Technics

Compact Disc Player

SL-P10 Series

Operating Instructions



This apparatus was produced to "BS800: 1977"

Before operating this product, please read these instructions completely.

Functions

The operation keys should be used after the search indicator on the display panel has gone out.

Operation key indicators Disc holder and operation key section

Mains switch Power push on

- Press once to turn mains on and again to turn mains off.
- •When mains is turned on, the following indicators light up.
 - Pickup location indicator
 - Time scale indicator
 - Elapsed playing time indicator
 - Track indicator
 - A Stop/Clear indicator

2 Disc holder open/close key (open/close)

- Press this key to insert or remove a disc. When this key is pressed, the disc holder 3 opens.
- Press this key again to close the holder.

O Disc holder

•The disc will be loaded automatically once it has been inserted about half way by hand.

4 Pickup location indicator

 This indicator shows the approximate location of the pickup at all times.

Repeat key (repeat)

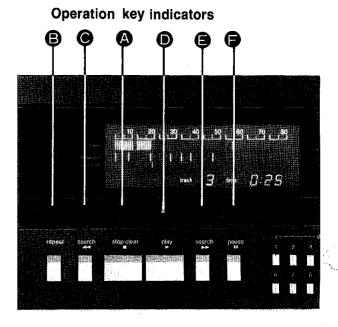
- Press this key to activate the repeat play mode.
- The repeat indicator B lights to show when the repeat mode is activated. Press this key again to cancel the repeat mode. The program function can be used with repeat to play any section of a disc repeatedly.

Reverse search key (◄◄ search)

- Press to move the pickup inward (toward the beginning of the disc).
- The reverse search indicator lights to show when this key is being used.
- •This key has two steps: press gently to move the pickup slowly and firmly to move the pickup rapidly.
- •If this key is pressed when the stop/clear indicator (A) is lit, the pickup will return to the starting position (the beginning of the first track). If the play key (3) is pressed during reverse search operation, disc play will resume at that point.
- •When the reverse search key is pressed during disc play, the pickup will move only as long as the key is held down. Disc play will resume at the point where the reverse search key is released.

Stop/Clear key (■ Stop・Clear)

- Press this key to stop disc play. If this key is pressed during program disc play, the program will be cleared from the memory.
- The stop/clear indicator (A) lights to show when this key has been pressed.



- Press this key to begin disc play. The play indicator lights to show when this key has been pressed.
- •When this key is pressed during disc play, the pickup returns to the starting position and disc play starts again from the beginning. (During program disc play, the pickup returns to the beginning of the program.)

- Press to move the pickup outward (toward the end of the disc).
- The forward search indicator a lights to show when this key is being used.
- This key has two steps: press gently to move the pickup slowly forward and firmly to move the pickup rapidly forward.
- If this key is pressed when the stop/clear indicator (A) is lit, the pickup will advance to the outer edge of the disc (the end of the last track). If the play key(3) is pressed during, forward search operation, disc play will resume at that point.
- •When the forward search key is pressed during disc play, the pickup will move only as long as the key is held down. Disc play will resume at the point where the forward search key is released.

Pause key (II pause)

 Press this key to temporarily stop disc play. The pause indicator lights to show when this key has been pressed.
 To resume disc play, press this key again.

Handling compact discs

Handling precautions ■

Only compact discs identified with this mark can be used with this player.



 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 in their cases.

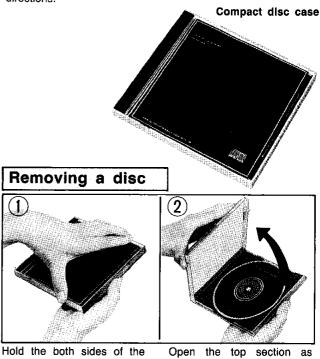
- •Do not bend the disc.
- Do not use record cleaning sprays or static electricity prevention liquids.
- Do not wipe with benzene, thinner or any other solvent. If the surface is soiled, wipe gently with a soft, damp (water only) cloth.
- If the disc is brought from a cold environment into a warm room, dew may form on the disc. Wipe this off with a soft, dry cloth before using the disc.
- Do not write on the label with a ball-point pen, hard pencil or other hard writing utensil.
- Always remove the disc from the disc compartment when you have finished listening to it.

