

# *Compact Disc Player*

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Operating Instructions

## Owner's Record

The model and serial numbers are located at the rear.  
Record the model and serial numbers in the space provided  
below.

Refer to these numbers whenever you call upon your Sony  
dealer regarding this product.

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_



CDP-670/470/270

CDP-M27

# WARNING

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

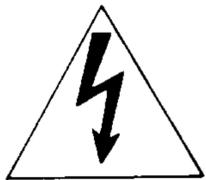


**CAUTION**

RISK OF ELECTRIC SHOCK  
DO NOT OPEN



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.



This symbol 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.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**For the Customers in Canada**

THIS APPARATUS COMPLIES WITH THE CLASS B LIMITS FOR RADIO NOISE EMISSIONS SET OUT IN RADIO INTERFERENCE REGULATIONS.

## INFORMATION

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 cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna
- Relocate the equipment with respect to the receiver
- Move the equipment away from the receiver
- Plug the equipment into a different outlet so that equipment 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, DC 20402, Stock No. 004-000-00345-4.

**CAUTION:**

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

**Difference among the CDP-670, CDP-470, CDP-270, and CDP-M27**

This instruction manual covers CDP-670, CDP-470, CDP-270, and CDP-M27. Their performance and operation are identical except for the following:  
The illustrations used in this manual are of the CDP-670.

Model	Remote control	Digital output (optical)
CDP-670	supplied	provided
CDP-470		
CDP-270	not supplied	not provided
CDP-M27		

# Introducing This CD Player

## Enjoy listening in various playing modes

You can select the playing modes among the following:

- Continuous play (page 6) – The entire disc is played once.
- Single play (page 7) – One selection is played.
- Program play (page 10) – Selections are played in your desired order.
- Shuffle play (page 8) – Selections are played in a random order.
- Repeat play (page 9) – Selections or a portion are played repeatedly.

## Editing your own tapes

- You can fade in or out the play when making your own tape recording. - Fade in/Fade out (page 13)
- **CUSTOM EDIT function**
  - You can confirm the total playing time while choosing the selections to be programmed. – Program edit (page 10)
  - The player can program selections automatically to fit in a desired duration. – Time edit (page 12)
  - You can stop the play, fading out at the time desired. – Time fade (page 13)

# Precautions

## On safety

- Operate the unit only on 120V AC, 60 Hz.
- Should any solid object or liquid 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 will not be used for a long time. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.
- As the laser beam used in this compact disc player is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

## On operation

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

### Important

Since the CD system boasts a wide dynamic range, the peaks of high level inputs are recorded with high fidelity, and the noise level is very low. Do not turn up the volume while listening to a portion with no audio signals or very low level inputs. If you do, the speakers may be damaged when a peak level portion is played.

## For the customers in the USA

For detailed safety precautions, see the leaflet "IMPORTANT SAFEGUARDS".

If you have any questions or problems concerning your unit, please contact your nearest Sony dealer.

# Table of Contents

Introducing this CD player .....	3
<b>Installing the CD player</b> .....	4
Notes on installation .....	4
Notes on the remote commander and remote control operation .....	4
Installing batteries in the remote commander .....	4
<b>Connecting the CD player</b> .....	5
Notes on connection .....	5
Connecting to an amplifier without a digital input .....	5
Connecting to a unit with an optical digital input .....	5
<b>Playing a disc</b> .....	6
Playing the entire disc .....	6
Locating a particular selection .....	7
Locating a particular point in a selection .....	7
Playing a single selection—Single play .....	7
<b>Playing in a random order—Shuffle play</b> .....	8
<b>Playing repeatedly—Repeat play</b> .....	9
Repeating selections .....	9
Repeating a particular portion—A ↔ B repeat .....	9
<b>Designating the playing order and time—</b>	
<b>Program play</b> .....	10
Designating the playing order—Program edit .....	10
Programming selections directly .....	11
Designating the total playing time—Time edit .....	12
<b>Tips on editing tapes</b> .....	13
Fading out at the desired time—Time fade .....	13
Fading in/Fading out .....	13
Inserting a blank space between selections—	
Auto space .....	13
<b>Specifications</b> .....	14
<b>Maintenance</b> .....	14
Cleaning your unit .....	14
Cleaning discs .....	14
<b>Location of controls</b> .....	15
<b>Troubleshooting guide</b> .....	Back cover



This indicates a function operated only from the remote commander.



This indicates a function operated only on the main unit.

# Installing the CD Player

## Notes on Installation

- Place the unit in a location with adequate air circulation to prevent internal heat build up in the unit.
- Do not place the unit on a soft surface, such as a rug that would block the ventilation holes on the bottom.
- Do not install the unit:
  - near heat sources such as radiators or air ducts.
  - in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

### On moisture condensation

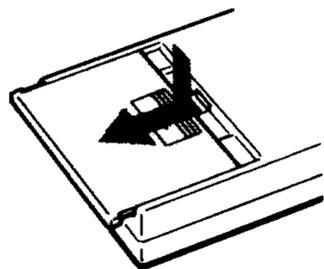
If the player is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lens inside the unit. Should this occur, the player will not operate. In this case, remove the disc and leave the player turned on for about an hour until the moisture evaporates.

## Notes on the Remote Commander and Remote Control Operation

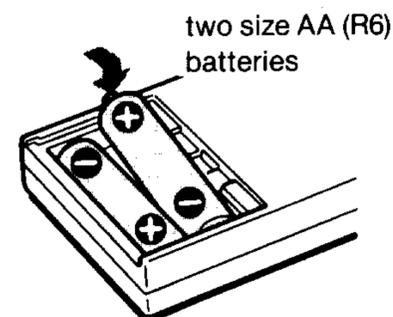
- Keep the commander away from extremely hot or humid places.
- Avoid dropping any foreign objects into the commander casing, particularly when replacing the batteries.
- Avoid exposing the remote sensor to direct sunlight or lighting apparatus. Such exposure can cause a malfunction.
- To avoid damage caused by battery leakage and corrosion, remove the batteries when the commander will not be used for a long time.

## Installing Batteries in the Remote Commander

1



2



### On battery life

- About half a year of normal operation can be expected when using the Sony SUM-3 (NS) batteries.
- When the batteries are run down, the remote commander will not operate the unit. In this case, replace both batteries with new ones.

