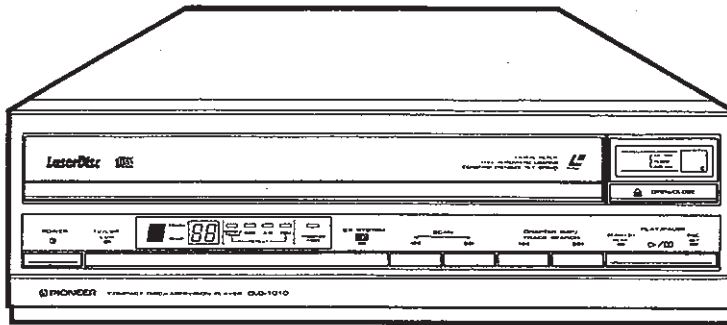


**Operating
Instructions**

**COMPACT DISC/
LASERVISION PLAYER**

CLD-1010 NTSC



Thank you for buying this Pioneer product. Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference. In some countries or regions, the shape of the power plug and power outlet may sometimes differ from that shown in the explanatory drawings. However, the method of connecting and operating the unit is the same.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

IMPORTANT NOTICE

[For U.S. and Canadian models]

The serial number for this equipment is located on the rear panel. Please write this serial number on your enclosed warranty card and keep it in a secure area. This is for your security.

[For Canadian model]

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

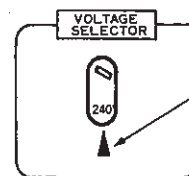
ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

LINE VOLTAGE SELECTOR SWITCH

Only multi-voltage models are provided with this switch. U.S., Canadian, European, U.K., and Australian models are not provided with this switch.

A 4-point (110V/120-127V/220V/240V) voltage selector switch is located on the rear panel of the player. Check that it is set properly before plugging the power cord into an AC outlet. If the voltage is not properly set or if you move to an area where the voltage supply differs, adjust the selector switch as follows:

1. Disconnect the power cord.
2. Use a medium-sized (flat blade) screwdriver. Insert the tip of the screwdriver into the groove of the selector switch and turn it to set the player to the power voltage of your area.



Point arrow to power voltage of your area (Figure shows arrow pointing to 240 volts.)

SAFETY INSTRUCTIONS

READ INSTRUCTIONS — All the safety and operating instructions should be read before the appliance is operated.

RETAIN INSTRUCTIONS — The safety and operating instructions should be retained for future reference.

HEED WARNINGS — All warnings on the appliance and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS — All operating and use instructions should be followed.

CLEANING — Unplug this video product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

ATTACHMENTS — Do not use attachments not recommended by the video product manufacturer as they may cause hazards.

WATER AND MOISTURE — Do not use this video product near water — for example, near a bathtub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.

ACCESSORIES — Do not place this video product on an unstable cart, stand, tripod, bracket, or table. The video product may fall, causing serious injury to a child or adult, and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the video product. Any mounting of the appliance should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

VENTILATION — Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the video product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the video product on a bed, sofa, rug, or other similar surface. This video product should never be placed near or over a radiator or heat register. This video product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

POWER SOURCES — This video product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your appliance dealer or local power company. For video products intended to operate from battery power, or other sources, refer to the operating instructions.

POLARIZATION — This video product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

POWER-CORD PROTECTION

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

LIGHTNING — For added protection for this video product receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the video product due to lightning and power-line surges.

POWER LINES — An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

OVERLOADING — Do not overload wall outlets and extension cords as this can result in the risk of fire or electric shock.

OBJECT AND LIQUID ENTRY — Never push objects of any kind into this video product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the video product.

SERVICING — Do not attempt to service this video product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

DAMAGE REQUIRING SERVICE

Unplug this video product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged.
- If liquid has been spilled, or objects have fallen into the video product.
- If the video product has been exposed to rain or water.
- If the video product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the video product to its normal operation.
- If the video product has been dropped or the cabinet has been damaged.
- When the video product exhibits a distinct change in performance — this indicates a need for service.

REPLACEMENT PARTS — When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or having the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

SAFETY CHECK — Upon completion of any service or repairs to this video product, ask the service technician to perform safety checks to determine that the video product is in proper operating condition.

OUTDOOR ANTENNA GROUNDING — If an outside antenna is connected to the antenna terminal, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.

In the U.S.A. section 810 of the National Electrical Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

See Fig. A.

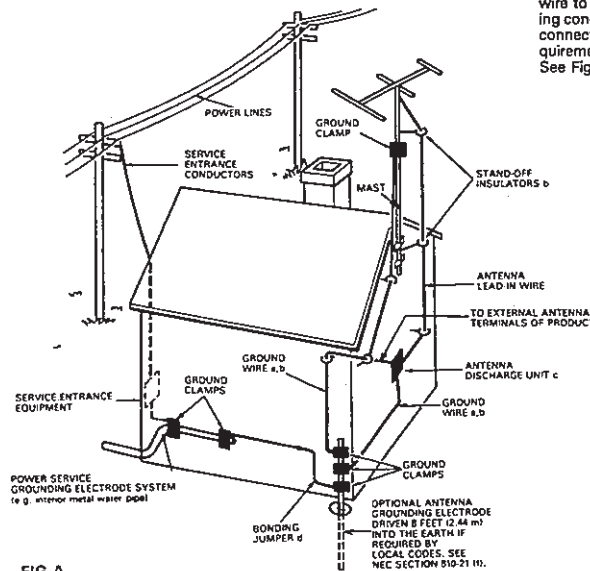


FIG. A.

