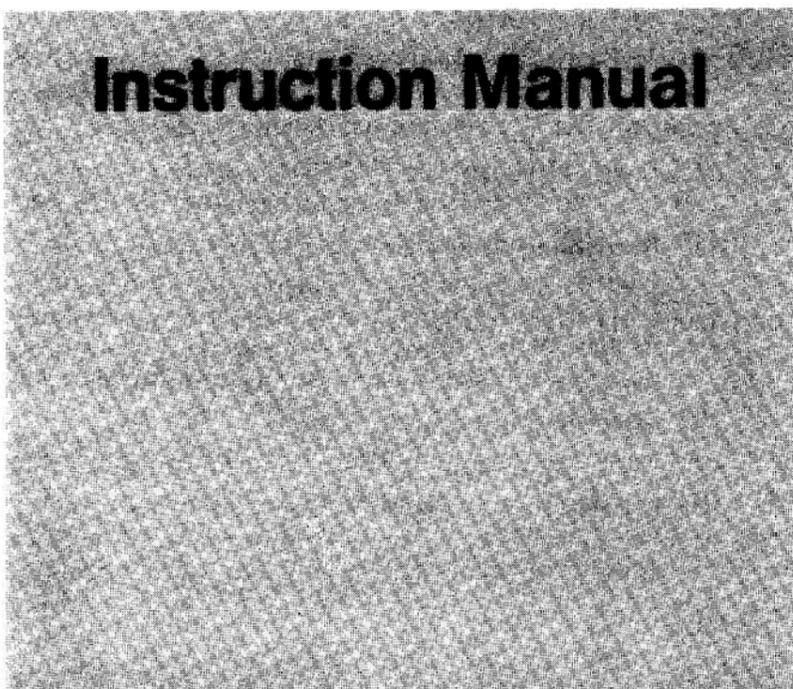




DX-230

Compact Disc Player



● *Congratulations on your purchase of the ONKYO DX-230 CD Player.* ● *Please read this manual thoroughly before making connections and turning power on.* ● *Following the instructions in this manual will enable you to obtain optimum performance and listening enjoyment from your new DX-230.* ● *Please retain this manual for future reference.*

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Features

- **Opto-Coupling***
Onkyo's original Opto-Coupling technique electrically separates the digital and analog circuit blocks for a playback sound free of the harshness sometimes associated with CD players.
- **"Two-Times" oversampling and Digital Filtering**
The two-times oversampling/digital filtering procedure increase the sampling frequency from the standard 44.1kHz to 88.2kHz. As a result, ultrasonic noise begins at a frequency of 68.2kHz—well above the upper limit of the audio band (20kHz)—so a steep analog filter is not necessary. This method preserves high -frequency phase accuracy, resulting in much more natural treble sound reproduction.
- **Eight-Digit Fluorescent Display**
The multi-function display indicates the current track number, the next track number, and the memory channel number, as well as the consumed/remaining time in minutes and seconds. This display capability facilitates easy song selection and tape dubbing operations.
- **Special Vibration Damping**
To prevent vibration-related tracking errors, Onkyo "floats" the entire drive assembly on four supports consisting of spring coils damped with vibration-absorbent rubber.
- **Three-Beam Laser Pickup**
In three-beam systems, the main beam searches for the presence of either a shiny surface, or a pit. Two auxiliary beams straddle either side of the disc track, searching for the presence of adjacent tracks. Such pickups are less liable to be "fooled" by disc defects like scratches which can cause mistracking.
- **Output CMN Filter**
This special noise filter consisting of a bi-filar wound ferrite ring core is incorporated into the output (analog) circuitry to make absolutely certain that no digital pulse interference of a type known as CMN (common mode noise) be allowed to degrade the DX-230's output signal.
- **10-key wireless remote control included**
The DX-230 includes a ten-key remote control capable of covering the play, stop, pause, program memory and clear memory functions. You'll only have to get up to put the CD into the player.

"WARNING"

"TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE."

CAUTION

"TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL."



- The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
- The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Important safeguards

1. **Read Instructions** – All the safety and operating instructions should be read before the appliance is operated.
2. **Retain Instructions** – The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** – All warnings on the appliance and in the operating instructions should be adhered to.
4. **Follow Instructions** – All operating and user instructions should be followed.
5. **Water and Moisture** – The appliance 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, and the like.
6. **Carts and Stands** – The appliance should be used only with a cart or stand that is recommended by the manufacturer.
7. **Wall or Ceiling Mounting** – The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.