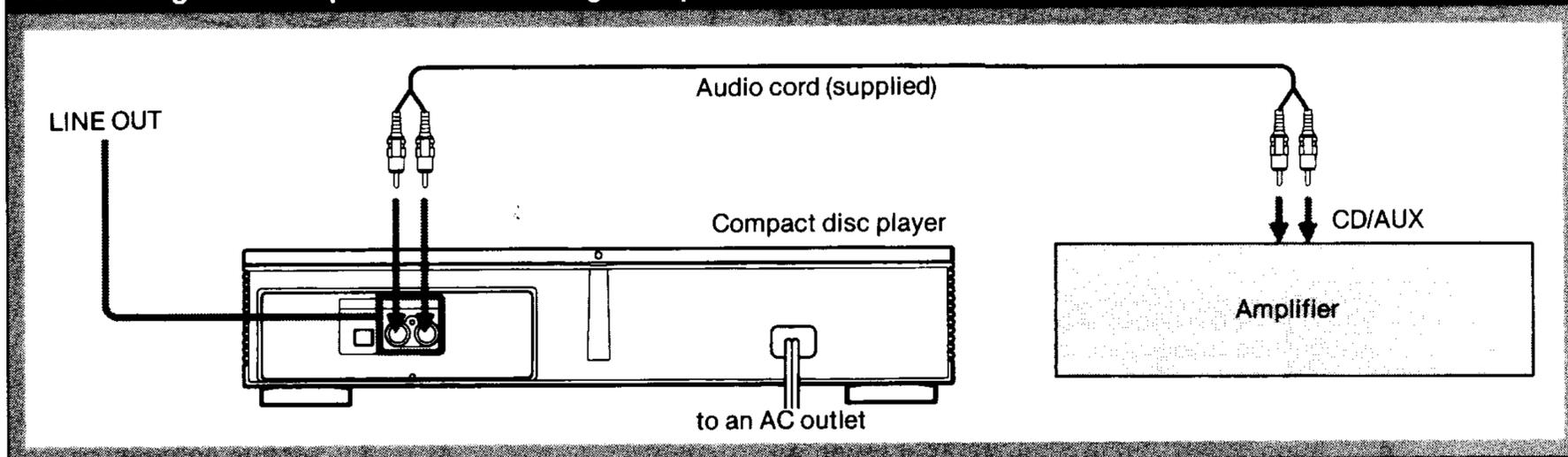
# Connecting the CD Player

You can connect the unit with analog or digital signal depending on your amplifier or D/A converter.

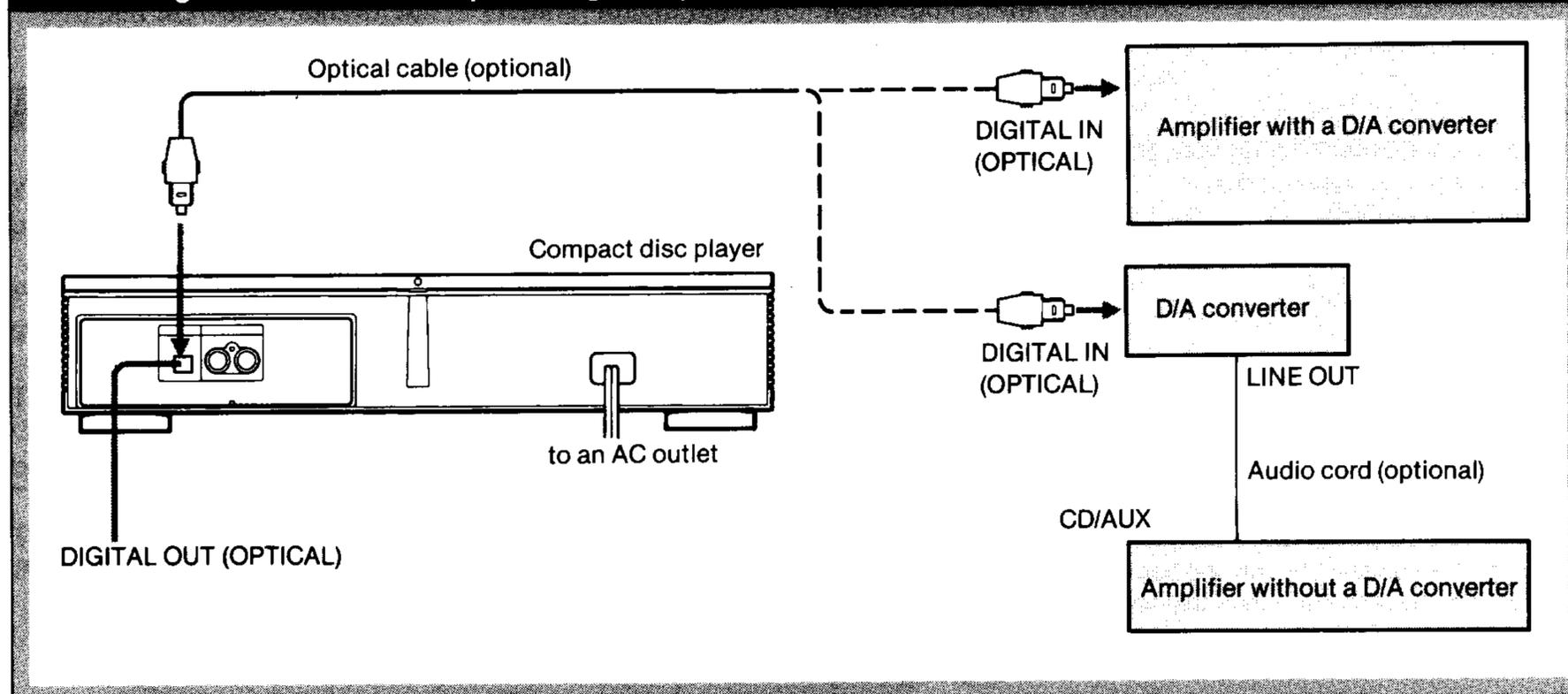
## Notes on Connection

- Turn off the power of each unit before making connections.
- Connect the AC power cord last. For the model supplied with the plug adaptor, use it if the plug of the power cord does not match your wall outlet.
- For CDP-M27 only:  
Insert the AC power cord firmly into the AC IN jack on the rear panel of the unit before you connect it to an AC outlet.
- Be sure to insert the plugs firmly into the jacks. Loose connection may cause hum and noise.
- Leave a little slack in the connecting cord to allow for inadvertent shock or vibration.
- Cord plugs and jacks are color coded. Red plugs and jacks are for the right channel (R) and white ones for the left channel (L).

