

**SONY**

COMPACT DISC PLAYER

# CDP-101

## OPERATING INSTRUCTIONS

Before operating the unit, please read this manual thoroughly.  
This manual should be retained for future reference.

COMPACT  
**disc**  
DIGITAL AUDIO



## FEATURES

In the Compact Disc (CD) system, sound levels are converted to a series of binary codes and recorded as digital pulses of equal amplitude. The pulses are etched on the disc in the shape of tiny pits with a pitch of 1.6µm.

During playback, a laser beam focuses on the pits which reflect the laser light. Variations in the reflected light rays are then converted back into a continuous audio waveform.

Through this system, the CDP-101 offers performance and sound fidelity far superior to any analog record and turntable system.

### High performance and fidelity

With the CDP-101, flat frequency response (5 - 20,000 Hz), low wow and flutter (lower than the measurable limit), wide dynamic range (more than 90 dB) minimal distortion (0.004%) and high channel separation (more than 90 dB) are achieved. Listening to the sound reproduction of your CDP-101 is just like being in the concert hall.

### Full-logic "feather touch" operation

At the lightest touch, the "feather-touch" function buttons enable you to switch directly from one mode to another.

### AMS and repeat function

The AUTOMATIC MUSIC SENSOR (AMS) function for locating the beginning of a selection on the disc, and the three types of repeat functions: one for the entire disc, one for a portion of the disc, and one for a specific selection allow you to program the operation as you desire.

### Digital readout display

The track number and the playing time elapsed of the selection playing is shown on the display window. With one touch of the LAP/REMAINING TIME button, this time display will change to indicate with a minus sign how much playing time is left on the disc.

### Remote control operation

Using the supplied Remote Commander, all the functions of the player as well as a 10-key music select function can be remotely controlled.

### Non-contact signal readout system

Because a laser beam is employed for signal pick-up, there is no physical contact with the disc, which means no wear.

In addition, because the pit pattern is recorded below the surface of the disc, it is not necessary to be constantly on guard against dust, making the disc easy to handle.

## WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

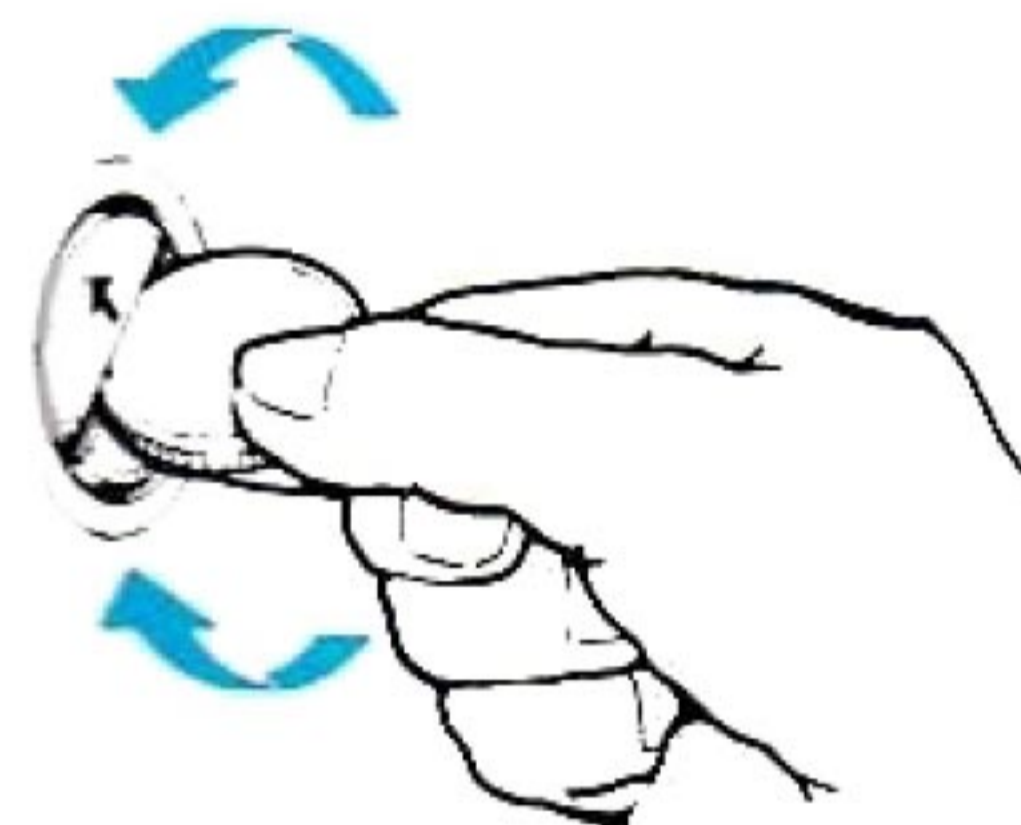
## OPERATING VOLTAGE

Before connecting the unit to the power source, check that the operating voltage of your unit is the same as the local power line voltage.

The continental European model (Type 1) operates on 220 V ac.

The United Kingdom model (Type 2) operates on 240 V ac.

The model for other countries (Type 3) operates on either 110, 120, 220 or 240 V ac. The voltage selector is located at the rear. If the selector must be reset, **disconnect the ac power cord** and turn the selector with a coin so that the arrow on the selector points to the appropriate voltage.



## For the Customers in the United Kingdom

### 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.

## CAUTION

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

**CLASS 1  
LASER PRODUCT**

This Compact Disc player is classified as a CLASS 1 LASER product.

The CLASS 1 LASER PRODUCT label is located on the rear exterior.

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## PRECAUTIONS

### On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.

### On installation

- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- Good air circulation is essential to prevent internal heat build-up in the unit. Place the unit in a location with adequate air circulation. Do not place the unit on a soft surface, such as a rug that would block the ventilation holes on the bottom.
- The top ventilation holes must be unobstructed for the proper operation of the unit and to prolong the life of its components.

### On operation

When the unit is not used, turn the power off, to conserve energy and to extend the useful life of your unit.

### On cleaning the cabinet

Clean the cabinet, panel and controls with a soft cloth lightly moistened with mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

### On repacking

Do not throw away the carton and the packing material. They make an ideal container to transport the unit in. When shipping the unit for repair work or to another location, repack it as illustrated on the carton box.

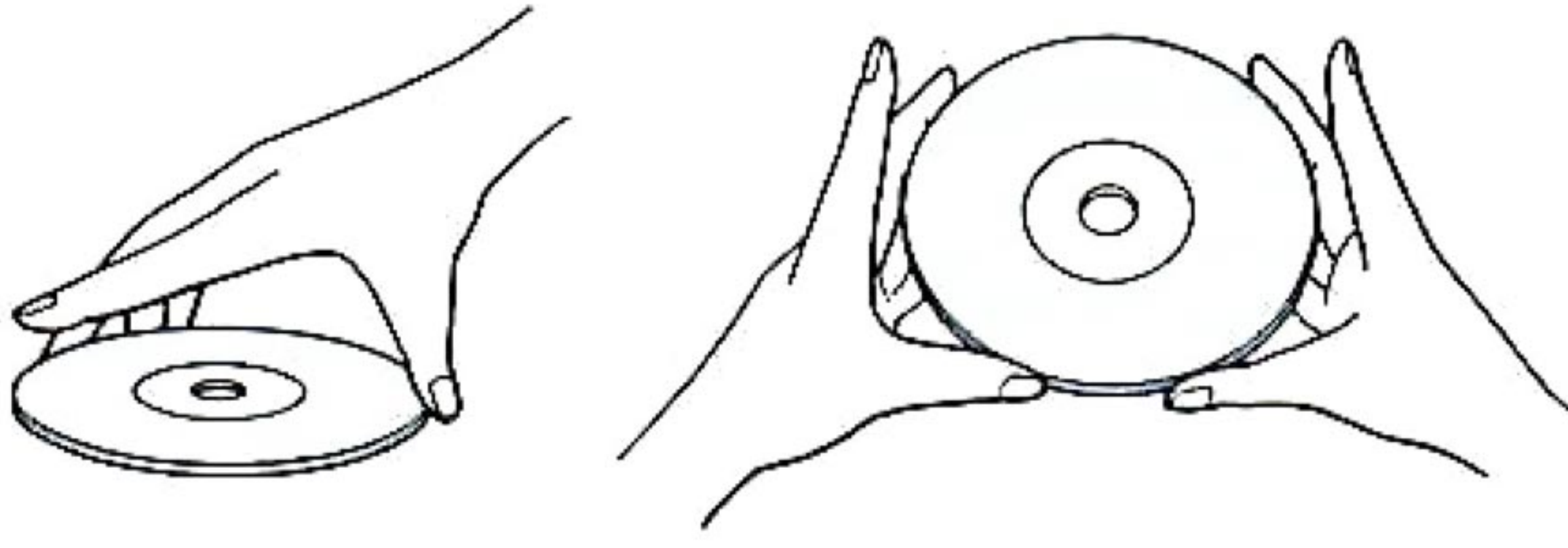
## NOTES ON MOISTURE CONDENSATION

If the player is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lenses inside the unit.

