

Technics

Compact Disc Player

SL-P1000

OPERATING INSTRUCTIONS



DIGITAL
COMPACT
disc
DIGITAL AUDIO

"This apparatus was produced to BS800: 1983."

Notes:

- Specifications differ according to the area code.
- The "EK" area code, for example, indicates United Kingdom specifications.
- The "EK" indication is shown on the packing case and serial number tag.

Before operating this product, please read these instructions completely.

Thank you for purchasing this Compact Disc Player. For optimum performance and safety, please read these instructions carefully.

Before Use

1. Place a soft cloth under the unit to protect it from scratches.
2. Press the lock shaft on the bottom panel to the in (FREE) position (■→■).

Caution for safe use of this apparatus for UK standard model SL-P1000. ("EK" model only)

The "EK" indication is shown on the name plate.

Caution:

This apparatus is double insulated, safety earth not required.

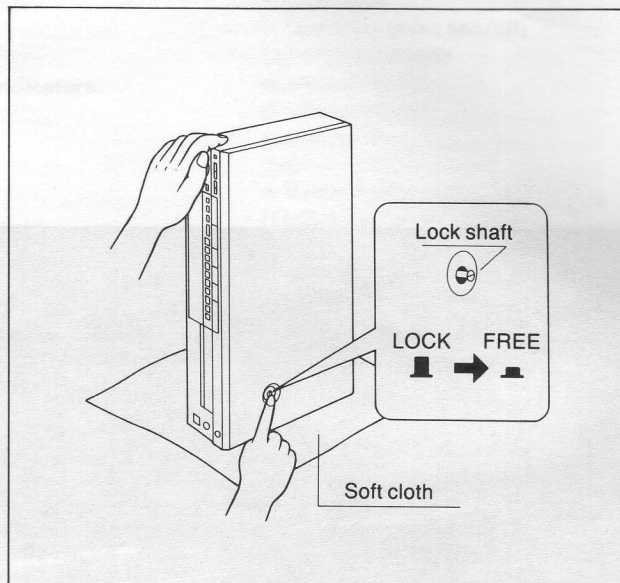
Important

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

Blue:	Neutral
Brown:	Live

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

This equipment should be disconnected from the mains when not in use.



NOTE:

IF THE UNIT IS TRANSPORTED AGAIN, PERFORM THE FOLLOWING STEPS:

- 1) Remove the disc from the holder.
- 2) Pull the lock shaft to the out (LOCK) position (■←■).

CAUTION:

Do not transport the unit without locking the lock shaft. **SEVERE DAMAGE WILL RESULT.**

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Accessories

Stereo connection cable	1
Optical cable (Part No. SJPD16)	1
Coaxial cable (Part No. SJP2274)	1
Remote control unit (Part No. SH-R52)	1
Batteries	2

Caution

This product utilizes a laser. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Suggestions for Safety

Before using this unit, be sure to read applicable items of the operating instructions and these safety suggestions carefully; and afterwards keep them handy for future reference. Take special care to follow the warnings indicated on the unit itself as well as in the operating instructions.

- 1. Avoid places where there is water or humidity.**
Do not use this unit near a bathtub, wash basin, swimming pool, or the like. Damp basements should also be avoided.
- 2. Do not allow water or any foreign object to get inside this unit.**
Do not place small metal objects or anything containing liquid on or near the unit.
- 3. Avoid placement of the unit where it will be exposed to the direct rays of the sun, or where ventilation is inadequate.**
Do not place this unit in a bookcase or between cabinets, unless proper ventilation is provided, or where curtains or furniture may obstruct the ventilation holes.
- 4. Place this unit away from heat-emitting appliances.**
Never place this unit on or near a radiator, heat register, stove, or any other heat-emitting equipment (including amplifiers).
- 5. Placement**
Place the unit on a stable, level, vibration-free shelf or stand.
- 6. Check the voltage rating of this unit before connecting the unit to a power supply.**
Be sure to connect the unit only to the type of power supply indicated in the operating instructions, or as indicated on the unit itself.
- 7. Care of the mains cord and plug.**
Take care that the cord is not bent sharply (especially near its connection to the unit or near the plug), that nothing is placed on it, and that it is not pinched or crushed. Never take hold of the plug or cord if your hand is wet, and always be sure to grasp the plug body when connecting or disconnecting it.
- 8. Maintenance**
Refer to the operating instructions for details.
- 9. Repairs**
Except for adjustments explained in the operating instructions, do not attempt any repairs yourself. Be sure to request service from a qualified technician (or your dealer or nearest service center).

Concerning Compact Discs

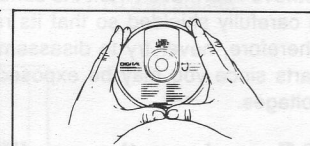
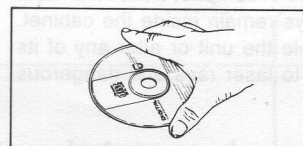
Handling precautions

Only compact discs having this mark can be used with this unit.

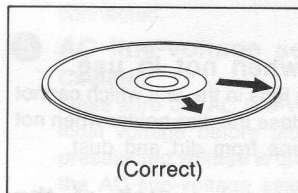


Observe the following precautions to enjoy the same outstanding sonic performance from your Compact Discs for many years.

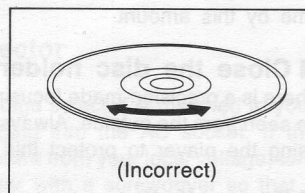
- Hold compact discs by the edges so the surface is not soiled with fingerprints.



- Be careful not to scratch the surface with fingernails or other sharp objects, particularly when inserting and removing discs from their cases.
- Do not bend the disc.
- Do not use record cleaning sprays or static electricity prevention liquids.
- Do not wipe with benzene, thinner or any other solvent. If the surface is soiled, wipe gently with a soft, damp (water only) cloth.
- When wiping discs, always move the cloth directly outward from the center of the disc, not in a circular motion as with standard phonograph records.



(Correct)



(Incorrect)

(In compact discs, circular scratches along a line of pits are more likely to cause errors than straight scratches across many lines of pits.)

- If the disc is brought from a cold environment into a warm room, moisture may form on the disc. Wipe this off with a soft, dry, lint-free cloth before using the disc.
- Do not dry discs with a hair dryer.
- Do not write on the label side with a ball-point pen, hard pencil or other writing utensil.
- Handle compact discs with care. Fingerprints, dirt and scratches can cause skipping and distortion.

Storage precautions

- Be sure to store discs in their cases to protect them from dust, scratches and warping.
- Do not place or store discs in the following places:
 - 1) Locations exposed to direct sunlight.
 - 2) Humid or dusty locations.
 - 3) Locations directly exposed to a heat outlet or heating appliance.
 - 4) In the glove compartment or rear ledge of an automobile.

Notes and Maintenance

- **When carrying or storing the unit, handle it with care so it is not subjected to any strong bumps.**

Always remove the disc before storing the unit for any period of time.

- **Before transporting this unit, be sure to remove the disc and lock the lock shaft or severe damage will result.**

(See page 2 for directions on shipping this unit again.)

- **Do not take apart this unit or attempt to make any changes yourself.**

This unit is a very intricate device that uses a laser pickup to retrieve information from the surface of compact discs. The laser is carefully shielded so that its rays remain inside the cabinet. Therefore, never try to disassemble the unit or alter any of its parts since you may be exposed to laser rays and dangerous voltages.

- **Turn down the amplifier volume control.**

Compact discs have much less noise and a much wider dynamic range than phonograph records. Consequently, you may turn the volume up too high if you adjust it by trying to listen to surface noise as you might with a phonograph record. To prevent this problem, turn the volume down, increasing it as desired only after the music has started.

- **Times displayed by this unit may differ slightly from the track times in the disc liner note.**

The liner note included with each compact disc lists the playing time of each track. Since the times calculated by this unit include pause intervals, the displayed time may differ from the liner note time by this amount.

- **Close the disc holder when not in use.**

There is a precision-made focusing lens in the unit which cannot be seen from the outside. Always close the disc holder when not using the player to protect this lens from dirt and dust.

- **Turn off the power (mains) switch of the compact disc player while using a tuner.**

Maintenance

- **Wipe the cabinet with a soft, dry cloth.**

To avoid harming the cabinet finish, do not clean this unit with solvents or volatile compounds such as alcohol, benzine or paint thinner. Do not use treated dust cloths.

About moisture

- **Moisture may form on the lens in the following cases...**

- Immediately after a heater has been turned on.
- In a steamy or very humid room.
- When the unit is suddenly moved from a cold environment to a warm one.

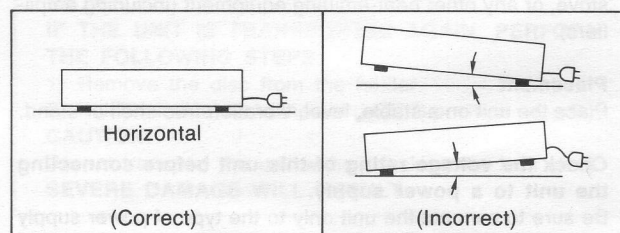
If moisture forms inside this unit, it may not operate properly. To correct this problem, turn on the power (mains) and wait about 20 to 30 minutes for the moisture to evaporate.

