YAMAHA CDX-710/U RS

Natural Sound Compact Disc Player
Lecteur de disque audionumérique de la série "Natural Sound"
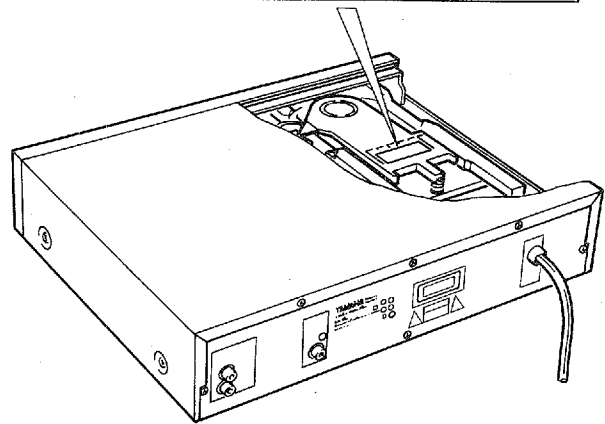*Natural Sound CD-Spieler*
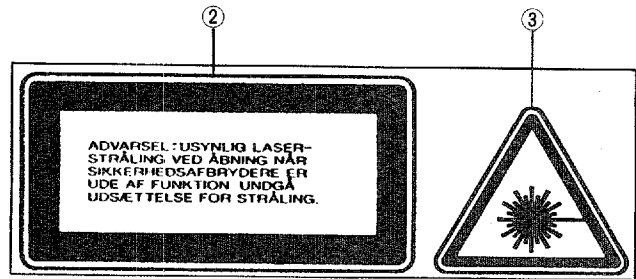*Natural Sound Compact Disc-spelare*
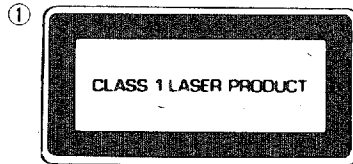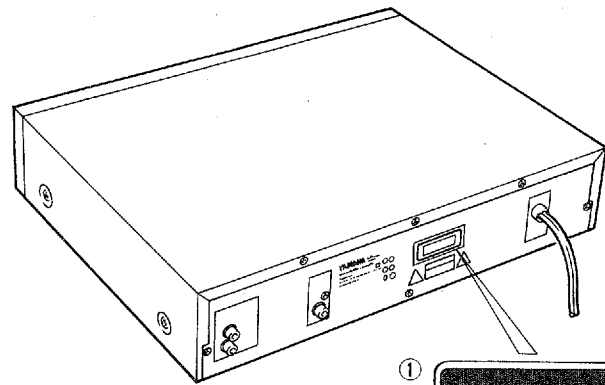*Lettore di Compact Disc a Suono Naturale*
Tocadiscos de discos compactos de sonido natural

COMPACT
disc
DIGITAL AUDIO

CENTER

OWNER'S MANUAL
MODE D'EMPLOI
BEDIENUNGSANLEITUNG
BRUKSANVISNING
MANUALE DELL'UTENTE
MANUAL DE INSTRUCCIONES

CLASS 1 LASER PRODUCT

ADVARSEL : USYNLIG LASER-STRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSÆTTELSE FOR STRÅLING.

① THIS LABEL IS ATTACHED TO THE PLACE AS ILLUSTRATED TO INFORM THAT THE APPARATUS CONTAINS A LASER COMPONENT.

② THIS LABEL IS ATTACHED IN THE POSITION SHOWN IN THE ILLUSTRATION. SO THAT ANY FURTHER PROCEDURE WILL BRING THE USER INTO EXPOSURE WITH THE LASER BEAM.

③ THIS LABEL INFORMING OF RADIATION IS PLACED INSIDE THE UNIT. AS SHOWN IN THE ILLUSTRATION. TO WARN AGAINST FURTHER MEASURES ON THE UNIT, THE EQUIPMENT CONTAINS A LASER COMPONENT RADIATING LASER RAYS EXCEEDING THE LIMIT OF LASER PRODUCTS OF CLASS 1.

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

① DIESE AUFKLEBEMARKE IST AN DEM IN DER ABBILDUNG GEZEIGTEN ORT ANGEBRACHT, UM DARAUF HINZUWEISEN, DASS SICH IM INNERN DES GERÄTS EINE LASER-KOMPONENTE BEFINDET.

② DIESE AUFKLEBEMARKE IST WIE IN DER ABBILDUNG GEZEIGT ANGEBRACHT, UM DAVOR ZU WARNEN, DASS DER BENUTZER BEI WEITERGEHENDEN EINGRIFFEN LASERSTRAHLEN AUSGESETZT IST.

③ DAS VOR STRAHLUNG WARNENDE DREIECK WURDE IM INNERN DES GERÄTS ANGEBRACHT, UM VOR WEITERGEHENDEN EINGRIFFEN ZU WARNEN, IM GERÄT BEFINDET SICH EINE LASER-KOMPONENTE, DEREN LASERSTRAHLEN DIE FÜR PRODUKTE DER LASERKLASSE 1 ZULÄSSIGE GRENZE ÜBERSCHREITEN.

ACHTUNG — VERWENDUNG VON REGLERN, EINSTELLUNGEN ODER EINGRIFFE VON ANDERER NATUR ALS HIERIN ANGEGEBEN KANN DIE AUSSETZUNG GEFÄHRLICHER STRAHLENDOSEN NACH SICH ZIEHEN.

① PÅSKRIFTEN SITTER PÅ APPARATEN SOM VISAS SOM EN UPPMANING OM ATT APPARATEN OMFATTAR EN INBYGGD LASERKOMPONENT.

② TEXTSKYLTEN FÖR LASERN ÄR PLACERAD PÅ APPARATEM SOM EN UPPMANING OM ATT APPARATEN INNEHÅLLER EN LASERKOMPONENT.

③ VARNINGSSKYLTEN FÖR STRÅLNING HAR PLACERATS I APPARATEN, SOM BILDEN VISAR, SOM EN VARNING OM YTTERLIGARE INGREPP I APPARATEN MATERIELEN INNEHÅLLER EN LASERKOMPONENT SOM AVGER LASERSTRALNING OVERSTIGANDE GRANSEN FOR LASERKLASS 1.

VARNING — INGREPP I APPARATEN BÖR ENDAST FÖRETAS AV FACKMAN MED KUNSKAP OM ATT RISK FÖRELIGGER FÖR LASERSTRÅLNING.

① DETTE MÆRKAT ER ANBRAGT SOM VIST I ILLUSTRATIONEN FOR AT ADVARE BRUGEREN OM AT APPARATET INDEHOLDER EN LASERKOMPONENT.

② DETTE MÆRKAT OM LASEREN ER ANBRAGT PÅ APPARATET SOM EN OPLYSNING OM AT APPARATET INDEHOLDER ET LASERKOMPONENT.