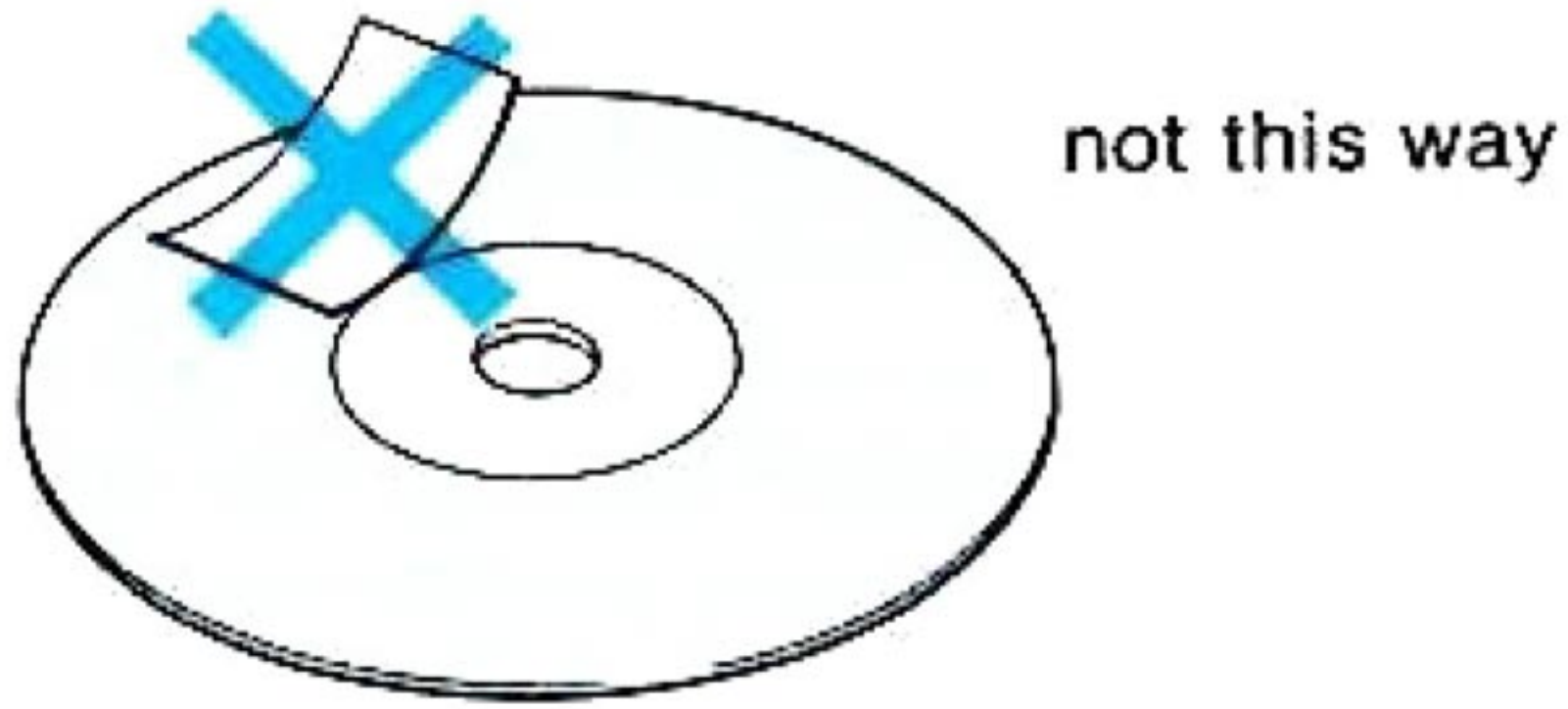
Should this occur, the player will not operate. In this case, remove the disc and leave the player turned on for about an hour to evaporate the moisture.

## NOTES ON COMPACT DISCS

Handle the disc by its edge, and to keep the disc clean, do not touch the rainbow colored surface.



Do not stick paper or tape on the labeled surface.



Do not expose the disc to direct sunlight or heat sources such as hot air ducts, or leave it in a car parked in direct sunlight where there can be a considerable rise in the temperature.



Before playing, clean the disc with the supplied cleaning cloth.



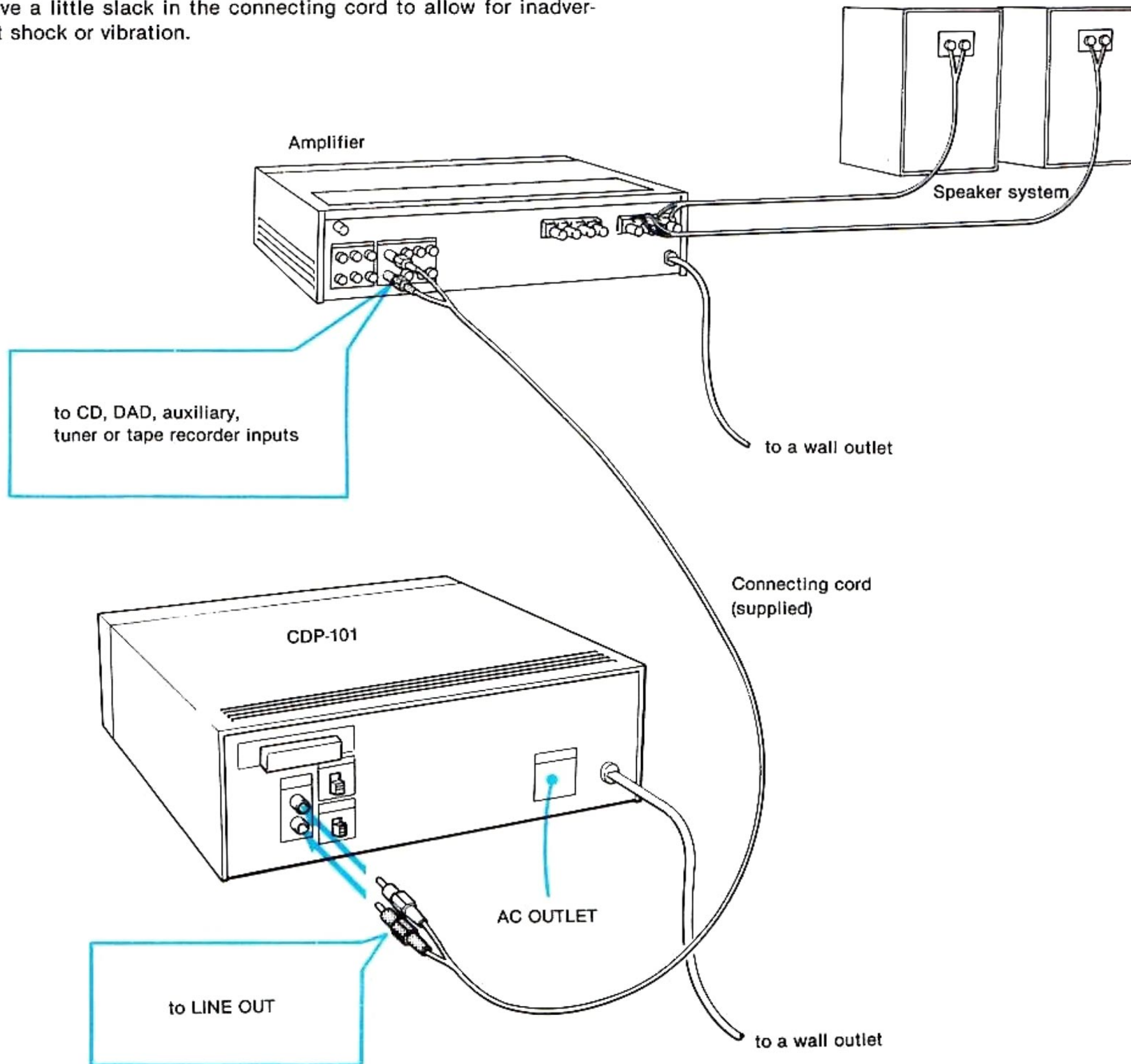
Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray intended for analog discs.

After playing, store the disc in its case.

## CONNECTIONS

- Turn off the amplifier before making connections.
- Be sure to insert the cable connectors firmly into the jacks. Loose connections may cause hum and noise.
- Connect the red plug of the supplied connecting cord to the right-channel jack [R] of the amplifier and the white plug to the left-channel jack [L]. Otherwise, the right and left channels will be reversed.
- Leave a little slack in the connecting cord to allow for inadvertent shock or vibration.

- Be sure not to connect the CDP-101 to the PHONO input jacks of the amplifier.
- If the CD player causes interference to radio and television reception, turn off the player or move the player away from the receiver.



### AC OUTLET

An audio component whose power consumption is under 100 watts can be connected to this outlet. This outlet is not controlled by the front panel POWER switch.

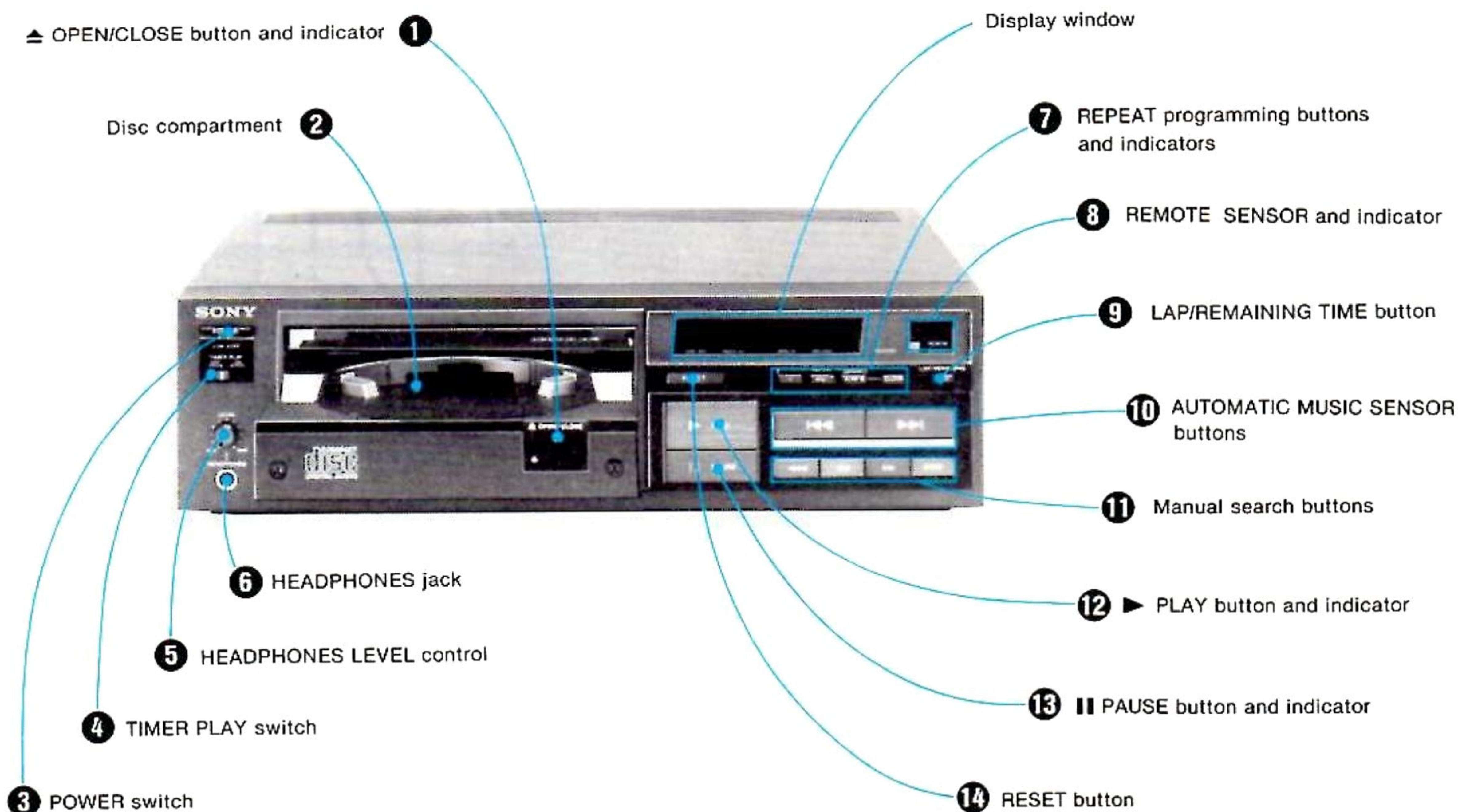
Do not connect an electrical home appliance, such as an electric iron, fan, TV or any other high-wattage equipment, to this ac outlet.

