batteries.
- When inserting the batteries, mistakenly inserting even one with improper polarity will cause leakage.
- Never charge, heat, disassemble, or throw batteries into a fire.
- When the batteries have become discharged, they must be disposed of in a safe manner that complies with all applicable laws.

Battery Recharging or Replacement

If the rechargeable nickel-cadmium battery or the alkaline batteries are weak and discharged, "⎓" flashes in the display, then the power automatically turns off. If this occurs, recharge the rechargeable nickel-cadmium battery or replace the alkaline batteries before using the unit.

- This unit can be used if the rechargeable nickel-cadmium battery or the alkaline batteries are removed, as long as the supplied AC adaptor is connected.
- When you are not going to use the unit for one month or more, take the rechargeable nickel-cadmium battery or the alkaline batteries out of the battery compartment.

To remove the rechargeable nickel-cadmium battery or old batteries, press down on the negative side of the battery. The battery will pop out of the compartment.

NOTE: If the operating buttons do not function when pressed . . .

1. Remove the batteries and/or disconnect the AC adaptor from the unit. Wait a few seconds, then reinstall the batteries or reconnect the AC adaptor.
2. If the buttons still do not function, insert new batteries or charge the rechargeable nickel-cadmium battery.

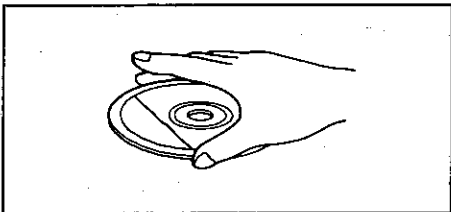
HANDLING COMPACT DISCS

This unit is designed to play compact discs bearing the identification logo below. Discs that do not carry this logo may not conform to the CD standard and may not play properly.



Dirty, scratched or warped discs may cause skipping or noise. Pay attention to the following:

- Handle the disc only by the edges. To keep the disc clean, do not touch the surface of the disc.



- Discs should be returned to their cases after use to avoid serious scratches that could cause the laser pickup to skip.
- Do not expose discs to direct sunlight, high humidity, or high temperatures for extended periods. Prolonged exposure to high temperatures can warp the disc.

- Do not apply paper or write anything on either side of the compact disc. Sharp writing instruments, or the inks used in some felt-tip pens, may damage the surfaces of the disc.
- Fingerprints should be carefully wiped from the surface of the 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 inside to the outside of the disc. Small dust particles and light stains will have no effect on reproduction quality.

YES



NO



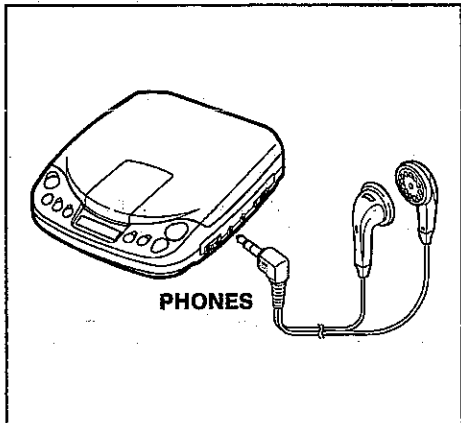
- Never use such chemicals as record sprays, anti-static sprays, benzene or thinner to clean compact discs. Such chemicals can damage the plastic surface of the disc.

- The unit will not play a disc that has been inserted upside down, or discs which do not conform to the Compact Disc standard. Also, the unit might not play discs that are scratched, soiled or carry fingerprints.
- 8 cm CDs can be played without an adaptor.

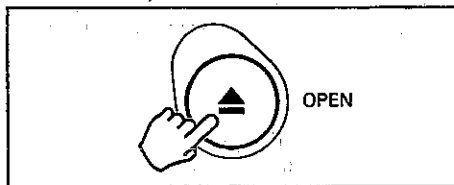
PLAYING A DISC

- Be sure to reduce the volume before plugging in or unplugging the earphones.