8. **Ventilation** – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. **Heat** – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. **Power Sources** – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. **Grounding or Polarization** – The precautions that should be taken so that the grounding or polarization means of the appliance is not defeated.
12. **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, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. **Cleaning** – The appliance should be cleaned only as recommended by the manufacturer.
14. **Nonuse Periods** – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
15. **Object and Liquid Entry** – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
16. **Damage Requiring Service** – The appliance 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 appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - E. The appliance has been dropped or the enclosure damaged.
17. **Servicing** – The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

SPECIAL CAUTIONS FOR COMPACT DISC PLAYER

- This Compact Disc Player contains a semiconductor laser system and is classified as a "CLASS 1 LASER PRODUCT". So, to use this model properly, read this Owner's Manual carefully. In case of any trouble, please contact the store where you purchased the unit. To prevent being exposed to the laser beam, do not try to open the enclosure.
- The laser is covered by a housing which prevents exposure during operation or maintenance. However, this product is classified as a Laser Product by CDRH (Center for Devices and Radiological Health) which is a department of the Food and Drug Administration. According to their regulations 21 CFR section 1002.30, all manufacturers who sell Laser Products must maintain records of written communications between the manufacturer, dealers and customers concerning radiation safety. If you have any complaints about instructions or explanations affecting the use of this product, please feel free to write to the address on the back page of this manual. When you write us, please include the model number and serial number of your Compact Disc Player. In order for us to be able to communicate with you in the future concerning this matter, please be certain to fill out and return the enclosed warranty registration card.
- In compliance with Federal Regulations, the certification, identification and the period of manufacture are indicated on the rear panel.
- **DANGER:**
INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK FAILED OR DEFEATED. AVOID DIRECT EXPOSURE TO BEAM.
- **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.
- **Notice Concerning FCC Regulations**
This equipment generates and uses radio frequency energy and, if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the

limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does not cause interference to radio and 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 the receiving antenna.
- Relocate the unit with respect to the receiver. Move the unit away from the receiver. Plug the unit into a different outlet so that the unit and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to identify and Resolve Radio-TV interference problems."

This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00345-4.

Precautions

1. Warranty Card

The serial number is written on the rear panel of this unit. Copy the serial number and model number onto your warranty card and keep it in a safe place.

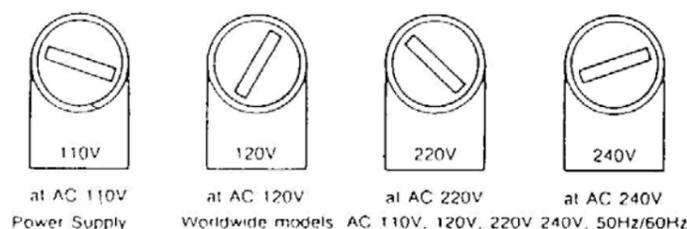
2. Power

WARNING

BEFORE TURNING ON POWER FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY.

- Some models are designed for use only with the power supply voltage of the region where they are sold.

USA & Canadian models:	AC120V, 60Hz
Worldwide model:	AC110V, 120V, 220V, 240V switchable, 50/60Hz
- **Voltage Selector (Rear Panel)**
Worldwide models are equipped with a voltage selector to conform with local power supplies. Be sure to set this selector to match the voltage of the power supply in your area before turning the power switch on. Voltage is changed by switching the voltage selector with a screwdriver or similar instrument to the 110V, 120V, 220V and 240V position. Confirm that the selector has been set to the correct position before turning the power switch on. If there is no voltage selector switch on the unit you have purchased, it can only be used in areas where the power supply voltage is the same as that of the unit.



3. Do Not Touch the Player with Wet Hands

Do not handle the player or power cord when your hands are wet or damp. If water or any other liquid enters the player cabinet, take the player to an authorized service station for inspection.

4. Location of the Player

- Place the Player in a Well-Ventilated Location.
Take special care to provide plenty of ventilation on all sides of the player especially when it is placed in an audio rack. If ventilation is blocked, the player may overheat and malfunction.
- Do not expose the player to direct sunlight or heating units as the player's internal temperature may rise and shorten the life of the pickup.

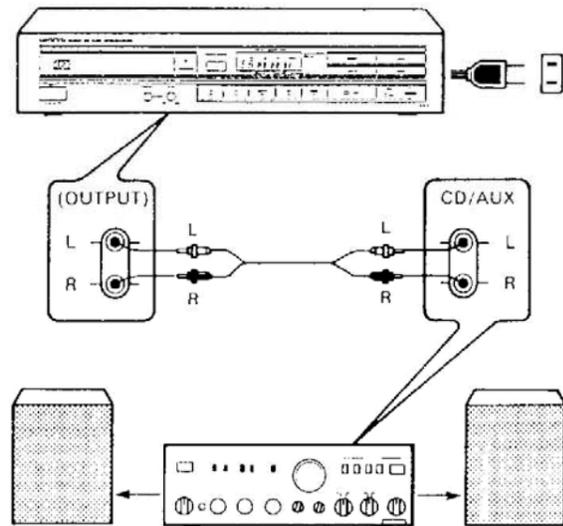
- Avoid damp and dusty places and places directly affected by vibrations from the speakers. In particular, avoid placing the unit on or above one of the speakers.
- Be sure the player is placed in a horizontal position. Never place it on its side or on a slanted surface as it may malfunction.
- Do Not Place Near Tuners and TV Sets.
If placed next to a TV or other tuner, it may cause reception interference resulting in some noise in the TV or tuner output.

