**SONY.**

# Compact Disc Player
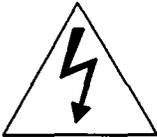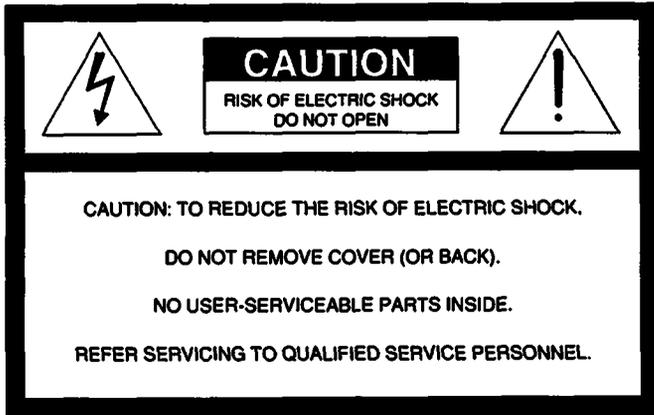
Operating Instructions

COMPACT
**disc**
DIGITAL AUDIO

*CDP-311*
*CDP-211*

## 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.



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.

### INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful 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 or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

### CAUTION

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

### Owner's Record

The model and serial numbers are located at the rear of the unit. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. _____  Serial No. _____

# Table of Contents

## Convention

This indicates a function operated only on the main unit.

- The illustrations used in this manual are of the CDP-311.
- The layout and the functions of the buttons of CDP-311 and CDP-211 are the same.
- As CDP-211 is not supplied with a remote commander, they do not have those functions activated only by remote commander.
- In the instructions starting from page 8, buttons on the remote commander are indicated in perenthesis, unless mentioned otherwise.

# Safety Precautions

Before operating the unit, please read the following precautions carefully.

**Check the operating voltage of the unit before operation.**
Operate the unit only on 120 V AC, 60 Hz.

**Stop operation immediately if any liquid or solid object should fall into the cabinet.** Unplug the unit and have it checked by qualified personnel.

**Unplug the unit from the wall outlet if you do not use it for a long time.** Disconnect the cord by grasping the plug. Never pull the cord itself.
The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet, even if the unit itself has been turned off.

As the laser beam used in this unit is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

The AC power cord must be changed only at a qualified service shop.

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

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

### 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, nor leave it in a car parked in direct sunlight as there may be a considerable rise in the temperature.
- After playing, store the disc in its case.

### 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.

## 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 outwards.

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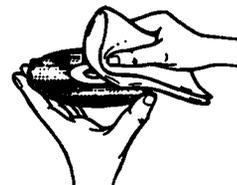
# Unpacking

## Choosing a Good Location

- 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 might 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 unit 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 unit will not operate. In this case, remove the disc and leave the unit turned on for about an hour until the moisture evaporates.

## Checking the Supplied Accessories

Make sure that all supplied accessories are included with your unit. This manual and the following items must be included with your CDP-311 and 211.
If not, contact your Sony dealer.

a) Audio connecting cord (1)
b) Remote commander (1)
   (only for CDP-311)
c) Sony SUM-3 (NS) batteries (2)
   (only for CDP-311)

Do not throw away the carton and the packing material. They will come in handy when transporting the unit or shipping it for servicing.
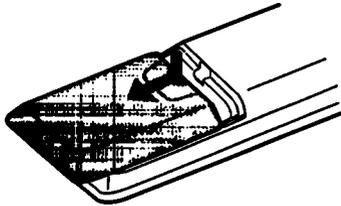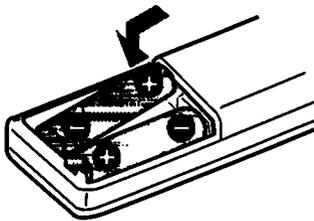
a)

b)

c)
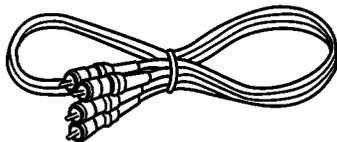
**1**



**2**

## Inserting the Batteries into the Remote Commander (only for CDP-311)

You can control the unit with the supplied remote commander.

Insert two size AA (R6) batteries with the correct polarity.

**1** Slide the cover to remove it.

**2** Insert two size AA (R6) batteries correctly so that the ⊕ and ⊖ polarities match the polarity diagrams inside the battery compartment.
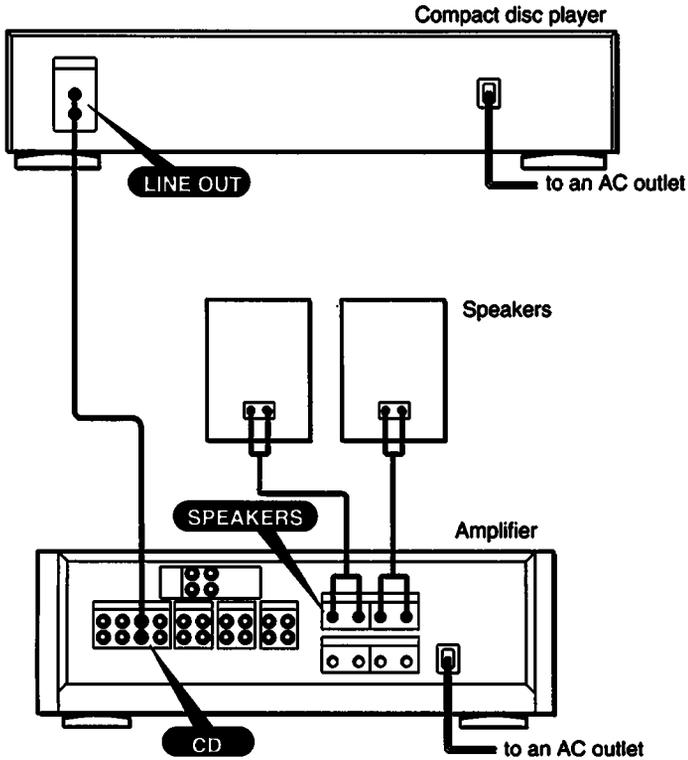
### On battery life
- About half a year of normal operation can be expected when using Sony SUM-3 (NS) batteries.
- When the batteries are run down, the remote commander will not operate the unit. If this happens, replace both batteries with new ones.