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) Locations with high humidity or a lot of dust.
- Locations directly exposed to a heat outlet or heating appliance.
- 4) In the glove compartment or rear ledge of an automobile.

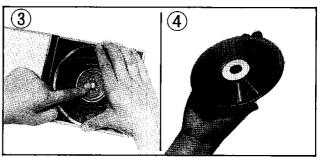
Compact disc storage case

Compact disc cases are standardized worldwide. The directions below on handling cases are the basic rules for all compact discs. Refer to the instructions packed with the disc for further directions.



Hold the both sides of the bottom section with your right hand and the top section with your left hand.

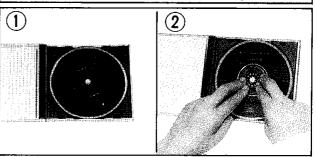
Open the top section as shown. (The disc should be stored with the label facing upward.)



Press down on the spindle hole with left index finger and pick up the disc with your right hand.

Shown here is the recorded information side (shiny silver surface) of the disc.

Replacing a disc in its case



Place the disc in the case so the spindle hole is over the holder.

Press downward to firmly seat the disc in the case.

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Connections

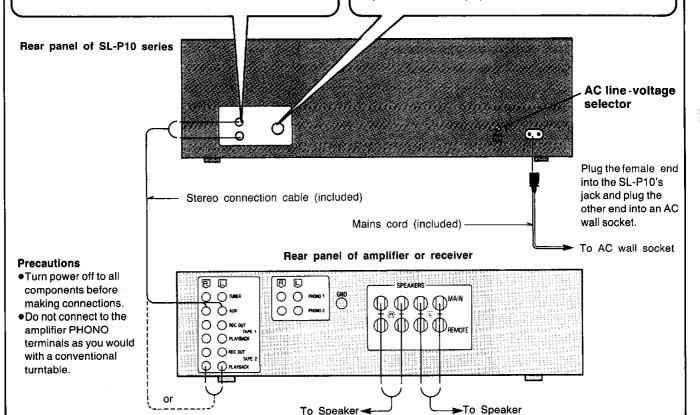
Components other than the SL-P10 series are sold separately.

Line out terminals (LINE OUT)

- •These are the audio output terminals.
- •Connect the line out terminals to the AUX or TAPE PLAYBACK terminals on your amplifier or receiver.