Installation

- **This unit incorporates many sensitive optical components. To enjoy optimum performance at all times, avoid using this unit under the following conditions.**

- In a closed vehicle or other location where the temperature could exceed 100°F (40°C).
- For long periods of time in direct sunlight.
- In very cold places (below 40°F; 5°C).
- In very humid locations.
- Near a heat outlet or heating appliance.
- In dusty or smoky locations.
- In locations prone to vibrations.
- On an unstable or uneven surface.
- Near appliances generating strong magnetic fields.
- Within reach of children.
- In locations where the rear panel is less than 10 cm (about 4") away from the wall or back of an audio rack.

- **For reliable performance, be sure to place the unit on a flat, level surface. Not doing so may cause the unit to malfunction.**



- **Do not place near a tuner or television.**

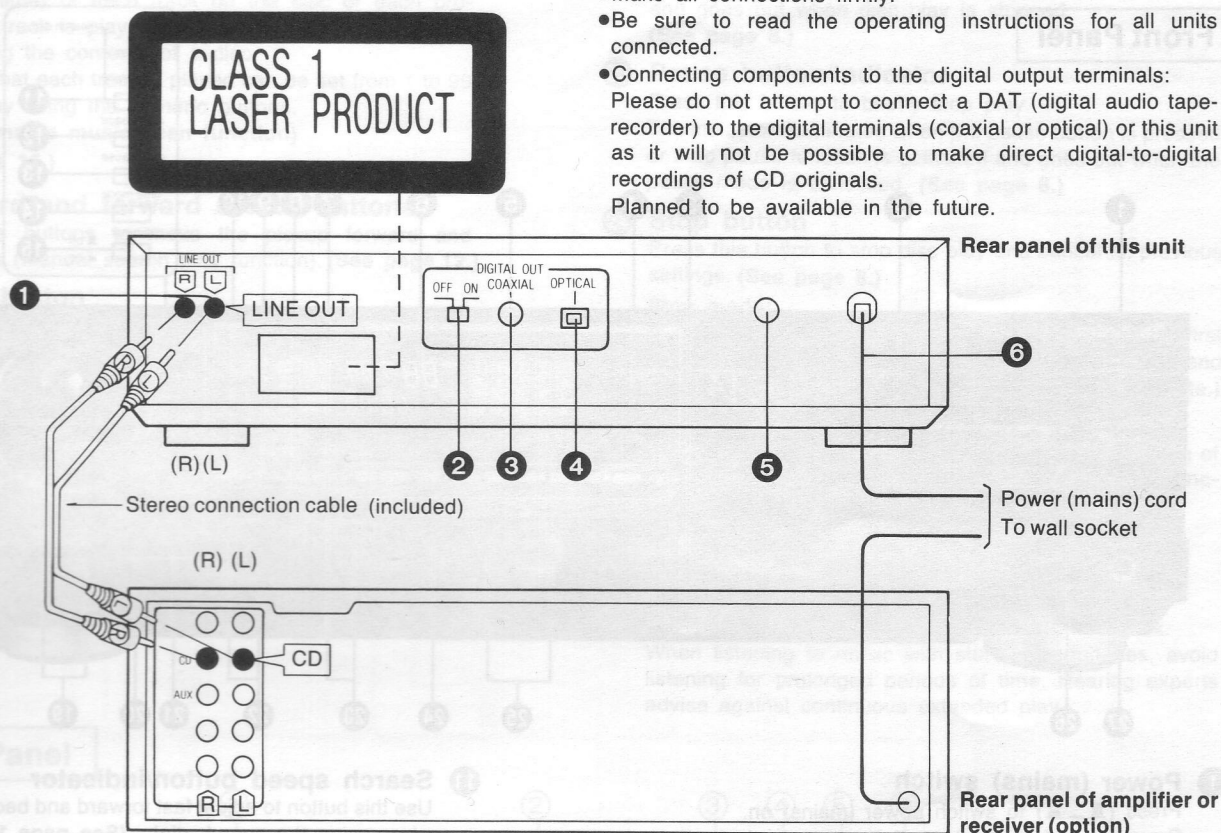
This unit uses high frequency signals and can cause interference with tuner and television reception. If this occurs, move this unit farther away from the tuner or television, or change from an interior to an exterior television antenna.

Otherwise turn off the power (mains) switch while using a tuner or television.

- **Do not place any heavy objects on the top panel (except recommended system components).**

Connections

- Notes:**
- Make sure your hands are dry when making connections.
 - Turn power (mains) off to all components before making connections.
 - Make all connections firmly.
 - Be sure to read the operating instructions for all units connected.
 - Connecting components to the digital output terminals: Please do not attempt to connect a DAT (digital audio tape-recorder) to the digital terminals (coaxial or optical) or this unit as it will not be possible to make direct digital-to-digital recordings of CD originals. Planned to be available in the future.



1 Line out terminals (LINE OUT)

These are the audio output terminals.

- Connect the line out terminals to the CD or AUX terminals on your amplifier or receiver.
- Do not connect the line out terminals to the PHONO terminals of your amplifier or receiver.

2 Digital output switch

This switch should normally be in the off position.

When it is on, the digital signal will be output to both terminal 3 and 4.

3 Coaxial terminals

Terminals for digital output

Digital output from the SL-P1000 can be input into another device with digital input terminals by means of auxiliary coaxial cables.

4 Optical terminal

Terminals for digital output

Allows connection to a device with terminals that accept optical cable.

Dusttight caps have been inserted into these terminals. These caps are only to be removed when cables are connected.

5 AC line-voltage selector

Caution:

Make sure the AC line-voltage selector is matched to your local voltage before plugging into the AC socket. If the preselected voltage is different from your local voltage, turn the AC line-voltage selector with a screwdriver so that it corresponds to your local voltage.

6 Power (mains) cord

Connect to an AC outlet on the wall or on the rear panel of your amplifier or receiver.

CAUTION

When using the optical cable, please keep the following points in mind:

1. The maximum length of optical cable to be used with this unit is 3 m (approx. 10 ft.).
2. Always make sure the plug is fully inserted. If the plug is not inserted all the way, an imperfect connection will result.
3. The optical cable must never be bent or coiled tightly (See figure 1). Doing so will permanently damage the optical fiber in the cable and, therefore, prevent proper data transmission. If the cable must be coiled (for storage, etc.), the diameter of the loop should be at least 15 cm (approx. 6 inches). (See figure 2.)
4. Handle the optical cable's plug very carefully. Keep the plug free from dust or damage. Dust can be removed by wiping the plug with a soft cloth. Do not use any cleaners or solvents to clean the plug.
5. When the connection terminals for the optical cable on this unit are not being used, cover them with the protective dust caps (included).

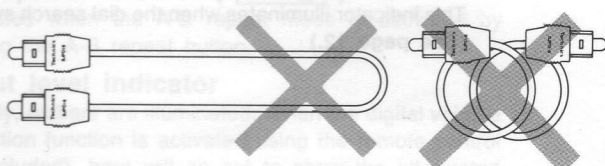


Fig. 1

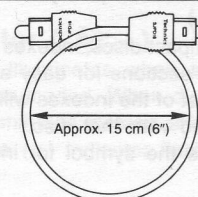
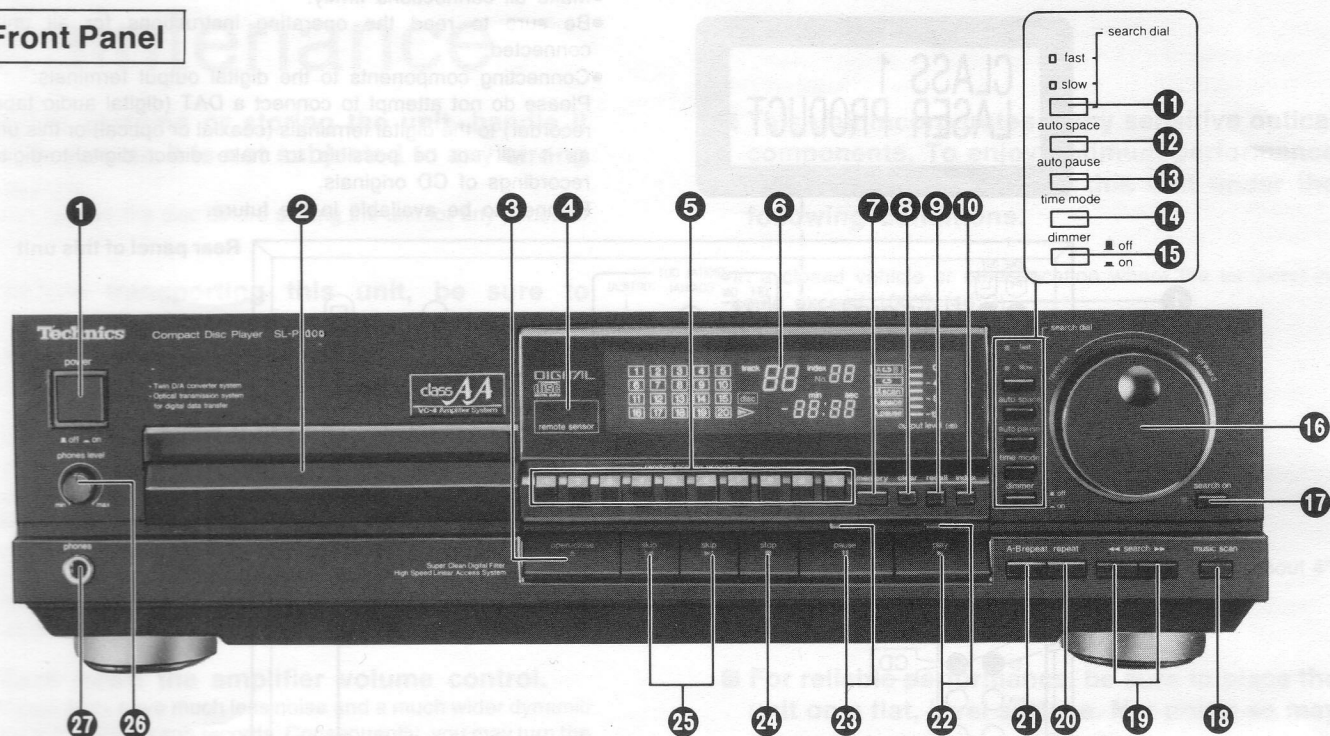


Fig. 2

Front Panel Controls and Functions

Front Panel



1 Power (mains) switch

Press (■) to switch power (mains) on.
Press again (■) to switch power (mains) off.
(See page 8.)