### 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.

## A

**Compact disc player**

LINE OUT

to an AC outlet

**Speakers**

SPEAKERS

**Amplifier**

CD

to an AC outlet

Connect the unit to an amplifier as shown in Fig. **A**.

### Notes on Connection

- Turn off the power of each unit before making connections. Connect the AC power cord last.
- 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.
- The supplied audio 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).
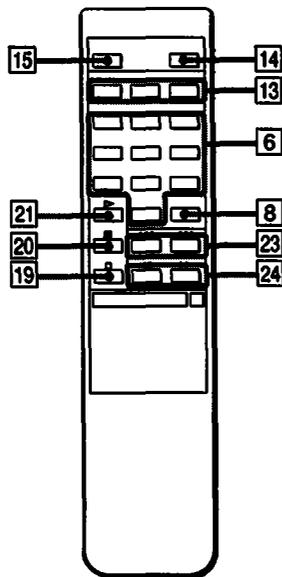
CDP-311/CDP-211



RM-D190
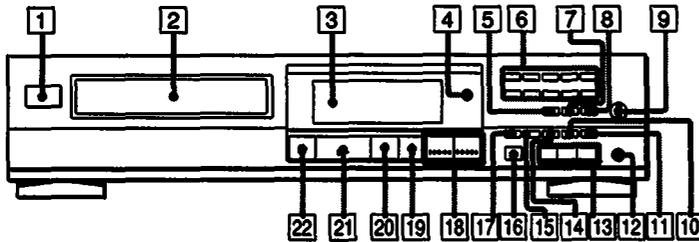


(Only for CDP-311)

Refer to the pages indicated in parenthesis for details.

## Front Panel / Remote Commander

1. POWER switch (8)
2. Disc tray (8)
3. Display window
4. Remote sensor
5. CHECK (program check) button (15)
6. Numeric buttons (10, 13, 14, 18, 20)
7. CLEAR (program clear) button (15)
8. >10 (over 10) button (10)
9. PHONE LEVEL control (8)
10. MUSIC SCAN button (16)
11. PEAK SEARCH button (21)
12. PHONES jack (8)
13. Play Mode buttons
    CONTINUE button (12, 13, 19)
    SHUFFLE button (12, 13, 19)
    PROGRAM button (13, 14)
    (PGM for the remote commander)
14. FADER button (11)
15. REPEAT button (17)
16. EDIT/TIME FADE button (18, 20)
17. TIME button (9)
18. ◄◄ ◄◄ / ►► ►►I (AMS*/manual search) buttons
    (10, 11, 14, 16, 18, 20, 21)
19. ■ (stop) button (8)
20. II (pause) button (8)
21. ► (play) button (8)
22. ▲ OPEN/CLOSE button (8)
23. I◄◄ / ►►I (AMS*) buttons (10, 14)
    (Only on the remote commander)
24. ◄◄ / ►► (manual search)(11, 16)
    (Only on the remote commander)

\* AMS is the abbreviation of Automatic Music Sensor.
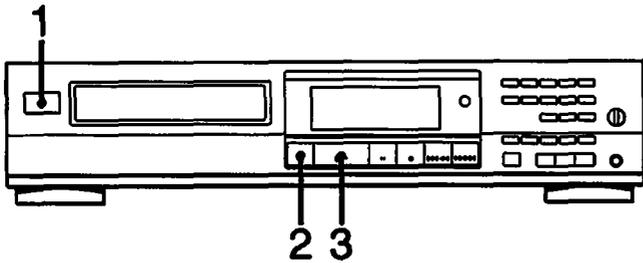
In the continuous play mode, you can play from the first selection or a desired selection on your disc.
Before playing a disc, turn on the amplifier and set the input selector to the CD player position.

## Playing the Entire Disc

**1 Press POWER.**
The display window appears.

**2 Press ▲ OPEN/CLOSE.**
Place a disc with the printed side up on the tray.

**3 Press ▶.**
The disc tray closes and the first selection starts playing. The display shows you the following informatin.

a) Selection number
b) Elapsed playing time
c) Music calendar

**To stop play**
To stop for a moment during play, press II.
To resume play, press ▶ or II again.
To stop play, press ■.
To stop play and open the tray, press ▲ OPEN/CLOSE.

**For private listening**
Connect a pair of headphones to the PHONES jack.
To increase the volume, turn the PHONE LEVEL control clockwise.
To decrease it, turn the control counterclockwise.
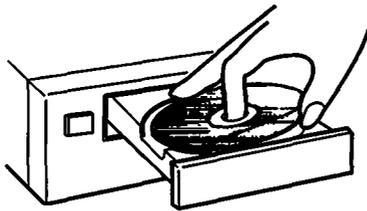
**To take out the disc**
Press ▲ OPEN/CLOSE.