③ ADVARSELSKILTET OM STRÅLING ER PLACERET INDENI APPARATET, SOM VIST I ILLUSTRATIONEN, SOM EN ADVARSEL OM YDERLIGERE INDGREB I APPARATET. APPARATET INDEHOLDER ET LASERKOMPONENT SOM AVGIVER LASESTRÅLING DER OVERSTIGER GÆNSEVERDIEN FOR LASERKLASSE 1.

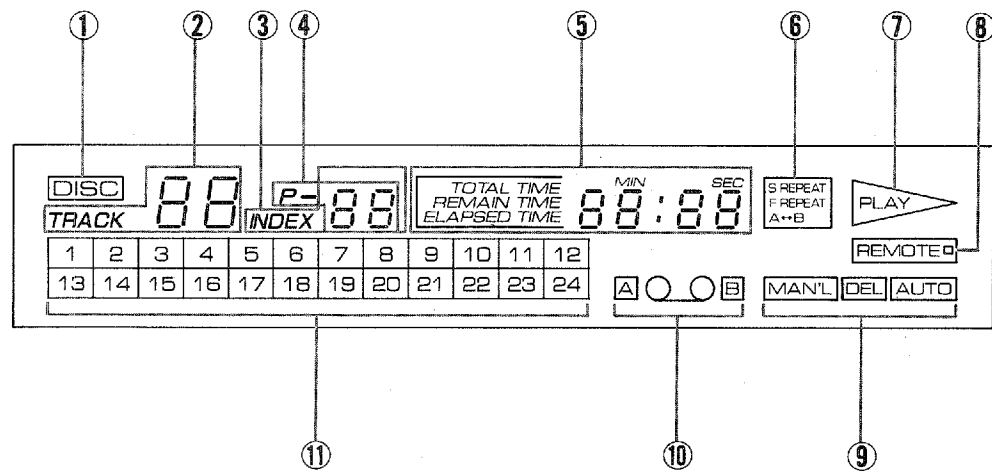ADVARSEL! INDGREB BØR KUN FORETAGES AF EN FAGMAND DA DER ER RISIKO FOR LASER-STRÅLING.

③ "VAROITUS! SUOJAKOTELOA EI SAA AVATA. LAITE SISÄLTÄÄ LASERDIODIN, JOKA LÄHETTÄÄ NÄKYMÄTÖNTÄ SILMILLE VAARALLISTA LASERSÄTEILYÄ."
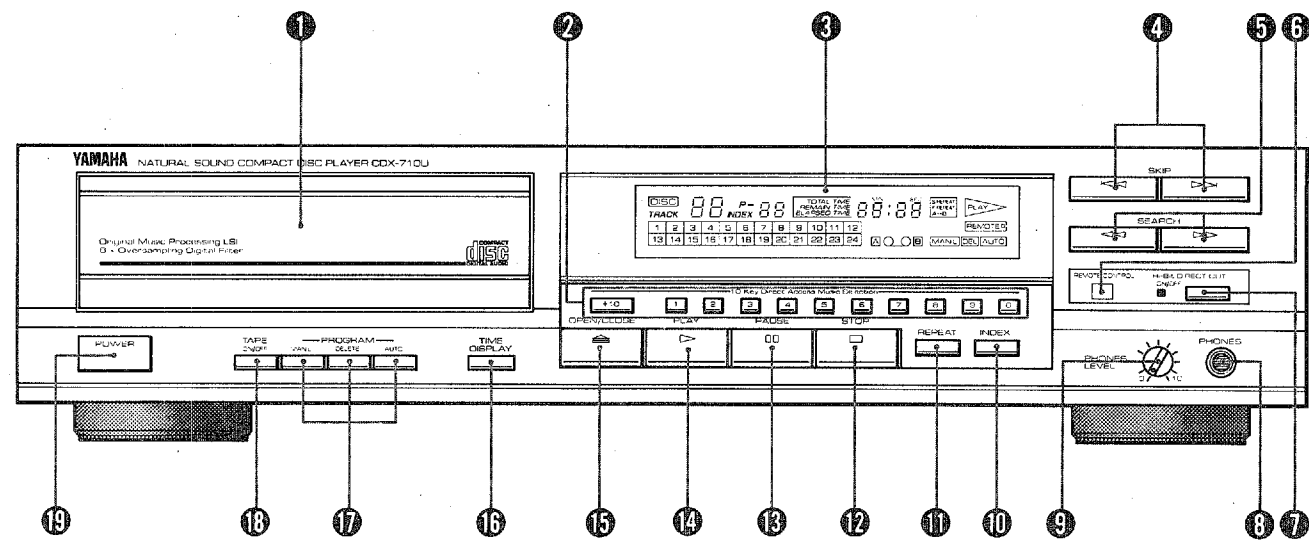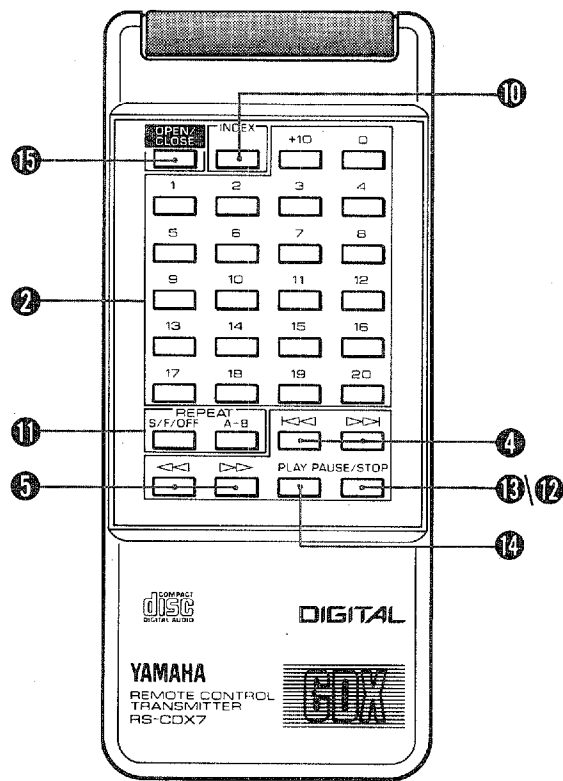
③ Display panel
Panneau d'affichage
Anzeigefeld

Displaypanel
Pannello display
Pantalla de indicadores

3 CONNECTIONS
CONNEXIONS
ANSCHLÜSSE
ANSLUTNINGAR
COLLEGAMENTI
CONEXIONES

Amplifier or control amplifier, equipped
with DIGITAL IN terminals.

Amplificateur ou amplificateur de
contrôle, muni de bornes DIGITAL IN

Verstärker oder Steuerverstärker, mit
DIGITAL IN-Buchsen ausgerüstet

Förstärkare eller kontrollförstärkare
försedda med DIGITAL IN -ing å ngar.