5. Care

From time to time you should wipe off the front and rear panels and the cabinet with a silicon or other soft cloth. For heavier dirt, dampen a soft cloth in a weak solution of mild detergent and water, wring it out dry, and wipe away the dirt. Following this, dry immediately with a clean cloth. Do not use rough material, thinners, alcohol or other chemical solvents or cloths since these may damage the finish or remove the panel lettering.

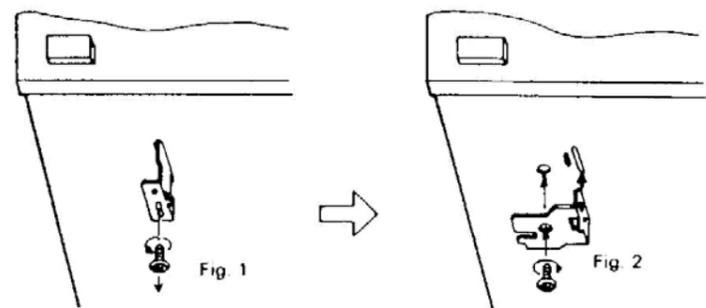
6. Points to Remember

- If the player is brought from a cold environment to a warm one or is in a cold room that is quickly heated, dew may form on the pickup preventing proper operation. In this case, remove the disc and leave the power ON for about one hour to remove the dew.
- Always close the disc tray when not loading or unloading discs to protect delicate internal parts from dust.
- When transporting the player, be careful not to bump it.



Before using this unit

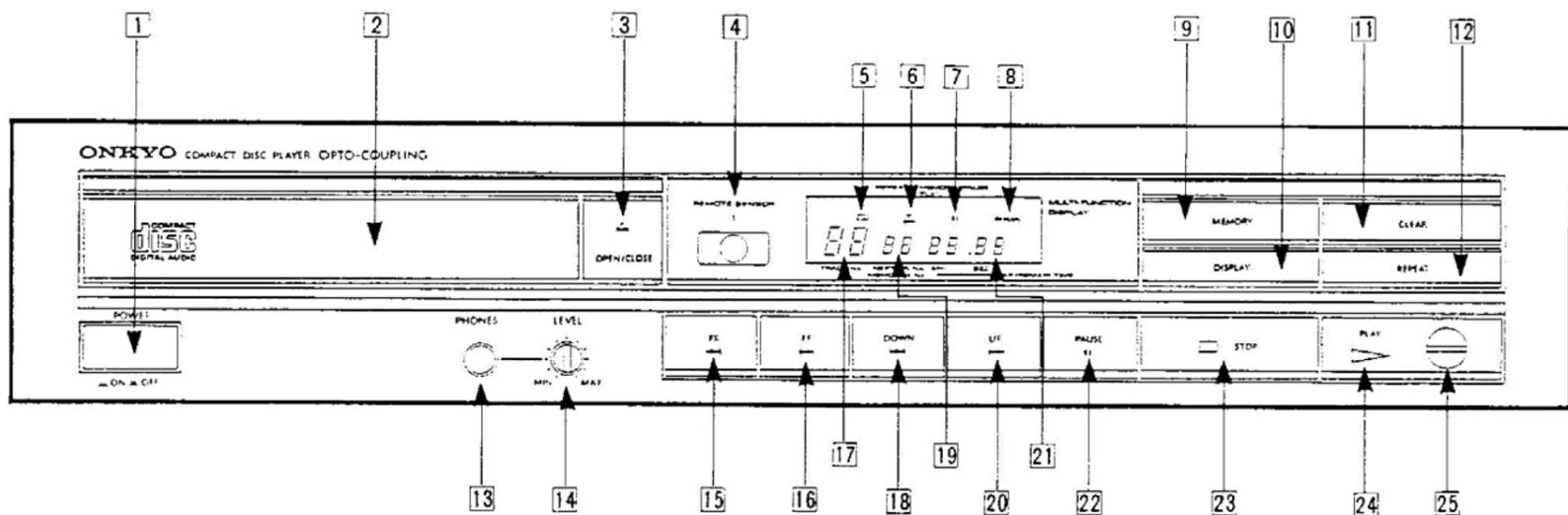
Before using this unit, remove the transport screw and the locking plate (Fig. 1). For safe keeping, insert the short end of the locking plate back in the slot and replace the screw to hold the plate in place. (Fig. 2)



System connections

- Before Using This Unit
Do not turn on power until all connections have been completed.
- Connect the OUTPUT jacks of this unit to the AUX or CD input jacks of an amplifier. When making connections, be sure that the left and right channel connections are not crossed.