### Power cord

A white mark is visible on one lead of the power cord. This will help you drive the CDP-101 and other components in the system "in phase" by aligning the ac power cord polarities with ac outlet polarities. In most cases, the marked plug of the CDP-101's power cord should be inserted into the negative potential of the ac outlet.

# LOCATION AND FUNCTION OF CONTROLS

Before plugging in or attempting to operate this unit, it is suggested that you familiarize yourself with all its switches and controls and the purpose of each. Each number in the photo is keyed to the descriptive text.



## 1 **△ OPEN/CLOSE button and indicator**

With one touch of this button the disc compartment opens for disc loading. The indicator on the OPEN/CLOSE button will illuminate while the compartment is opening. With another touch the compartment closes.

## 2 **Disc compartment**

Place a compact disc here.

## 3 **POWER switch**

Depress to turn on the power. The "1" indicator will appear in the display window in a few seconds. To turn the power off, press the switch again.

## 4 **TIMER PLAY switch**

You can set the player to play a disc at a predetermined time by connecting any commercially available timer. To play, set this switch to ON. See "Timer-activated play" on page 11.

## 5 **HEADPHONES LEVEL control**

This control adjusts the volume at the headphones. At the minimum position, the sound is just audible.

## 6 **HEADPHONES jack (stereo phone jack)**

Accepts any low or high impedance stereo headphones.

## 7 **REPEAT programming buttons**

Press these buttons to program repeat play of the disc.

**1 button**: To repeat the selection now being played.

To release repeat play, press the button again.

**ALL button**: To repeat all the selections on the disc.

To release repeat play, press the button again.

## **A ↔ B button**: To repeat play between specific points on the disc.

With one touch of this button the built-in indicator flickers and the point where the button has been pressed is memorized as the "A" (start) point of repeat play.

With another touch, the built-in indicator illuminates steadily and the point where the button has been pressed a second time is memorized as the "B" (end) point of repeat play.

When the **CLEAR** button is pressed, this repeat play will be cancelled.

Any repeat program is also cancelled when another REPEAT programming button is pressed.

## 8 **REMOTE SENSOR and indicator (for remote control)**

The infrared beam transmitted by the supplied Remote Commander is received here. The indicator blinks to indicate that a function key of the Remote Commander has been pressed.

## 9 **LAP (elapsed)/REMAINING TIME button**

The time counter normally indicates elapsed time.

When this button is pressed, the time counter will show the time remaining before the end of the last selection, preceded by a minus sign.

When this button is pressed a second time, the time counter will again become a normal time counter.

## 10 **AUTOMATIC MUSIC SENSOR buttons**

**◀ (back selection) button**: Press to go back to a previous selection.

**▶ (forward selection) button**: Press to skip ahead to a later selection.

## 11 **Manual search buttons**

Keep holding the appropriate button down to search for a particular point on the disc during either play or pause.

You can monitor the disc sound reproduced in forward or in reverse at a high speed while searching during play.

When you release this button, normal-speed play will resume (during play) or the player will return to the pause mode (during pause).

**◀◀ button:** To go backwards at a high speed (several times higher than the normal playing speed).

**◀◀◀ button:** To go backwards at a higher speed than the ◀◀ button.

**▶▶ button:** To skip ahead at a high speed (several times higher than the normal playing speed).

**▶▶▶ button:** To skip ahead at a higher speed than the ▶▶ button.

#### ▶▶▶ **PLAY button and indicator**

Press to start normal disc play. The built-in ▶ indicator will illuminate.

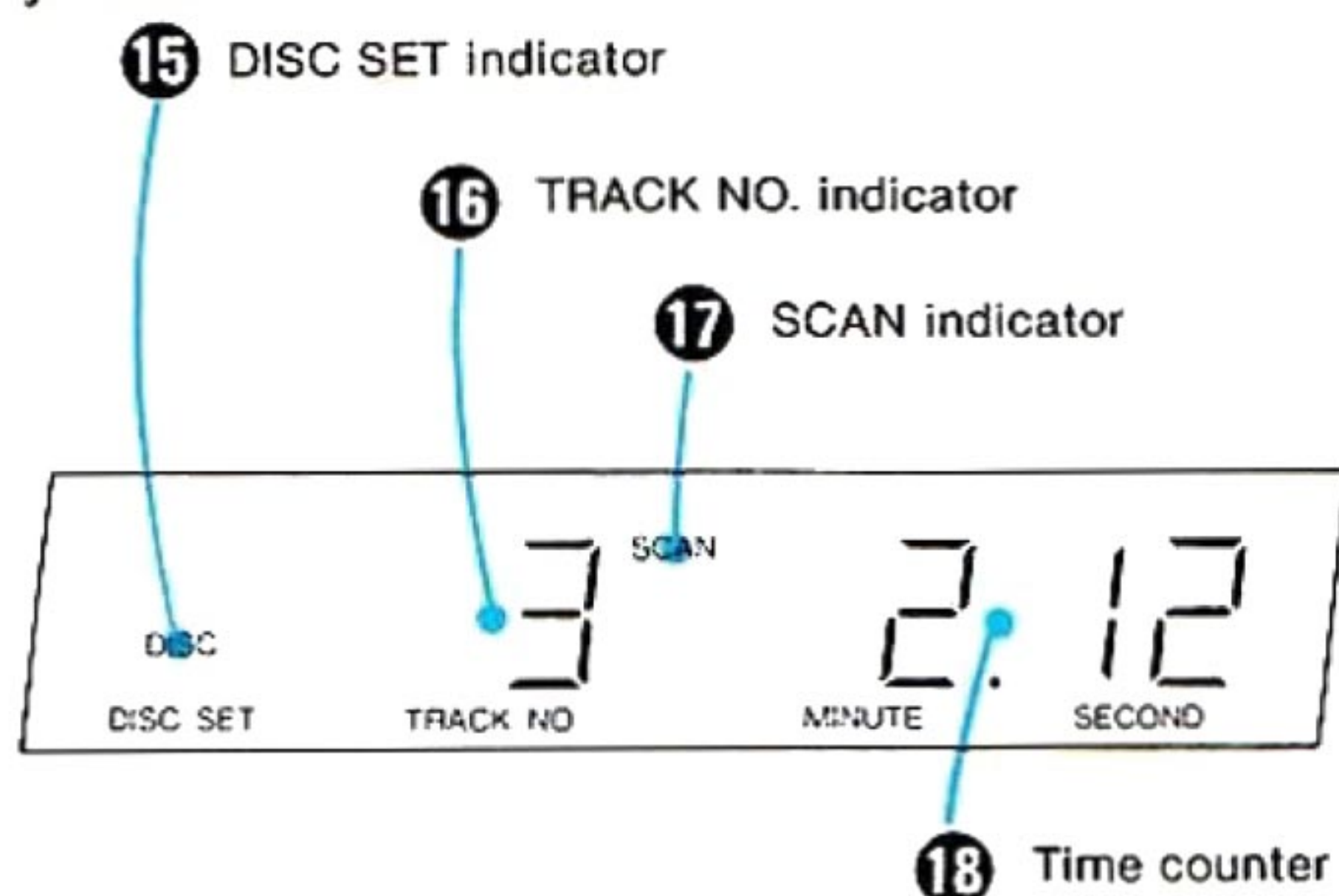
#### ⏸ **PAUSE button and indicator**

Press to pause during play. The built-in ⏸ indicator will illuminate. To release the pause mode, press this button again. The indicator will go off and disc play will resume.

#### ⏪ **RESET button**

When this button is pressed, disc play is reset to the very beginning of the first selection and the player stands by.

#### Display window



#### 15 **DISC SET indicator**

The indicator flickers when the disc compartment is moving. When the disc compartment has closed with a disc in place (in the standby mode), and during disc playing, the indicator illuminates steadily.

#### 16 **TRACK NO. indicator**

The indicator shows the track number of the selection being played.

If you press the ▶▶ or ▶▶▶ button at the end of the disc, the indicator will change to "7 7" indicating that the end of the last selection has been reached. To return to a previous selection number, press the RESET, ◀◀, ◀◀◀ or ◀◀◀◀ button. If you press the ◀◀ or ◀◀◀ button at the beginning of the disc, the indicator will change to "1 1", indicating that the beginning of the first selection has been reached.