Amplificatore o amplificatore di
controllo equipaggiato con terminali
DIGITAL IN.

Amplificador o amplificador de control,
con terminales de entrada digital.

Connection cords (included)
Câbles de connexions (inclus)
Anschlußkabel (mitgeliefert)
Anslutningssladdar (inkluderade)
Cavi di collegamento (inclusi)
Cables de conexión (incluidos)

Connection cord (included)
Câble de connexions (inclus)
Anschlußkabel (mitgeliefert)
Anslutningssladd (inkluderad)
Cavo di collegamento (incluso)
Cable de conexión (incluido)

YAMAHA MODEL NO
CDX-710U

YAMAHA CORPORATION
MADE IN JAPAN

To AC outlet
Vers la prise c.a.
Zur Netzsteckdose
Till nätströmsuttag
Alla presa AC
Al tomacorriente

4

*   *Thank you for selecting the YAMAHA model CDX-710/U compact disc player.*

CAUTION: READ THIS BEFORE OPERATING YOUR UNIT.

1. The CDX-710/U is a sophisticated compact disc player. To ensure proper operation for the best possible performance, please read this manual carefully.

2. Choose the installation location of your unit carefully. Avoid placing it in direct sunlight or close to a source of heat. Also avoid locations subject to vibration and excessive dust, heat, cold or moisture. Keep it away from such sources of hum as transformers or motors.

3. Do not place this unit on top of another component, and do not place a television set or color monitor TV on top of this unit.

4. Do not open the cabinet of this unit, because to do so might result in damage to the unit, or injury by electric shock. If any foreign object or substance enters the unit, contact your dealer for assistance.

5. To prevent damage by lightning, disconnect the power cord from the household AC outlet during an electrical storm.

6. When disconnecting the power cord from the household AC outlet, grasp the plug; do not pull the cord.

7. Do not apply excessive force when using switches and controls.

8. When moving the unit, be sure to first disconnect the power cord from the household AC outlet, and disconnect cords connected to other equipment.

9. Do not attempt to clean the unit with chemical solvent as this might damage the finish. Use a clean, dry cloth.

10. Be sure to read the "Troubleshooting" section for advice on common operating errors before concluding that your unit is faulty.

11. Keep this manual in a safe place for future reference.

12. Voltage selector (models for General destinations only)
    The voltage selector (on the rear panel of this unit) must be correctly set to the voltage used locally before making any connection to the AC power supply.

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

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

SPECIAL INSTRUCTIONS FOR U.K. MODEL

IMPORTANT:
The wires in the mains lead are coloured in accordance with the following code.

Blue: NEUTRAL
Brown: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows. The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

● This compact-disc player is designed only for reproduction of compact discs bearing the "[DISC]" mark. Never attempt to load any other type of disc into the unit.

● To remove a disc from its storage case, open the case and then press down at the center; with a finger through the center hole and the outer edges held as shown in the illustration, lift the disc out carefully.
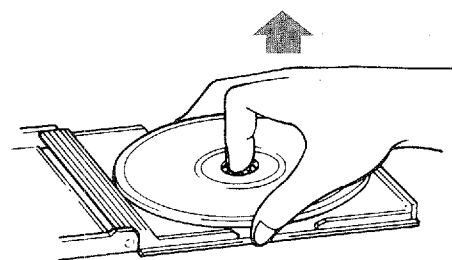
● Always handle the disc with care so that its surface is not scratched.
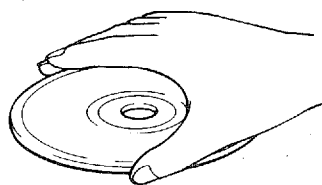
● Compact discs are not subjected to wear during play, but damage to the disc surface when the disc is being handled can adversely affect the disc's play.

● Compact discs are not affected by small particles of dust or fingerprints on their playing surface, but even so they should be kept clean. Wipe by using a clean, dry cloth. Do not wipe with a circular motion; wipe straight outward from the center.
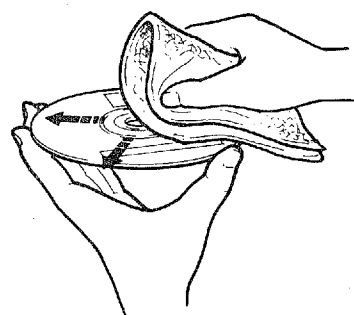
● Do not try to clean the disc's surface by using any type of disc cleaner, record spray, anti-static spray or liquid, or any other, chemical-based liquid, because such substances might irreparably damage the disc's surface.

● Do not expose discs to direct sunlight, high temperature or high humidity for a long period of time, because these might warp or otherwise damage the disc.

NO!

(See Fig. 1.)

❶ Disc tray

When the OPEN/CLOSE button is pressed, this tray will open. Place the disc carefully in the round recessed part of the tray. Be sure the disc's label faces upward.

The disc tray can be closed by again pressing the OPEN/CLOSE button, or by gently pressing the front edge of the disc tray, or by pressing the PLAY button, or by pressing a numeric button.

❷ Numeric buttons (+10 and 1 – 0)

These buttons are used when selecting the track number(s) or index number(s), either for ordinary play or for programmed play (including programmed play for recording to tapes). These buttons are also used to input the total available time for recording (on a tape to be used for programmed tape recording from a disc).

For a track or index number higher than "9", first press the "+10" button (once for "10" to "19", twice for "20" and higher, etc.) and then press the appropriate button for the second digit.

❸ Display panel

The display panel displays all of the data and symbols for operation and programming of the unit.

① Disc-in indicator (DISC)

This indicator illuminates when a disc is loaded.

The indicator flashes continuously when the disc tray is closing (until the unit is ready for play), and when the disc tray is closed (if there is no disc in the tray).

② Track number display (TRACK)

This display shows the track number selected manually, and during play the track number now being played.

③ Index number display (INDEX)

This display shows the index number within the track now being played. "01" is displayed continuously if the disc does not contain index numbers.

④ Program number display (P-)

This display shows the program number. The "P-" flashes continuously during the track-programming process, and, after the programming steps are completed, the program number is displayed.

⑤ Time displays (TOTAL TIME/REMAIN TIME/ELAPSED TIME)

The TIME DISPLAY button can be pressed to select any of the three time displays described below. Note that the display always returns to "ELAPSED TIME" whenever the disc tray is opened.

- **TOTAL TIME:** This display shows the total play time of all tracks on the disc, or the total time of all programmed tracks if the programmed-play feature is being used.
- **REMAIN TIME:** This display shows the total play time of all remaining (unplayed) tracks on the disc, or the total time of all remaining (unplayed) programmed tracks if the programmed-play feature is being used.
- **ELAPSED TIME:** This display shows the time that has passed since the beginning of play of the track now playing.