## Connecting to an Amplifier without a Digital Input



## Connecting to a Unit with an Optical Digital Input (For CDP-670 only)



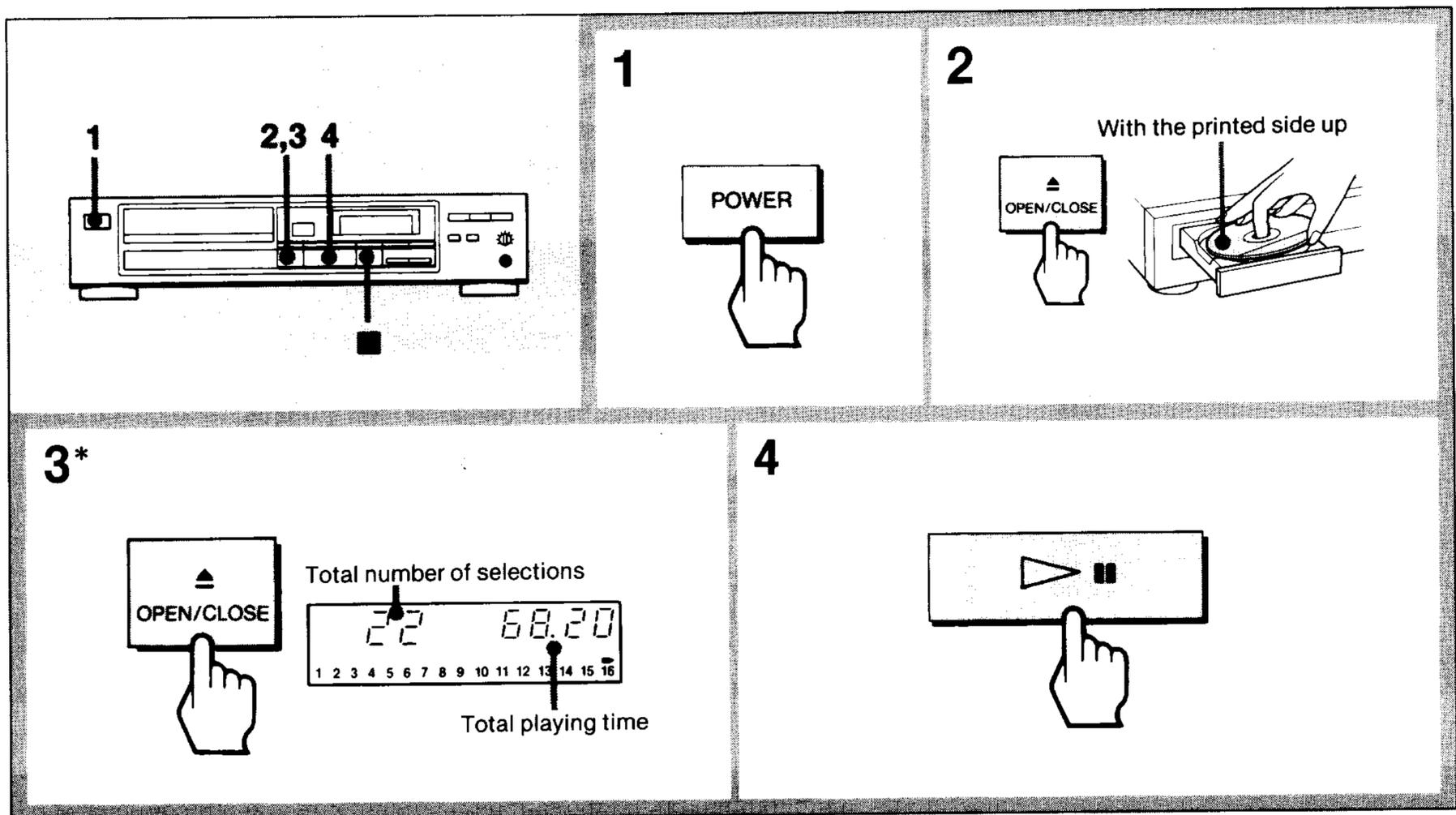
# Playing a Disc

Before playing a disc, turn on the amplifier and set the input selector to the CD player position.

## Playing the Entire Disc

### Caution on adjusting volume

Do not turn up the volume while listening to a portion with very low level inputs or no audio signals. If you do, the speakers may be damaged when a peak level portion is played.



\* You can skip step 3.

### To stop play

To stop for a moment during play, press ► || (||).

Press again, to resume play.

To stop play, press ■.

To stop play and open the tray, press ▲.

### To play a 3-inch (8 cm) CD

Place it on the inner circle of the tray. If the disc is provided with an adaptor, first remove it. Do not put a normal CD (5-inch/12 cm) on top of a 3-inch CD.

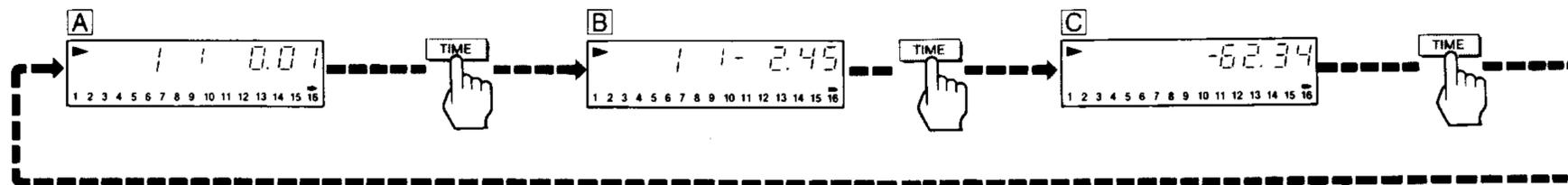
### If you turn on the power with a disc in the tray

Play begins automatically from the beginning of the disc. By connecting a commercially available timer, disc play can be started at any desired time.

### When the disc contains more than 16 selections

▶ appears in the display window.

## Information display



Each time you press TIME during play, the display changes to give you the following information.

- A** Elapsed playing time
- B** Remaining time in a selection.  
If the current selection number is over 20, “----” is displayed.
- C** Remaining time of the disc

### Locating a Particular Selection

You can locate the beginning of a desired selection during play or pause.

#### To locate sequentially

##### To locate the beginning of the current or preceding selection

- Press ◀◀ as many times as required.
- Keep ◀◀ pressed to skip selections.

##### To locate the beginning of a succeeding selection

- Press ▶▶ as many times as required.
- Keep ▶▶ pressed to skip selections.

#### To locate directly



Press one of the numeric buttons (1 to 16) to enter the desired selection number.

If a selection number is greater than 16, use the >16 and 1 to 10 buttons. 10 functions as the figure 0.

e.g. To play from selection No. 22 Press >16 2 2  
To play from selection No. 30 Press >16 3 10

### Playing a Single Selection—Single Play

You can play just one selection and then stop instead of playing the entire disc.

Press CONTINUE so that “1” appears in the display. Playing stops when the current selection ends.

#### To listen to another selection

Choose the desired selection with ◀◀, ▶▶, or the numeric buttons (on the remote commander).

#### To cancel single play

Press CONTINUE again.

### Locating a Particular Point in a Selection

You can locate a particular point in the disc during play.

#### To search quickly while monitoring the sound

##### To go ahead at high speed

Keep ▶▶ pressed during play and release at the desired point.

##### To go back at high speed

Keep ◀◀ pressed during play and release at the desired point.

#### To search quickly by observing the display

Press ▶|| (||), then keep ◀◀ or ▶▶ pressed. The search speed will increase, but there will be no sound. Find the desired point by observing the display.

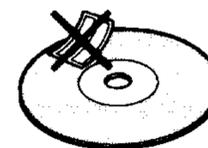
Press ▶|| (||) again at the desired point.

#### Notes on handling discs

- To keep the disc clean, handle the disc by its edge. Do not touch the surface.