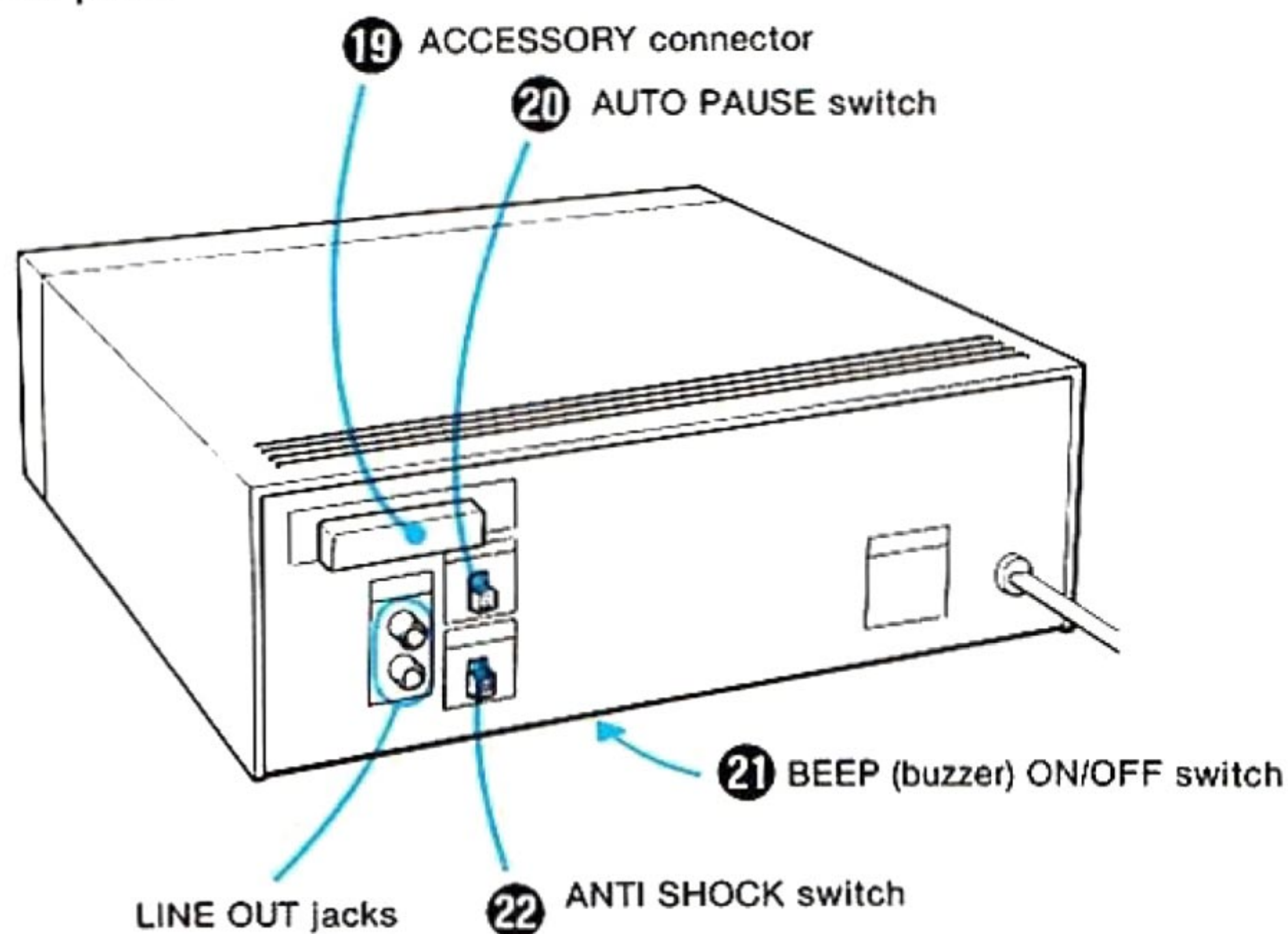
#### 17 **SCAN indicator**

This indicator illuminates while the player is searching for the point on the disc you have programmed.

#### 18 **Time counter**

The counter shows the location in a particular selection by means of actual elapsed time. The first two digits of the counter show playing time of the selection in minutes, and the last two digits show the seconds.

#### Rear panel



#### 19 **ACCESSORY connector**

Used to extend the utility of this compact disc player by providing for the connection of optional equipment which will be available in the future.

Do not remove the cover except when connecting any equipment to this connector.

#### 20 **AUTO PAUSE switch**

Normally set to OFF.

When this player is used with an optional microphone amplifier, set to ON to pause after having played each selection.

This auto pause mode is released when the START key on the Remote Commander is pressed.

#### 21 **BEEP (buzzer) ON/OFF switch (bottom)**

Set to ON to have a signal tone sounded when a signal from the supplied Remote Commander is received. Set the switch to OFF when a signal tone is not necessary.

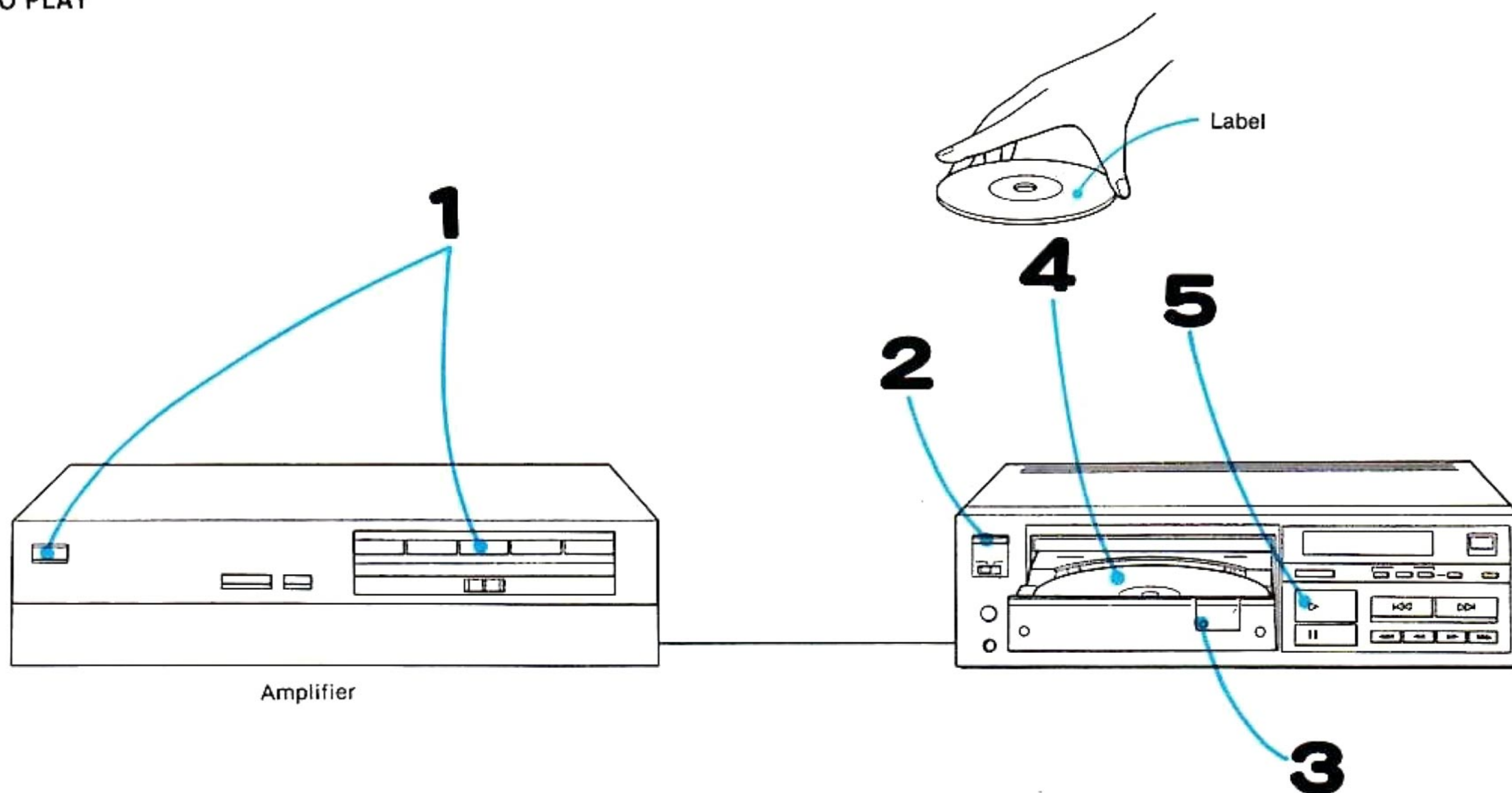
#### 22 **ANTI SHOCK switch**

When the player is used in a place subject to excessive vibration and the disc skips frequently, set this switch to ON.

However, when a defective disc is played with this switch set to ON, and it may skip frequently, set this switch to OFF.

# DISC PLAYING

## TO PLAY



- 1 Turn the amplifier on and set the input selector to the position corresponding to the input jacks to which the CD player is connected.
- 2 Depress the POWER switch to turn the player on.
- 3 Press the OPEN/CLOSE button to open the disc compartment. The DISC SET indicator flickers and the compartment opens.
- 4 Holding the disc by the rim, place it with the label side up on the compartment.
- 5 Press the ► PLAY button. The compartment will close and play will begin from the beginning of the first selection.

If you press the AUTOMATIC MUSIC SENSOR buttons with the compartment opened, then press the ► PLAY button, the compartment will close and play will begin from that selection.

When the player reaches the end of the last selection of the disc, it is automatically reset to the beginning of the disc and stands by. To open the compartment, press the OPEN/CLOSE button.

### An important point to remember

In the CD system, a wider dynamic range is achieved than that of the conventional analog system, and the peaks of high level inputs are recorded with high-fidelity. In addition, the noise level is very low.

If you turn up the volume inadvertently while listening to a portion where no audio signals or very low level inputs are recorded, the speakers may be damaged when the portion with peak levels is played.

## TO STOP DURING PLAY

### To open the compartment

Press the OPEN/CLOSE button. The disc will stop rotating and the compartment will open.

### To pause for a moment during play

Press the ■ PAUSE button. The ■ indicator will illuminate.

To release pause and restart play from the same point, press the ■ PAUSE button again.

### To reset to the beginning of the first selection

Press the RESET button. The player will stand by.



# SEARCH OPERATION

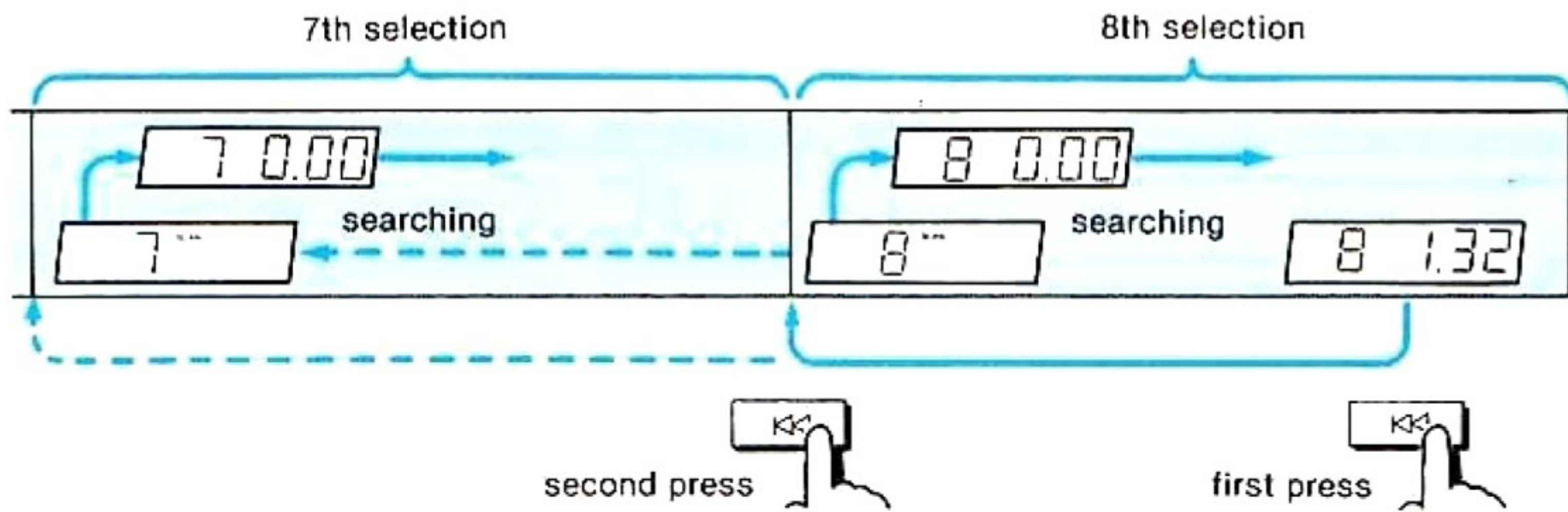
## TO SEARCH FOR A PARTICULAR SELECTION

Using the **◀◀** or **▶▶** button, you can quickly locate a desired selection ahead or back. When the button is pressed, the player searches the selection data recorded at the beginning of each selection and play will start from the beginning of the selection.