2 Disc holder

The disc is inserted in this holder with the label side up.
(See page 8.)

3 Open/close button

Press this button to open and close the disc holder.
(See page 8.)

4 Remote control sensor

Receives signals from the infrared remote control unit.
(See page 18.)

5 Numeric buttons (1~0)

Use these buttons to specify:
1. Track numbers. (See pages 9, 10.)
2. Index numbers. (See page 9.)
3. Music scan intervals (in seconds). (See page 16.)
4. Playing times. (See page 15.)

6 Display panel

(See next page.)

7 Memory button

Press this button to enter displayed track numbers or playing time into the memory. (See pages 10 and 15.)

8 Clear button

Press this button to clear individual program entries before program play is started. (See page 11.)

9 Recall button

Press this button to check the contents of a program.
(See page 11.)

10 Index button

Press this button to specify an index number.
(See page 9.)

- In some compact discs, indexes are used to divide tracks into smaller sections for easy access. If a disc includes indexes, a list of the indexes will be contained in the liner note included with that disc.

[IN•DEX] is the symbol for index(es).]

11 Search speed button/indicator

Use this button to adjust fast forward and backward speeds when using the search dial. (See page 12.)

12 Auto space button

Press this button to set a silent interval of 3 seconds between the songs on a disc. (See page 16.)

13 Auto pause button

Press this button to activate the auto pause mode. In this mode the unit automatically switches to the standby mode immediately before the beginning of each track.
(See page 16.)

14 Time mode select button

This button is used for the following two operations.

- To select the time display mode (time display mode selection) (See page 15.)
- To specify playing time (preset edit play) (See page 15.)

15 Dimmer switch

Use the dimmer switch to alter the brightness of the display panel.

- Press the dimmer switch ON (■) to lower the brightness of the display panel.

Press again (■) to return to the normal brightness.

16 Search dial

For high precision forward and backward searching.
(See page 12.)

17 Dial search switch/indicator

Press this button to activate dial search.

This indicator illuminates when the dial search switch is on.
(See page 12.)

18 Music scan button

Press to specify music scan play.

When this button is pressed, the first ten seconds (or the specified time) of each track on the disc or each programmed track is played. This is very useful for quickly determining the contents of a disc.

The time that each track is played can be set from 1 to 99 seconds by using the numeric buttons.

(programmable music scan function)

(See page 16.)

19 Backward and forward search buttons

Use these buttons to move the pickup forward and backwards (manual search play function). (See page 12.)

20 Repeat button

Press this button to activate the repeat mode.

Press again to cancel the repeat mode. (See page 14.)

21 A-B repeat button

Press to repeat a section between two specified points A and B.

- The first time this button is pressed, the starting point (A) of the disc section to be played repeatedly is set.

- The second time, the ending point (B) of the repeat section is set.

- The third time, the A-B repeat mode is cancelled.

(See page 14.)

22 Play button/indicator

Press this button to begin play.

The indicator illuminates when the play button is pressed and goes out when disc play is stopped.

(See page 8.)

23 Pause button/indicator

Press this button to briefly stop play.

The indicator illuminates when the pause button is pressed or auto pause function is activated and goes out when the pause mode is cancelled. (See page 8.)

24 Stop button

Press this button to stop disc play and cancel all previous settings. (See page 8.)

Stop mode:

In the stop mode, the pickup is at the beginning of the first track and the display shows the total number of tracks and total playing time of the disc. (The disc does not rotate.)

25 Backward and forward skip buttons

Use these buttons to move the pickup to the beginning of a specific track (forward and backward skip play function). (See page 13.)

26 Phones level control knob

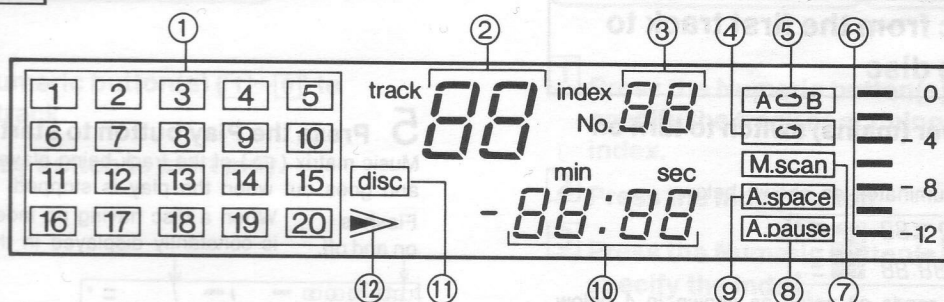
Use to control the output level to the headphones.

27 Headphones jack

Connect the optional headphones plug to this jack.

When listening to music with stereo headphones, avoid listening for prolonged periods of time. Hearing experts advise against continuous extended play.

Display Panel



① Music matrix ()

Up to 20 tracks are displayed.

1. When a disc is loaded, this display shows the total number of tracks.
2. When specifying or entering a track number in the memory, the border of the specified track number illuminates.
3. During play, the border around the track number currently being played flashes on and off.
4. When the track is finished, the border around the track number goes out.

② Track number display (track)

Track numbers (up to 99) are shown here.

③ Index number display (index)

The index number (index) or programmed order (No.) is shown here.

④ Repeat indicator ()

Illuminates when the repeat mode is activated and goes out when the repeat button is pressed once again.

⑤ A-B repeat indicator ()

Illuminates when the A-B repeat mode is activated by pressing the A-B repeat button.

⑥ Output level indicator

Normally, all bars are illuminated. When the digital volume attenuation function is activated using the remote control unit (included), bars will go out to show the attenuated volume level. (See page 18.)

⑦ Music scan indicator ()

Illuminates when the music scan button is pressed and goes out when the music scan play is cancelled.

⑧ Auto pause indicator ()

Illuminates when the pause mode is activated and goes out when the pause mode is cancelled.

⑨ Auto space indicator ()

Illuminates when the auto space button is pressed to activate the auto space mode and goes out when the button is pressed again to cancel the auto space mode.

⑩ Time display (min. dB, sec.)

Time (min., sec.) and attenuation level (dB) (when using remote control unit) are displayed here.

(See pages 15, 18.)

⑪ Disc indicator ()

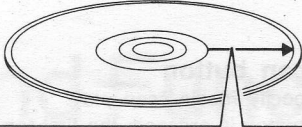
Flashes on and off when the disc holder is opening or closing. Illuminates when a disc is in the holder [if power (mains) is on] when the disc holder is closed. This indicator allows you to check in an instant whether or not a disc is loaded.

⑫ Overflow indicator ()

The () indicator illuminates when a disc containing more than 20 tracks is loaded. When disc play is started, the () indicator illuminates instead and when disc play reaches track 21, the () indicator flashes on and off.

Playing a Disc

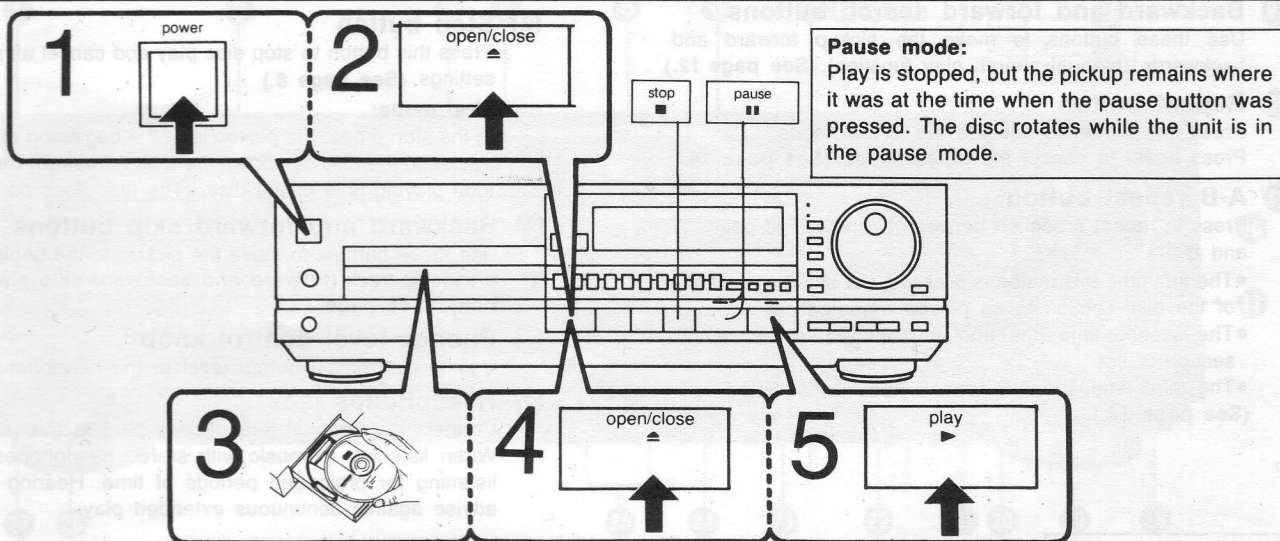
All of the examples on pages 8–16 refer to a disc which contains 7 tracks and a total playing time of 49 minutes and 58 seconds, as shown below. Track 3 is divided into five indexes.