⑥ Repeat indicators (S REPEAT/F REPEAT/A ◄—► B)

These indicators show which, if any, repeat play mode has been selected. There are three variations of the repeat mode: single repeat, full repeat and A-to-B repeat (explained elsewhere). Note that A-to-B repeat can be selected only by using the remote-control transmitter.

- **S REPEAT:** Indicates the single-repeat mode.
- **F REPEAT:** Indicates the full-repeat mode.
- **A ◄—► B:** Indicates the A-to-B repeat mode.

⑦ Play indicator (PLAY)

This indicator illuminates during play. When the unit is in the pause mode, it flashes continuously.

⑧ Remote-control indicator (REMOTE)

The red square (at the right side, inside the frame) illuminates momentarily when a signal from the remote-control transmitter is received.

⑨ Programmed-play indicators (MAN'L/DEL/AUTO)

One of these three indicators will illuminate (red) when the corresponding programmed-play button is pressed.

- **MAN'L:** Indicates that the "MAN'L" programmed-play button has been pressed, and that the unit is in the manual programmed-play mode.
- **DEL:** Indicates that the "DEL" programmed-play button has been pressed, and that the unit is in the delete programmed-play mode.
- **AUTO:** Indicates that the "AUTO" programmed-play button has been pressed, and that the unit is in the random-sequential-programmed-play mode.

⑩ Tape-programming indicators (Ⓐ ◯ ◯ Ⓑ)

The " ◯ ◯ " illuminates (red) when the TAPE button is pressed during the STOP mode, indicating that the unit is then set to the tape-programming mode. The "A" or "B" illumination (red) indicates which side of the tape is being programmed (during manual tape programming or random-sequential tape programming).

⑪ Track calendar (1 – 24)

When a disc is loaded, the numbers that correspond to the numbers of the tracks on that disc remain displayed, and the other numbers disappear. (Thus, if the disc has 20 tracks, "1" through "20" remain displayed and "21" through "24" disappear.) After each track is played, its corresponding number also disappears, so the number of remaining tracks (and their numbers) can be seen at a glance.

❹ SKIP buttons (ꜟ◁◁ SKIP ▷▷ꜞ)

These buttons can be used to advance forward or backward directly to the next track during the PLAY, STOP or PAUSE mode. The track number changes by one each time the button is pressed, or continues to change if the button is pressed and held. (If ꜟ◁◁ is pressed once during the PLAY mode, play starts again from the beginning of the same tune now playing.) After this button is released, the unit remains in the same mode as before it was pressed. (Also refer to "DIRECT SKIP" and "SKIP PLAY".)

❺ SEARCH buttons (◁◁ SEARCH ▷▷)

These buttons can be used to advance rapidly forward or backward. The sounds on the disc can be heard (although slightly garbled) if the unit is in the PLAY mode, thus making it convenient to locate a desired position precisely. When pressed during the PAUSE mode, the action is the same but the sounds cannot be heard. After this button is released, the unit remains in the same mode (PLAY or PAUSE) as before it was pressed. (Also refer to "MANUAL SEARCH" and "INDEX SEARCH".)

❻ REMOTE-CONTROL sensor (REMOTE CONTROL)

Signals from the remote-control transmitter are received here.

❼ HI-BIT DIRECT OUT switch and indicator (Hi-Bit DIRECT OUT)

The indicator illuminates (red) when this switch is pressed (indicating that the switch is ON). This switch is used to select whether the analog signals (converted from digital signals) output from the "LINE OUT" (analog out) terminals on the rear panel are directly output without being filtered through the low-pass filter (when the switch is ON) or are filtered (when the switch is OFF). (Also refer to "CONNECTIONS".)

❽ PHONES jack (PHONES)

Headphones can be connected here for listening privately, without disturbing others.

❾ PHONES LEVEL volume control (PHONES LEVEL)

This volume control can be used to adjust the level of the sound heard through headphones.

❿ INDEX button (INDEX)

When this button is pressed, an index number can be designated for index search.

Some (but not all) discs include these index numbers. These numbers are used on such discs to subdivide tracks into smaller divisions (such as, for example, the movements within classical symphonies) for easier location of those parts. The liner notes with the disc usually tell if such index numbers are included.

⑪ REPEAT mode-select button (REPEAT)

This button can be used to activate the automatic repeat play function. There are three settings (changing each time the button is pressed, and shown by the display): S (single) repeat, F (full) repeat, and OFF (the display is blank).

● **S REPEAT:** This setting is used to set (or cancel) the single repeat-play mode.
● **F REPEAT:** This setting is using to set (or cancel) the full repeat-play mode.
● **OFF (blank display):** No repeat-play mode is activated.
Refer to "REPEAT PLAY" for details.

Note that there is also the A-to-B repeat mode, but this can be activated only at the remote-control transmitter.

⑫ STOP button (STOP)

When this button is pressed, the disc stops. When the PLAY button is next pressed, play will resume from the beginning of the disc (during ordinary play) or from the beginning of the first programmed track (during programmed play).

⑬ PAUSE button (PAUSE)

When this button is pressed during play, the "PLAY" indicator flashes continuously and disc play is stopped temporarily (without returning to the beginning of the disc). To resume play, press this button again, or the PLAY button; play will begin again from where stopped.

⑭ PLAY button (PLAY)

Press this button to begin play. The "PLAY" indicator will illuminate.

⑮ OPEN/CLOSE button (OPEN/CLOSE)

The disc tray can be opened and closed by pressing this button.

⑯ TIME DISPLAY mode-select button (TIME DISPLAY)

This button can be used to select the desired time display (total time or remaining time on the disc, or elapsed time for the track now playing). The display always returns to "ELAPSED TIME" whenever the disc tray is opened.

⑰ PROGRAMMING mode-select buttons (MAN'L/DELETE/AUTO)

These buttons can be used to select any one of the three programming modes (manual, delete or automatic). (Refer to "TRACK PROGRAMMING".)

● **MAN'L:** This button is used to select the manual-programming mode, and also to select the manual tape-programming mode (for recording to a tape).
● **DELETE:** This button is used to select the delete-program mode.
● **AUTO:** This button is used to select the random-sequential-programming mode, and also to select the random-sequential-tape-programming mode (for recording to a tape).

⑱ TAPE-PROGRAMMING mode-select button (TAPE ON/OFF)

This button can be used to select the tape-programming mode (for random-sequential or manual tape programming), and makes it possible to then enter (into this unit's memory) the total time (length) of the tape to be used for recording from the disc.
(Refer to "TRACK PROGRAMMING".)

⑲ POWER switch (POWER)

Press this switch once to switch ON the power; press it again to switch OFF the power.

(See Fig. 2 .)

Several of the control functions of the main unit are duplicated on the remote-control transmitter, which also has some additional functions, as described below. (Refer to "CONTROLS AND THEIR FUNCTIONS".)