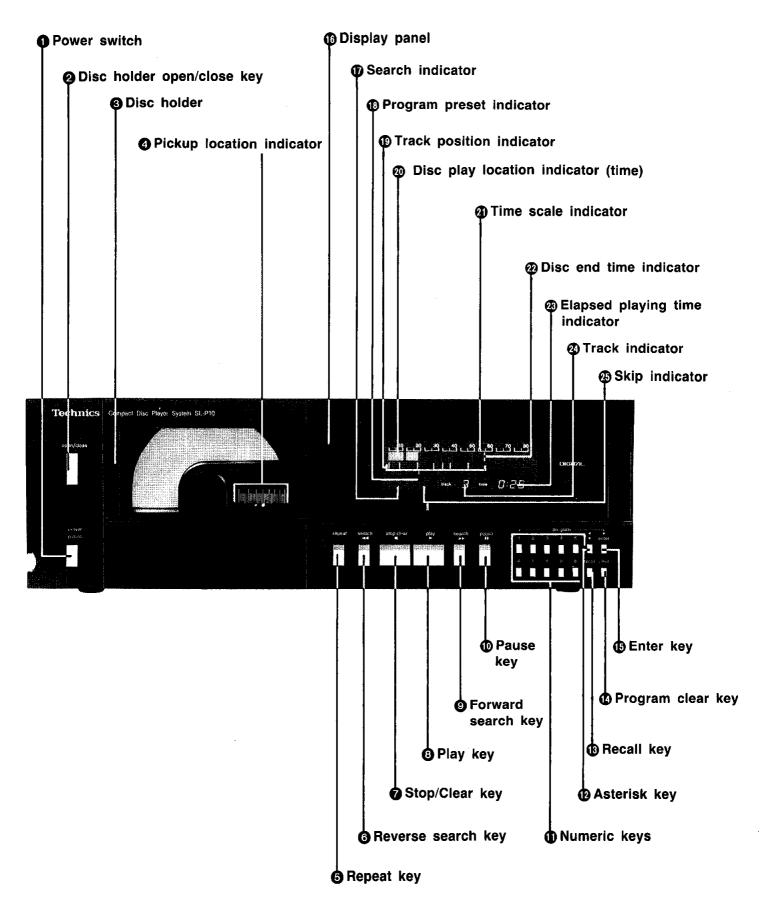
Output level control knob

 This control is set to MAX before shipment. There is no particular need to readjust this control. If desired, it can be turned down to match the output levels of other components (a tuner, for example).



Parts identification

Leave 4 and 5 pages folded out to quickly locate specific sections at any time.



Thank you for choosing the SL-P10 series. For optimum performance and safety, please read these instructions carefully.

Caution for safe use of this apparatus for UK standard model SL-P10:

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**.

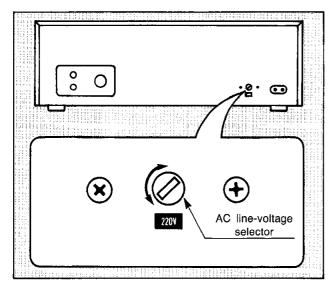
This equipment should be disconnected from the mains when not in use.

AC line-voltage selector

Caution:

Make sure the AC line-voltage selector is matched to your local voltage before plugging in the mains plug.

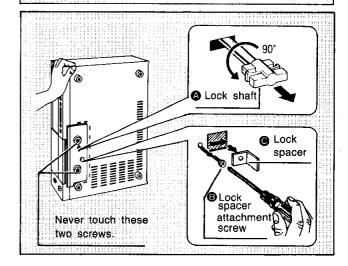
If the pre-selected voltage is different from your local voltage, turn the AC line-voltage selector with a screw-driver so that it corresponds to your local voltage. The AC line-voltage selector is at the back of the unit.



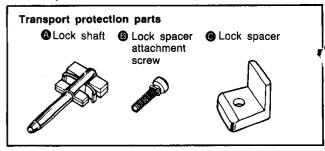
Be sure to disconnect the mains cord before setting the AC line-voltage selector.

Removing packing materials

Remove all the packing materials in the following manner before using this unit for the first time.



- Stand the unit on its side on a soft cloth to protect it from scratches.
- 2. While holding this unit steady with one hand, turn the lock shaft A 90° counterclockwise and pull it out.
- 3. Using a screwdriver, turn the lock spacer attachment screw counterclockwise to remove the screw. Then slide the lock spacer a little to the right and remove it.
- Keep the lock shaft, lock spacer attachment screw and lock spacer for use when you transport the unit again. Follow the reverse procedure to reattach each part.



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.

Programming section

1 Numeric keys

 Use these keys to enter the number of each track to be played and the order in which they are to be played.

•These keys can also be used to enter the starting and finishing points of disc play.

(Disc play can also be started and/or ended in the middle of any track by programming play from X minutes and Y seconds of track Z to A minutes and B seconds of track C.)

 When programming disc play by minutes and seconds, press this key after entering the track number and again after entering the number of minutes.

• Each time this key is pressed during normal disc play, the pickup moves to the beginning of the previous track to permit reverse skip play. Note that the first time this key is pressed, the pickup will return to the beginning of the track being played at that time.

Example: If this key is pressed while the third track is being played, the pickup will return to the beginning of the third track. If the key is pressed again, the pickup will return to the beginning of the second track and normal disc play will start at that point.

•When this key is pressed during program disc play, disc play is returned to the previous program step.