### To search for a back selection

Press the **◀◀** button during play or pause.

When the **◀◀** button is pressed once, the beginning of the selection being played is searched for. Each time the button is pressed, one selection back is searched for.



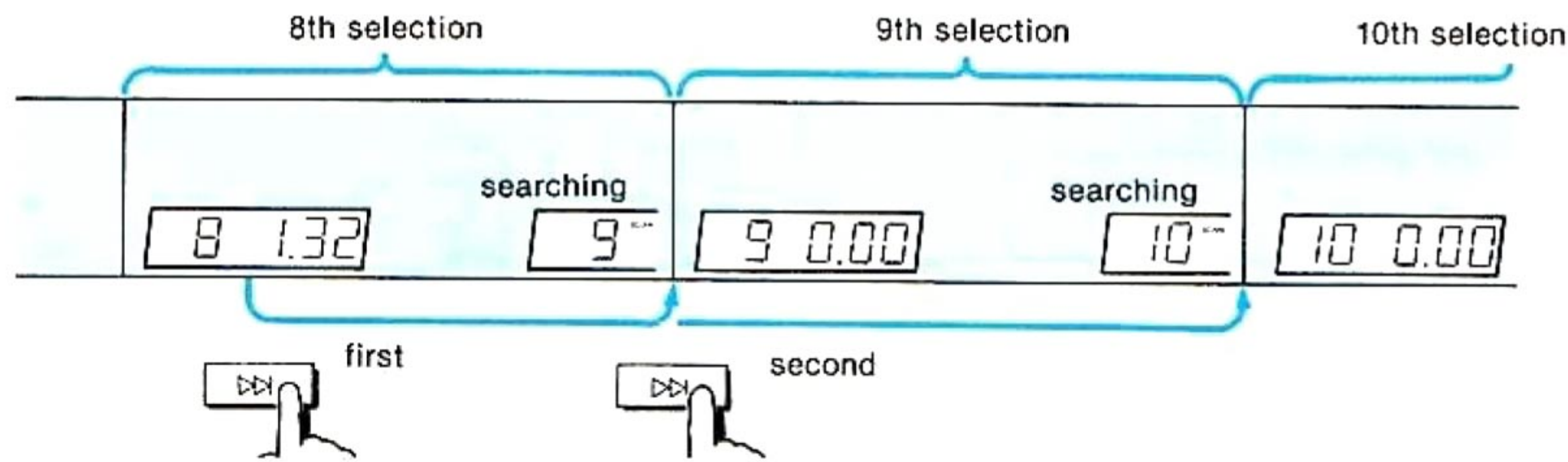
Press the **◀◀** button repeatedly until the desired music number is displayed.

If you press the **◀◀** button after the first selection is located, the TRACK NO. indicator will not change.

### To search for a selection ahead

Press the **▶▶** button during play or pause.

When the **▶▶** button is pressed once, the next selection after that being played is searched for. Each time the button is pressed, the selection ahead is searched for.

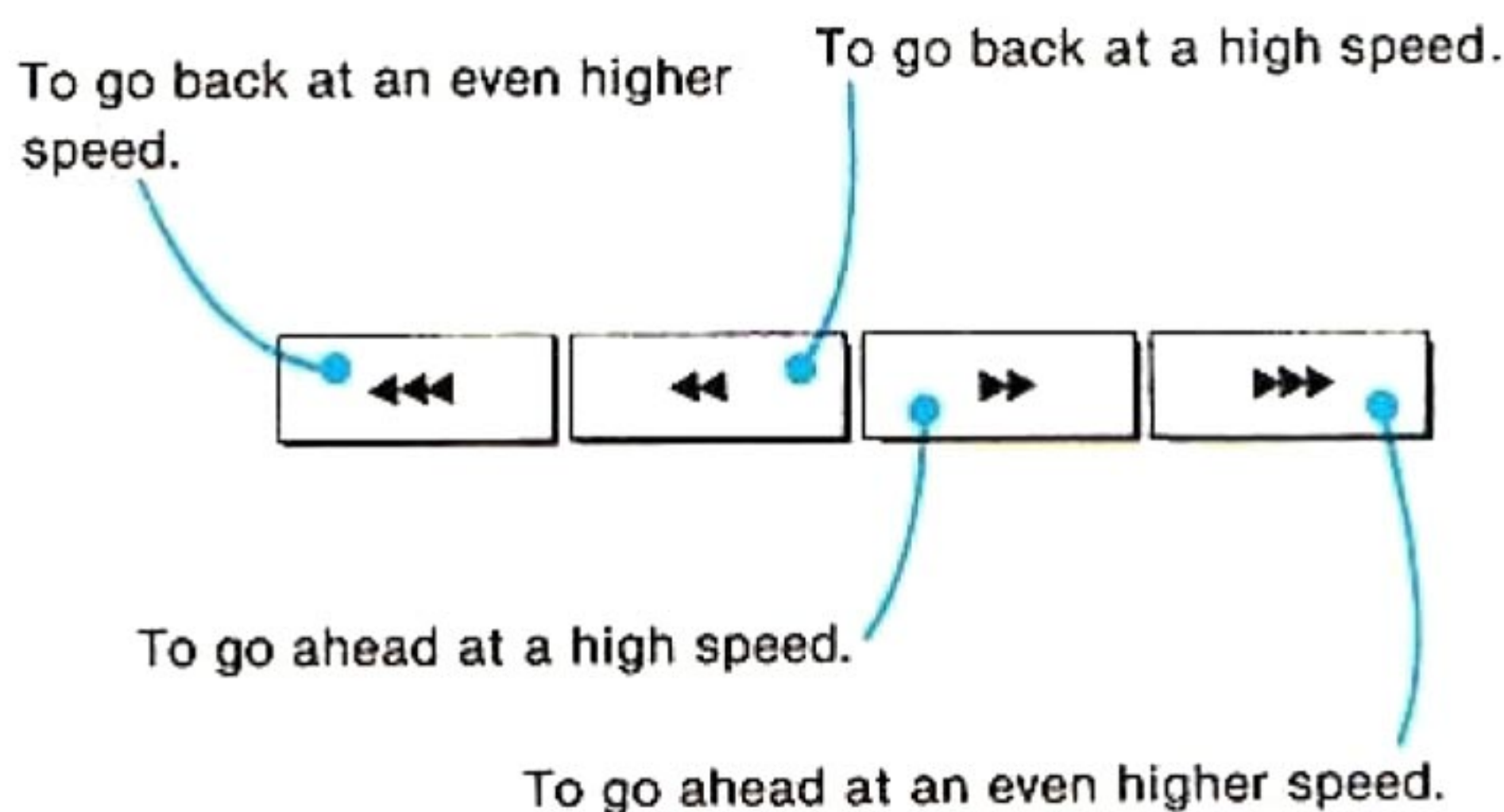


If you press the **▶▶** button after the last selection is located, the TRACK NO. display will not change.

## TO SEARCH FOR A PARTICULAR POINT IN A SELECTION

Using the manual search buttons, you can locate a particular point of a selection during play or pause. While one of the manual search buttons is held down, the disc playing goes ahead or back. Release the button at the desired point found by observing the time counter or monitoring the high-speed sound during play.

### Manual search buttons



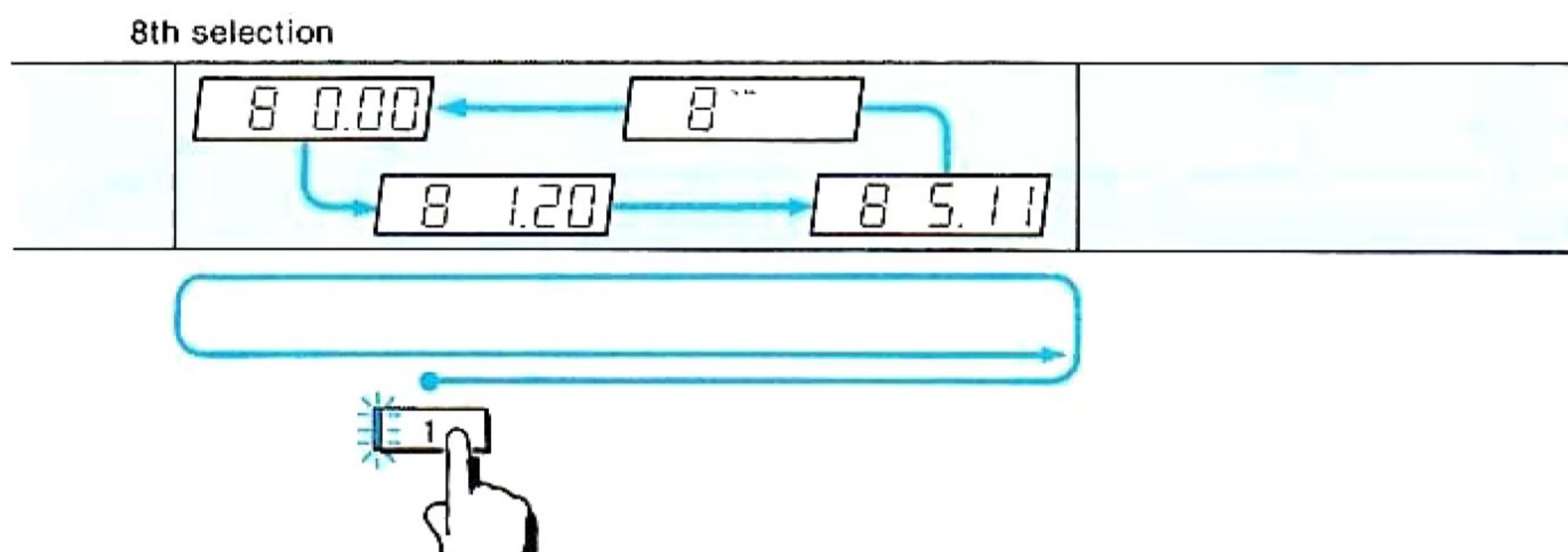
- While pressing the **▶▶▶** or **◀◀◀** button during pause, the time counter indicates only minutes.
- If you press the **▶▶** or **▶▶▶** button at the end of the disc, the TRACK NO. indicator will change to "7 7" (end mark). To return to a TRACK NO. indicator, press the **◀◀**, **◀◀◀** or **◀◀◀◀** button.
- If you press the **◀◀** or **◀◀◀** button at the beginning of the disc, the TRACK NO. indicator will change to "1 1" (start mark).