❷ Numeric buttons (+10, 0, 1 – 20)

Note that there are more numeric buttons on the remote-control transmitter than on the main unit. Their use is described in "CONTROLS AND THEIR FUNCTIONS" and elsewhere in the text.

## ⓫ REPEAT mode-select buttons (S/F/OFF and A – B)

The function of the S/F/OFF button is the same as the REPEAT mode-select button on the main unit. The A-B button (not provided on the main unit) can be used to select any two points on the disc to begin and end repeat play. Press the A-B button once at the place where you want automatic repeat play to begin, and once again where you want it to end. (Refer to "REPEAT PLAY" for details.)

⓭/⓬ PAUSE/STOP button (PAUSE/STOP)

When using the remote-control transmitter, note that the pause and stop functions are combined in one button. Press it once for the PAUSE mode, and press it twice for the STOP mode. Be careful, then, not to press this button to release the PAUSE mode; press the PLAY button to do so.

▦ Battery installation

① Press the tab on the bottom of the remote-control transmitter in the direction of the ▽ and pull outward to remove the battery compartment cover, as shown in the illustration.

② Place two batteries (size "AA", R06) in the battery compartment. Be sure the batteries are placed to face in opposite directions (as shown in the battery compartment) so that the polarities are correct.

③ Re-attach the battery compartment cover, pressing it inward until a "click" is heard.
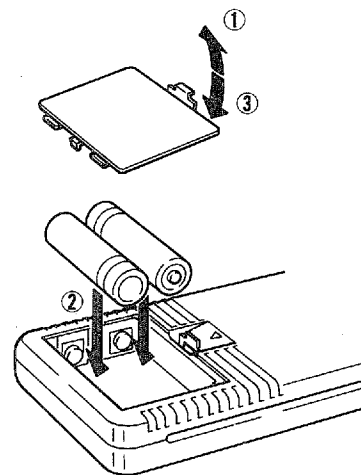
▦ Remote-control transmitter operation range

Note that the remote-control transmitter should be faced more or less directly toward the main unit when used, and that it should be used within a distance of seven meters (23 feet); there should be no large obstacles between the remote-control transmitter and the main unit.

Remote-control sensor

Within 7m (23 feet)

30°

30°
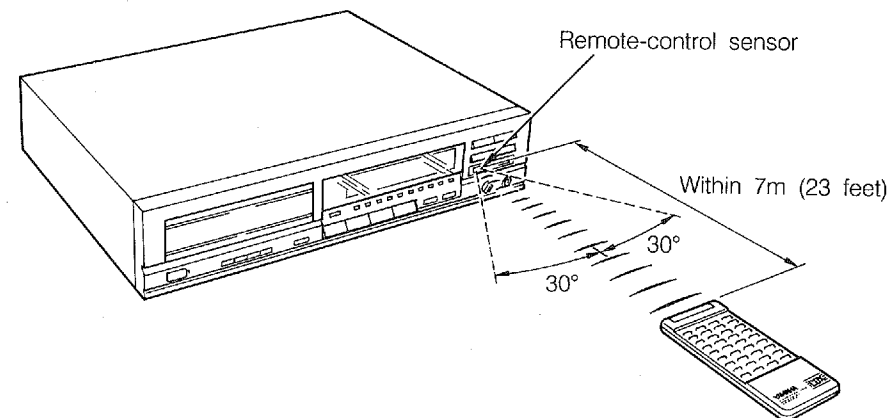
■ Battery replacement

If the remote-control transmitter must be used closer to the main unit, the batteries are weak. Replace both batteries with new ones.

Notes:

- Batteries may leak, and damage the remote-control transmitter, if handled incorrectly.
- Use only "AA" (R06) batteries for replacement.
- Be sure the polarities are correct. (See the illustration inside the battery compartment.)
- Do not mix and old and new batteries.
- Do not use different types (alkaline, heavy-duty, manganese, nickel cadmium) of batteries at the same time.
- Remove the batteries if the remote-control transmitter will not be used for an extended period of time.
- Replace weak batteries at the earliest opportunity.
- Never try to open a battery or heat it or throw it into a fire.
- Never connect the battery terminals by using any type of metal wire, etc.
- Two types of batteries (rechargeable and non-rechargeable) are commercially available. Be sure to read the caution label on batteries before using them.
- If batteries leak, immediately dispose of them. Avoid touching the leaked material or letting it come in contact with clothing, etc. Clean the battery compartment thoroughly before installing new batteries.

CONNECTIONS

(See Fig. 3 .)

- Before making any connections, switch OFF the power to the unit.

- Be sure that the connection from the left ("L") LINE OUT analog output terminal and from the right ("R") terminal are to the correct corresponding (left and right) terminals of the amplifier or other component.

- Connections should be made to the correct input terminals of the amplifier or other component. Refer to that component's operation manual for details.

- If the placement of this unit causes noise from other equipment, such as a tuner, use them farther away from each other.

When the LINE OUT (analog) terminals of this unit are used

- Make connections from these terminals to the "CD" (or "DAT" or "AUX") terminals of the amplifier. If it does not have such terminals, use the "TAPE PB" terminals.

- The HI-BIT DIRECT OUT switch of this unit can be used to select either direct (unfiltered) analog output signals or filtered analog signals from this unit. When the HI-BIT DIRECT OUT switch is set to ON (pressed in), the output from the LINE OUT terminals is analog signals that have passed through the 8-fold oversampling digital filter and the Hi-Bit converter system. When the HI-BIT DIRECT OUT switch is set to OFF, the output from the LINE OUT terminals is analog signals that have passed through a low-pass filter.

When the DIGITAL OUT terminal of this unit is used

- Make the connection from this terminal to the digital input terminal of an amplifier or D/A (digital-to-analog) converter.

- Use the included connection cord for this connection.

1. Press the POWER switch to switch ON the power.

2. Press the OPEN/CLOSE button to open the disc tray.

3. Place a compact disc in the round recessed area of the disc tray, with the label facing upward. Be sure the disc is positioned correctly.
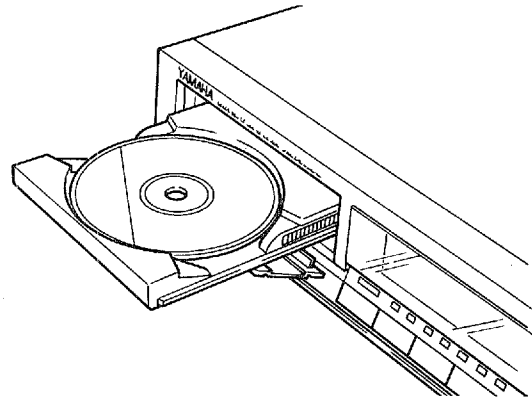
4. Close the disc tray (by pressing the OPEN/CLOSE button, or by pressing the PLAY button, or by pressing the front edge of the disc tray gently, or by pressing a numeric button).
   * If the disc tray is closed by pressing the front edge of the disc tray, or by pressing the PLAY button, or by pressing a numeric button, it is not necessary to press the PLAY button again; play will begin automatically.
   * Play can also be started (after the disc tray is closed) by pressing the "AUTO" button.