(B) Recall key (recall)

• Press this key to recall the program.

•The current program is shown by the track indicator

and elapsed playing time indicator

.

Program clear key (clear)

• Press this key to clear the program from the memory.

 When this key is pressed during program disc play, the program will be cleared but disc play will continue.

ⓑ Enter key (enter)

• Press this key to enter the program in the memory.

•Each time this key is pressed during normal disc play, the pickup moves to the beginning of the next track to permit forward skip play.

Example: If this key is pressed while the third track is being played, the pickup will advance to the beginning of the fourth track. If the key is pressed again, the pickup will advance to the beginning of the fifth track and normal disc play will start at that point.

 When this key is pressed during program disc play, disc play is advanced to the next program step.

Note:

Up to 63 individual disc play steps can be programmed with the program keys (1), (2), (3), (3).

See the "Program disc play" section on pages 10~11 for details on how to use the various program disc play functions of this unit.

Display panel section

(6) Display panel

 The display panel consists of a large 14×5 cm fluorescent type display.

(Search indicator (Search)

 Lights while the information on the disc (number of tracks, total playing time, etc.) is being read.

 Also lights while the pickup is moving to a new disc play location in either skip play mode or the program play mode.

® Program preset indicator (selection)

• Shows in minutes the starting points of each program. (Lights only when a program exists.)

Track position indicator (location)

•Shows in minutes the locations of each blank section between tracks on the disc.

1 Disc play location indicator (time)

• Shows in minutes the location of the pickup during disc play.

•Use this indicator to follow pickup movement when using either of the rapid search modes (by pressing the forward) or reverse search key firmly).

Time scale indicator

 The scale goes from 0 to 80 minutes in 5 and 10 minute intervals.

2 Disc end time indicator

•Shows the total playing time of the disc.

② Elapsed playing time indicator (time ∏:∏∏)

Shows the position of the pickup in minutes and seconds as disc play progresses.

•When the recall key is pressed, the programmed starting and finishing times (min., sec.) are shown in that order.

•Shows the track number currently being played.

•When the recall key® is pressed, the numbers of the programmed tracks are shown in the order of play.

•If there is a mistake in the program (a program that cannot be executed), an F will be displayed.

An

 is displayed to show when the limit of 63 steps has been programmed.

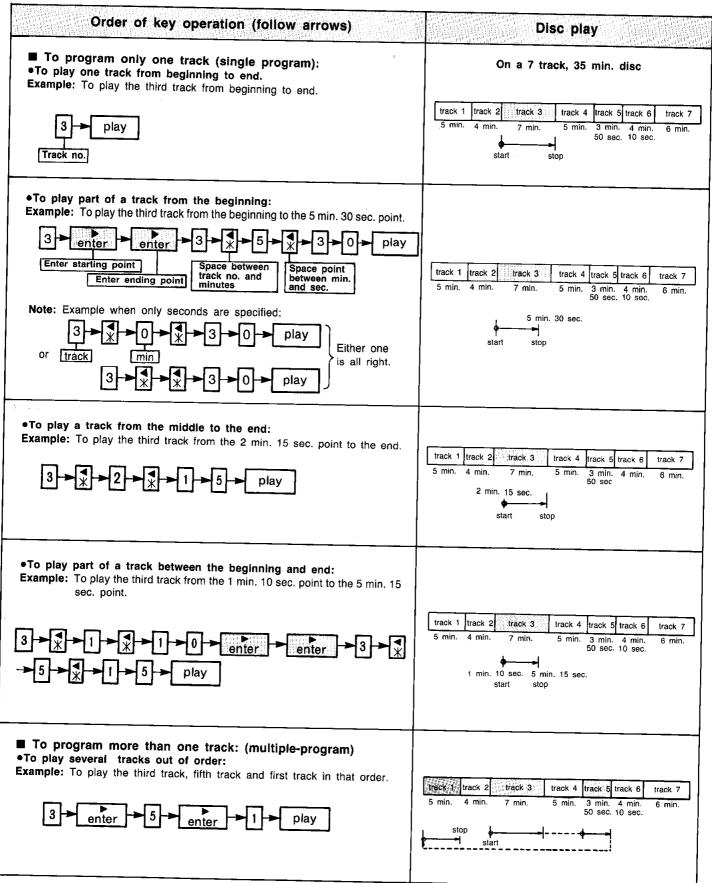
⊕ Skip indicator (Skip)