Track 1	Track 2	Track 3	Track 4	Track 5	Track 6	Track 7
5 min.	4 min.	21 min. 58 s.	5 min.	4 min.	4 min.	6 min.

Index No.	1	2	3	4	5

Automatic play



To play a disc from the first track to the end of the disc

- 1 Press the Power (mains) switch to turn on (■ — ■).

Display momentarily illuminates as shown below:



Afterwards the display reads all zeros as shown in 4 below.

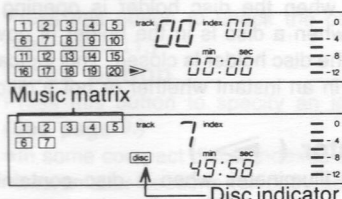
- 2 Press the Open/Close button to open disc holder.

- 3 Insert a disc with the label side facing upward.

Insert the disc only after the disc holder has opened all the way. If the disc is inserted too soon, it may be damaged. Do not tilt the unit while the disc holder is opening or closing since the disc could fall out of the holder.

- 4 Press the Open/Close button to close disc holder.

This step can be skipped by pressing the play button after inserting a disc. In this case, the holder will close and play will begin directly from track 1, but the tracks and total playing time will not be displayed.



Disc information is being read.

Reading of disc information finished.

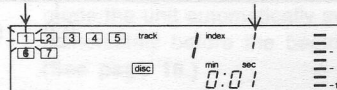
Stop mode

After the total number of tracks and total playing time are displayed, the player switches to the stop mode. (In this example, "7 tracks, 49 minutes and 58 seconds" is displayed.)

- 5 Press the Play button to start play.

Music matrix (□) of the track being played flashes on and off and goes out when the play is stopped.

Flashes When a disc having no indexes is played, "!" on and off. is constantly displayed in the index section.



(The above illustration shows that 1 second of track 1 has been played.)

- After the last track has been played the pickup returns to the beginning of the first track and the unit switches to the stop mode.

To briefly interrupt play

- Press the Pause button to briefly interrupt play.

The unit switches to the pause mode and the pause indicator illuminates.

- Press the play button to resume play.

The pause mode is cancelled, play is resumed, and the play indicator illuminates.

To stop play

- Press the Stop button.

The pickup will return to the beginning of the first track and the display will show the total number of tracks and the total playing time of the disc.

Note: All previous settings are cancelled when the stop button is pressed.

When not in use

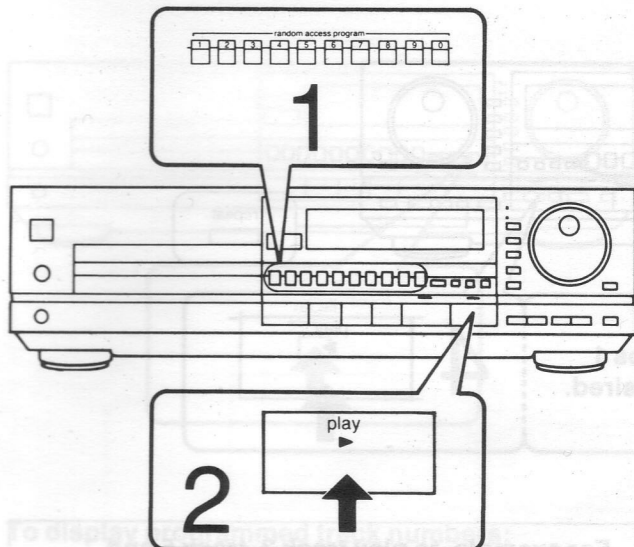
- Remove the disc from the disc holder.
- Close the disc holder.
- Turn off the power (mains).

Note: On this and the following pages, these basic operation procedures are omitted.

•Power (mains) on/off •Disc holder open/close •Disc insertion/removal •Interrupting play •Stopping play

Direct access play

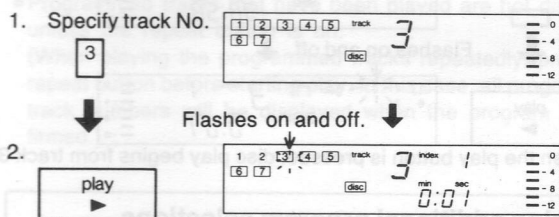
To start disc play from a specific track



- 1 Press the Numeric button(s) (1~0) to specify the track.
- 2 Press the Play button to start play.

For example, to play from the beginning of track 3 to the end of the disc.

track 1	track 2	track 3					track 4	track 5	track 6	track 7
5 min.	4 min.	4 min.	4 min.	4 min.	4 min.	4 min.	5 min.	4 min.	4 min.	6 min.
		20 s.	20 s.	25 s.	30 s.	23 s.				
Index no.		1	2	3	4	5				



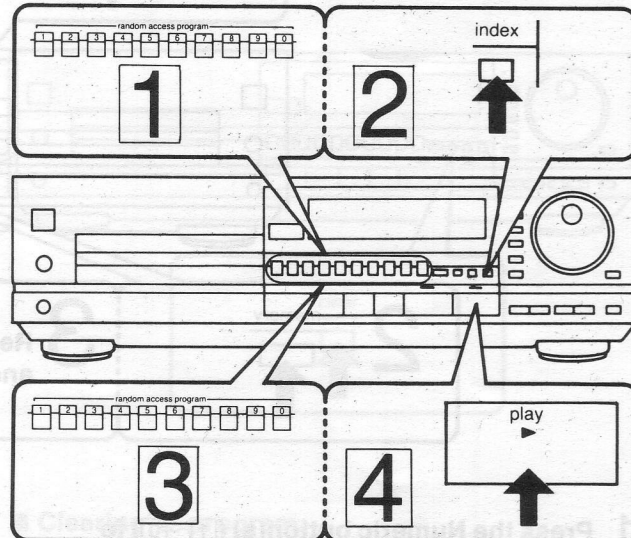
•When the play button is pressed, play begins from track 3.

Note:

•"E" (error) will be displayed if a track number not on the disc is specified. Confirm the track number and press again.

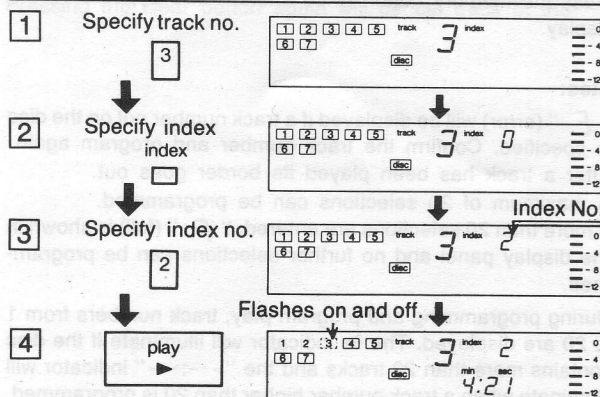
To start disc play from a specific index

(This is possible only on discs having indexes.)



- 1 Press the Numeric button(s) (1~0) to specify the track containing the desired index.
- 2 Press the Index button.
- 3 Press the Numeric button(s) (1~0) to specify the index.
- 4 Press the Play button to start play.
Play begins from the specified index.

For example, to play from the beginning of index 2 of track 3 to the end of the disc.

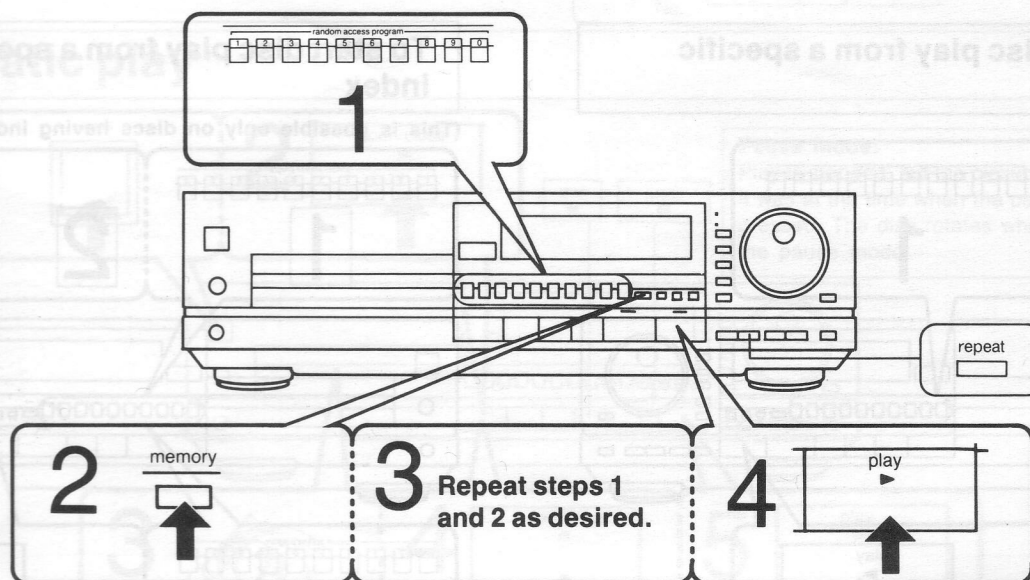


(When the play button is pressed, disc play begins from index 2 of track 3.)