## REPEAT PLAY

Using the REPEAT programming buttons, you can repeat the selection being played, the whole disc, or particular portion of the disc.

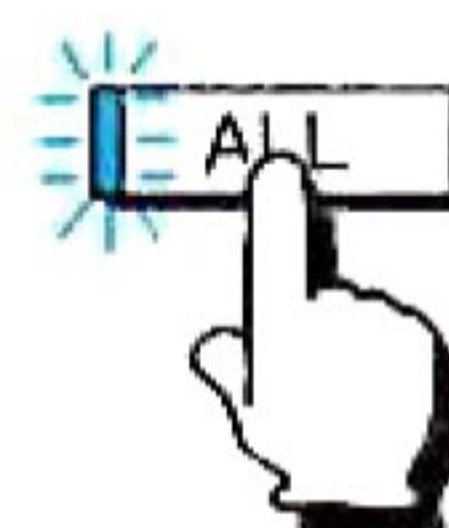
### TO REPEAT ONLY THE SELECTION BEING PLAYED

Press the **1** button during play. The built-in indicator will illuminate. When the disc reaches the end of the selection, it will automatically go back to the beginning of the selection and play will restart.



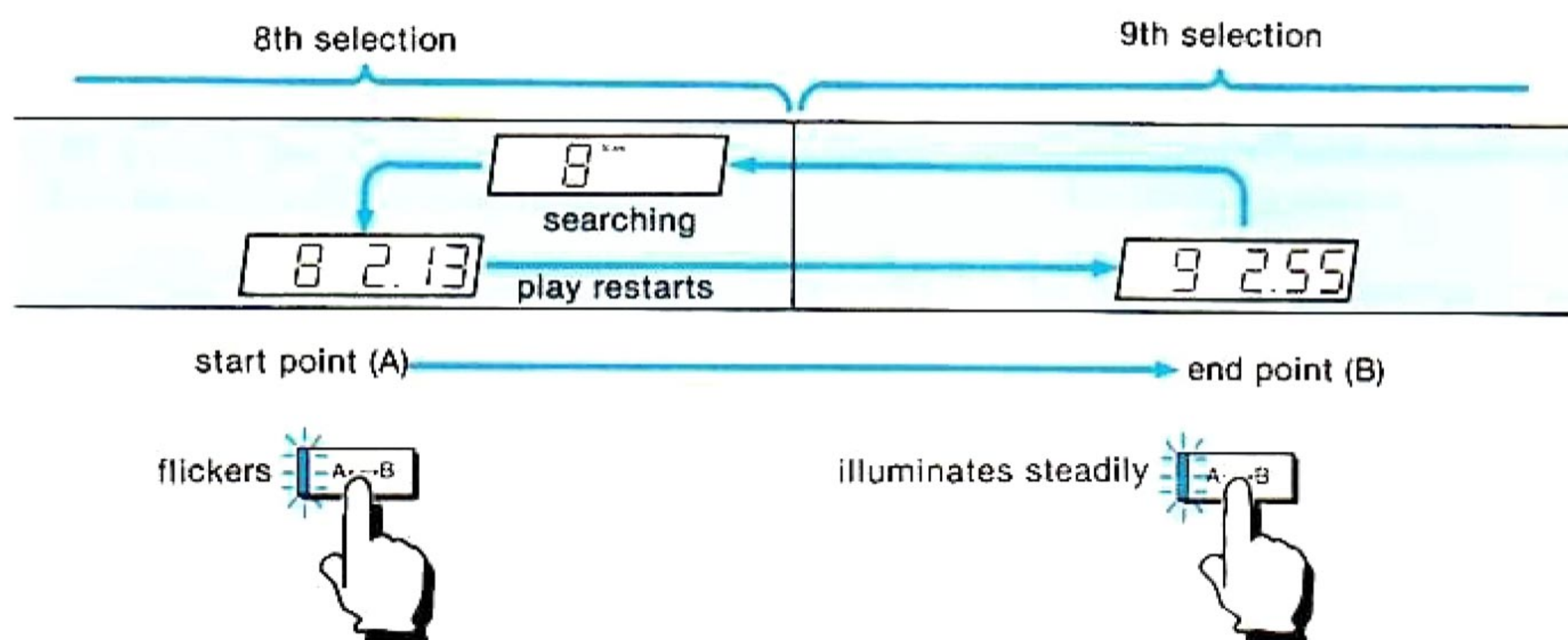
### TO REPEAT THE WHOLE DISC

Press the **ALL** button. The built-in indicator will illuminate. When the disc reaches the end of the last selection, the player will automatically go back to the beginning of the first selection, and play will restart.



### TO REPEAT BETWEEN PARTICULAR POINTS

- 1 When the disc plays the point from which you wish to start the repeat play (point A), press the **A ↔ B** button. The built-in indicator will start flickering showing the A point is memorized.
- 2 When the disc reaches the point at which you wish to stop the repeat play (point B), press the **A ↔ B** button again. The built-in indicator will then illuminate steadily showing the B point is memorized. The disc will go back to the A point and play will restart.



### MORE ABOUT A ↔ B REPEAT FUNCTION

#### To play from a desired point (memory play)

- 1 At the point from which you wish to listen later (point A), press the **A ↔ B** button.
  - 2 When you press the **▶** PLAY button, the disc will go back to the point A and play will restart.
- To cancel the point A, press the **CLEAR** button.

#### To repeat the whole disc eliminating an unwanted portion (jump repeat)

- 1 At the point where you wish to end the portion to be eliminated (point A), press the **A ↔ B** button.
  - 2 Press the **◀◀**, **◀** or **◀◀◀** button to search for the point from which you wish to start eliminating (point B), and then press the **A ↔ B** button. The repeat play eliminating the B — A portion will start.
- To cancel, press the **CLEAR** button.

### TO CANCEL THE REPEAT PLAY

The **1** or **ALL** repeat play continues until the button is pressed again.

To cancel the **A ↔ B** repeat play, press the **CLEAR** button.

Any repeat program is also cancelled when another REPEAT programming button is pressed.

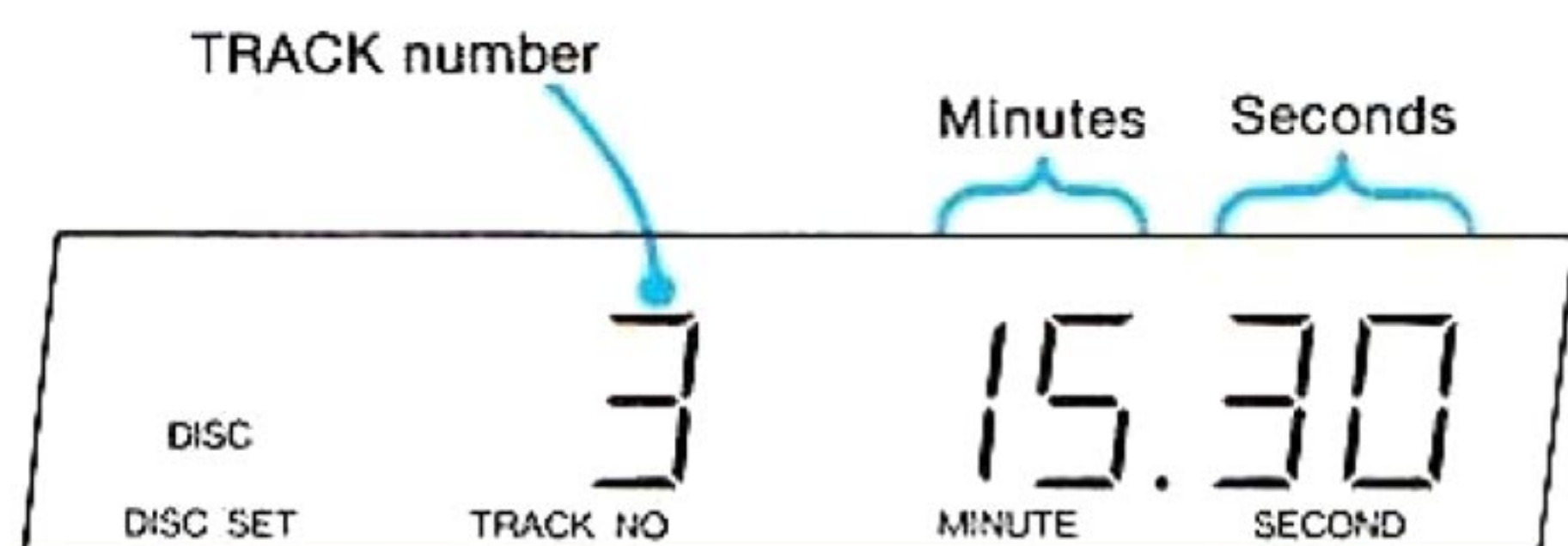
## USING THE TIME COUNTER

### TO MONITOR THE ELAPSED PLAYING TIME

Generally, the time counter shows the elapsed playing time from the beginning of the selection in minutes and seconds.

When a new selection starts, the counter is reset to "0.00" and then starts counting time again.