Front panel facilities



- 1 Power Switch (POWER)**
Press once to switch power on and press again to switch power off.
- 2 Disc Tray**
Place a compact disc in this tray. The tray is opened and closed by the OPEN/CLOSE button [3].
- 3 Open/Close Button (OPEN/CLOSE)**
Press this button to open the tray and press it again to close the tray.
- 4 Remote Control Sensor (REMOTE SENSOR)**
Commands from the remote control transmitter are received here.
- 5 Repeat Indicator**
While in the repeat play mode, the Repeat indicator lights up.
- 6 Memory Play Indicator**
The Memory play indicator lights up when a song is programmed into memory and during memory play.
- 7 Pause Indicator**
The Pause indicator lights up when Pause is ON.
- 8 Remaining Indicator**
The remaining indicator: REMAIN blinks when the Time Display [21] is showing the time remaining for the current song. When the time display shows the time remaining for the songs yet to be played, the indicator lights up and does not blink.
- 9 Memory Button (MEMORY)**
Press this button to program song numbers into memory.
- 10 Display Button (DISPLAY)**
Press this button during playing to switch the display shown in the Time Display [21] among the following three types:

1. Elapsed time display
Shows how long the current song has been playing.
2. Song remaining time
Shows how much time is left for the song currently playing.
3. Total remaining time
Shows how much playing time is left for the entire disc.
During memory play, this display shows the playing time remaining for the entire sequence of songs programmed into memory.

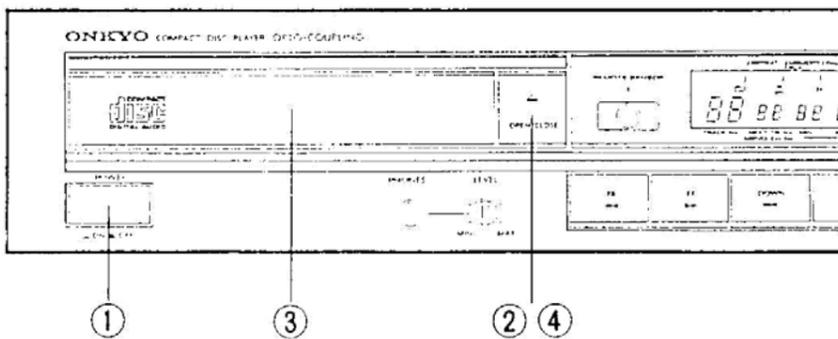
11. **Clear Button (CLEAR)**
Press this button to correct the song number or to cancel the last song number programmed into memory.
12. **Repeat Button (REPEAT)**
Press this button to activate the repeat play mode. Repeat play can be used in conjunction with the normal and memory play modes.
13. **Headphone Jack (PHONES)**
Stereo headphones with a standard stereo plug can be connected here.
14. **Level Control Knob (LEVEL)**
This knob controls the headphone volume level.
15. **Fast Reverse Button (FR)**
When this button is held down, the pickup moves backward over the disc. Disc play is resumed as soon as this button is released.
16. **Fast Forward Button (FF)**
When this button is held down, the pickup moves forward over the disc. Disc play is resumed as soon as this button is released.
17. **Track Number Display (TRACK No.)**
Displays the song number that is currently being played.
18. **Down Button (DOWN)**
Press this button during disc play to return to the beginning of the current track. Press twice to return to the beginning of

the previous track, three times for the track before that, and so on.

19. **Next Track Number/Memory Channel Display (Next Tr. No./MEMO. CH. No.)**
During memory play back, the track No. for the next song is displayed. When programming, the memory channel number is displayed.
20. **UP Button (UP)**
Press this button during disc play to advance to the beginning of one of the following tracks. The pickup moves ahead one song for each time this button is pressed.
21. **Time Display**
This display shows either the elapsed time or the remaining time for either the song being played or for the entire disc. During memory play, this display shows either the elapsed time or the remaining time for the song being played or the remaining time for the entire sequence of songs in memory.
22. **Pause Button (PAUSE)**
Press this button to briefly interrupt disc play. If this button is pressed while a track is being accessed after pressing the UP or DOWN button, the player will switch to the pause mode after the pickup has moved to the specified track. To resume disc play, press the PLAY button.
23. **Stop Button (STOP)**
Press this button to stop disc play.
24. **Play Button (PLAY)**
Press this button to start disc play. If the tray is open, pressing this button automatically closes the tray, then starts disc play. If there is no disc in the tray, the tray opens up again immediately.
25. **Play Indicator**
Lights when disc is playing.