Notes:

- Index numbers up to 99 can be specified.
- If an index number that is not on the disc is specified, the last index on the indicated track will be played.
- Index numbers cannot be memorized into program play.
- When playing discs having only one track, remember to enter track number 1, then specify the index number.

Program play



- 1 Press the Numeric button(s) ([1]~[0]) to specify the track.
- 2 Press the Memory button to enter the displayed track number into memory.
- 3 Repeat steps 1 and 2 until the desired programming is completed.
- 4 Press the Play button to start play.

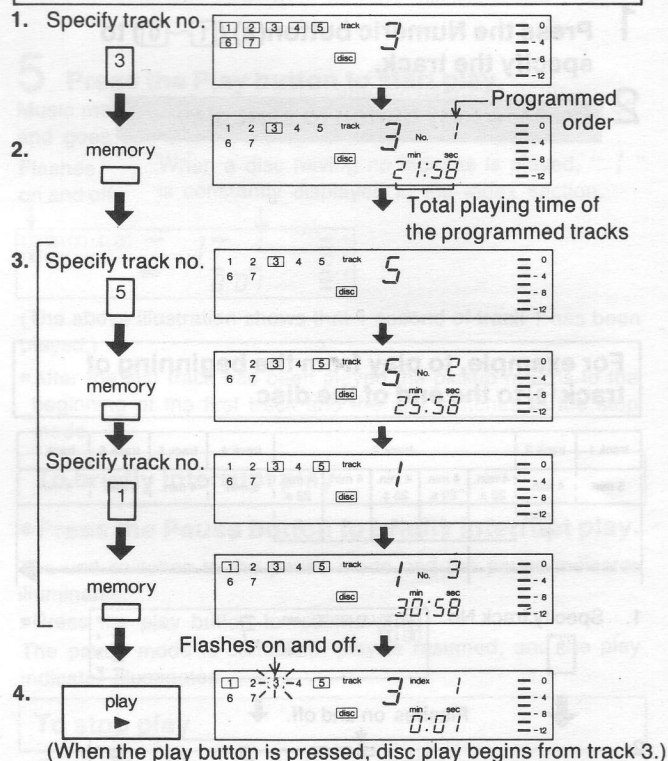
To enter the same track number in succession, simply press the memory button the same number of times as that track is to be played.

- For example, to program tracks 3, 5, 5, and 1 in that order, press the memory button twice after track 5 appears on the display.

Notes:

- "E" (error) will be displayed if a track number not on the disc is specified. Confirm the track number and program again.
- After a track has been played its border goes out.
- A maximum of 20 selections can be programmed. If more than 20 selections are entered, "F" (full) is shown in the display panel and no further selections can be programmed.
- During programming and program play, track numbers from 1 to 20 are displayed. The >> indicator will illuminate if the disc contains more than 20 tracks and the "-:-" indicator will illuminate when a track number higher than 20 is programmed. When a track number higher than 20 is played, the ">" indicator will flash on and off.
- The player switches to the stop mode when the last programmed track has been played.

For example, to play track 3, track 5 and track 1 in that order.

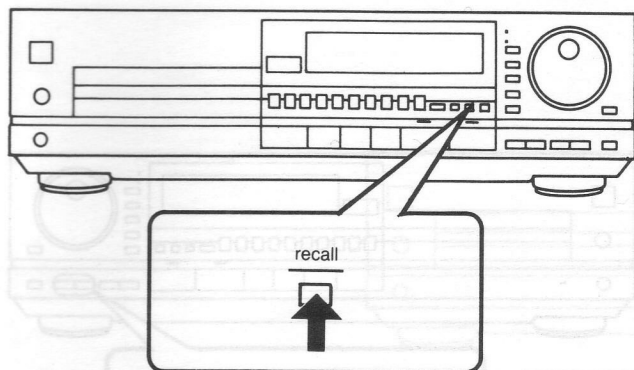


Entering additional program selections during program play

Additional program entries can be made during play in the same manner as at the time of programming. However, if the memory button is not pressed within 20 seconds after specifying a track, the display returns to the playing time mode.

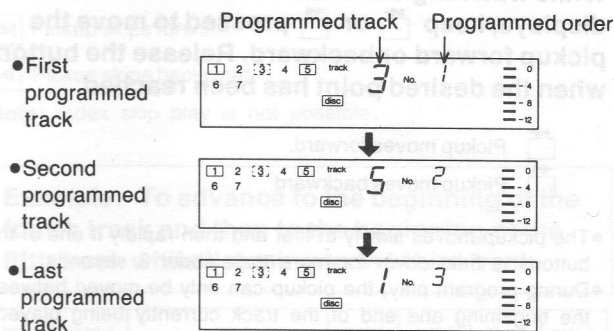
Program play (continued)

Program confirmation



**To display programmed track numbers;
Press the Recall button.**

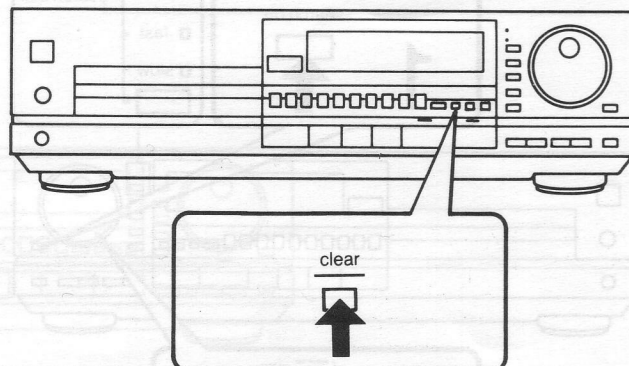
- When the recall button is pressed, programmed track numbers are displayed one by one in the order in which they are to be played.
- The diagram below shows track 3, track 5 and track 1 programmed in that order.



Notes:

- After the last track has been displayed, the current track is shown.
- Programmed tracks that have been played are not displayed unless the repeat button is on.
(When playing the programmed tracks repeatedly, press the repeat button before starting play. In this case, all programmed track numbers will be displayed when the program is confirmed.)

Clearing a program or program entry



■ Clearing a program:
(During play or in the pause mode.)

Press the Clear button.

All tracks will be cleared from memory, and the unit will continue playing from its current position to the end of the disc in the normal play mode.

(Preset edit play is also cancelled.)

■ Clearing a program entry:
(When the unit is in the stop mode.)

Press the Clear button.

Each time the clear button is pressed, the last track in the programmed sequence will be cancelled.

For example, if you program the sequence:

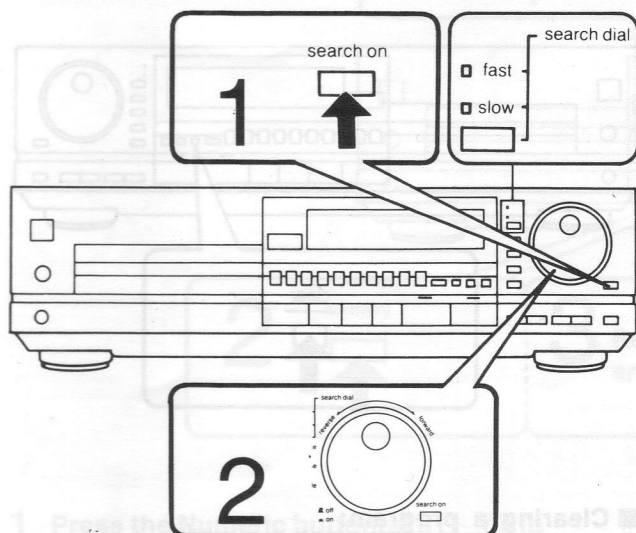
track 3, track 5, track 1, pressing the clear button once will cancel track 1.

Pressing the clear button again will cancel track 5, etc.

Manual search play (During play or in the pause mode)

The search function can be performed either with the search dial or with the forward or backward search buttons.

Using the search dial



With the search dial the user can select between fast and slow search speeds.

- 1 Press the Dial search switch to turn it on.**
(One of the two search speeds—fast or slow—will be lit.)

Changing the search dial speed

Press the search speed button.

The search speed indicator illuminates. Each time you press the search speed button, the speed is changed between fast and slow.

- fast:** One revolution of the search dial corresponds to about 20–40 seconds of program time on a disc.
- slow:** One revolution of the search dial corresponds to about 1 second of program time.