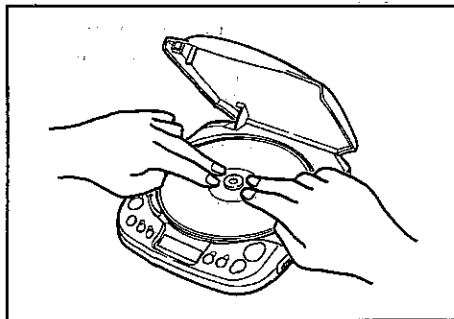
- 1 Plug the cord from a pair of the earphones into the PHONES jack.



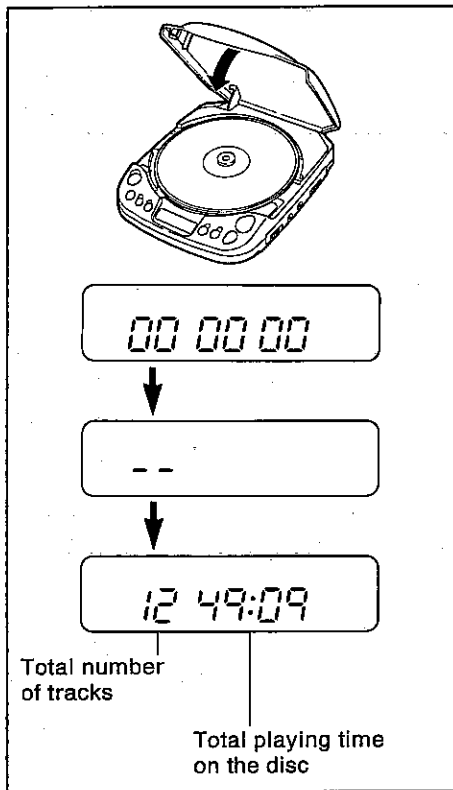
- 2 Press the OPEN button to open the disc compartment.



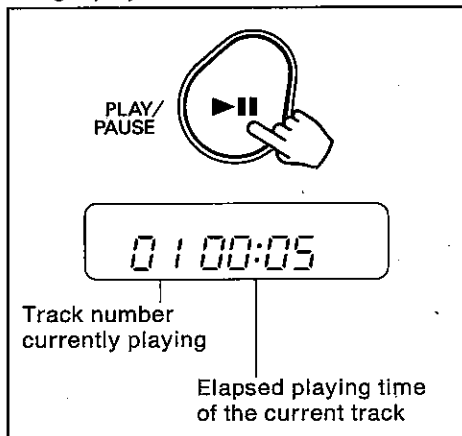
- 3 Hold the disc with the labeled side up and press it onto the spindle until it "clicks" into place.



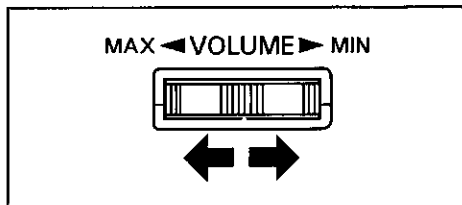
- 4 Close the disc compartment. The disc will begin to spin, the display will indicate the total number of tracks and total playing time on the disc, then the display will go out. If you press the PLAY/PAUSE button while "--" appears in the display, play will begin immediately with track number 1.



- 5 Press the PLAY/PAUSE button to begin play.



- 6 Adjust the VOLUME control as desired.

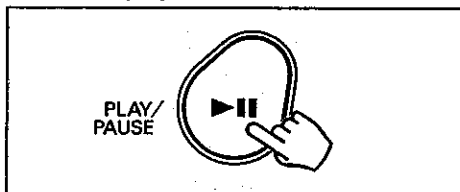


- 7 Set the following functions according to the usage conditions.

- Sound Equalization System
- Digital anti-shock function

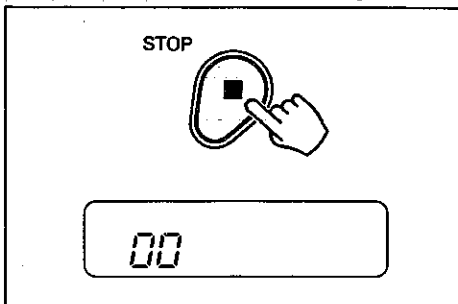
8 To stop play temporarily, press the PLAY/PAUSE button.

- The elapsed playing time flashes in the display.



- Press the PLAY/PAUSE button again to resume.