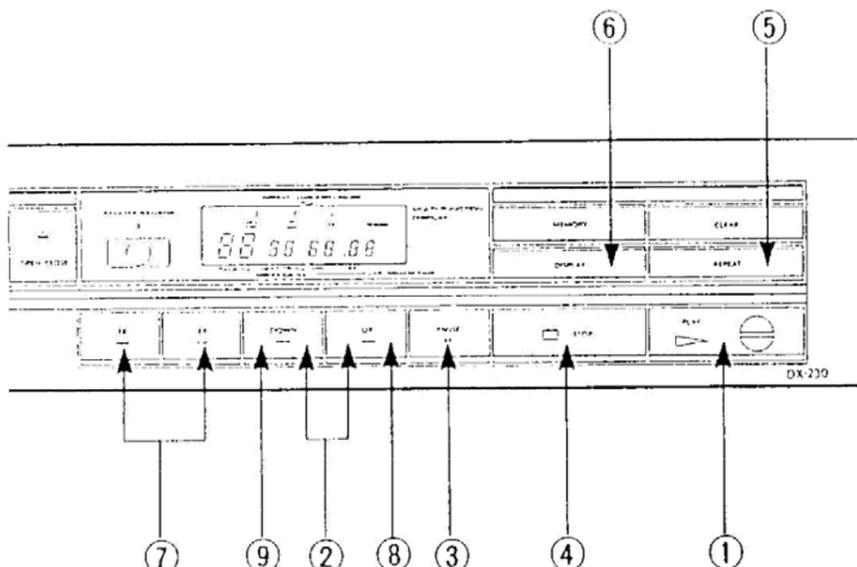
Operations

To Load a Disc



- 1 Press the Power Switch [1] to turn on the power.
- 2 Press the OPEN/CLOSE Button [3] to open the Disc Tray.
- 3 Put the disc in the Disc Tray [2] with its label facing up.
- 4 Press the OPEN/CLOSE button again to close the disc tray.
 - The disc automatically begins to turn.
 - When the total number of songs on the disc and its total playing time are displayed, the disc is ready.
 - If nothing is displayed, this may mean that the disc is in upside down. If that is the case, take out the disc and put it in right side up.
 - When you put the disc in the disc tray, if you press the PLAY Button [24] instead of the OPEN/CLOSE button, the tray is closed automatically and the first song begins to play.

To Play a Disc (Normal Play)



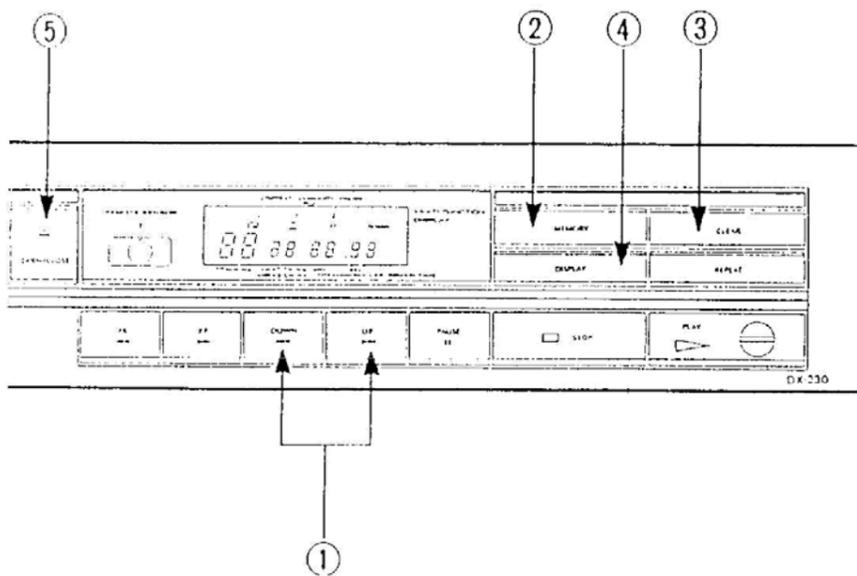
- 1 To listen to a disc from the beginning, press the PLAY Button [24].
 - The disc begins playing from the first song. If you play the disc all the way to the end, the track number display and the time display show "00 0.00" and the playing stops.
- 2 To begin listening from a particular song, press the UP Button [20] or the DOWN Button [18] to select the song you want to listen to.
 - When the number for the song you want listen to and its time are displayed, press the PLAY Button [24].
- 3 To pause during playing, press the PAUSE Button [22].
 - The Pause Indicator [7] lights and the playing stops temporarily.
 - To resume playing, press the PLAY Button [24]. The playing starts up again from exactly where it left off.
- 4 To stop the playing, press the STOP Button [23].
 - The track number display and the time display show "00 0.00" and the playing stops.

- When the display is in remaining time mode, the track number display shows the total number of songs on the disc and the time display shows the total playing time of the disc.
- To listen to all the songs over and over, press the REPEAT Button [12]. (You can press this button before playing begins or in the middle of playing.)
 - The Repeat Indicator [5] lights and when the playing reaches the end of the disc, it starts again from the first song.
 - To stop the repeat play, press it again.
 - To switch the display, press the DISPLAY Button [10] during playing.
 - The Time Display [21] switches from displaying the elapsed time to displaying the time remaining for the current song. If you press the DISPLAY button again, the time display switches to displaying the total time remaining for the entire disc, and if you press it again, it returns to displaying the elapsed time.
 - To move forward or backward quickly while a disc is playing, press the FAST FORWARD Button [16] or the FAST REVERSE Button [15].
 - The pickup continues to move rapidly forward or backward as long as you hold down the FAST FORWARD button or FAST REVERSE button. For the first 3 seconds, it moves at

about 3 times normal playing speed and after that at about 20 times normal playing speed. While the pickup is moving rapidly forward or backward, the music can be heard at low volume (about -12 dB).