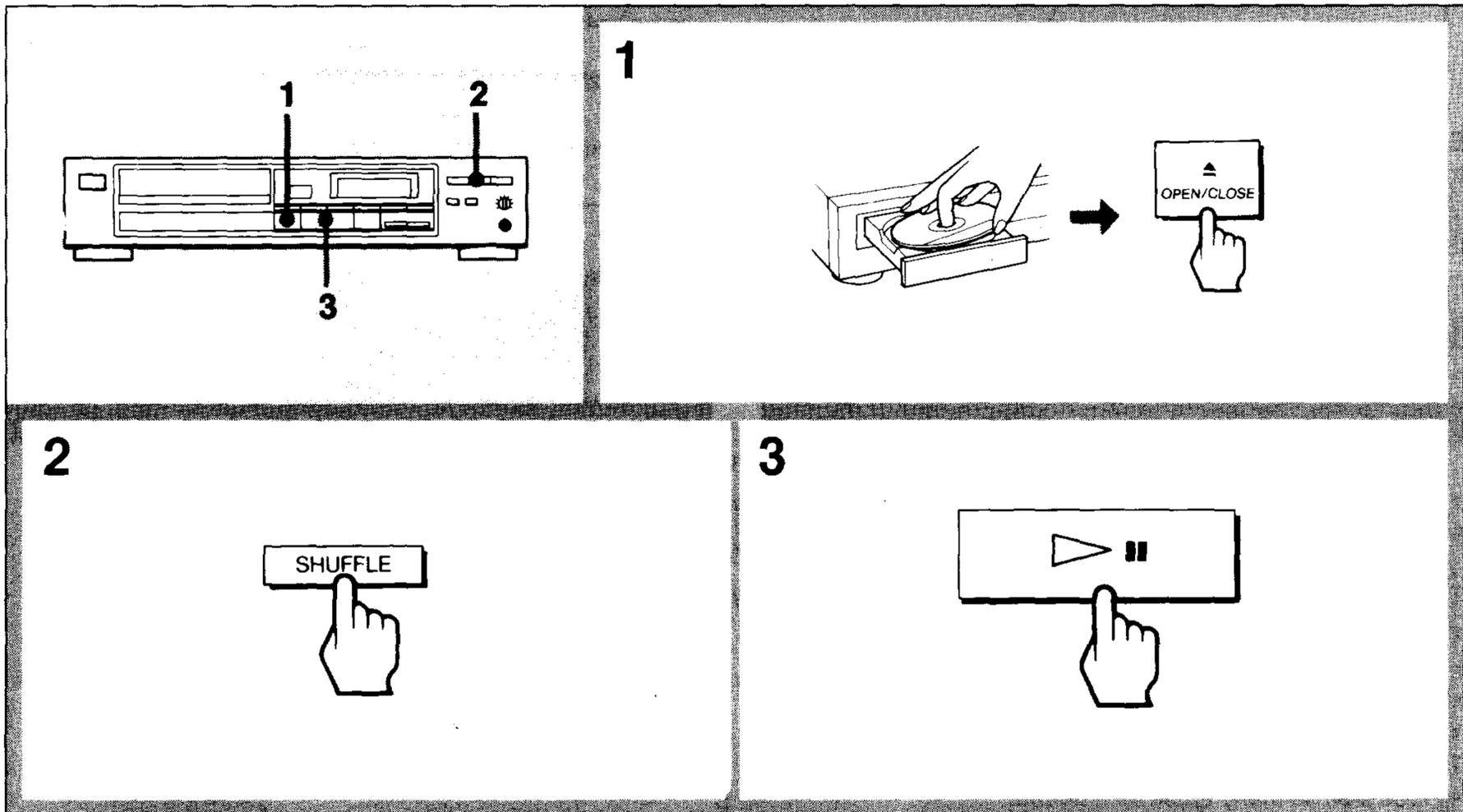
- Do not stick paper or tape on the disc.



- 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 as there can be a considerable rise in the temperature.
- After playing, store the disc in its case.

## Playing in a Random Order—Shuffle Play

You can have the selections played in a random order.  
The unit will play all the selections, or just the selections you desire.



**To stop playing**  
Press ■.

**To cancel shuffle play**  
Press CONTINUE and return to the normal playing mode.

**To play only the desired selections in a random order—Delete Shuffle Play**



Delete the undesired selections before or during play.

**To delete a selection**, press the numeric button for that selection. "OFF" will be displayed in the window. You cannot delete a selection which is being played. To choose a selection number over 16, see page 7.

**To put back a selection which you have deleted**, press the numeric button for that selection. "On" will be displayed in the window.

**When delete shuffle play ends**

The unit returns to the shuffle play mode for all selections.

**To check the remaining time of the selection being played**  
Press TIME once; press once more to return to the initial display.  
The total remaining time will not be displayed.

# Playing Repeatedly—Repeat Play

You can choose between two different repeat play modes. One repeats selections in the current play mode, the other repeats any particular portion you like.

## Repeating Selections

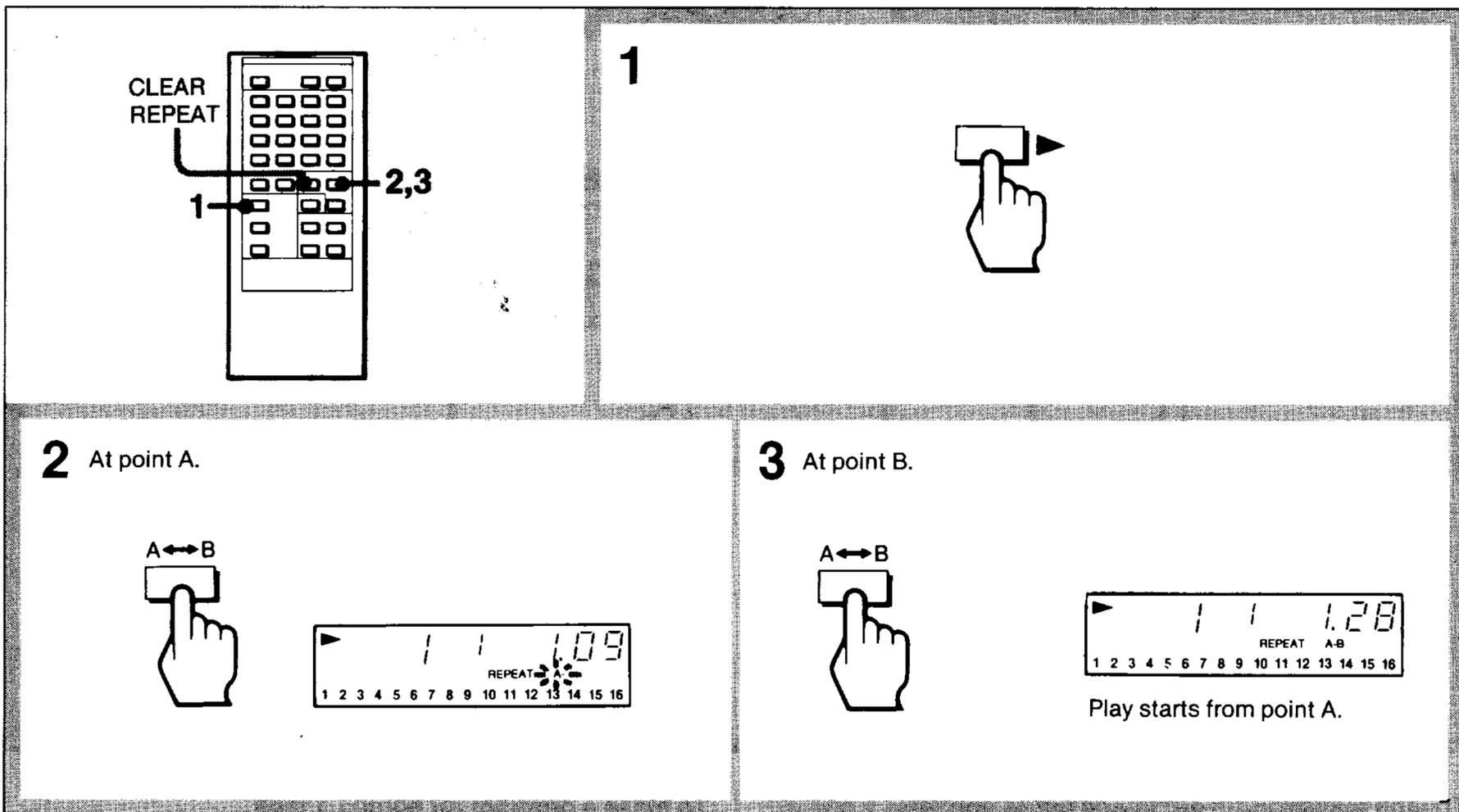
Press REPEAT, before or during play.