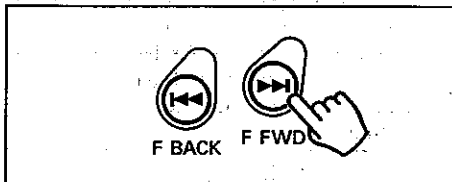
9 To stop play, press the STOP button. "00" appears in the display and the power turns off automatically.



- The power turns off automatically when all tracks on a disc have been played.
- The power turns off immediately when the OPEN button is pressed and the disc compartment is opened.

TRACK SEARCH

Press the F BACK or F FWD button during play to skip to the desired track.



- Press the F FWD button to skip to the next track on the disc.
- Press the F BACK button to skip to the beginning of the track currently playing.
- Press the F BACK button twice or more to skip to previous tracks.

FORWARD/REVERSE SEARCH

Press and hold the F BACK or F FWD button during play to scan the disc at high speed. When the desired section of the disc is found, release the button. Normal play will resume.

F FWD FORWARD
F BACK REVERSE

- If you press and hold the F FWD button while the last track is playing, and the end of the track is reached, the player stops.
- If you press and hold the F BACK button while the first track is playing, normal play automatically begins from the beginning of the first track.

When the FBACK or FFWD button is pressed after the power turns off:

- First, the total number of tracks and total playing time are displayed.
- Next, the track number flashes.
- Once the desired track number is displayed, press the PLAY/PAUSE button to begin play from that track.

When the P.MODE button is pressed after the power turns off:

- First, the total number of tracks and total playing time are displayed.
- Next, "01" flashes on the track number display, and the play mode switches in the following order: single track repeat → all tracks repeat → program repeat → programmed play → off (normal play).
- Once the desired play mode is displayed, press the PLAY/PAUSE button to begin play in that mode.

Example: To select single track repeat

1. Press the P.MODE button to display "1".
2. Press the FBACK or FFWD button to display the desired track number.
3. Press the PLAY/PAUSE button.

Example: To select program repeat or programmed play

1. Press the P.MODE button to display "M" or "M".
 - "00" and "M" flash in the display.
2. Follow steps 2 ~ 6 under "PROGRAMMED PLAY" (page 18).

NOTES:

- The power will turn off automatically if a function button is not pressed within approximately 10 seconds.
- When selecting a play mode that requires more than one button to be pressed, press the second button within approximately 10 seconds after pressing the first.

TIME DISPLAY

The remaining time on the disc (maximum 99 minutes, 59 seconds) can be checked by pressing the SET button during normal play or pause mode.

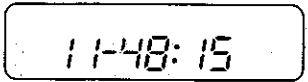


Press once: The remaining time of the track currently playing is displayed.



01:03:21

Press twice: The total number of tracks remaining and the total remaining time are displayed.



11:48:15

- During repeat play, the total remaining time on the disc is not displayed. The display returns to the original display (elapsed playing time of the current track).
- During programmed play, the total number of programmed tracks remaining and the total remaining time of the program are displayed.

Press three times: The display returns to the original display (elapsed playing time of the current track).



01:01:01

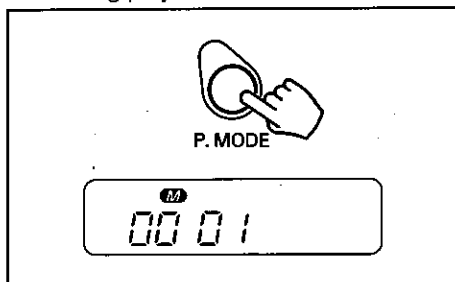
PROGRAMMED PLAY

- The tracks on the disc can be programmed for play in any order. (Up to 22 tracks can be programmed.)
- During programming, the track number and "M" flash in the display.