- If you fast forward all the way to the end of the disc, the pickup stops.
- To move on to the next song, press the UP Button [20].
 - The playing of the current song is interrupted and the pickup moves to the beginning of the next song.
 - The pickup moves ahead one song for each time you press the UP button.
 - To return to the beginning of the song during playing, press the DOWN Button [18].
 - The playing is interrupted and the pickup moves back to the beginning of the current song. If the playing time display is "0.00" (in other words, if the pickup is already at the beginning of the song), the pickup moves to the beginning of the preceding song.
 - If you press the DOWN button again before the pickup reaches the beginning of the current song or you press the DOWN button twice in a row, the pickup goes to the beginning of the previous song.

To program the Memory



- Select the song you want with the UP Button [20] or the DOWN Button [18].
 - The number of the song you have selected is displayed in the Track Number Display [17] and the playing time for that song is displayed in the Time Display [21].
- Press the MEMORY Button [9].
 - The selected song number is displayed in the Track No. Display [17] "c1" is displayed in the Next Track Number/Memory Channel Display [19], and the play time for the song is displayed in the Time Display. The song is now programmed in Channel 1.
 - You can repeat this procedure for up to 16 songs.

- If there are 10 or more songs in memory, the "c" is left out of the display.
- Once even one song has been programmed into memory, the Memory Play Indicator [6] lights up automatically and the compact disc player goes into memory play mode. The Remaining Indicator [8] also lights up and the time display shows the total remaining time.

NOTE

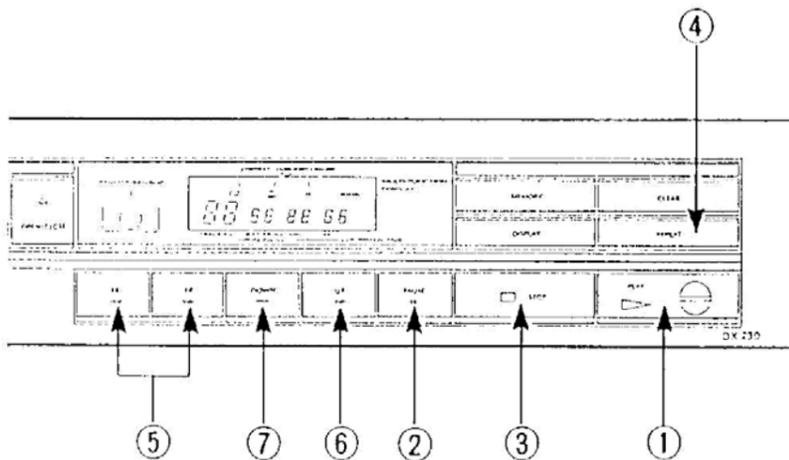
- When more than one song has been programmed into memory, the time display shows the total time remaining for all the songs in memory. If the total time should exceed 99 minutes and 59 seconds, the time display shows "— ——" and no number will be displayed for the total time.
- If a song whose track number is over 20 is programmed into memory, the time display shows "— ——" and the total time is not displayed.
- If you try to program a 17th song, the memory channel display will show "E" to indicate that no more songs can be programmed into memory.
- The memory not can be programmed while the disc tray is open, while there is no disc in the disc tray, or while a disc is playing.

- To cancel a mistaken memory entry, press the CLEAR Button [11].
 - Pressing the CLEAR button cancels the last song programmed and displays the status of the preceding channel. Now, you can try again to program the song you want. Each time the CLEAR button is pressed, the last memory entry is cancelled.
- Checking the contents of memory

After completing the program operations, press the DISPLAY Button [10].

 - The Remaining Indicator [8] goes out and the contents of memory channel 1 are displayed. This time display shows the number of the song stored in Channel 1 and its playing time.
 - Use the UP Button [20] and DOWN Button [18] to switch the display to any memory channels you which to check.
- To cancel all the songs in memory, press the OPEN/CLOSE Button [3].
 - The contents of the memory are canceled when the disc tray opens.

To Play the Memory



- ① To listen to the disc from in memory in the programmed order, press the PLAY Button [24].
 - Play begins in the programmed order, i.e. beginning with the song stored in Memory Channel 1.
 - The current song number is displayed in the Track No. Display [17] and the next song number is displayed in the Next Track Number/Memory Channel Display [19].
- ② To pause during playing, press the PAUSE Button [22].
 - The Pause Indicator [7] lights and the playing stops temporarily.
 - To resume playing, press the PLAY Button [24]. The playing starts up again from exactly where it left off.
- ③ To stop the playing, press the STOP Button [23].
 - The contents of Memory Channel 1 are displayed and the play stops.
 - When in the remaining time mode, the last song in memory is displayed in the Track No. Display [17], the last channel number in memory is displayed in the Next Track Number/Memory Channel Display [19], and the entire play time in memory is displayed in the Time Display [21].