**To cancel repeat play**  
Press REPEAT again.

## Repeating a Particular Portion—A ↔ B Repeat



You can repeat a portion on the disc by designating the starting point (A) and the ending point (B).



### To cancel A ↔ B repeat

Press CLEAR/REPEAT (or REPEAT on the player).

### Going back to point A from any point on the disc

Simply press ►. When point A is stored, you can go back there in any play mode. You need not designate point B.

### If you designate repeat play during delete shuffle play

When the selections you choose end, repeat play of all the selections will start.

### When you designate A ↔ B repeat during shuffle or program play

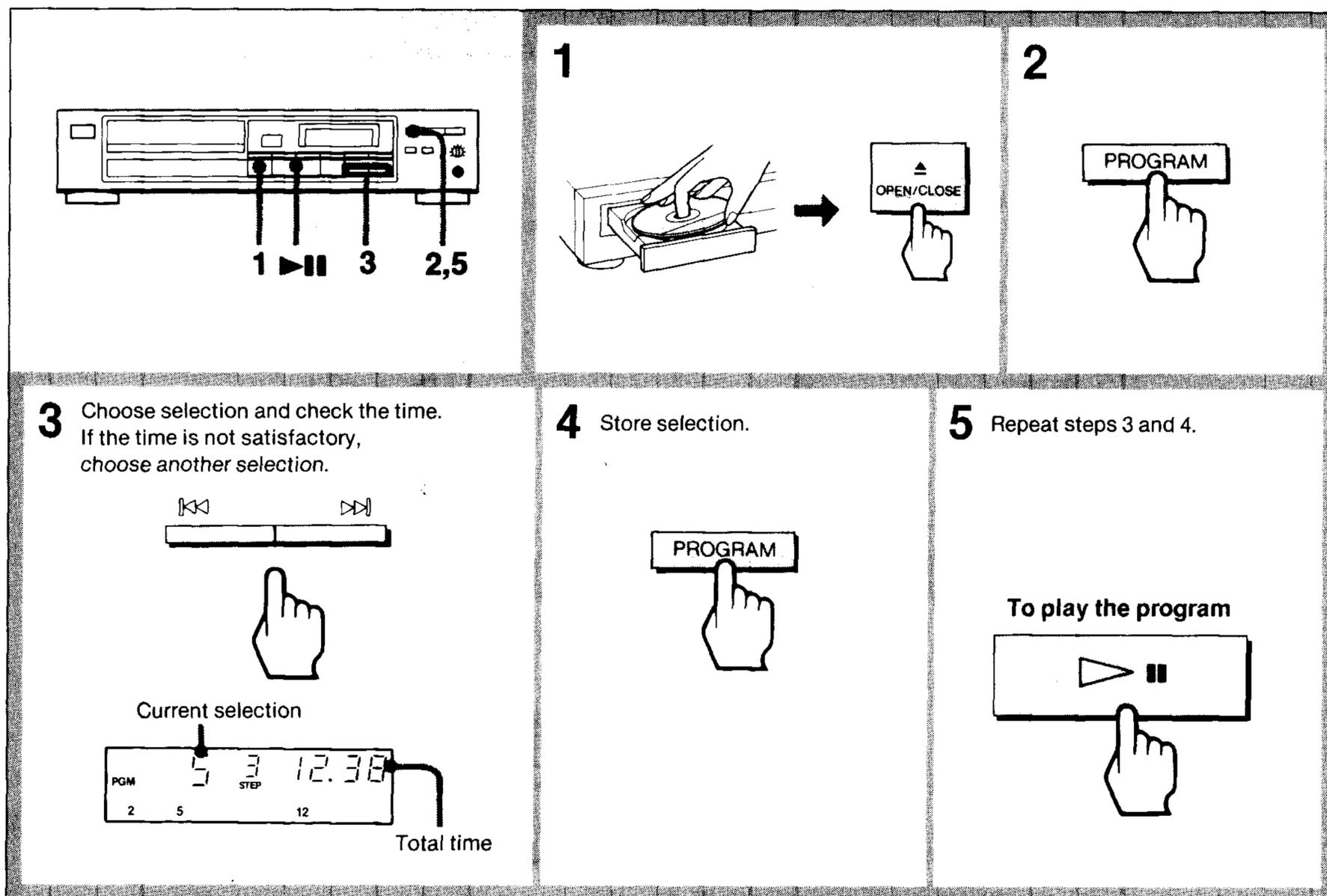
You cannot designate point A and B in two different selections.

# Designating the Playing Order and Time—Program Play

You can make a program by designating up to 20 selections in the order you want them to be played. The unit will play the disc according to your program.

## Designating the Playing Order—Program Edit

You can adjust the total playing time of the program. This function is convenient for editing tapes.



### To stop playing

Press ■.

You can play the same program repeatedly as long as you do not cancel program play or erase the program.

### To cancel program play

Press CONTINUE and return to the normal playing mode. The program will be erased.

### To make a program for editing a tape

You can insert a pause in your program. Use this function to make a program for both sides of the tape at one time.