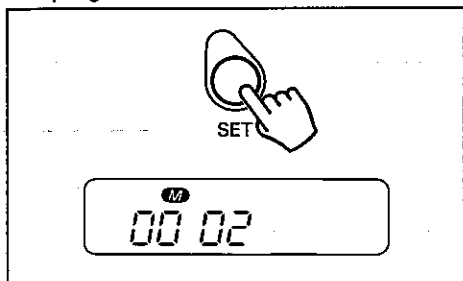
Program Example:

Program Number	1	2	3	4	5	6			
Track Number	5	3	8	1	2	4			

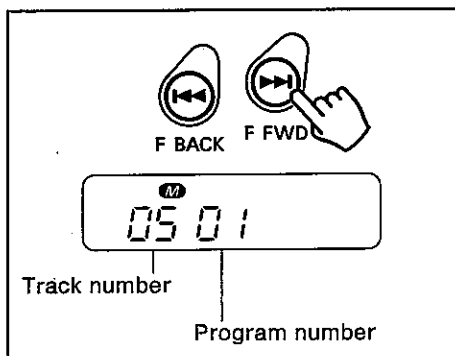
- 1 Press the P.MODE button four times during play.



- 3 Press the SET button. Track 5 is now programmed.

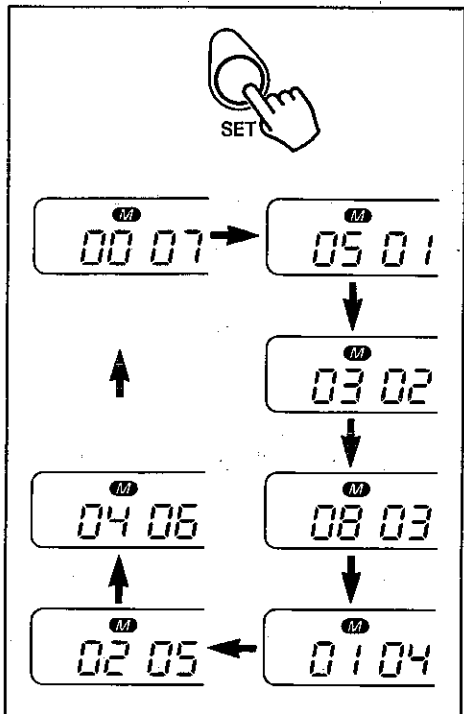


- 2 Press the F BACK or F FWD button to select track number 5.



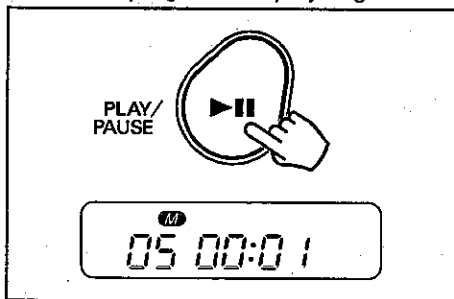
- 4 Repeat steps 2 and 3 to program other tracks.
- Programmed play automatically begins if you program 22 tracks.

- 5 To check the program contents after all track numbers have been programmed, press the SET button. The programmed track numbers will be displayed in the order they were memorized.



- 6 After programming is finished, press the PLAY/PAUSE button.

- "M" stops flashing in the display and programmed play begins.



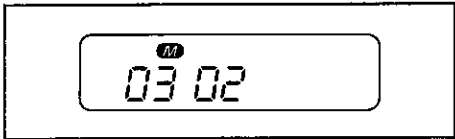
- The player stops automatically after all programmed tracks have been played.
- The programmed tracks are stored in memory until the disc compartment is opened.
To play the same program again, press the P.MODE button to display "M", then press the PLAY/PAUSE button.
- Programming is also possible in the pause mode.

Changing the Program

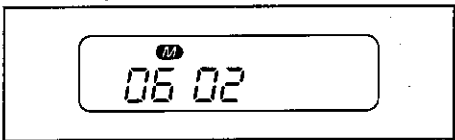
Press the P.MODE button to display "M". The track number and "M" flash in the display.

Example: To change program 2, track number 3 to track number 6

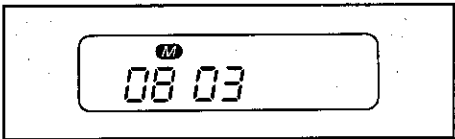
1. Press the SET button to display track number 3 (program number 2).



2. Press the FBACK or FFWD button to change the track number to 6.



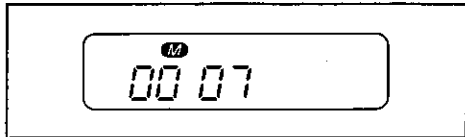
3. Press the SET button. After the change has been completed, the display will change to indicate the next program number (track number 8, program number 3).