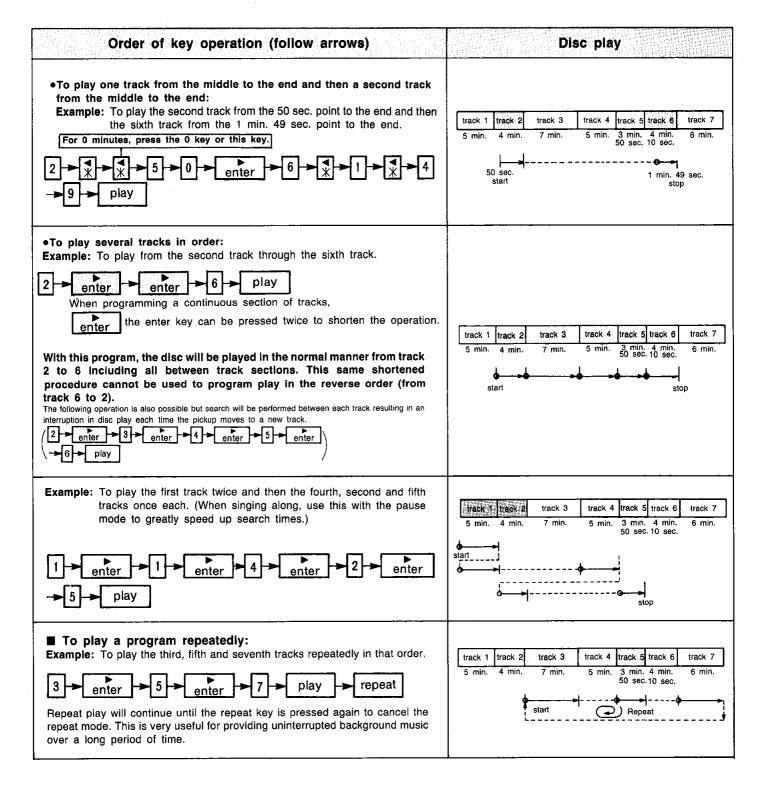
Lights when the asterisk key
 or enter key
 is pressed to perform skip play.

I nading a disc

■ Program disc play

The following examples illustrate the many ways in which the program keys can be used. Remember that up to 63 steps can be programmed in any order to play a disc in almost any manner you can think of.





■ To enter a program during disc play

A new program can be entered while a disc is being played even if the program clear key is not pressed. When the new program is entered, the previous programs will still be erased and disc play based on the new program will begin.

Note:

•When entering a program during disc play, the program keys must be operated without interruption. If there is a gap of more than 20 seconds between the time two program keys are pressed, the new program will not be entered and disc play will continue in the normal manner.

■ To cancel a program

Press the program clear key. The program will be cleared from the memory and disc play will continue in the normal manner.

■ Other disc play functions

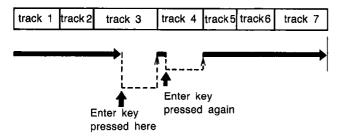
■ To move to the next track or several tracks ahead during disc play (forward skip)

This function is useful to quickly check the contents of a disc.

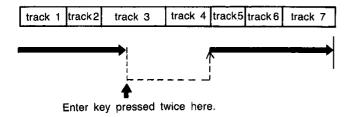
• Press the enter key while a disc is being played.

- The pickup will advance to the beginning of the next track. If the enter key® is pressed during program disc play, the pickup will move to the beginning of the next programmed track.
- •The pickup will advance to the beginning of each successive track each time the enter key® is pressed.

Example 1: When the enter key is pressed while listening to the third track to advance to the beginning of the fourth track and then again to advance to the beginning of the fifth track.