**To play an 8cm (3-inch) 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 (12cm/5-inch) upon an 8 cm CD.
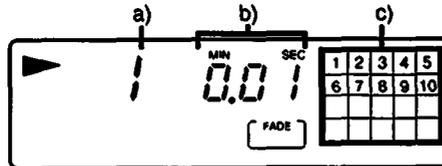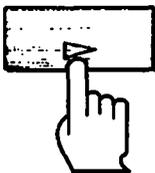
**A**

a)     b)

$10$ $45.23$ | 1 2 3 4 5 / 6 7 8 9 10 | FADE

**B**

a)

► $3$ $0.16$ | 3 4 5 / 6 7 8 9 10 | FADE

TIME

b)

► $.3$ $-2.45$ | 3 4 5 / 6 7 8 9 10 | FADE

TIME

c)

► $-32.16$ | 3 4 5 / 6 7 8 9 10 | FADE

TIME

---

**What is this indication?**

## no d ISC

This indication appears when there is no disc on the disc tray.

**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.

## Information Display

### Figure A
When you press ▲ OPEN/CLOSE to close the tray, or press TIME in stop mode, the display shows you the following information: The total number of selections (a)) and the total playing time of the inserted disc (b)).
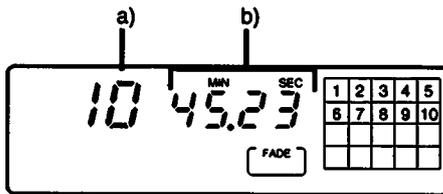
### Figure B
Each time you press  TIME  during play, the display changes to give you the following information.
a) Elapsed playing time
b) Remaining time in a selection
   If the current selection number is over 20, "– – . – –" appears.
c) Remaining time of the disc
   However, "– – . – –" appears instead of the actual time in the following cases.
   • If a disc with more than 20 selections is being played in shuffle play.
   • If any one selection the number of which is greater than 20 has been programmed.
   • If the remaining time exceeds 100 minutes.

**Note**
The time display mode selected with TIME will not change until the power is turned off.

(Only for CDP-311)
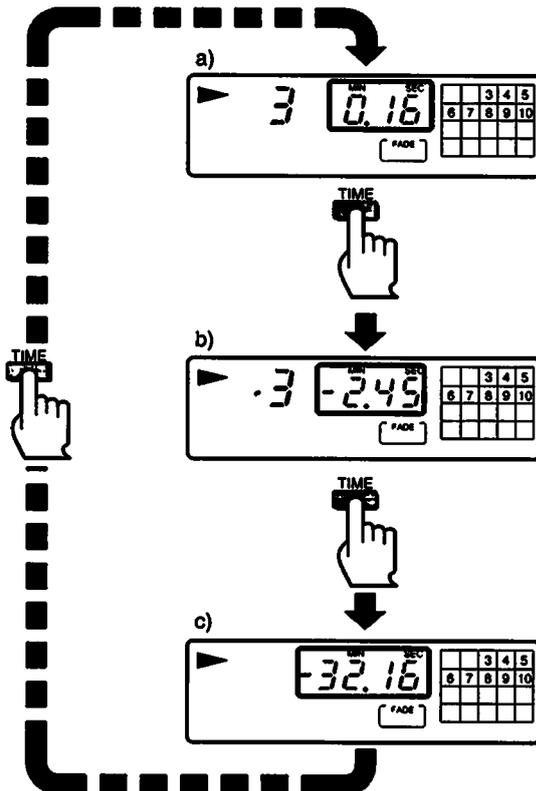
## Locating a Particular Selection

You can locate the beginning of a desired selection in two ways.

### a) To locate sequentially

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

- Press ◄◄ ◄◄ (◄◄) as many times as required.
- Keep ◄◄ ◄◄ (◄◄) pressed to skip selections in succession (Operable only in stop mode).

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

- Press ►► ►►◄ (►►◄) as many times as required.
- Keep ►► ►►◄ (►►◄) pressed to skip selections in succession (Operable only in stop mode).

### b) To locate directly

Press one of the numeric buttons to enter the desired selection number.
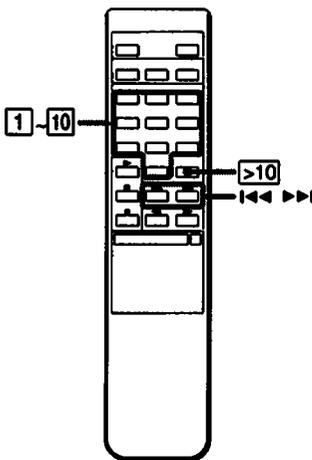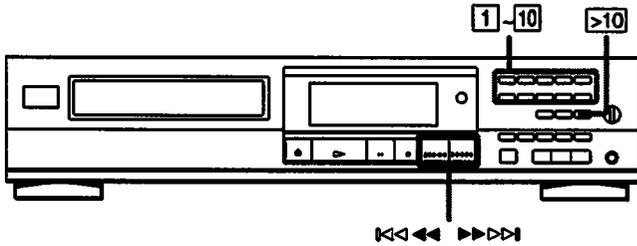If a selection number is greater than 10, use the >10 and 1 to 10 buttons. 10 functions as the figure 0.
e.g. To play from selection No.22
   Press >10 and 2 2
e.g. To play from selection No.30
   Press >10 and 3 10.