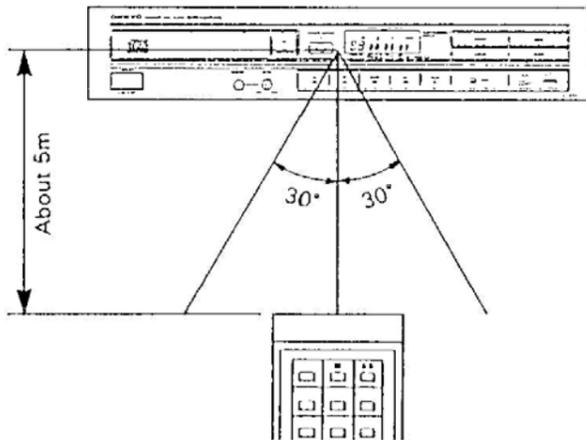
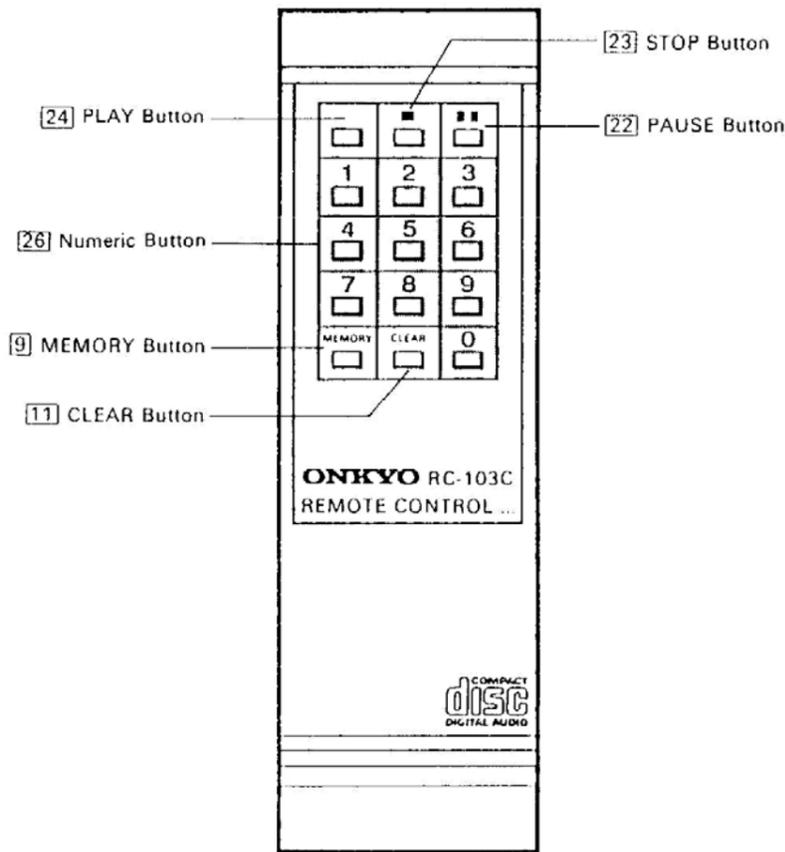
NOTE:

To leave memory play completely, either press the CLEAR Button [11] to clear the entire memory or press the OPEN/CLOSE Button [3] to open the disc tray and clear the memory. Either operation returns the disc player to normal play mode.

- ④ To listen to all the songs over and over, press the REPEAT Button [12]. (You can press this button before beginning to play the disc or while playing the disc.)
 - The Repeat Indicator [5] lights and when the disc player reaches the end of the sequence of songs programmed into memory it repeats that sequence.
 - To stop the repeat play, press it again.
- ⑤ To move forward or backward quickly within the current playing song, press the FAST FORWARD Button [16] or the FAST REVERSE Button [15].
 - The pickup continues to move rapidly forward or backward in the current playing song as long as you hold down the FAST FORWARD button or FAST REVERSE button. For the first 3 seconds, it moves at about 3 times normal playing speed and after that at about 20 times normal playing speed. While the pickup is moving rapidly forward or backward, the music can be heard at low volume (about -12 dB).
 - If you hold the buttons down for fast forward or reverse, when exceeding the current playing song, play automatically resumes from the beginning of the next song specified in the memory.
- ⑥ To move on to the next song, press the UP Button [20].
 - The playing of the current song is interrupted and the playing moves to the beginning of the next song in memory.
 - The playing moves ahead one song in memory for each time you press the UP button.
- ⑦ To return to the beginning of the song during playing, press the DOWN Button [18].
 - The playing is interrupted and the pickup moves back to the beginning of the current song. If the playing time display is "0.00" (in other words, if the pickup is already at the beginning of the song), the pickup moves to the beginning of the preceding song in memory.
 - If you press the DOWN button again before the pickup reaches the beginning of the current song or you press the DOWN button twice in a row, the pickup goes to the beginning of the preceding song in memory.