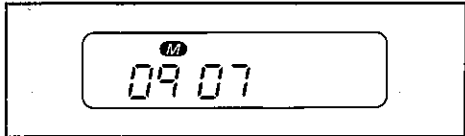
Adding a Program

Example: Add track number 9 as program 7

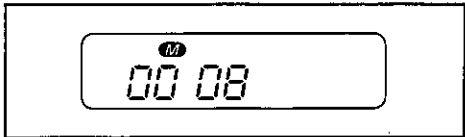
1. Press the SET button to display "00 07".



2. Press the FBACK or FFWD button to display track number 9.



3. Press the SET button. After the addition is completed, the display will indicate "00 08".

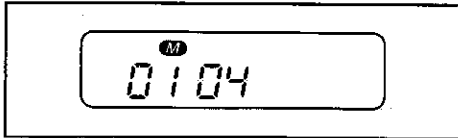


4. To make further additions, repeat the same procedure: press the FBACK or FFWD button to display the track number, then press the SET button.

Changing the Last Portion of a Program

Example: Change the programming from program 4 onward

1. Press the SET button to display track number 1 (program number 4).



2. Press the FBACK or FWD button to set the track number display to "00".



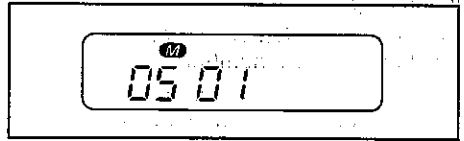
3. Press the SET button to delete program 4 and the following programs. The display will indicate track number 5 (program number 1).



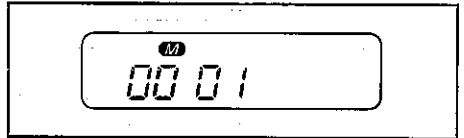
4. Press the SET button to display "00 04".
5. Program subsequent entries using the following procedure: press the FBACK or FWD button to display the track number, then press the SET button.

Deleting the Program

1. Press the SET button to select track number 5 (program number 1).



2. Press the FBACK or FWD button to set the track number display to "00".



3. Press the SET button and the entire program will be deleted.

The programs will be lost in the following circumstances.

- When the disc compartment is opened.
- When the rechargeable nickel-cadmium battery or the alkaline batteries are exhausted.
- When the rechargeable nickel-cadmium battery or the alkaline batteries have not been installed and the AC adaptor is disconnected.

Normal play without erasing the program

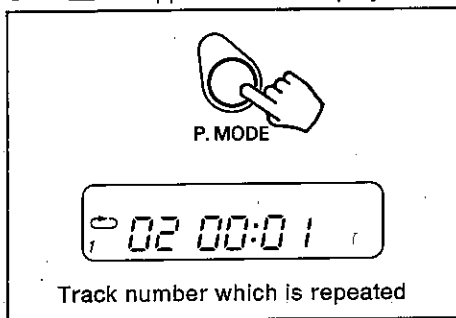
1. Press the P.MODE button during programmed play. When the "M" display goes out, normal play resumes.
2. To return to programmed play, press the P.MODE button to display "M", then press the PLAY/PAUSE button.

REPEAT PLAY

SINGLE TRACK REPEAT

Press the P.MODE button once during play.

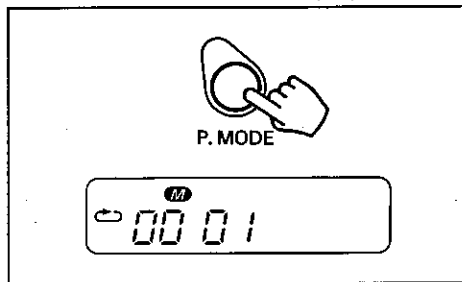
- "1" appears in the display.



PROGRAM REPEAT

- 1 Press the P.MODE button three times during play.