▶  ‖

◄◄◄◄  ▶▶▷▷

FADER



FADER

▶

‖

◄◄  ▶▶

(Only for CDP-311)

## Locating a Particular Point in a Selection

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

**a) To search quickly while monitoring the sound**
**Forward locating at high speed**
Keep ▶▶ ▶▶▶ (▶▶) pressed during play and release it at the desired point.
**Reverse locating at high speed**
Keep ◄◄◄ ◄◄ (◄◄) pressed during play and release it at the desired point.

**b) 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 ▶ or ‖ again at the desired point.

**When "דר" is displayed**
If you continuously press ▶▶ ▶▶▶ (▶▶) over the last selection, "דר" appears in the display. Press ◄◄◄ ◄◄ (◄◄◄ or ◄◄) to return to normal indication.

## Fade-In / Fade-Out

You can have the play fade in or out in 5 seconds.

**To end play fading out**
Press FADER when you want to start fading out.
" ‖▶▶ " in [ᶠᴬᴰᴱ] flashes in the display, and play fades out and the unit enters pause mode.

**To restart play fading in**
Press FADER in pause mode.
" ◄◄‖ " in [ᶠᴬᴰᴱ] flashes in the display.

You can have all the selections played in a random order.

## Shuffle Play

**1 Press SHUFFLE.**
"SHUFFLE" appears in the display.

**2 Press ▶.**

**To cancel shuffle play**
Press CONTINUE and the unit enters continuous play mode. "SHUFFLE" goes off from the display.

**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, and once more to return to the initial display.
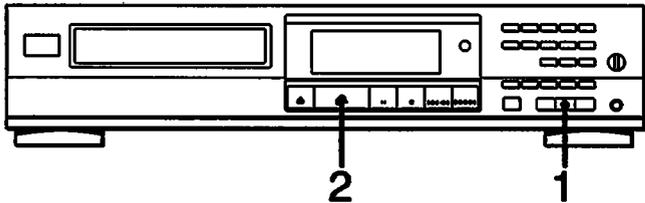
**To start shuffle play immediately from the current selection**
Press SHUFFLE during play and shuffle play begins from the current selection.

**What is this indication?**

*[ ]*

This indication appears while the unit is "shuffling" the selections.

**1**

SHUFFLE

**2**

**2**

**1**

PROGRAM

**2**



a) b)

c)

d)

**3**



You can make a program by designating up to 24 selections in a desired order. The unit will play the disc according to your program.

### Program Play

**1 Press PROGRAM.**
"PROGRAM" appears in the display.

**2 Press the numeric buttons of the desired selections in the desired order.**

To select a selection number over 10, see pgae 10.

a) Last programmed selection,
b) The order to be played and
c) Programmed selection numbers appear and then, after one second,
d) The total playing time appears. (The total playing time will not appear if you program a selection number over 20 or the total playing time exceeds 100 minutes.)

**If you choose wrong selections**
Each time you press CLEAR, the last chosen selection is deleted.

**3 Press ▶.**
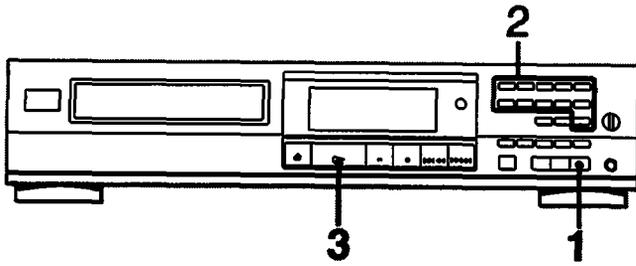Program play starts.

### To stop playing
Press ■.
When you press ▶, you can play the same program repeatedly.

### To cancel program play
Press CONTINUE or SHUFFLE and the unit enters continuous or shuffle play mode respectively. The program will be erased.
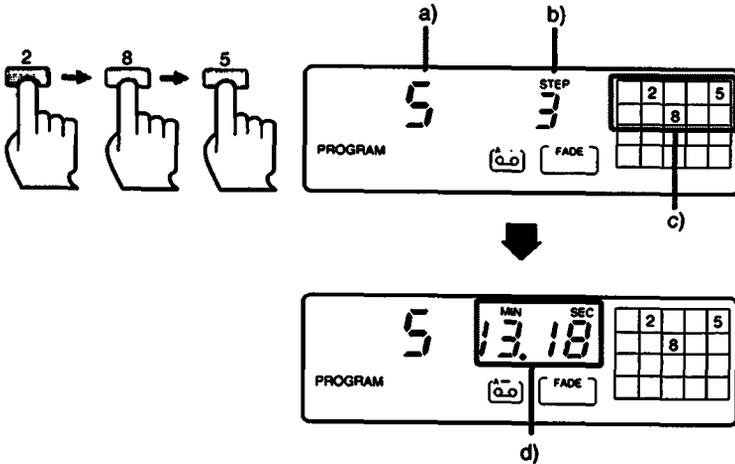
**If you press PROGRAM during continuous or shuffle play**
You can make a program by using the numeric buttons. The selection being played will be the first one in the program.
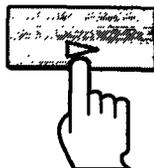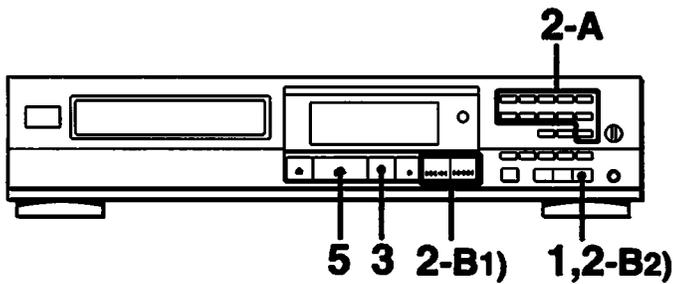
13