To operate the Remote Control

- Insert two batteries into the remote control transmitter with their positive and negative ends facing the correct direction.
- The remote control transmitter has numeric buttons. You can carry out many convenient operations with these numeric buttons.
- Here is how to use the numeric buttons on the remote control transmitter



The remote control transmitter can be used from a distance of up to about 5 meters (16 feet) from the front panel and at a maximum angle of about 30° horizontally or vertically.

1. To listen to the disc from a particular song, select the song you want with the Numeric Buttons [26], and press the PLAY Button [24].
 - The Track Number Display [17] shows the song number and the Time Display [21] shows the playing time for that song.
 - If you enter the wrong song number, press the CLEAR Button [11] to cancel it, then enter the number for the song you want to listen to.
 - Play begins from the song you have selected.
 - If you select a number higher than the last song on the disc, play starts from Song 1.
2. To listen to a particular song when the player is already playing a song, select the song you want with the Numeric Buttons [26], and press the PLAY Button [24].
 - The Track Number Display [17] shows the song number you have just entered blinking after the number for the current song.
 - The current song is interrupted and play resumes from the beginning of the song you have just selected.
 - If you select a number higher than the last song on the disc, the disc player ignores the instruction.
 - If you enter a song number but do not press the PLAY button for more than 5 seconds, the display of the song number you have selected goes out and you have to enter it again to play that song.
3. Memory Disc play

Selecting the song you want with the Numeric Buttons [26].

 - If you enter the wrong song number, press the CLEAR Button [11] to cancel it, then enter the number for the song you want to listen to.

Press the MEMORY Button [9].

 - The song number you selected is stored into memory.
 - If you store the wrong song number into memory, press the CLEAR Button [11] to cancel it, then store the correct song number into memory.

Press the PLAY Button [24].

 - Play begins with the first song you stored into memory and the songs are played in the order in which you programmed them into memory.

NOTE:

All other operations are the same as when carried out with the buttons on the disc player itself.

Troubleshooting guide

Problem	Cause	Remedy
Power switch is pressed but power does not come on.	<ul style="list-style-type: none"> ● Power cord plug is not properly connected to AC outlet. 	<ul style="list-style-type: none"> ● Insert plug firmly.
Disc loaded but play does not begin when play button is activated.	<ul style="list-style-type: none"> ● Disc is loaded upside-down. ● Disc is dirty. ● Dew on pickup. 	<ul style="list-style-type: none"> ● Load disc with the label side facing upward. ● Clean the disc. ● Place unit in warm place for about one hour.
No sound.	<ul style="list-style-type: none"> ● Incomplete connections. ● Improper input selector switch setting on amplifier. 	<ul style="list-style-type: none"> ● Insert all plugs firmly in jacks. ● Set switch to proper position.
Skipping.	<ul style="list-style-type: none"> ● Disc is dirty. ● Disc is scratched. ● Unit has been exposed to a strong bump. ● The locking plate has not been removed. 	<ul style="list-style-type: none"> ● Clean the disc. ● Use another disc. ● Place the unit in a more stable location. ● Remove the locking plate.
Search time (when moving to a specific track) is extremely long.	<ul style="list-style-type: none"> ● Disc is dirty. ● Disc is scratched. 	<ul style="list-style-type: none"> ● Clean the disc. ● Use another disc.
Track numbers not can be stored in the memory.	<ul style="list-style-type: none"> ● No disc is in the tray. ● Disc is being played. ● A track number not on the disc is being used. (Remote Control Operation) 	<ul style="list-style-type: none"> ● Load a disc. ● Stop disc play. (Memory entry is not possible during disc play.) ● Use only track numbers on the disc.

Specifications

Model DX-230

Compact Disc Player

Signal readout system:	Optical non-contact
Reading rotation:	About 500–200 r.p.m. (constant linear velocity)
Linear velocity:	1.2–1.4 m/s
Error correction system:	Cross interleave readsolomon code
Decoded bits:	16 bits linear
Sampling frequency:	88.2 kHz (two-times oversampling)
Number of channels:	2 (stereo)
Frequency response:	5 Hz–20 kHz
Total harmonic distortion:	0.03% (at 1 kHz)
Dynamic range:	93 dB
Signal to noise ratio:	96 dB
Channel separation:	87 dB (at 1 kHz)
Wow and Flutter:	Below threshold of measurability
Output level:	2 volts r.m.s.
Power consumption:	13 watts
Power supply rating:	USA & Canadian Models: AC 120V, 60Hz Worldwide Model: AC 110V, 120V, 220V, 240V switchable, 50/60Hz
Dimensions (W x H x D):	435 x 88 x 357 mm 17-1/8" x 3-7/16" x 14-1/16"
Weight:	4.8 kg, 10.6 lbs.
Supplied accessories:	<ul style="list-style-type: none"> ● Output signal cord ● Remote control transmitter RC-103C

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