5. After a few moments during which the unit reads the disc's contents, the TRACK display shows the total number of tracks on the disc, and the TOTAL TIME display shows the disc's total recorded time for a few seconds, if the OPEN/CLOSE button was used to close the disc tray. The unit is then ready for play from track 1 (by pressing the PLAY button).

* If the disc tray was closed by pressing the front edge of the disc tray, or by pressing the PLAY button, the total tracks and total time displays mentioned above will not be shown, and the disc will begin playing automatically from track 1.
* If the disc tray is closed by pressing a numeric button, the corresponding track number will be displayed and the disc will begin playing from the beginning of that track.

6. Press the PAUSE button if it is necessary to stop the play temporarily. To resume play, either press the PAUSE button again (except when using the remote-control transmitter) or press the PLAY button. (When using the remote-control transmitter, press the PLAY button to resume play; if the PAUSE/STOP button on the remote-control transmitter is pressed a second time, the disc will come to a full stop and return to track 1.)

7. To stop play completely (and return to track 1), press the STOP button. (When using the remote-control transmitter, press the PAUSE/STOP button twice.)

● Never place anything other than a disc in the disc tray, because to do so could cause a malfunction.
● Do not use force to open or close the disc tray.
● Keep the disc tray closed except when loading or unloading a disc.
● Never press down on the disc tray or place heavy objects on it.

TRACK CALENDAR DISPLAY

When a disc is loaded, the numbers that correspond to the numbers of the tracks on that disc remain displayed, and the other numbers disappear. (Thus, if the disc has 20 tracks, "1" through "20" remain displayed and "21" through "24" disappear.) After each track is played, its corresponding number also disappears so the number of remaining tracks (and their numbers) can be seen at a glance.

DIRECT PLAY

To begin play directly from any desired track, simply press the corresponding numeric button(s). Play will begin automatically from the start of that track.

USING THE NUMERIC BUTTONS

To select track number 10 or higher, press the "+10" button once, plus the second digit of the track number. (For track "16", therefore, press "+10" + "6".) For track number 20 or higher, the process is the same except that the "+10" button must be pressed two times, etc.

Example
To select track 23: 1. Press "+10" twice.
                   2. Press "3".
Play will begin automatically from the start of track 23.

- If a track number higher than the highest track number on the disc is selected, the last track on the disc will be played.
- When using the remote-control transmitter, if the "+10" button is pressed and then some other numeric button is pressed, the track number that is the sum of the two ("+10" + "14" = 24 for example) will be selected, subject to the note above.

DIRECT SKIP

To begin play from any desired track while in the PAUSE or STOP mode, advance (or return) to that track by pressing the SKIP ▷▷┤ (or ├◁◁) button once for each track to be advanced or reversed.
Then press the PLAY button to begin play.
An alternative method is to use a numeric button(s).

SKIP PLAY

If the disc is playing, a different track can be selected by pressing the SKIP ▷▷┤ (to advance) or the SKIP ├◁◁ button (to reverse).
Press once for each track to be advanced or reversed (except that, for reverse, the first press returns play to the start of the track now playing).

Therefore:
- Press SKIP ▷▷┤ once to advance to the track following the one now playing.
- Press SKIP ├◁◁ once to return to the start of the track now playing.
- Press SKIP ├◁◁ twice to return to the track before the track now playing.

MANUAL SEARCH

FAST ADVANCE MANUAL SEARCH

When the SEARCH ▷▷ button is pressed during disc play, the play will be rapidly advanced through the music of each track as long as the button is pressed and held. When it is released, play will resume.

FAST REVERSE MANUAL SEARCH

When the SEARCH ◁◁ button is pressed during disc play, the play will be rapidly reversed through the music of each track as long as the button is pressed and held. When it is released, play will resume.

Manual search notes:
- The music can be heard (although slightly garbled) during manual search in either direction. This is convenient for locating a precise position within a track, or for reviewing the contents quickly.
- When manual search in either direction is initiated during the PAUSE mode, the action is the same, but no sound is heard; you can watch the time display to determine where to stop searching.

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If the disc includes index numbers, play can be started from any desired index number by using a numeric button to designate that index number.

1. First, select the desired track by using a SKIP button (|◁◁ or ▷▷|) during the PAUSE or STOP mode.
2. Press the INDEX button. The INDEX number display will begin flashing continuously.
3. Press the numeric button corresponding to the desired index number.
4. Play will then begin from the selected index point.

Notes:

● Some discs have index numbers, and some do not. The index system is a method for sub-dividing tracks into smaller divisions (such as, for example, the movements within classical symphonies) for easier location of those parts. The liner notes with the disc usually tell if such index numbers are included.
● If an index number is selected that is higher than any index number on that disc, play will start from the last index number point on the disc.
● To cancel the index search function, press the STOP button or INDEX button.
● For some discs, play may begin slightly prior to the actual designated index point.
● If the disc has no encoded index points, play will begin from the start of the track corresponding to the numeric button pressed.
● For some discs, the index search operation may require a slightly longer time than for other discs.
● The index number can be designated only while the INDEX number display is flashing.

Tracks on the disc can be played in a random sequence selected by the unit's microcomputer. This is useful, especially when combined with full repeat play, to provide background music without a predictable sequence of tunes.
To activate this mode, press the PROGRAMMING mode-select button marked "AUTO" while the unit is in the STOP mode.
The "AUTO" indicator will illuminate (red), and random-sequence play will begin.

Notes:

● This feature will not function during programming, or during programmed play.
● The INDEX button will not function during random-sequence play.
● The remaining time cannot be displayed during random-sequence play.
● To cancel random-sequence play, press the "AUTO" button once again.
● If the STOP button is pressed during random-sequence play, the play will stop and the unit will be in the STOP mode at the beginning of the disc.
● If the SKIP ▷▷| button is pressed during random-sequence play, the next randomly programmed track will be played. If the SKIP |◁◁ button is pressed, play will return to the beginning of the track now being played.

MANUALLY PROGRAMMED PLAY

This feature can be used to program as many as 24 tracks in any desired order.

1. Press the STOP button.
2. Press the PROGRAMMING mode-select button marked "MAN'L". The "MAN'L" indicator will then illuminate (red) and the "P-" indicator will begin flashing continuously. At the same, the track numbers that exist on the disc will disappear, and the track numbers that do not exist will begin flashing.
3. Press the numeric button corresponding to the track you want to be played first. That number will illuminate in the track calendar; that track number will also be displayed momentarily by the TRACK number display, and the PROGRAM number display will show "02" (meaning the second track-programming selection is to be made next).
4. Make the second selection in the same way as described in 3. above, and so on. As many as 24 tunes can be selected in this way in any desired order.
5. When all selections have been made, press the PLAY button to start programmed play.