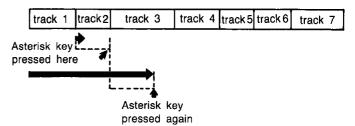
Example 2: To skip directly from the third track to the beginning of the fifth track, press the enter key two times in a row.



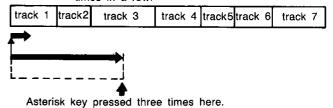
■ To return to the beginning of the present track or any previous track (reverse skip)

- Press the asterisk key
 while a disc is being played. The
 pickup will return to the beginning of the track being played at
 that time.
- •The pickup will now return to the beginning of each previous track each time the asterisk key® is pressed. (During program disc play, the pickup moves to the beginning of the previous programmed track.)

Example 1: When the asterisk key® is pressed while listening to the third track to return to the beginning of the track and then again to return to the beginning of the second track.



Example 2: To skip directly from the third track to the beginning of the first track, press the asterisk key® three times in a row.



■ Memory recall (To check the contents of a program.)

Press the recall key®.

The recall key® can be pressed either during disc play or before disc play is begun. The steps of the program currently stored in the memory will be shown in order by the track indicator® and elapsed playing time indicator® after which the indicators®, ® will return to their normal modes. (The program is displayed only once.)

If the recall key is pressed while programming the ending position of disc play, a dash (-) will appear in the track indicator immediately before the disc play end program position is displayed in the track and playing time indicators.

Example: When programming disc play from the 15 sec. point of track 1 to the 1 min. 20 sec. point of track 5, the two indicators will operate as follows:

Track no. Min. Sec.

D track 1 time 0 : 15 ←Starting point

D track ⊆ time :

(3) track 5 time 1 : 20 ←Ending point

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, please consult your dealer.

Problem	Causes	Remedy
Disc holder does not close when disc is inserted.	●The disc is warped.	●Insert the disc again.
Disc is loaded, but disc holder reopens and track position indicator does not light.	 Disc is inserted with wrong side facing out. Disc is dirty. Disc is scratched. Disc is seriously warped. A non-standard disc is inserted. 	 Insert disc again properly. Wipe clean with soft cloth. Use a new disc. Use a new disc. Use a standard Compact Disc.
Disc play does not begin when play key is pressed.	Packing materials have not been removed. Dew has formed inside the player.	●Remove the packing materials. ●Wait about 20 to 30 minutes.
Certain sections of a disc do not play normally.	Disc is dirty. Disc is scratched.	Wipe clean with soft cloth. Play disc skipping over scratched sections.
Disc play begins but no sound is heard.	●The rear panel output level control is set to MIN.	Raise to the appropriate level.

Precautions

Installation precautions

This unit incorporates many sensitive optical components. To continue reliable performance, avoid using this unit under the following conditions.

- Locations exposed to direct sunlight for long periods of time and other places where the temperature could exceed 104°F (40°C).
- Very cold places. (41°F; 5°C or below)
- Dusty or smoky locations.
- Very humid locations.
- Near a heat outlet or heating appliance.
- When an electrical storm is nearby.
- Locations prone to vibrations.
- Unstable locations. (Place unit on a level spot.)
- Within the reach of children.

Operational precautions

Do not block the ventilation openings.

This unit is equipped with ventilation openings to prevent the internal temperature from rising too high. Therefore, do not operate it with a tablecloth or other covering placed over the top or with the unit placed on a bed, deep carpet or other soft surface. If proper ventilation is obstructed, the internal temperature will rise and the laser diode protection circuit will be activated to shut off the player.

- Do not place heavy objects on top of this unit.
- Handle with care when carrying or storing the unit so it is not subjected to any strong bumps.

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

■ Lens care

There is a precision-made lens in the back of the disc holder 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. Also, never try to touch this lens.

■ Do not place near a tuner or television.

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

Maintenance precautions

■ 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.