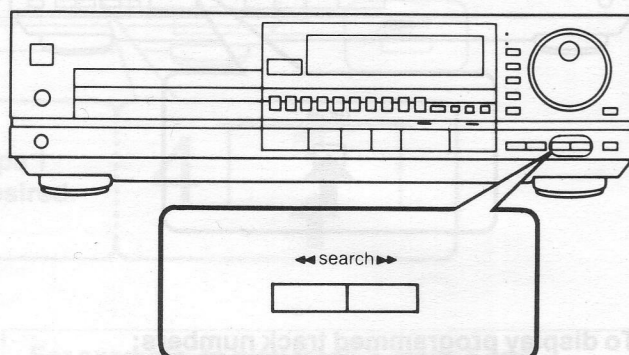
- 2 While watching the track number and time displays, turn the Search dial to the right (clockwise) or to the left (counterclockwise) to search for the place on the disc you wish to hear.**

Turn to the right to advance and to the left to search backwards.

Notes:

- Normally, no playback sound is heard in the pause mode. If the dial search switch is on, however, playback sound is produced even in the pause mode.
- The search speed changes according to the speed at which the search dial is turned. However, you can not force the pickup to search faster or slower than its predetermined limits.
- When dial search is performed with the unit in the play mode, the normal play speed of the pickup is added to (forward search) or subtracted from (backward search) the dial search speed.
- The search dial won't work unless the search switch is on.

Using the forward or backward search buttons



Forward or backward search

While watching the track number and time displays, keep  or  pressed to move the pickup forward or backward. Release the button when the desired point has been reached.

-  Pickup moves forward.
-  Pickup moves backward.

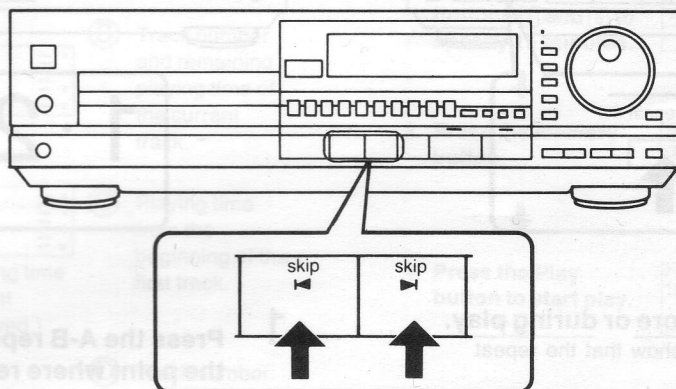
- The pickup moves slowly at first and then rapidly if one of the buttons is held down for more than about 3 seconds.
- During program play, the pickup can only be moved between the beginning and end of the track currently being played.
- During repeat play between points A and B, the search function can still scan beyond these points. (See page 14.)
- If one of the buttons is pressed while a disc is being played, sound from the disc can be heard as the pickup moves. The output level at this time is decreased by 12 dB (1/4) compared with the normal level.

Skip play (During play or in the pause mode.)

This function allows quick access to the beginning of a track.

Pickup:

The pickup is a laser device that reads the information on the disc surface. The pickup moves across the disc as the disc is played, but it is not visible from outside the cabinet.



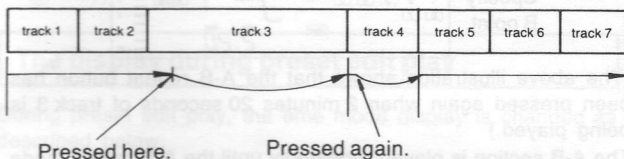
Press one of the Backward or Forward Skip buttons momentarily until the desired track has been located.

▶ Pickup skips forward.

◀ Pickup skips backward.

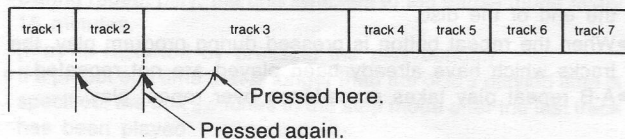
Note: Index skip play is not possible.

Example: To advance to the beginning of the fourth track and then to the beginning of the fifth track while listening to the third track.



- During automatic play, the pickup skips to the beginning of the next track each time the button is pressed.
- During program play or program repeat play, the pickup skips to the beginning of the next programmed track each time the button is pressed.

Example: To return to the beginning of the third track and then to the beginning of the second track, while listening to the third track.

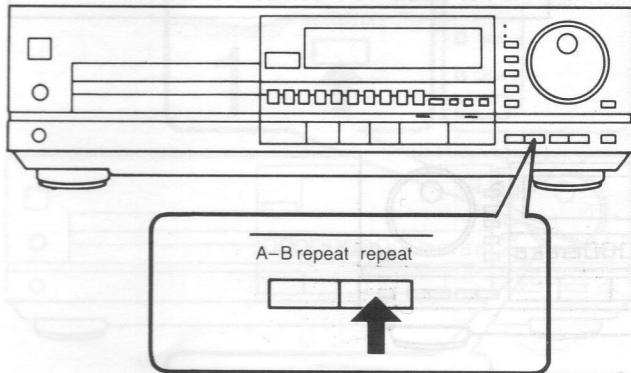


- During automatic play, the pickup skips to the beginning of the current track. If pressed again quickly, the pickup skips to the beginning of the previous track.
- During program play (repeat function not activated), the pickup skips backward only to the beginning of the current track.
- During program repeat play, the pickup skips to the beginning of the current track. If pressed again quickly, the pickup skips to the beginning of the previous programmed track.

Remember that for backward skip, the present track is included in the count.

Repeat play

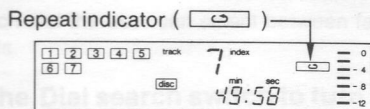
Entire disc and programmed track repeat play



Press the Repeat button before or during play.

The repeat indicator illuminates to show that the repeat mode has been activated.

Repeat play continues until this mode is deactivated.



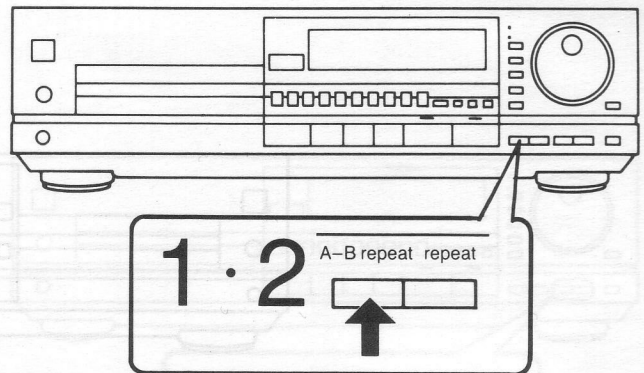
[The above illustration shows that the repeat button has been pressed before play (in the stop mode).]

- Press the repeat button again to cancel the repeat mode. (The repeat indicator goes out.)

Notes:

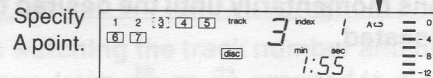
- During automatic play, all tracks will be repeated.
- During program play, programmed tracks will be repeated.
- During direct access play, play begins from the specified track to the last one and then first repeat play starts from track 1 to the end of the disc.
- When the repeat button is pressed during program play, the tracks which have already been played are not repeated.
- A-B repeat play takes precedence over repeat play.

Repeat play between points A and B (A-B repeat play)



1 Press the A-B repeat button during play at the point where repeat play is to start (A point is specified).

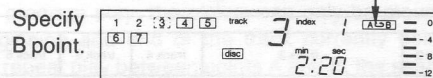
- "A-B" repeat indicator illuminates.



(The above illustration shows that the A-B repeat button has been pressed when 1 minute 55 seconds of track 3 is being played.)

2 Press the A-B repeat button again at the point where repeat play is to end (B point is specified).

- "A-B" repeat indicator illuminates.



(The above illustration shows that the A-B repeat button has been pressed again when 2 minutes 20 seconds of track 3 is being played.)

The A-B section is played repeatedly until the A-B repeat mode is cancelled.

- Press the A-B repeat button again to cancel this repeat mode. (The A-B repeat indicator goes out.)

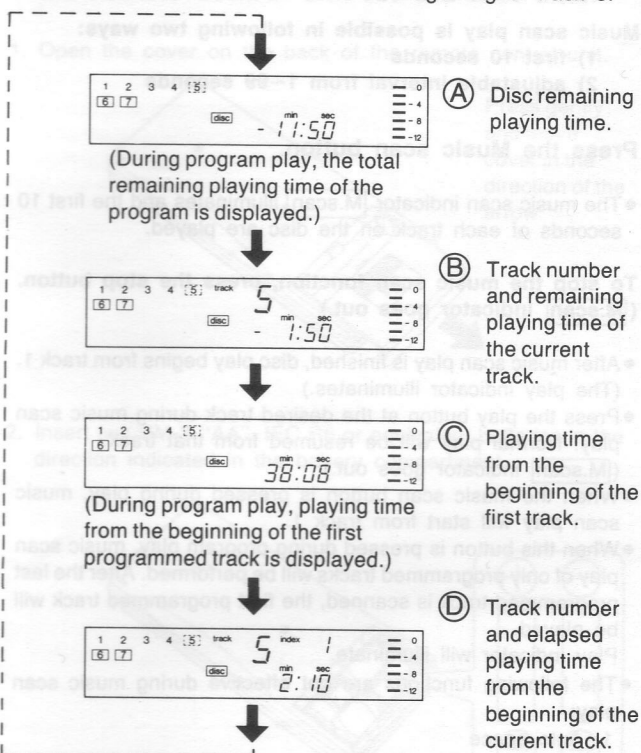
Notes:

- A-B repeat play is not possible when in the program disc play mode.
- Using the skip function during A-B repeat play cancels A-B repeat play.
- If you use the search function during A-B repeat play, the player switches to the automatic play mode. Play will continue from the point where you finished searching to the end of the disc. Then, play will continue from the beginning of the first track on the disc. When point A is reached, A-B repeat play will resume.
- If the play button is pressed, the pickup will return to the "A" point and A-B repeat play will resume.