2-A

5 3 2-B1) 1,2-B2)

1

PROGRAM

2-A

2 → 8 → 5

2B-1)

a)

⌐◀◀ ◀◀ | ▶▶ ▶▶⌐

```
      MIN   SEC      2     5
  10  15.38          8    10
PROGRAM    (⌒)  [FADE]
```

B-2)

PROGRAM

d)        c)

b)

```
              STEP     2     5
  10      4           8    10
PROGRAM    (⌒)  [FADE]
```

3

```
      MIN   SEC      2     5
  P   0.00           8    10
PROGRAM    (⌒)  [FADE]
```

## Recording a Program

You can adjust the total playing time of the program, so that you can make the program fit the length of a tape when recording. Moreover, you can make two different programs by inserting a pause for recording on both side of a tape.

**1** Press PROGRAM.
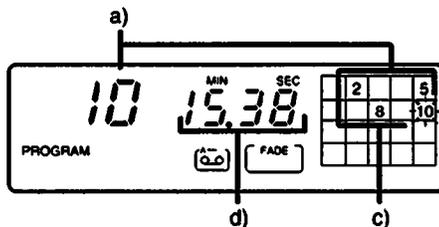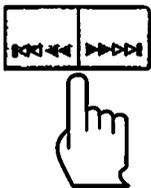PROGRAM appears in the display.
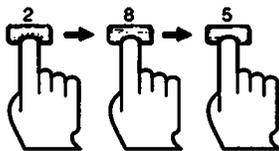
**2-A** Press the numeric buttons of the desired selections in the desired order. See page 13.

**2-B** To find selections which fit in the remaining time.

   1) Press I◀◀ ◀◀ (I◀◀) or ▶▶ ▶▶I (▶▶I) to change a selection and check the time. – Program edit
If satisfactory, go to the next step. If not, choose another selection.

   2) Press PROGRAM to store the selection.
Step number appears in the display for a while.
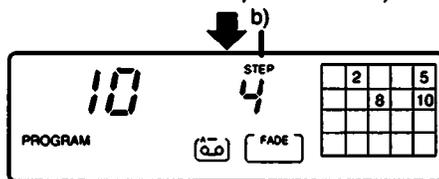Repeat steps 1) and 2) to program other selections.

   The display shows:
   a) The last programmed selection
   b) The order to be playe
   c) Programmed selection numbers
   d) The total playing time

**3** Press II to make a program for side B.
"B" in the tape indicator flashes and "P" appears in the display, and the total playing time is reset to 0. A pause is also counted as a selection.

**4** Program selections for side B by repeating step 2.

**5** Start recording on the cassette deck and press ▶.
It is better to start recording on the cassette deck first to transport the leader tape before pressing ▶ on this unit.
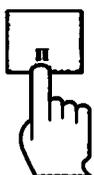
**To play the selections for side B**
When the selections for side A are played, the unit enters pause mode. Reverse the tape, then press ▶ or II.

**To make a program only for one side of a tape**
Follow the steps on page 13.

14

### To check your program

Press CHECK. The first selection in the program will appear.

Each time you press CHECK, the next selection in the program will appear. After the last selection, "End" will be indicated and the display will soon return to the initial status.

While checking the program for side A, (̂o_o) appears and also for side B, (o_o⃗) appears.
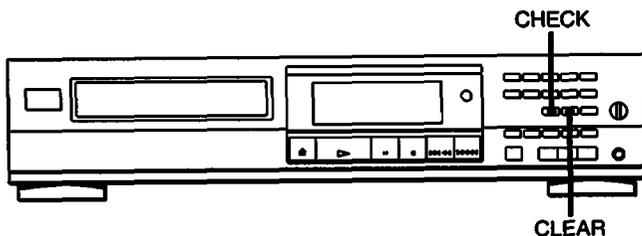
You can make the following changes before starting play.

### To erase the last selection,

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

### To erase the entire program

Press ■ once in stop mode; twice during play. The program is also erased when you turn off the unit or you press ▲ OPEN/CLOSE.

### To add a selection to the end of the program, simply press the numeric button.

### To delete a selection, press CHECK

repeatedly until the unwanted selection appears. Then press CLEAR.

### To change the order, press ■ in stop mode

to erase the program. Then repeat the programming procedure from the beginning.

### 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 of the programmed selections; once more to return to the initial display.

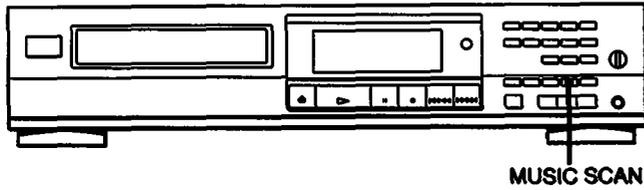If you have inserted a pause, the display shows the remaining time until the pause.

### What is the tape indicator?

During program play, the tape indicator shows you which side of the program is being played.
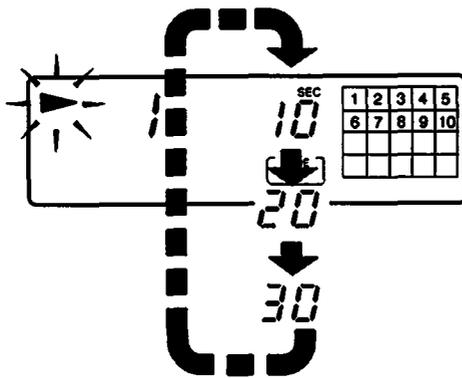
(̂o_o)  : Program A is being played.