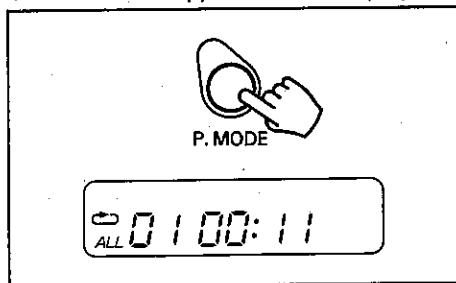
- "00" appears, and "00" and "M" flash in the display.



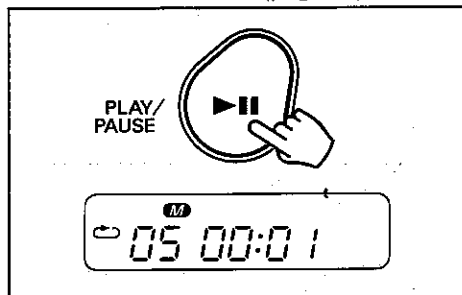
ALL TRACKS REPEAT

Press the P.MODE button twice during play.

- "ALL" appears in the display.



- 2 Follow steps 2 ~ 6 under "PROGRAMMED PLAY" (page 18).



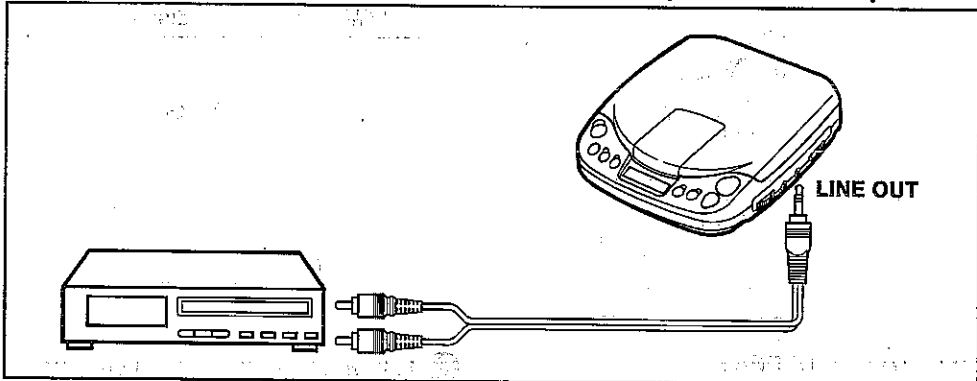
RECORDING FROM THE LINE OUT JACK

The output from the CD player can be recorded.

Connect the supplied patch cable from the LINE OUT jack on the CD player to the LINE INPUT jacks on a cassette recorder.

The sound from the CD can be heard through a pair of speakers.

Connect the supplied patch cable from the LINE OUT jack on the CD player to the AUX or CD INPUT jacks on a stereo system.



CLEANING

CLEANING THE PICKUP LENS

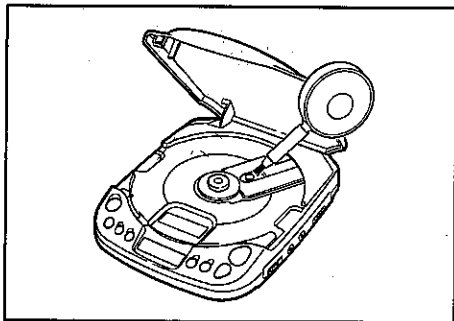
Dust on the pickup lens can lead to erratic operation and interruption of the sound during play.

- To clean the pickup lens, open the disc compartment. Blow the dust off of the lens using a camera lens blower (available at most camera stores).
- Do not touch the surface of the lens.

CLEANING THE CABINET

Use a soft cloth moistened with plain lukewarm water and wrung dry.

Never use benzol, benzene or other strong chemical cleaners, since these could damage the finish. It is important that no liquid reaches the inside of the unit.