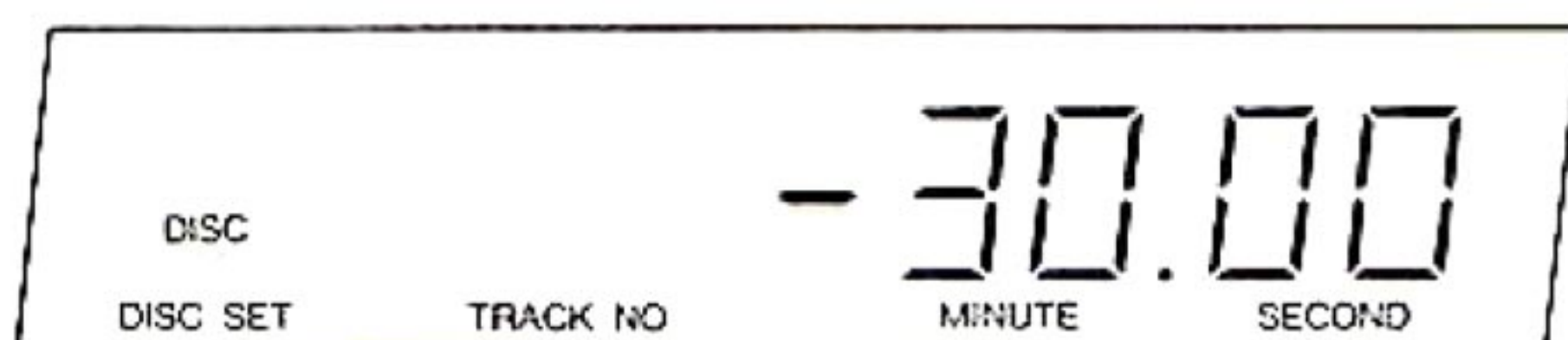
If the selection has a blank space at its beginning, the counter is reset to the time preceded by the minus sign such as "-0.02", "-0.01", etc.



shows 15 minutes 30 seconds has elapsed from the beginning of the third selection

### TO MONITOR THE REMAINING PLAYING TIME

When the LAP/REMAINING TIME button is pressed, the counter shows the remaining time, preceded by a minus sign, before the end of the last selection.



shows 30 minutes 00 seconds remaining before the end of the disc

The digits will change, for example, from -30.00 to -29.59, -29.58... as the play goes on, and you can monitor the remaining playing time at any point of the disc.

To return the counter to the elapsed time, press the LAP/REMAINING TIME button again.

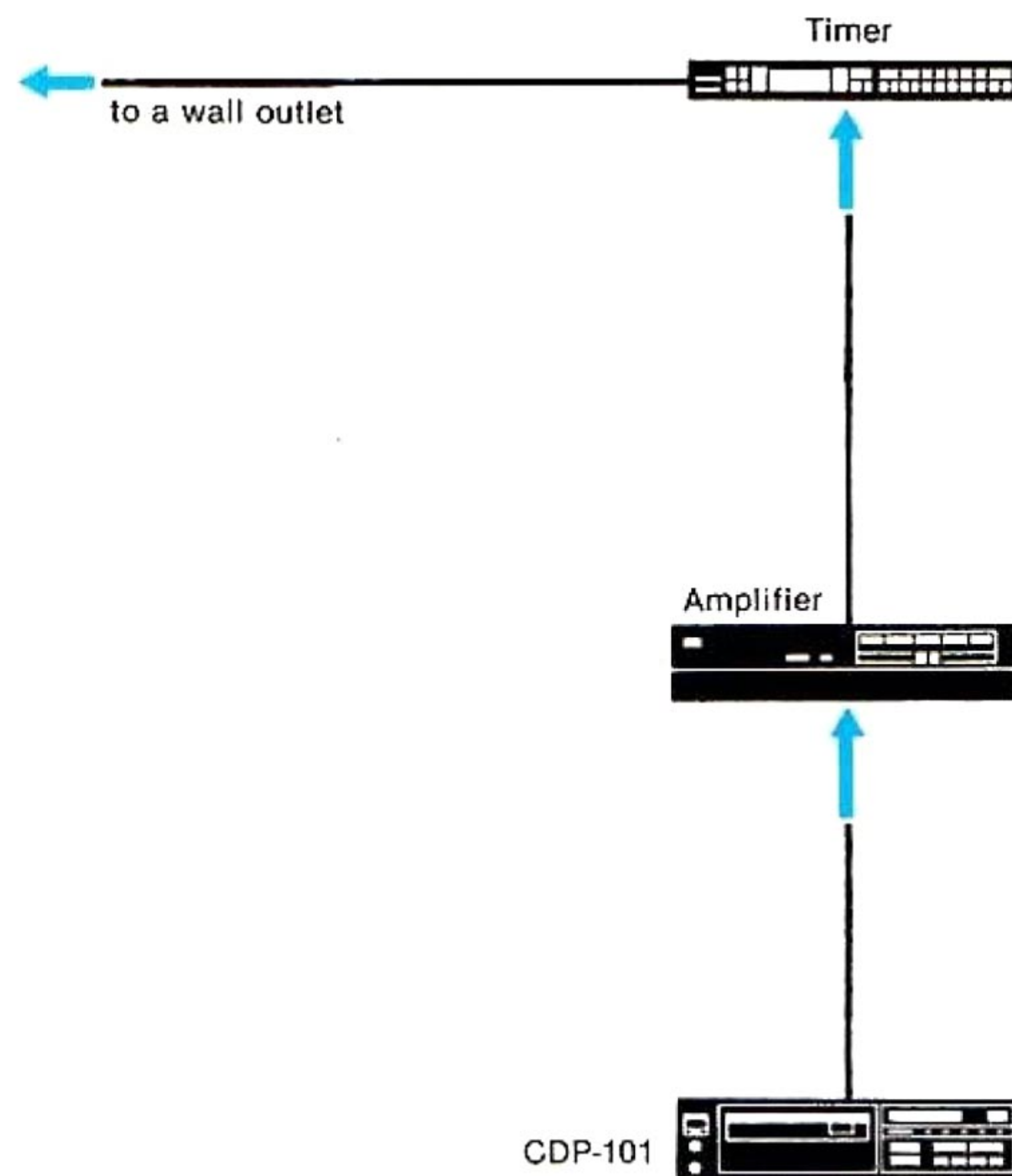
When the RESET or OPEN/CLOSE button is pressed, the counter will also return to an elapsed time indication.

**Note:** When the ◀◀ or ▶▶ button is pressed, the counter will show the track number of the selection for a few seconds.

## TIMER-ACTIVATED PLAY

By connecting any of several commercially-available timers, you can play a disc at any desired time.

### Power connection



### To play using a timer

- 1 Set the player's TIMER PLAY switch to OFF.
- 2 Turn on the amplifier and set the appropriate switches for disk playing.
- 3 Turn on the player and insert a disc.
- 4 Set the timer for the desired time.  
(At this point, power will be cut off.)
- 5 Set the player's TIMER PLAY switch to ON.

The player is now ready to start play of the first selection at the time set on the timer.

### After the timer-activated play has been completed...

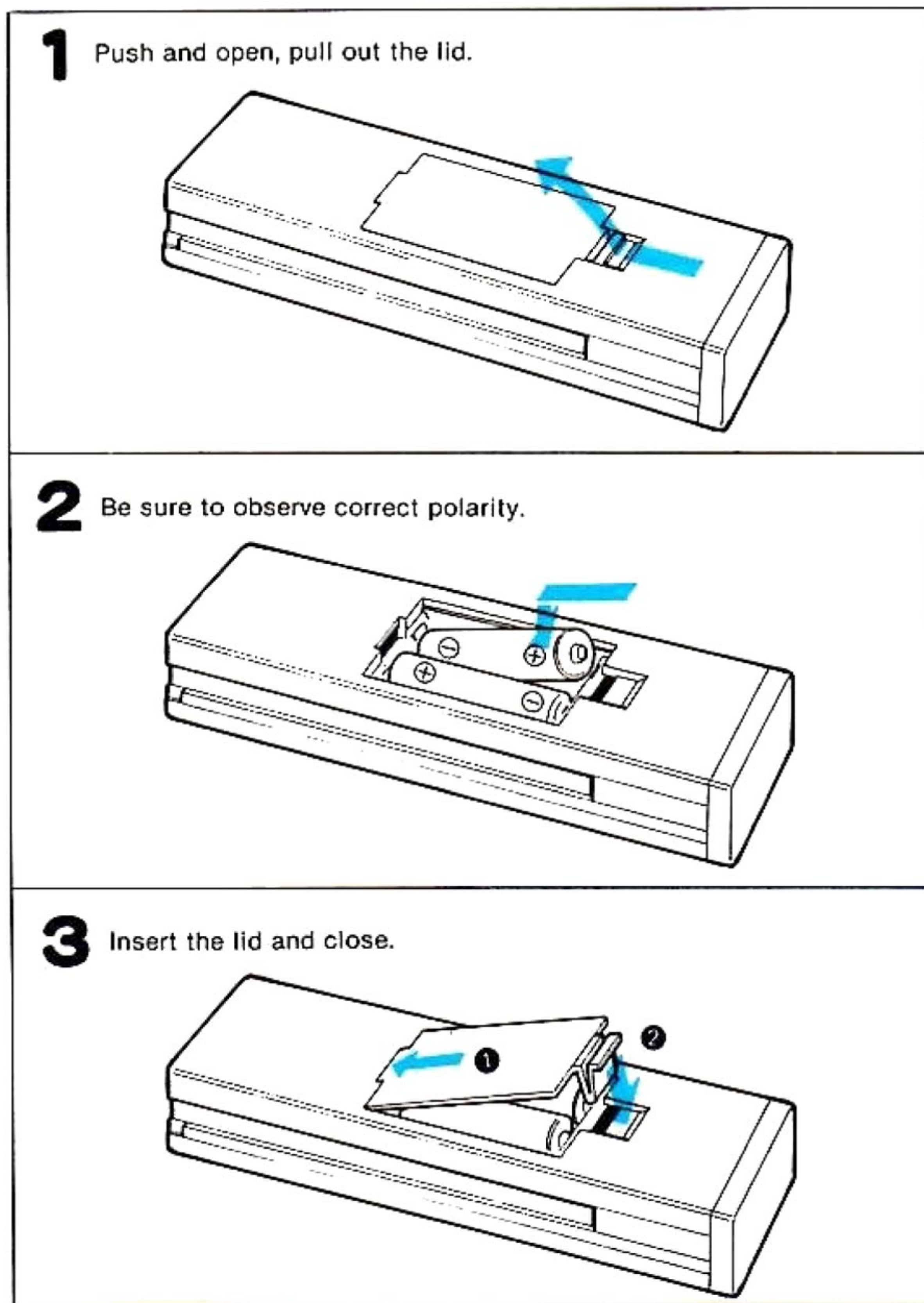
Be sure to set the TIMER PLAY switch of the CDP-101 to OFF.

# REMOTE CONTROL OPERATION

Once the POWER switch is turned on, you can remotely control almost all the functions of the CDP-101 with the RM-101 Remote Commander (supplied).