(o_ȯ)  : Program A has been played and the unit is in pause mode, or program B is being played.



CHECK

CLEAR

You can play the beginning of each selection consecutively in any play mode. It is useful for checking the contents of a disc or program. You can choose the playing time of each selection from among 10, 20 and 30 seconds.



MUSIC SCAN



MUSIC SCAN

## Music Scan Play

**Press MUSIC SCAN in stop mode.**
Each time you press MUSIC SCAN, the playing time of each selection changes cyclically from among 10, 20 and 30 seconds.
The ► indication in the display flashes and the beginning of each selection is played for the designated period.

**To start normal play immediately during scanning**
Press ►. The ► indicator in the display stops flashing.

**To change the designated playing time during scanning**
Press MUSIC SCAN consecutively within 1 second until the desired playing time appears in the display.
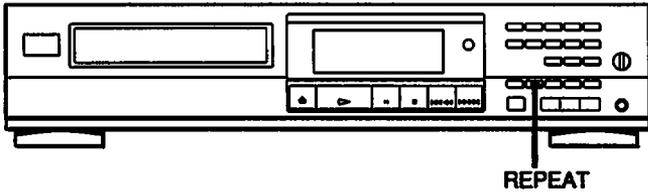
**If you keep I◄◄ ◄◄ (◄◄) or ►► ►►I (►►) pressed**
Music scan play will be cancelled.

**Note**
Whenever the unit is turned off, scanning time is reset to 10 seconds.

REPEAT

You can choose between two different repeat play modes. One repeats all the selections in the current play mode, the other repeats any given selection.

## Repeat Play

### To repeat all selections a)
Press REPEAT once.
The unit will repeat in the current play mode.

| Play mode | Selections to be repeated |
|---|---|
| Continuous play | All the selections |
| Shuffle play | All the selections that the unit reshuffles |
| Program play | All the programmed selections in the same order |

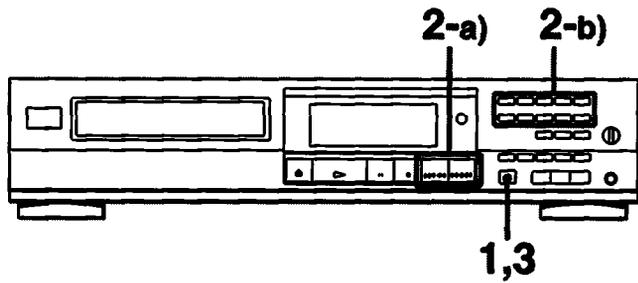### To repeat the current playing selection b)
(only during continuous play)
Press REPEAT again during repeat play, "REPEAT 1" appears.

### To cancel repeat play c)
Press REPEAT again.
In continuous mode, "REPEAT 1" goes off.
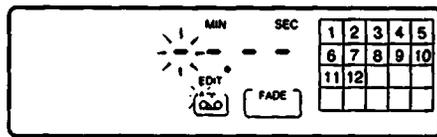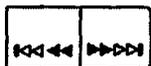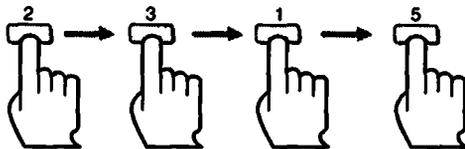In shuffle and program play modes, "REPEAT" goes off.

a)
REPEAT

b)
REPEAT1

c)
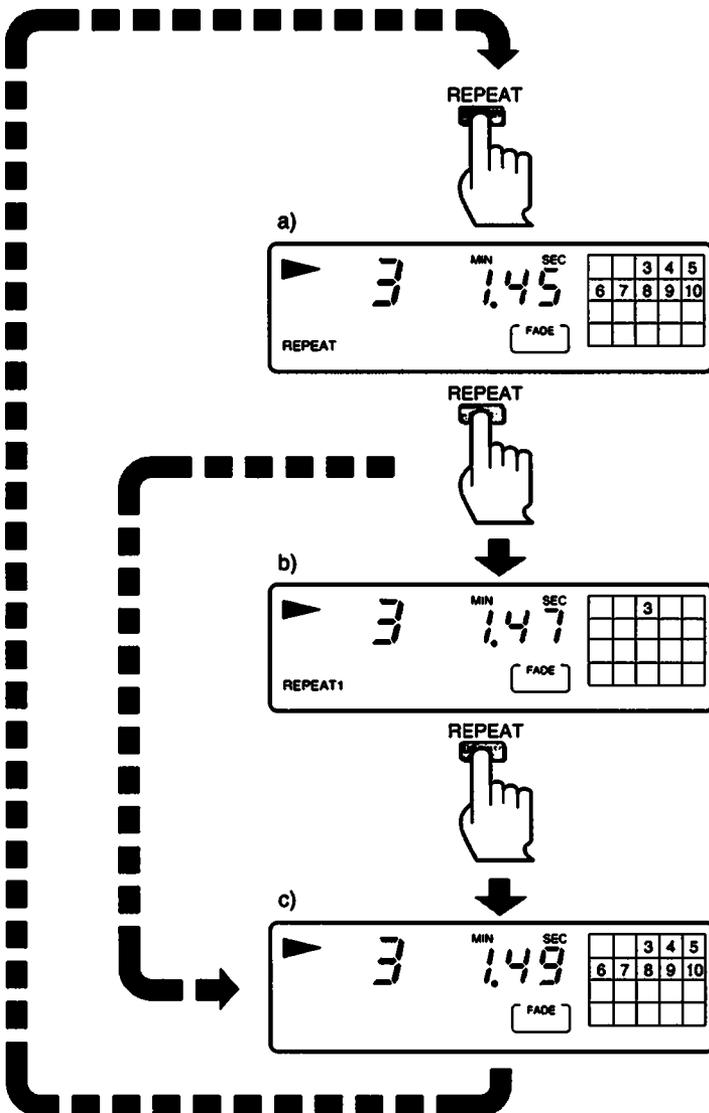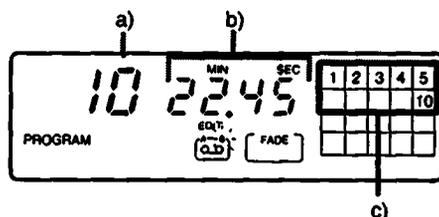
You can designate a playing time and the unit will make 2 different programs of selections each fitting within that period. These programs can contain up to a total of 24 selections.