- 1 Program the selections for side A.
- 2 Press PROGRAM (PGM) and ►|| (||). "P" will be displayed and the total playing time will be reset to "0.00".
- 3 Program the selections for side B.

When you start playing, the selections for side A will be played and then the unit will pause. Set the tape to the beginning of side B, then press ►|| (||). The selections for side B will be played.

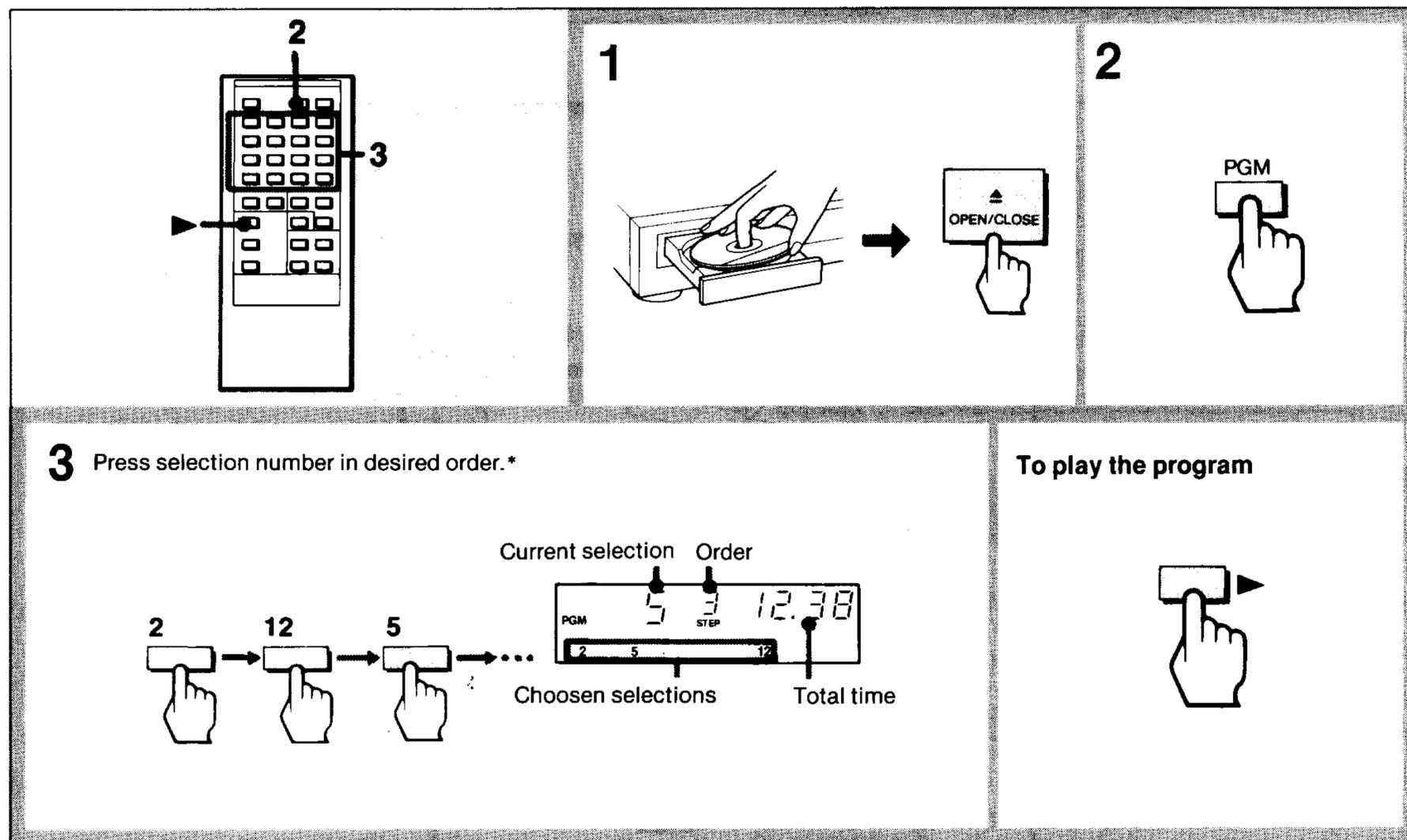
### To erase the entire program

Press ■ once during stop; twice during play. The program is also erased when you turn off the unit.

## Programming Selections Directly



You can make a program easily by using the numeric buttons on the remote commander.



\* To choose a selection number over 16, see page 7.

### To check your program



Press CHECK. The first selection in the program will be displayed.

Each time you press CHECK, the next selection in the program will be displayed. The last selection will be indicated with the display "End".

To return to the initial display, press CHECK once more.

### To adjust the blank spaces between selections

In a program, if you do not change the order of selections, the spaces between those selections remain the same as on the disc. Otherwise, the spaces are shortened to 1 second. You can make all the blank spaces 3 seconds long. See page 13 for details.

### To change your program

You can make the following changes before starting play.

#### To erase the last selection, press CLEAR.

Each time you press CLEAR, the last selection in the program will be erased.

**To add a selection to the end of the program,** just press the numeric button for that selection. You can add a selection also during play or pause. 

**To delete a selection,** press CHECK repeatedly until the undesired selection is displayed. Then press CLEAR. 

**To change the order,** press ■ during stop to erase the program. Then repeat the programming procedure from the beginning.

### If "----" is displayed instead of the actual time

- you have programmed a selection number over 20.
- the total time has exceeded 100 minutes.

### To check the remaining time

Press TIME once to see the remaining time of the selection being played; twice to see the total remaining time; once more to return to the initial display.

If you have inserted a pause, the display shows the remaining number of selections and time until the pause.

If you have programmed a selection number over 20, "----" is displayed instead of the actual time.

## Designating the Playing Order and Time—Program Play

### Designating the Total Playing Time —Time Edit



You can designate a time and the unit will make 2 different programs of selections each fitting within that period. Use this function, by designating the length of your tape, for editing both sides of a tape.

**1** Open the tape compartment and press OPEN/CLOSE.

**2** Press EDIT/TIME FADE. The display shows EDIT and a selection bar.

**3** Designate the length of one side of your tape.\*

▶▶: 23 → 27 → 30 → 45  
◀◀: 23 ← 27 ← 30 ← 45

Time: 23.2

Press ◀◀/▶▶ for seconds, if required.

**4** Press EDIT/TIME FADE. The display shows PGM, STEP 8, and 22.21. Labels: Stored selections, Total time.

**5** Press EDIT/TIME FADE once more, to make a program for the other side of your tape.

To play the program

\* Press **10** for "0".

#### When the selections for side A have been played

The unit will pause. Set tape to the beginning of side B, then press ▶▶ (II). The selections for side B will be played.

#### To include desired selections in the program

- 1 Make your own program of the desired selections. See page 10 for instructions.
- 2 Follow the procedure on the preceding page. Just designate the length of your tape; you need not subtract the length of your program. The unit will place your selections at the beginning of its program and add other selections to fit the remaining time.