Notes:
- To check, cancel or correct a programmed setting, refer to "CHECKING, CORRECTING AND CANCELING OF PROGRAMMED SETTINGS".
- Index numbers cannot be programmed.
- The total programmed time will be displayed, but the maximum possible time that can be shown by the display is 99 minutes and 59 seconds. If the total play time exceeds that time, the excess time (actual total time minus 100 minutes) will be displayed as both the total time and the remaining time.

DELETION OF PROGRAMMED SELECTIONS

This feature permits you to delete any programmed selection(s) you don't want to listen to.

1. Press the STOP button.
2. Press the PROGRAMMING mode-select button marked "DELETE". The "DEL" indicator will illuminate, the "P-" indicator will begin flashing continuously, and the track numbers that exist on the disc will be displayed by the track calendar.
3. Press the numeric button corresponding to the track to be deleted first. That number will be displayed momentarily by the TRACK number display, and the PROGRAM number display will show "02" (meaning the second track-deletion selection is to be made next).
4. Press a numeric button for the second track to be deleted, and so on.
5. Press the PLAY button to begin programmed play minus the deleted tracks. Programmed tracks will be played from the lowest programmed numbers first, skipping those that were deleted.

Notes:
- To check, cancel or correct a programmed setting, refer to "CHECKING, CORRECTING AND CANCELING OF PROGRAMMED SETTINGS".
- The SKIP (⊲⊲ and ▷▷⊳) buttons and the SEARCH (⊲⊲ and ▷▷) buttons can still be used, but within the range of the remaining programmed tracks.
- Press the SKIP ▷▷ button to advance to the programmed selection of the number next larger than the one now playing.
- Press the SKIP ⊲⊲ button to return to the start of the track now playing.
- Press the SKIP ⊲⊲ button twice to return to the start of the track prior to the one now playing.
- If a SEARCH (⊲⊲ or ▷▷) button is pressed and held beyond the range of a programmed selection(s), the displayed selection will be played and then the unit will continue to the next programmed selection.

MANUAL PROGRAMMING (FOR RECORDING TO TAPE)

This feature is helpful when recording to a tape by using the manual-programming mode, because you can program the tracks so they will fit onto the tape with the least amount of unrecorded space remaining at each end of the tape.

1. Press the STOP button.
2. Press the TAPE button. The "C-" symbol will appear (where the track number usually is) and the "○○" symbol (red) will also appear in the display. (These indicate that the unit is in the tape-programming mode.)
3. Press the appropriate numeric buttons so as to display (after the "C-") the tape's total possible recording time (total time for both sides).
   Example:
   For a C-46 tape (23 minutes on each side, 46 minutes total), display "46" by pressing the "+10" numeric button four times and the "6" button once. The time will be displayed in the TRACK display (C-46).
   * If any mistake has been made in step 3 (that is, if the incorrect time for the tape is displayed), it must be corrected now, because no correction can be made after the "MAN'L" button is pressed in step 4.
4. Press the "MAN'L" button to enter the tape's total time in the memory. (The "A" to the left of the "○○" symbol will illuminate in red, and the "P-" symbol and the track calendar (only the track numbers not on the disc) will begin flashing.)
   The REMAINING TIME display will show the amount of time available for programming (on side A).
5. Make the programming settings for the tracks to be recorded (in the same way as for ordinary manual programming).

Notes:
● If the total attempted programming time exceeds the time available for side A of the tape (the side that is to be recorded first), the last track is automatically programmed to side B of the tape.
   When all tracks for side A of the tape have played (and recorded on the tape), the unit automatically changes to the PAUSE mode so that the cassette can be turned over to side B.

● If the "E : rr" symbol appears in the REMAINING TIME display, the track for the numeric button just pressed cannot be programmed because there is not enough time remaining on the tape. Either select a shorter track, or use a longer tape.
● The tape remaining time displayed includes a four-second non-recorded interval between tracks.

6. Begin recording on the tape deck and at the same time press the PLAY button on this unit.
   * When this unit (at the end of side A of the tape) changes to the PAUSE mode, turn the cassette over (to side B). Resume the recording and, at the same time, press the PLAY button or the PAUSE button on this unit (the PLAY button if the remote-control transmitter is being used).
   * Normally, the procedures described above can be used to program tracks as high as 24. However, when (and only when) the disc has 25 tracks, track number 25 can also be programmed.
   * To check, cancel or correct a programmed setting, refer to "CHECKING, CORRECTING AND CANCELING OF PROGRAMMED SETTINGS".

RANDOM SEQUENTIAL PROGRAMMING (FOR RECORDING TO TAPE)

The CCTP (Computer Controlled Tape Programming) system incorporated within this unit can be used for very easily programming the unit for recording tracks in random sequential order to a tape. By simply providing this unit with the data regarding the time length of the tape (both sides' total), this unit will automatically calculate a random sequential order that will nearly fill both sides of the tape without interrupting a tune before it ends.

1. Follow steps 1 through 3 of "MANUAL PROGRAMMING (FOR RECORDING TO TAPE)".
2. Press the "AUTO" button so that the unit will memorize the total recording time available on the tape.
   * The display will show the track number to be played last, the total number of tracks, the track numbers and the remaining time (if any) on the tape after these selections have been recorded.

3. Begin recording on the tape deck and at the same time press the PLAY button on this unit.
   * The display will then show the number of the track now playing, the sequential number of the programmed selections (1, 2, 3 ...), and the elapsed time for the track. These data will change each time a different track is played.

Notes:
● Refer to the notes on page 16.
● To check, cancel or correct a programmed setting, refer to "CHECKING, CORRECTING AND CANCELING OF PROGRAMMED SETTINGS".

CHECKING, CORRECTING AND CANCELING OF PROGRAMMED SETTINGS

To check the programmed settings

1. Press the STOP button.
2. Then press the button corresponding to the settings you want to check:
   * Press the PROGRAMMING mode-select button marked "MAN'L" to check the settings for the manual-programming mode or of the manual tape-programming mode.
   * Press the PROGRAMMING mode-select button marked "DELETE" to check the deleted settings.
   * Press the PROGRAMMING mode-select button marked "AUTO" to check the settings for the random-sequential-programming mode or of the random-sequential-tape-programming mode.
3. Each time the SKIP ▷▷▷ button is then pressed, the track numbers and sequential order of the programmed tracks can be checked one after another.

To correct a programmed setting

1. Follow steps 1 to 3 above.
2. Wherever necessary, press a numeric button to select a track to replace one you want to replace. The previously programmed track will be cleared (from the memory) and the new one will be programmed.