Time mode display

(During play or in the pause mode.)

In the example, a disc of 49 minutes 58 seconds is playing at a point 2 minutes 10 seconds after the beginning of track 5.



(The display is slightly different during preset edit play.)

Notes:

In the following cases the time display shows “- -: -” when the remaining playing time of the disc is displayed:

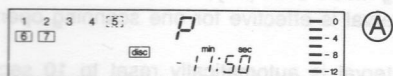
1. When a track number higher than 20 is programmed;
2. When the total playing time of a program is more than 99 minutes. (For example, when one 20-minute track is programmed to play six times, the total playing time of the program is 120 minutes.)
3. When a track number higher than 20 is played (in time mode **B** only).

The display during preset edit play

During preset edit play, the time mode display is changed as described below.

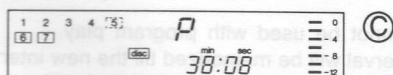
In time mode display **A**:

The disc remaining playing time is replaced by the amount of time remaining in preset edit play, and the track number is replaced by the letter “P”.



In time mode display **C**:

The track number is replaced by the letter “P”.



Preset edit play

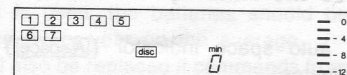
(When the unit is in the stop mode.)

Desired length of playing time (1 to 99 minutes) can be specified.

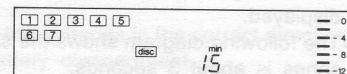
For example;

To play only 15 minutes:

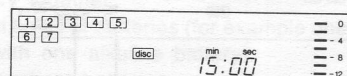
1. Press the Time mode select button.



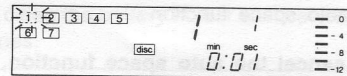
2. Press the Numeric buttons **1** and **5** to specify 15 minutes.



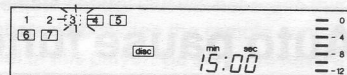
3. Press the Memory button.



4. Press the Play button to start play.



After playing the preset edit time (15 minutes), the unit switches to the pause mode.



Notes:

- The forward and backward skip buttons can also be used to specify the preset edit time in step 2.
- During automatic play, the unit switches to the pause mode after playing for 15 minutes.
- During program play, the unit switches to the pause mode after playing for 15 minutes, and the next programmed track is displayed if there is a further programmed track. (Play is restarted by pressing the play button.)
- During repeat play, the unit switches to the pause mode every 15 minutes. (Play is restarted by pressing the play button.)
- If a preset edit time that is longer than the disc's playing time is specified, the unit switches to the stop mode after the last track has been played.
- For preset edit play during programming, the preset edit time must be specified before the program selections are entered.
- Using the skip, search buttons during preset edit play does not subtract any time from what was specified. It does move the desired length of time to the new location.
- If the programmed play time is longer than the preset edit time, -FF:FF will appear on the display panel. In this case, reprogram so that the programmed play time is within the preset edit time.

Auto space function

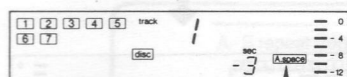
When this function is activated, a silent interval of 3-seconds is created between all tracks.

This 3-second interval occurs instead of, not in addition to, any pause interval recorded on the disc.

Press the Auto space button.

The auto space indicator (**A.space**) on the display panel illuminates.

- At the beginning of each track -3 , -2 and then -1 is displayed.
- The following diagram shows the silent interval between all songs is about 3 seconds.



Seconds display of auto space function

Auto space indicator

To cancel the auto space function, press the auto space button once again.

The auto space indicator goes out.

Auto pause function

Press the Auto pause button.

The auto pause indicator (**A.pause**) on the display panel illuminates.

To cancel the auto pause function, press the auto pause button once again.

The auto pause indicator goes out.

Notes:

- After play begins, the unit will automatically pause at the beginning of each track.
- Press the play button to continue playback.
- Pressing the auto pause button during disc play causes the unit to pause at the beginning of each track starting with the next track encountered.

Music scan play

If the music scan button is pressed, only the first ten seconds of all tracks or all programmed tracks are played.
(Convenient for checking the contents of tracks.)

Music scan play is possible in following two ways:

- 1) first 10 seconds
- 2) adjustable interval from 1~99 seconds

Press the Music scan button.

- The music scan indicator (**M.scan**) illuminates and the first 10 seconds of each track on the disc are played.

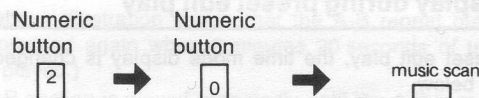
To stop the music scan function, press the stop button. (M.scan** indicator goes out.)**

- After music scan play is finished, disc play begins from track 1. (The play indicator illuminates.)
- Press the play button at the desired track during music scan play. Normal play will be resumed from that track. (**M.scan** indicator goes out.)
- When the music scan button is pressed during play, music scan play will start from track 1.
- When this button is pressed during program play, music scan play of only programmed tracks will be performed. After the last programmed track is scanned, the first programmed track will be played.
Play indicator will illuminate.
- The following functions are not effective during music scan play:
 1. Auto space
 2. Auto pause
 3. A-B repeat play
 4. Time mode function

■ Adjusting the music scan interval between one and 99 seconds.

(Programmable music scan function)

For example, extending the music scan interval to 20 seconds.



- The music scan interval is specified as 20 seconds and music scan begins.
(When performing music scan play, remember that the specified scanning interval is effective for one scanning operation only.)
- The scanning interval is automatically reset to 10 seconds when power (mains) is switched off.

Notes:

- This function cannot be used with program play.
- The specified interval will be memorized till the new interval is specified, or till the power (mains) is switched off.

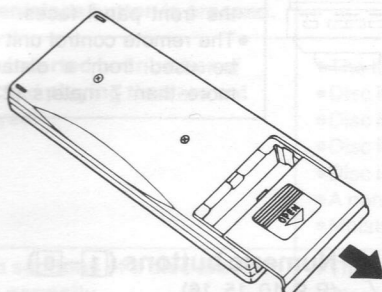
Using the Remote Control Unit

(included)

Inserting the batteries

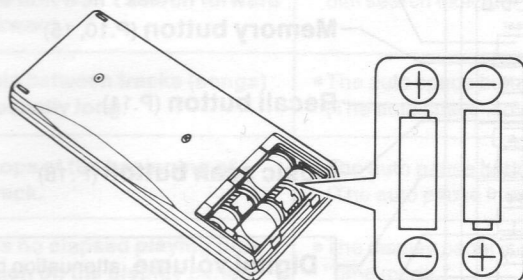
■ Be sure to insert the batteries before using the remote control unit for the first time.

1. Open the cover on the back of the remote control unit.

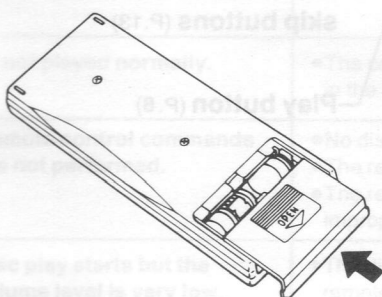


Press gently and move cover in the direction of the arrow.

2. Insert two UM-3 "AA", IEC R6 or equivalent batteries in the direction indicated in the battery compartment.



3. Close the cover.



Notes:

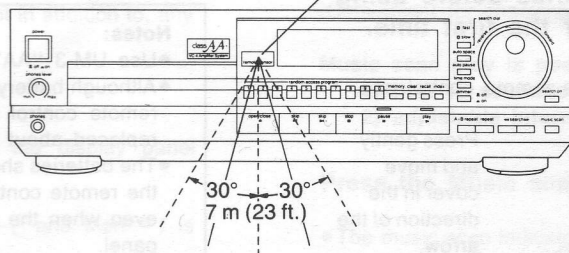
- Use UM-3 "AA" batteries or IEC R6 or equivalent.
- Although battery life varies depending on how often the remote control unit is used, the batteries should be replaced about once every year on the average.
- The batteries should also be replaced if commands from the remote control unit are not received by this player even when the unit is held close to the player's front panel.
- Remember to insert the batteries in the correct direction as shown in the battery compartment.
- To prevent damage to the battery holder from leakage.
 - Replace both batteries at once; do not use one new and one old battery together.
 - Do not use different types of batteries (for example one standard battery with one alkaline battery).
 - Do not short or overheat batteries.
- Remove the batteries if the remote control unit is not to be used for a long period of time.
- If the batteries leak, clean the battery holder well before inserting new batteries.