#### If you disc has more than 20 selections

Selections over number 20 cannot be programmed with the time edit function; use the programming procedure on page 10.

#### To designate a different time for each side

Execute steps 1 to 4, then press PROGRAM (PGM) and ▶▶ (II). "EDIT" disappears from the window. Execute steps 2 to 4 for the other side.

If any selections remain unprogrammed  
To make a further program, repeat step 5.

# Tips on Editing Tapes

The following functions are convenient for editing your own tapes.

## Fading Out at the Desired Time —Time Fade



You can have the play fade out at the end by designating the play duration.

You can use this function in any play mode.

- 1 Press EDIT/TIME FADE twice during stop.  
“FADE” is displayed in the window.
- 2 Set the desired play duration, using either the buttons or numeric buttons.
  - a) —Useful when using commercial tapes (46-, 54-, 60-, and 90-minute tapes).  
Each time you press or , the play duration for one side of the tape is displayed as follows.  
: 23 – 27 – 30 – 45 (min.)  
: 45 – 30 – 27 – 23 (min.)  
You need not press buttons for seconds, unless required.  
(Designate seconds with , if you want.)
  - b) Numeric buttons (1 – 10)—Useful when setting the time as you want.  
You need not press buttons for seconds, unless required.
- 3 To start play, press .

## Inserting a Blank Space between Selections —Auto Space



You can insert a 3-second blank space between each selection. The blank space enables you to locate selections when using a tape deck with the automatic selection search function.

Before starting play, press AUTO SPACE so that “SPACE” is displayed in the window.

A blank space of approximately 3 seconds will be inserted between each selection.

### To cancel the auto space function

Press AUTO SPACE so that “SPACE” disappears from the window.

## If you want to start the play fading in



Set the desired play duration, following the step 1 and 2 above.

- 1 Press .
- The unit enters the pause mode.
- 2 Press FADER once.  
“FADE” flashes in the window, and play fades in for 5 seconds.

### To resume play after fading out

Press () or FADER on the remote commander.  
(Pressing FADER starts the play fading in.)

### To cancel time fade

Press or .

Time fade is also cancelled when

- or is pressed during play.
- Other play mode buttons are pressed.

## Fading in/Fading out



You can have the play fade in and fade out for 5 seconds.

### To end the play fading out

Press FADER when you want to start fading out.

“FADE” flashes in the window, and play fades out for 5 seconds and enters the pause mode.

### To restart the play fading in

Press FADER.

“FADE” flashes in the window, and play fades in for 5 seconds.

### To display the time remaining until the time set

Press TIME twice. In the shuffle play mode, however, the time remaining until the fade-out time is not displayed.

# Specifications

## Compact disc player

	CDP-670	CDP-470/270/M27
Frequency response	2 Hz – 20 kHz (± 0.5 dB)	2 Hz – 20 kHz (± 1 dB)
Signal-to-noise ratio	More than 100 dB	
Dynamic range	More than 93 dB	More than 90 dB
Harmonic distortion (1 kHz)	Less than 0.008%	Less than 0.09%
Channel separation	More than 95 dB (1 kHz)	
Outputs	LINE OUT (phono jacks) Output level 2 V (at 50 kilohms) Load impedance over 10 kilohms	
	DIGITAL OUT (OPTICAL) (optical output connector) Wave length 660 nm Output level -18 dBm	—

## General

	CDP-670/470/270	CDP-M27
Power requirements	120V AC, 60 Hz	
Power consumption	12W	10W
Dimensions (approx., including projections)	430 × 95 × 275 mm (17 × 3 <sup>3</sup> / <sub>4</sub> × 10 inches)	355 × 80 × 275 mm (14 × 3 <sup>1</sup> / <sub>4</sub> × 10 inches)
Weight (approx.)	3.5 kg (7 lbs 12 oz)	3.0 kg (6 lbs 10 oz)

### Supplied accessories

Audio signal connecting cord

(2 phono plugs – 2 phono plugs) (1)

For CDP-670/470 only:

Remote commander (1), Sony SUM-3 (NS) batteries (2)

For CDP-M27 only:

AC power cord (1)

Design and specifications subject to change without notice.

### Optional accessory

Optical cable PCC-15 (for CDP-670)