To cancel a programmed setting

There are several methods, as described below.
● Open the disc tray.
● Switching OFF the power will cancel all settings for the manual- or the random-sequential-tape-programming mode, but will not cancel settings for the manual- or the random-sequential-programming mode.
● The settings for the manual-programming mode are canceled if the "DELETE" button is pressed after the settings are made but before play begins. The unit is then in the delete-program mode.
● The STOP button can be pressed to cancel the delete-program mode or the random-sequential-programming mode.

REPEAT PLAY

There are three variations of the repeat-play mode: repeat play of a single track, repeat play of the entire disc, and repeat play between any two points (A-to-B repeat play).

SINGLE-TRACK REPEAT PLAY

1. Press the REPEAT mode-select button once. (The "S REPEAT" indicator will illuminate and the number of the track being repeated will appear.) That track will be played repeatedly until canceled.
2. To cancel the single-track repeat-play mode, press the REPEAT mode-select button twice.

Notes:
● If this repeat mode is selected while the unit is in the PAUSE mode, press the PAUSE button or the PLAY button to resume play (press only the PLAY button if the remote-control transmitter is being used). In this instance, and if the repeat mode is selected during play, the repeat play will begin from that point.

- If a SEARCH or SKIP button is used to change to another track, that new track will be played repeatedly until canceled.
- If the STOP button is pressed and then the PLAY button, the track that then begins playing will be played repeatedly until canceled.

ALL-TRACK ("FULL") REPEAT PLAY

1. Press the REPEAT mode-select button twice. The "F REPEAT" indicator will illuminate, and all tracks will be played repeatedly.
2. To cancel the all-track repeat-play mode, press the REPEAT mode-select button once.

Notes:
- If the all-track repeat-play mode is selected from the STOP mode, press the PLAY button to begin the repeat play. Play will begin from track 1.
- If this repeat mode is selected while the unit is in the PAUSE mode, press the PAUSE button or the PLAY button to resume play (press only the PLAY button if the remote-control transmitter is being used). In this instance, and if the repeat mode is selected during play, the repeat play will begin from that point.

A-B REPEAT PLAY

This mode permits selection of any two points (A and B) on the disc to be the start and end points of repeat play. (Note that this repeat-play mode can be selected and used only by using the remote-control transmitter, although the appropriate display will appear on the main unit.)

1. While the unit is in the PAUSE or PLAY mode, press the REPEAT A-B button (on the remote-control transmitter) to select the start point of the A-B repeat play.
   (The "A" will appear (white) in the display.)

2. Then, while the unit is in the PAUSE or PLAY mode, press the REPEAT A-B button (on the remote-control transmitter) again to select the end point of the A-B repeat play.
   (The "A ◄─► B" will appear (white) in the display.)
   This registers the start and end points of A-B repeat play, and repeated play can be started.

Notes:
- If this repeat mode is selected while the unit is in the PAUSE mode, press the PAUSE button or the PLAY button to resume play (press only the PLAY button if the remote-control transmitter is being used). In this instance, and if the repeat mode is selected during play, the repeat play will begin from that point.

3. To cancel A-B repeat play, press the REPEAT A-B button (on the remote-control transmitter) once.

TIMER PLAY

Timer play is possible by using a commercially available audio timer with this unit.

1. Prepare the amplifier to be used with this unit.
2. Switch ON the power and load the disc.
3. Set the timer to the time at which you want the play to begin.
4. When the set time is reached, disc play will begin from the first track on the disc (or from the first programmed track).

Notes:
- Be sure to set the amplifier to the desired volume level.
- If tracks are programmed, the programmed play will begin at the time set on the timer.

MEMORY BACKUP

Thanks to an incorporated capacitor, the manual-program mode data and/or delete-program mode data are retained in the memory even if the power is switched OFF or interrupted.
If the power remains OFF for an extended period of time, however, the data may be erased.
Note that the data are retained for about one week if the power was ON for about one hour preceding the power switch-OFF or interruption.

TROUBLESHOOTING

If the unit fails to operate normally, check the following points to determine whether the problem can be corrected by the simple measures suggested. If it cannot, or if the problem is not listed in the SYMPTOM column, disconnect the unit's power cord and contact your dealer or service center for assistance.

SYMPTOM	PROBABLE CAUSE	REMEDY
The player does not switch ON when the POWER switch is pressed.	The power cord is not connected or not completely connected.	Securely connect the power cord.
The disc tray does not close completely.	A foreign object is obstructing the tray.	Carefully check the disc tray and remove the foreign object.
The DISC indicator does not illuminate.	The disc has been loaded upside down.	Load the disc correctly.
	The disc is damaged.	Check the disc carefully; replace it if necessary.
	There is moisture on the laser pickup.	Wait 20 to 30 minutes after switching the unit ON before trying to play a disc.
Play does not begin.	The disc has been loaded upside down.	Reload the disc with the label side up.
	The disc is dirty.	Clean the disc.
Play is delayed, or begins at the wrong place.	The disc may be scratched or damaged.	Check the disc carefully; replace it if necessary.
No sound.	Improper output cable connections.	Connect the cables properly. If the problem persists, the cables may be defective.
	Improper amplifier operation.	Set the amplifier controls to the correct input selection.
Sound "skips".	The player is being subjected to vibrations or impacts.	Relocate the player.
	The disc is dirty.	Clean the disc.
Sound "hums".	Improper cable connections.	Securely connect the audio cables. If the problem persists, the cables may be defective.
Noise from a nearby tuner.	The tuner is too close to the player.	Move the tuner and player farther apart.
Noise from within the disc tray.	The disc may be warped.	Replace the disc.

AUDIO SECTION

Frequency response .... DC 2 Hz – 20 kHz, ±0.3 dB
De-emphasis equalization .... ±0.3 dB
Harmonic distortion + noise .... Less than 0.005% (1 kHz)
S/N ratio .... 106 dB
Dynamic range .... More than 100 dB
Wow & flutter .... Unmeasurable
Channel separation .... More than 100 dB (1 kHz)
Output voltage 2V
Output impedance .... 560 ohms
Headphones output .... 450 mV/150 ohms

INTERNAL SYSTEM

Optical pick-up .... 3-beam laser
Error correction system .... CIRC
D/A conversion .... High-speed 16-bit (L, R twin)
Filters .... Hi-Bit 8-Fold Oversampling Digital filter
3rd order new active filter

GENERAL

Power requirements
   Canada model .... 120V, 60 Hz
   Europe model .... 220 – 240V, 50 Hz
   Australia model .... 240V, 50 Hz
   General model .... 110 – 130/220 – 240V, 50/60 Hz
Power consumption 20W
Dimensions (W x H x D) .... 435 x 103 x 352 mm
(17-1/8" x 4-1/16" x 13-7/8")
Weight .... 5.5 kg (12 lbs. 2 oz.)
Accessories .... Connection cord
Remote control transmitter (RS-CDX7)
Batteries (size "AA", R06)

Please note that all specifications are subject to change without notice.