SPECIFICATIONS CDP-350

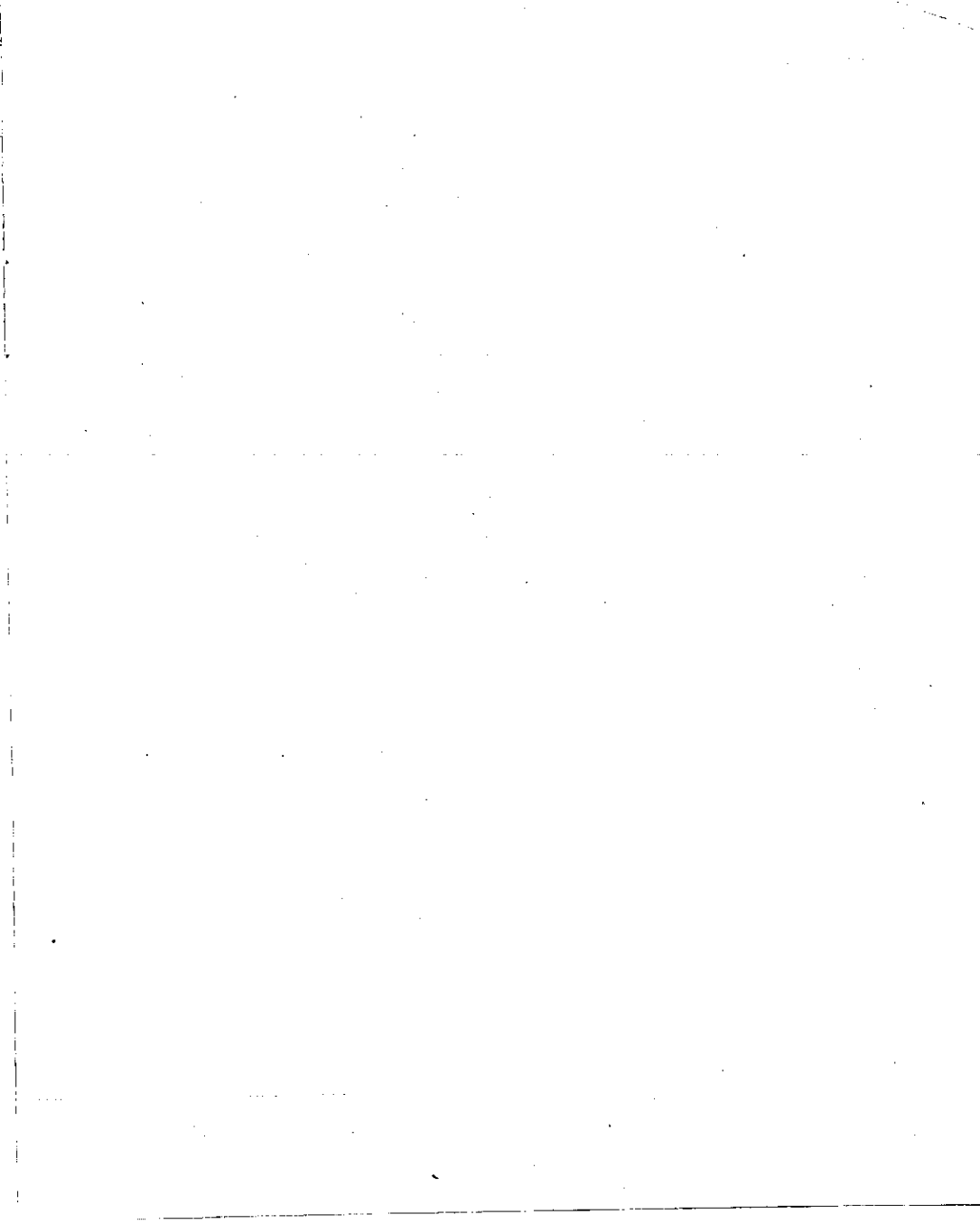
CD Player Section

Frequency Response	20 Hz ~ 20 kHz
Wow and Flutter	Below measurable limits
Sampling Frequency	44.1 kHz
D/A Converter	1-bit
Error Correction Method	CIRC
Pickup	Optical 3-beam semiconductor laser (780 nm wavelength)

General

Maximum Output (stereo earphones)	15 mW + 15 mW
Power Supply	
AC Adaptor	230 V ~ 240 V/50 Hz
DC	3V: Using two AA batteries 3V: Using the rechargeable nickel-cadmium battery
Dimensions (Approximate) (W x H x D)	134 x 39.5 x 166.5 mm
Weight (Approximate)	300 g (Main unit only)

- Specifications and product design are subject to change without notice.



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