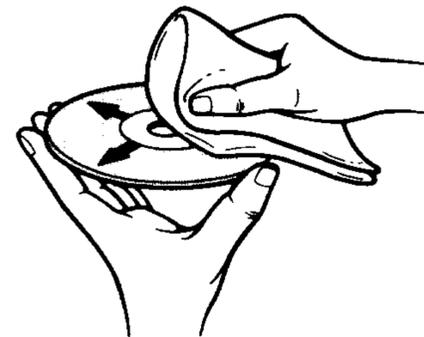
# Maintenance

## Cleaning Your Unit

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

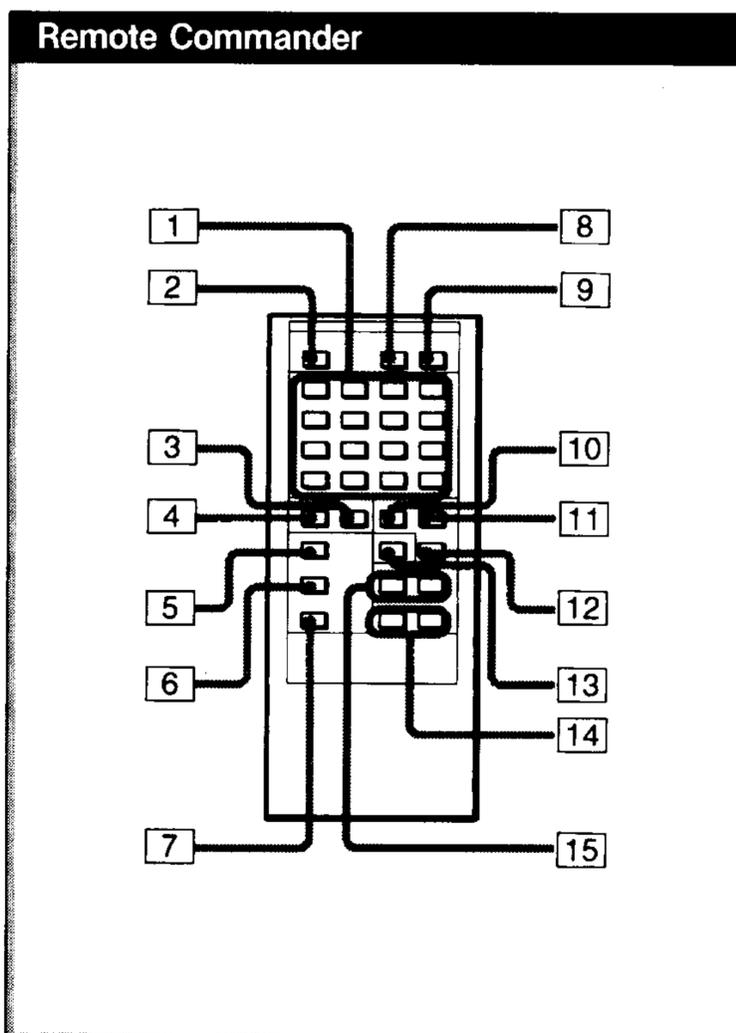
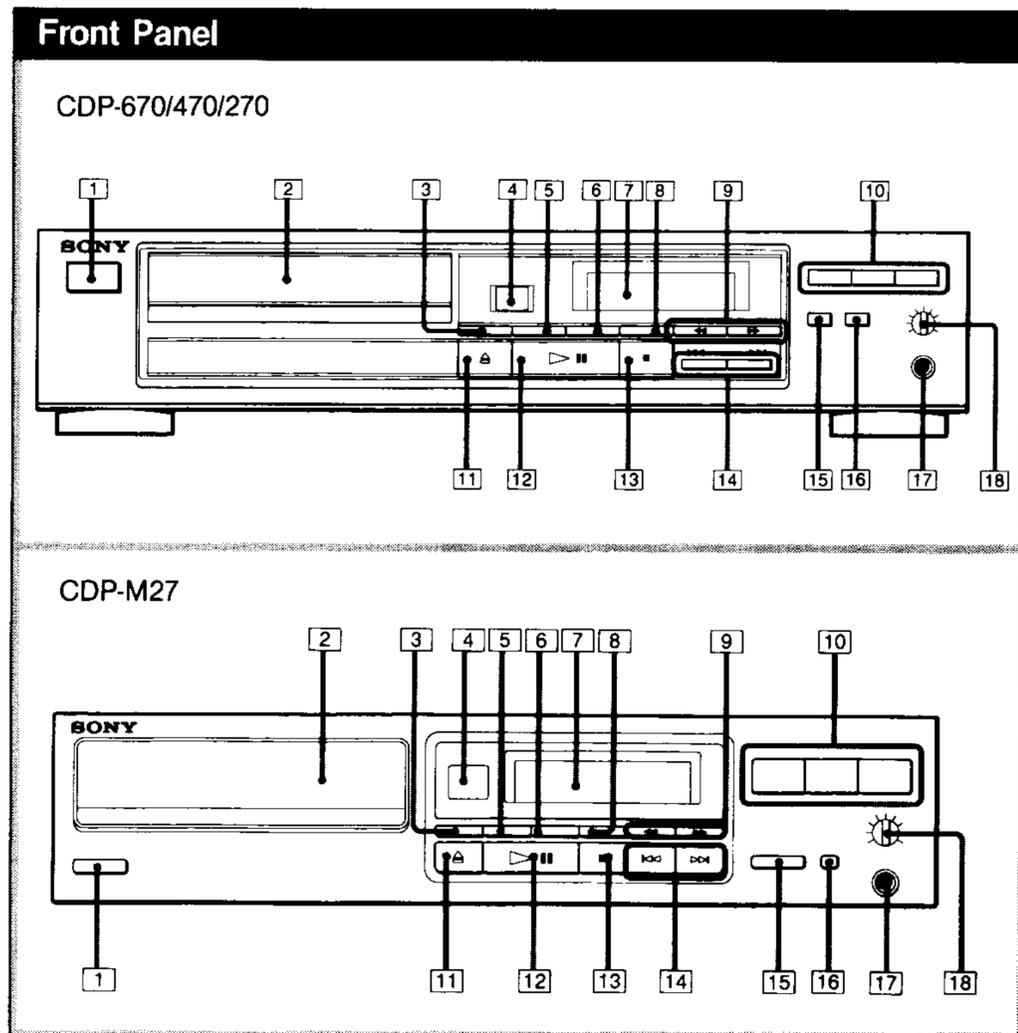
## Cleaning Discs

When a disc becomes dirty, clean it with a cleaning cloth. Wipe the disc from the center out.



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

# Location of Controls



Refer to the pages indicated in ● for details.

- 1 POWER switch ●
- 2 Disc tray
- 3 TIME button ●
- 4 Remote sensor
- 5 AUTO SPACE button ●
- 6 REPEAT button ●
- 7 Display window ●
- 8 EDIT/TIME FADE button ●
- 9 ◀▶ (manual search) buttons ●
- 10 PLAY MODE buttons
  - PROGRAM button ●
  - SHUFFLE button ●
  - CONTINUE button ●
- 11 ▲ OPEN/CLOSE button ●
- 12 ▶|| (play/pause) button ●
- 13 ■ (stop) button ●
- 14 ◀▶▶ (AMS\*) buttons ●
- 15 CHECK (program check) button ●
- 16 CLEAR (program clear) button ●
- 17 HEADPHONES jack
- 18 HEADPHONE LEVEL control

- 1 Numeric buttons ●
- 2 CONTINUE button ●
- 3 CLEAR (program clear) button ●
- 4 >16 (over 16) button ●
- 5 ▶ (play) button ●
- 6 || (pause) button ●
- 7 ■ (stop) button ●
- 8 PGM (program) button ●
- 9 SHUFFLE button ●
- 10 CLEAR/REPEAT
  - (A ↔ B repeat clear/repeat) button ●
- 11 A ↔ B repeat button ●
- 12 TIME button ●
- 13 FADER (fade in/fade out) button ●
- 14 ◀▶▶ (manual search) buttons ●
- 15 ◀▶▶ AMS buttons ●

\*AMS is an abbreviation of Automatic Music Sensor.

# Troubleshooting Guide

Before going through the check list below, first refer back to the connections and operating procedures.  
Should any problem persist after you have made these checks, consult your nearest Sony service facility.

Symptom	Cause	Remedy
The disc tray does not close.	The disc is not placed correctly.	Place the disc correctly on the disc tray.
Play does not start.	Dirty disc.	Clean the disc.
	The disc is inserted upside down.	Insert the disc with the printed side up.
	The player is in the pause mode.	Press ►   (  ) to release pause.
	Moisture condensation.	Leave the player turned on for approximately one hour.
Play does not start and "no disc" is displayed.	There is no disc in the unit.	Insert a disc.
Sound is not heard.	Loose connection.	Insert the plug firmly.
	Connection is incorrect.	Check the connection referring to "Connecting the CD Player".
	The HEADPHONE LEVEL control is set to the minimum.	Turn the control clockwise.
? ? is displayed when you press ►►.	►► was continuously pressed at the end of the disc.	Press ◀◀ or ◀◀ to return to normal indication.
Play does not begin from the first selection.	The player is in the PROGRAM or SHUFFLE mode.	Press CONTINUE.
The remote commander does not operate the unit.	The batteries are run down.	Replace both batteries.
	The remote commander is not pointed at the remote sensor.	Point the remote commander at the sensor.
	There is an obstacle between the remote commander and the unit.	Remove the obstacle.
	The remote commander is too far from the unit.	Move closer.
Any operation is not possible.	The internal control program may not run.	Turn off the power and turn it on again.