Precautions:

- Press the buttons slowly and accurately to avoid incorrect operation.
- The signal from the remote control unit will not reach this player if there is an obstacle between the remote control unit and the front panel of this player. Be sure you have a clear signal path before pressing a remote control unit button.
- Commands from the remote control unit may reach this player even if the remote control unit is pointed in a different direction due to reflection of the infrared signal off walls and other surfaces. To avoid mistaken operation, always use the remote control unit as close as possible to a right angle to the front panel receiver.
- Commands from the remote control unit may not be picked up by this player if the front panel receiver is exposed to direct sunlight or a very bright light. The front panel should be protected from bright lights (particularly fluorescent lights) to prevent this problem.
- Do not use remote control units for TV sets, VCRs or other components at the same time as this player's remote control unit since this could result in a mistaken operation.
- Do not clean the remote control unit with specially treated cloths or chemical cleansers. When necessary, wipe with a dry cloth to remove dirt and dust.
- The surface of the remote control unit may be stained or damaged by benzine, thinner, insecticides and adhesive tape.
- Do not try to disassemble the remote control unit.
- The control panel of the remote control unit may be covered by a clear plastic protective sheet. This sheet may be removed if desired.

Remote panel controls

Remote control sensor



- The remote control unit can be used at an angle range of up to 30° from the direction in which the front panel faces.
- The remote control unit cannot be used from a distance of more than 7 meters (23 ft).

A-B repeat button (P. 14)

Repeat button (P. 14)

Index button (P. 9)

Time mode select button (P. 15)

Forward and backward search buttons (P. 12)

Stop button (P. 8)

Pause button (P. 8)

Numeric buttons (1-0) (P. 9, 10, 15, 16)

Clear button (P. 11)

Memory button (P. 10, 15)

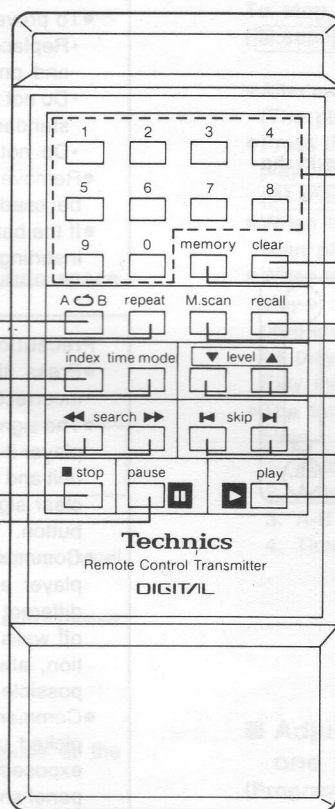
Recall button (P. 11)

Music scan button (P. 16)

Digital volume attenuation buttons

Forward and backward skip buttons (P. 13)

Play button (P. 8)



Digital volume attenuation function

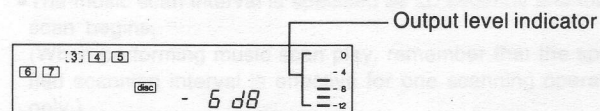
Using this function, you can change the digital volume level from 0 dB to -12 dB (about 1/4 of the normal level) in 2 dB steps by pressing the digital volume attenuation buttons.

Each time the button is pressed, the volume level is lowered by 2 dB and the corresponding bar of the output level indicator will go out.

Each time the button is pressed, the volume level is raised by 2 dB and the corresponding bar of the output level indicator will illuminate.

When the volume level returns to 0 dB, all bars of the output level indicator will be illuminated and no further volume level increase is possible.

The illustration below shows that the button has been pressed three times while track 3 is being played (-6 dB attenuation).



After 2 seconds, the dB display returns to the original playing time display and volume level is indicated by the output level indicator.

Notes:

- Volume attenuation is also returned to 0 dB automatically when power (mains) is switched off.
- Headphone level is also affected.
- It is not possible to adjust the volume level of output from the digital output terminals.

Troubleshooting Guide

If the unit does not operate properly, check all of the following points, as well as connections and the control positions of all components connected to this unit, before requesting professional servicing. This table does not include checks for mistaken connections or incorrect settings of other components. If the problem is not solved by this table or is not included in the problems listed below, contact your Technics dealer for assistance.

Problem	Causes	Remedy
Disc holder does not close when the open/close button is pressed.	•The disc is warped.	•Replace the disc.
Disc is inserted but number of tracks and playing time are not displayed.	•The lock shaft is in the out position (■). •Disc is inserted upside down. •Disc is dirty. •Disc is scratched. •Disc is seriously warped. •A non-standard disc is inserted. •Moisture has formed inside the player.	•Press to the in (unlocked) position (■). •Insert disc again properly. •Wipe clean with soft cloth. •Use a new disc. •Use a new disc. •Use only discs with the  mark. •Wait about 20 to 30 minutes.
Certain sections of a disc are not played normally.	•The lock shaft is in the out position (■). •Disc is dirty. •Disc is scratched.	•Press to the in (unlocked) position (■). •Wipe clean with soft cloth. •Play disc, skipping over scratched sections (if so desired); otherwise, replace disc.
Even though you turn the search dial, the unit won't search forward or backward.	•The dial search switch is not turned on. [The dial search indicator is not illuminated.]	•Press the dial search switch to turn the dial search indicator on.
Intervals between tracks (songs) are unusually long.	•The auto space button is "on". (The auto space indicator is illuminated.)	•Press the auto space button to cancel this function.
Play stops at the beginning of each track.	•The auto pause button is "on". (The auto pause indicator is illuminated.)	•Press the auto pause button to cancel this function.
There is no elapsed playing time indication on the display panel.	•The display panel is switched to another "time mode."	•Use the time mode button to switch the display to the elapsed playing time indication.
The display panel is too dim.	•The dimmer switch is turned on.	•Press the dimmer switch to return it to the off position (■). The display will return to normal brightness.
Disc is not played normally.	•The controls were not operated as described in the instructions.	•Switch power (mains) OFF and then operate in accordance to instructions.
Remote Control	Remote control commands are not performed.	•No disc is inserted in the holder. •The remote control unit batteries are weak. •The remote control unit is being used in an improper location.
	Disc play starts but the volume level is very low.	•The digital volume attenuation button of the remote control unit is pressed. (The output level indicator goes out.)

Technical Specifications

(Measured by EIAJ [CP-307])

Audio

Number of channels:	2 (left and right, stereo)
Frequency response:	2–20,000 Hz ± 0.3 dB (EIAJ)
Dynamic range:	96 dB (EIAJ)
S/N ratio:	108 dB (EIAJ)
Harmonic distortion:	0.0012% (1 kHz, 0 dB)
Total harmonic distortion:	0.0025% (1 kHz, 0 dB) (EIAJ)
Channel separation:	108 dB (EIAJ)
Wow and flutter:	Below measurable limit
Low-pass filter:	Digital: High resolution digital filter Analog: GIC (Generalized Impedance Converter) active type

Signal Format

Sampling frequency:	44.1 kHz
Correction system:	Technics Super Decoding Algorithm
D-A conversion:	16-bit linear

Pickup

Access time:	1 second (access to the last track)
Light source:	Semiconductor laser
Wavelength:	780 nm
Traverse system:	High-speed linear access system

General

Power supply:	~50/60 Hz, 110–127/220–240 V
Power consumption:	34 W
Output voltage:	2.5 V (at 0 dB) (EIAJ)
Output impedance:	Approx. 600 Ω
Load impedance:	More than 10 k Ω
Dimensions (W×D×H):	43×38.2×12.8 cm (16 $\frac{1}{2}$ ×15 $\frac{1}{32}$ ×5 $\frac{1}{32}$ ") [When disc holder is opened: 50.6 cm (20 $\frac{3}{16}$ ") (D)]
Weight:	9.1 kg (20 lbs.)

Spindle system:

Type:	Brushless DD motor
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Functions

Automatic play:	All tracks
Direct access play:	Track number or index number
Repeat play:	Entire disc or programmed tracks A-B repeat
Search:	Forward/backward track skip Forward/backward manual search •Using the search dial •Using the search buttons
Program play:	For up to 20 selections

Preset edit play:

Up to 99 minutes
(for program play)
Total tracks (up to 99)
Programmed track
Current track

Display:

Time display (min., sec./dB)
Time modes display

Indicators:

Music matrix (20)
Overflow indicator
Disc indicator
Repeat indicator
A-B repeat indicator
(Output level indicator (dB)
(when using remote control unit)
Music scan indicator
Auto space indicator
Auto pause indicator
Play indicator
Pause indicator

Disc loading:

Motor-driven horizontal type

Headphone output level:

100 mW max. 32 Ω (variable)

Headphone plug:

¼ inch stereo

Infrared remote control unit

Dimensions

(W×D×H):

6.5×15.5×1.8 cm

Batteries:

UM-3 "AA" batteries or IEC R6 or equivalent (1.5 V×2)

Weight:

140 g (including batteries)

Specifications are subject to change without notice.

Weight and dimensions are approximate.

(For DENMARK only)

ADVARSEL - Usynligt laserlys udstråles ved åbning. UNDGA DIREKTE BESTRÅLING.

(Indersiden af apparatet)

DANGER-Invisible laser radiation when open. AVOID DIRECT EXPOSURE TO BEAM.

(INSIDE OF PRODUCT)

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Printed in Japan

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