## Battery installation

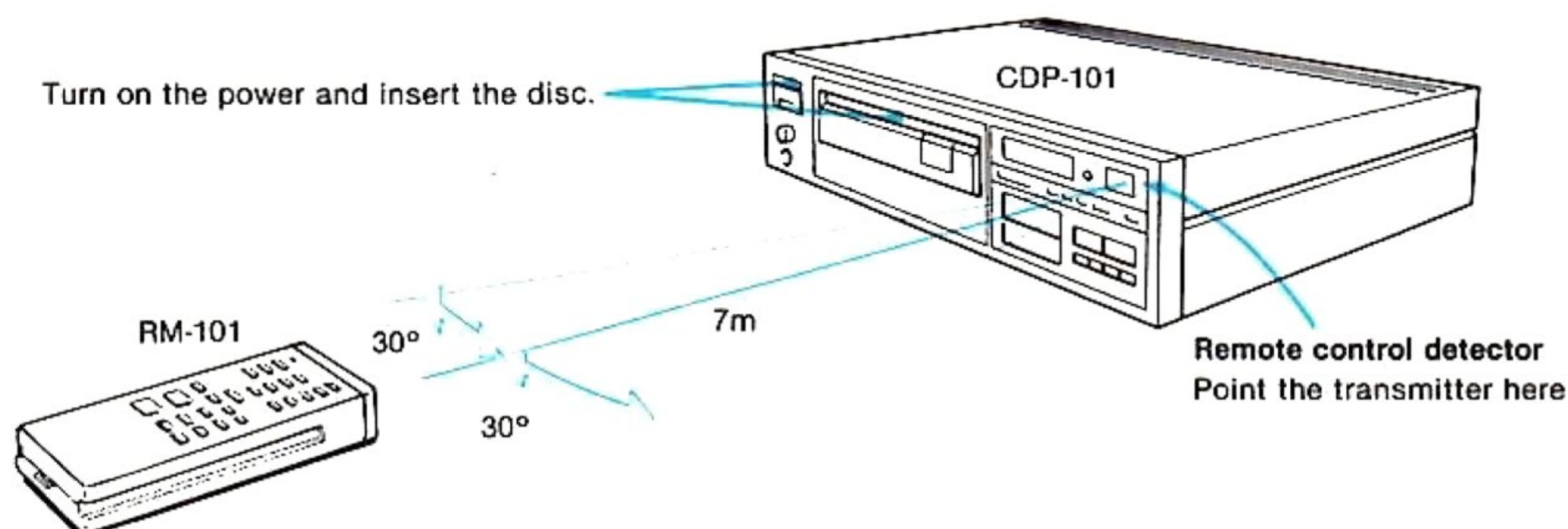
The Sony RM-101 Remote Commander operates on supplied two IEC designation R6 batteries (size AA).



## Notes on the Remote Commander

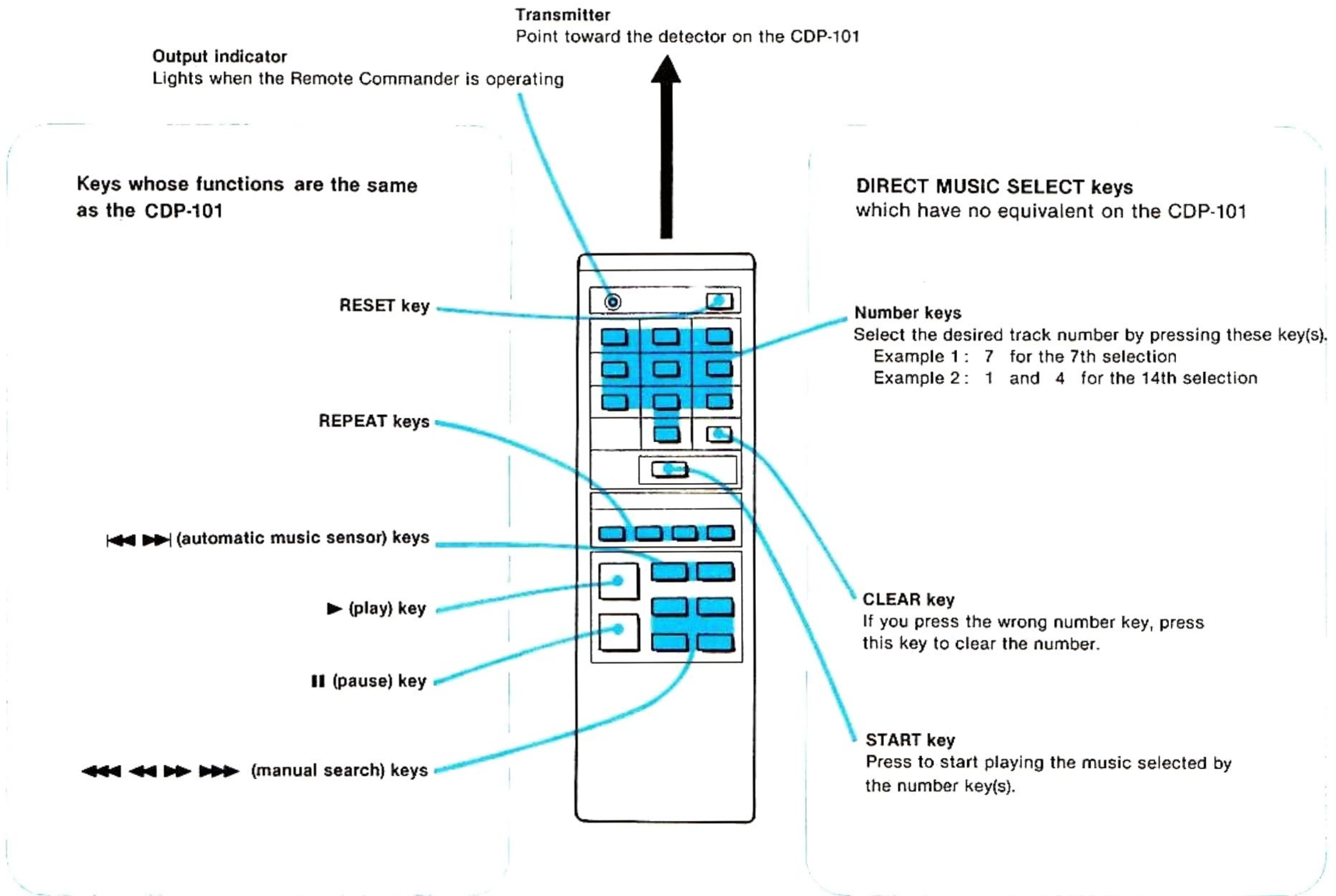
- In normal operation, battery life is up to half a year. When the battery is exhausted, the Remote Commander will not operate the unit. In this case, replace the batteries with new ones.
- When the Commander is not to be used for a long period of time, remove the batteries to avoid damage from possible battery leakage.
- Keep the Commander away from extremely hot or humid places.
- Avoid dropping any foreign objects into the Commander cabinet, particularly when replacing batteries.
- To avoid a malfunction, do not simultaneously depress two or more keys.
- If the output indicator does not light when any of the function keys are pressed, replace all the batteries.

## Range of the remote control



The shorter the distance between the Commander and the detector, the wider the angle within which the player can be controlled.

## Function of keys on the Remote Commander



### Notes on DIRECT MUSIC SELECT keys operation

- After you select the track number with the number keys, press the START key immediately. If you do not press the START key within a few seconds, or if you press any other key, the selected number is automatically cancelled.
- If you select a track number which is not available on the disc, the selected number is cancelled when the START key is pressed.
- When the AUTO PAUSE switch is set to ON, the player will be in the pause mode after playing each selection. The auto pause mode is released when the START key on the Remote Commander is pressed.

## TROUBLE CHECKS

The following checks will assist in the correction of most problems which you may encounter with your unit. Should any problem persist after you have made these checks, consult your nearest Sony service facility.

Before going through the check list below, first refer back to the connection and operating procedures.

### The disc compartment does not close.

- The disc is inserted with the labeled surface downwards.
- The disc is incorrectly inserted.
- Dusty or defective disc.

### Play does not begin.

- The **II PAUSE** button is engaged.
- Moisture condensation (See page 3).

### No audio from one or both channels.

- Incorrect connections.

### Play begins as soon as the POWER button is turned on.

- The **TIMER PLAY** switch is set at ON.

## SPECIFICATIONS

System	Compact disc digital audio system
Disc	Compact disc
Laser	Semiconductor laser ( $\lambda = 780 \text{ nm}$ )
Spindle speed	200 r.p.m. to 500 r.p.m. (CLV)
Scan velocity	1.2 - 1.4 m/sec.
Error correction	Sony Super Strategy Cross Interleave Read Solomon Code
Number of channels	2
D-A conversion	16-bit linear
Frequency response	5 - 20,000 Hz $\pm 0.5 \text{ dB}$
Harmonic distortion	Less than 0.004 % (1 kHz)
Dynamic range	More than 90 dB
Signal to noise ratio	More than 90 dB
Channel separation	More than 90 dB
Wow and flutter	Below measurable limit
Outputs	Line outputs Output level 2 V rms (at MSB) Load impedance over 10 kilohms Headphones 28 mW at 32 ohms

### Disc

Track pitch	1.6 $\mu\text{m}$
Sampling frequency	44.1 kHz
Quantization	16 bit linear quantizing/channel
Modulation system	EFM
Transfer rate	2.03 Mbit/sec. (before modulation)

### Remote Commander RM-101

Remote control system	Infrared control
Power requirements	3 V dc with two batteries IEC designation R6 (size AA)
Dimensions	Approx. 55 × 175 × 26 mm (w/h/d) (2 <sup>1</sup> / <sub>4</sub> × 7 × 1 <sup>1</sup> / <sub>16</sub> inches) incl. projecting parts and controls
Weight	Approx. 150 g ( 5.3 oz)

### General

Power requirements	Type 1: 220 V ac Type 2: 240 V ac Type 3: 110, 120, 220 or 240 V ac adjustable 50/60 Hz
Power consumption	30 W
Dimensions	Approx. 355 × 105 × 325 mm (w/h/d) (14 × 4 <sup>1</sup> / <sub>4</sub> × 12 <sup>7</sup> / <sub>8</sub> in.) including projecting parts and controls
Weight	Approx. 7.6 kg (16 lbs 9 oz), net
Supplied accessories	Connecting cord RK-112 (1) Disc cleaning cloth (1) Remote Commander RM-101 (1) Sony New Super Batteries SUM-3(NS) (2)

While the information given is correct at the time of printing, small production changes in the course of our company's policy of improvement through research and design might not necessarily be indicated in the specifications. We would ask you to check with your appointed Sony dealer if clarification on any point is required.

### Note

Appliance conforms with EEC Directive 76/889 regarding interference suppression.