Use this function, by designating the length of your tape, for editing both sides of a tape.

This function, called time edit, sets the playing time of each program within the designated time automatically, by choosing selections in numerical order which changes as little as possible.

You can also program desired selections by priority. In this case, you can designate desired selections beforehand and the remaining selections will be programmed to fit in the remaining time.
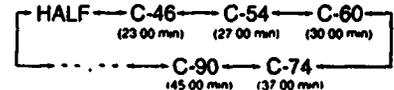
2-a)   2-b)



**1**

EDIT/TIME FADE

1,3

**2-a)**

**b)**

**3**

EDIT/TIME FADE

a)   b)

c)

## Operating Time Edit

**1** Press EDIT/TIME FADE and display "EDIT".

**2** Designate the length of one side of your tape.

**a)** When you specify a commercially available tape length:

Each time you press I◀◀ ◀◀ or ▶▶ ▶▶I, the display changes to give you the following durations :

```
┌─ HALF ── C-46 ── C-54 ── C-60 ─┐
           (23 00 min) (27 00 min) (30 00 min)
└─ ...  ── C-90 ── C-74 ─────────┘
           (45 00 min) (37 00 min)
```

When you select HALF, you can divide all the selections of the disc into two programs without changing their order.

**b)** When setting your desired time:
Use the numeric buttons. Press 🔟 for "0". It is generally not necessary to press numeric buttons for seconds.

**Note**
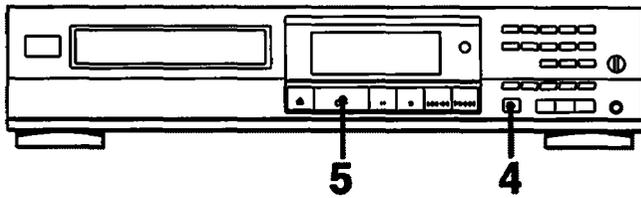HALF cannot be set on a disc with more than 20 selections.

**3** Press EDIT/TIME FADE.
The selections for side A are determined automatically.

a) The last selection to be recorded,
b) Total playing time and
c) Selections to be recorded on side A appear.

(to be continued)

**4**

EDIT/TIME FADE



**5**



**4 Press EDIT/TIME FADE once more while "B" in the tape indicator is flashing.**
Another program for the other side is completed.

**5 Press ▶.**
The selections for side A will be played and then the unit will pause. Reverse the tape, then press ▶ or II again. The selections for side B will be played.

**To cancel the edit**
Press CONTINUE or SHUFFLE and the unit enters continuous or shuffle play mode respectively.
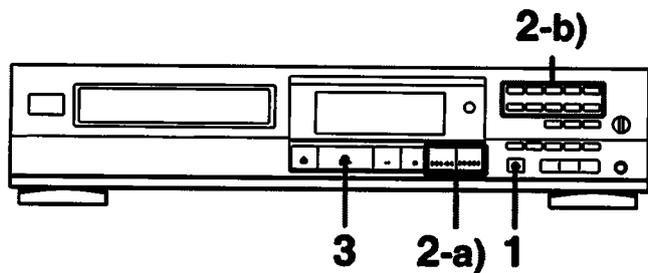The program will be erased.

**To check the program**
See page 15.

**To designate a different time for each side**
Execute steps 1 to 3 on page 18, then press II. Then execute steps 2 to 3 for the other side.

**If your disc has more than 20 selections**
Selections over number 20 cannot be programmed with the time edit function.

2-b)

3   2-a)  1

**1**

EDIT/TIME FADE

**2-a)**
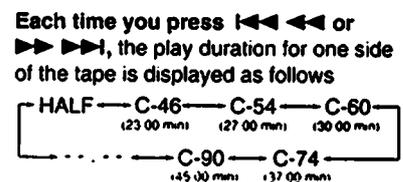
|◄◄◄◄| |►►►►|

HALF

b)

2 → 3

23.00

**3**

1  0.15

You can end the play fading out by
designating the play duration. Once the
time fade is set, it functions twice for editing
both sides of a tape. You can change discs
without cancelling this function and use it in
any play mode.

**1 Press EDIT/TIME FADE twice in stop
mode, (or press it once in pause
mode).**
"TIME FADE" and "A" in the tape
indicator appear in the display.

**2 Press numeric buttons, I◄◄ ◄◄ or
►► ►►I to set the desired play
duration.**

**a) When you specify a commercially
available tape length:**

Each time you press I◄◄ ◄◄ or
►► ►►I, the play duration for one side
of the tape is displayed as follows

HALF — C-46 — C-54 — C-60
(23 00 min) (27 00 min) (30 00 min)

— C-90 — C-74
(45 00 min) (37 00 min)

When you select HALF, the playing
time of each program is set to a half of
the total playing time of the disc.