Precautions about dew

Dew is often seen as water build-up on the inside of the windows in a warm room on a cold winter day. Dew can also form inside this unit in a similar manner 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 dew forms inside this unit, it may not operate properly. To correct this problem, turn on the power and wait about 20 or 30 minutes for the dew to go away.

Transportation precautions

When moving or transporting this unit follow the instructions on page 2 regarding "Removing packing materials" in the reverse order.

Features

- A complete range of functions and large fluorescent display to take full advantage of all the unique properties of the Compact Disc format and greatly improve ease of operation.
- 2 This Compact Disc Player is made possible by the development of 12 new kinds of ICs and LSIs.
- •The use of ICs and LSIs is a major factor in the successful development of the SL-P10 series.
- Precision digital signal processing circuitry featuring Technics Super Decoding Algorithm.
- Extremely accurate and reliable time base servo circuit
- Newly developed 16-bit high speed D/A converter assures extremely faithful digital-to-analog conversion.
- Extensive use of ICs and LSIs in the highly reliable pickup and motor servo drive circuits.
- Three specially developed microprocessors for advanced functions and reliability.
- High performance mechanism design making full use of the wealth of knowledge gained over our many years of experience in manufacturing some of the best turntables in the world.
- High precision mechanism brings out the full potential of the advanced electronics used in the SL-P10 series.
- Original semiconductor laser forms the heart of the playback system
- Newly developed ultra-compact direct-drive motor for disc turntable drive.
- •"Optical deck" unit featuring precision integrated aluminum diecast chassis.
- Other features
- Handsome design to match other high quality
 Technics audio components.
- Automatic disc loading.

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 instruc-

- Avoid places where there is water or humidity.
 Do not use this unit near a bathtub, washbasin, swimming
 pool, or the like. Damp basements should also be avoided.
- 2. Do not allow water or any foreign object to get inside this

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 indequate.

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.

- 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, vibration-free, level shelf or stand.

Check the voltage rating of this unit before connecting the unit to a power source.

Be sure to connect the unit only to the type of power source 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 or frayed. 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).

Specifications

■ General

Power supply:

 \sim 110/120/220/240 V, 50 or 60 Hz

Power consumption: 60

Output Impedance:

Max. 1.5 volts (adjustable)

Output Impedance: 220 ohms

Load impedance: Dimensions (W×D×H):

more than 5 kohms $43\times31.5\times14.5$ cm

Weight:

10 kg.

■ Audio

S/N ratio:

No. of channels: Frequency response: Dynamic range:

2 (left and right) 4-20,000 Hz ±0.5 dB more than 90 dB more than 90 dB

Total harm. dist.: Channel separation: less than 0.004% (1 kHz, 0 dB)

Wow and flutter:

more than 90 dB quartz accuracy

■ Signal Format

Sampling frequency: Correction system: 44.1 kHz

Technics Super Decoding Algorithm

■ Pickup

Type:

Astigma 3-beam

Objective lens suspension:

Twin parallel suspension Semiconductor laser

Light source:

800 nm

Wavelength:

■ Functions

Search modes: Automatic search

Manual search Program search Skip search

Program functions:

Max. of 63 steps (location of beginning of tracks, selection of starting

and ending positions)

Display functions:

14×5 cm fluorescent display with centralized control. Time scale, track position, pickup location, playing time, program location, track, elapsed time and program contents indication

Operation keys:

Basic keys: 7 Program keys: 14

Disc loading:

Front type, automatic loading

Reference

■ Compact Disc specifications

Diameter:

12 cm 0.12 cm

Thickness: Spindle hole:

1.5 cm

Min. inside diameter of

recorded section:

5 cm

Max. outside diameter

of recorded section:

11.6 cm

(disc is played from the inside to the outside edge)

Counterclockwise (seen from re-

Direction of rotation:

corded side of disc)

1.2 to 1.4 meters/second, CLV (Constant Linear Velocity)

Rotations
Playing time:

Tracking speed:

About 500 to 200 rpm

About 60 minutes (up to 75 min. can

, , ,

be contained) 1.6 μm

Track pitch: Material:

Clear plastic

P.O. Box 288, Central Osaka Japan