**b) When setting the time for one side of
the tape as you want:**
Press the numeric buttons.
Press 10 for "0". It is generally not
necessary to press numeric buttons for
seconds, unless required.

**3 Press ► to start playing.**
Before the unit enters pause mode at
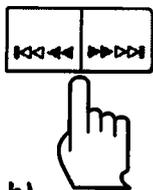the set time with "B" lit in the tape
indicator, play starts fading out.

**To start play for the other side of
the tape**
Press ► or II.
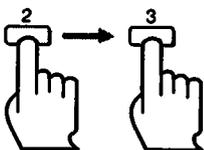The unit enters pause mode at the set time
by fading out for a specified duration.
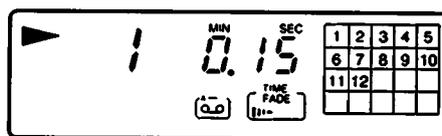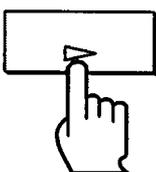When this play ends, time fade is cancelled.

20
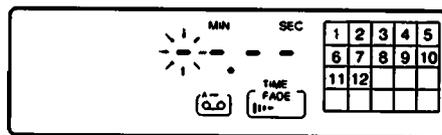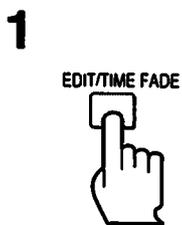
### To cancel time fade
Press EDIT/TIME FADE again.
Time fade is also cancelled when
◄◄ ◄◄ or ►► ►►◄ is kept pressed.

### To display the time remaining until the set time
Press TIME twice.

**When play ends within the designated period**
Time fade function is kept active. Change discs
and start play. When the total playing time of the
discs reaches the designated period, the unit
pauses by fading out.

## Locating the Portion with the Highest Level – Peak Search 🔊

You can locate the portion with the highest
input level of the disc to adjust the
recording level.

Before starting play, press PEAK SEARCH.
"PEAK" flashes in the display as the peak
search begins functioning.
Upon completing the search, the unit starts
repeating the portion with the peak volume
so that you can adjust the recording level.

### To cancel the peak search
– Press ■. "PEAK" goes off from the
display.
– Press ‖ once to put the unit into pause
mode at the beginning of the first
selection.
– Press ► to start play from the first
selection.

**On peak search**
The unit scans input levels of the whole disc and
determines the peak (maximum input level)
among them. The peak determined with this
function is sometimes slightly different from the
real one. In addition, portions determined as a
peak vary each time this function is carried out
on the same disc. The difference between the
determined and the real peak is however,
negligible and will not prevent you from adjusting
the recording level.
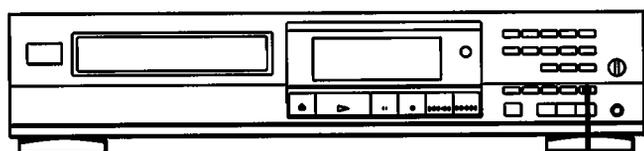
PEAK SEARCH

# Specifications

**Compact disc player**

| | |
|---|---|
| Laser | Semiconductor laser |
| Wavelength | 780 – 790 nm |
| Frequency response | 2 Hz to 20 kHz ±0.5 dB |
| Signal-to-noise ratio | More than 100 dB |
| Dynamic range | More than 98 dB |
| Harmonic distortion | Less than 0.0045% |
| Channel separation | More than 95 dB |

**Outputs**

| | |
|---|---|
| LINE OUT (phono jacks) | Output level 2 V (at 50 kilohms) |
| | Load impedance over 10 kilohms |
| PHONES (stereo phone jack) | Output level max. 10 mW |
| | Load impedance 32 ohms |

**General**

| | |
|---|---|
| Power requirements | 120 V AC, 60 Hz |
| Power consumption | 10 W |
| Dimensions (approx., including projections) | |
| | 430 x 100 x 295 mm (w/h/d) |
| | (17 x 4 x 11 5/8 inches) |
| Mass (approx.) | 3.2 kg (7 lbs 1 oz) |

**Remote commander (only for CDP-311)**

| | |
|---|---|
| Remote control system | Infrared control |
| Power requirements | 3 V DC with two size AA(R6) batteries |
| Dimensions (approx., including projections) | |
| | 40 x 20 x 175 mm (w/h/d) |
| | (1 5/8 x 13/16 x 7 inches) |
| Mass (approx.) | 95 g (4 oz) |

**Supplied accessories**

| | |
|---|---|
| Audio cord | (1) (2 phono plugs – 2 phono plugs) |
| Remote commander (only for CDP-311) | |
| | (1) |
| Sony SUM-3 (NS) batteries (only for CDP-311) | |
| | (2) |

Design and specifications are subject to change without notice.

# Troubleshooting Guide

Before going through the check list below, first refer back to the connections and operating procedures.
Should any problem perisist 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. |
| | II is engaged. | Press ▶ or II again to release it. |
| | Moisture condensation. | Leave the unit turned on for approximately one hour. |
| Sound is not heard. | Loose connection. | Insert the plug firmly. |
| | Connection is incorrect. | Check the connection referring to "Hooking Up the System". |
| | The PHONE LEVEL control is set to the minimum. | Turn the control clockwise. |
| Play does not begin from the first selection. | The unit is in the program or shuffle mode. | Press CONTINUE. |
| The remote commander does not operate the unit. (only for CDP-311) | 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. |