- Use No. 10 AWG (5.3 mm²) copper wire, No. 8 AWG (8.4 mm²) aluminum wire, No. 17 AWG (1.0 mm²) copper-clad steel wire, bronze wire or larger wire as ground wire.
- Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4 feet (1.22 meters) to 6 feet (1.83 meters) apart.
- Mount antenna discharge unit as closely as possible to where lead-in enters house.
- Use jumper wire not smaller than No. 6 AWG (13.3 mm²) copper, or the equivalent, when a separate antenna-grounding electrode is used. See NEC Section 810-21 (1).

IMPORTANT 1



The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of 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.



CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CONTENTS

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[FOR U.S. MODEL]

CAUTION

- Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
- The use of optical instruments with this product will increase eye hazard.

- This player may be used with LaserVision Discs and Compact Discs bearing the following symbols:

(LaserVision Disc)



LaserVision

This is the unified symbol mark of LaserVision videodisc

- LaserVision players and discs which bear this symbol and use the same television system, are mutually compatible.
- ** This player is to be used exclusively with the NTSC color system. Please use NTSC LaserVision discs only. PAL and SECAM system LaserVision discs cannot be used with this player.

(Compact Disc)



FEATURES


AUTO LOADING FUNCTION WITH AUTOMATIC DISCRIMINATION OF COMPACT DISC/LASER-VISION DISC

The disc table is automatically opened and closed by the motor drive, so mounting and removing discs is simple. When the disc table is pulled into the player, the player automatically detects the disc and plays it.

CX NOISE REDUCTION SYSTEM

When use is made of CX encoded LaserVision discs, an expanded dynamic range and greatly increased signal to noise ratio are obtained.

EXTERNAL CONTROL

The player is provided with control input/output terminals. These enable it to be controlled by or connected into systems comprising products with the PIONEER  mark.

LINEAR SERVO SYSTEM DURING COMPACT DISC PLAYBACK

The player employs a linear servo system in which any scratches or dirt are detected by a preceding beam. This allows jumping of playback due to dirt or scratches to be avoided.

MULTI-FUNCTIONAL WIRELESS REMOTE CONTROL

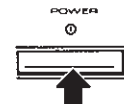
The remote control unit that comes with this player enables you to operate it from a distance. This remote control has large keys for the most common operations, play, fast forward, and fast reverse, in the center and operation keys grouped by operation for setting the state of the player, special playback, search, and programming, etc. to make the player easier to operate with the remote control.

DIGITAL FILTER

A double oversampling digital filter is used in the audio circuits to eliminate the need for a high-order low-pass filter and provides an audio characteristic with a low distortion ratio and low phase drift up to the 20-kHz region.

WHEN TRANSPORTING THE PLAYER, Transport the Player in CD Mode

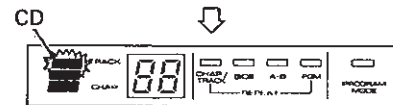
When moving house etc., transport the player after first putting it into Compact Disc playback mode (so that the CD indicator lights), and then switching off power.



From CD mode,
switch off the power.

If the Player is Not in CD Mode,

Insert a Compact Disc, and when the CD indicator lights, eject and remove the disc. Press the PLAY/PAUSE or OPEN/CLOSE button to retract the disc table and begin playback, and after the PLAY indicator stops flashing, switch off the power.

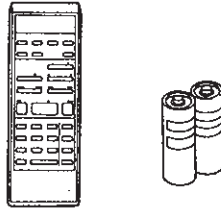


After the PLAY indicator stops flashing,
switch off the power.

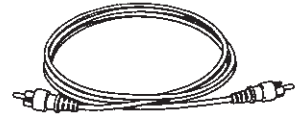
CONFIRMATION OF ACCESSORIES

THE FOLLOWING ACCESSORIES ARE SUPPLIED WITH THIS PLAYER.

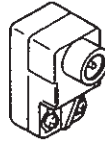
- Remote control unit
- Size "AAA" (IEC R03) dry battery x 2



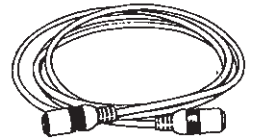
- Video cord
(Pin plug ↔ Pin plug)
Use to connect the player to a color monitor etc.



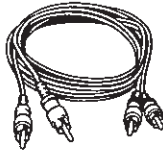
- Antenna adaptor
(75 Ω/300 Ω → 75 Ω F)
Use to connect a VHF antenna cable to the antenna terminal of the player.



- RF cord
(J-type plug ↔ J-type plug)
Use to connect the player to a TV set.



- Audio cord
(Pin plug x 2 ↔ Pin plug x 2)
Use to connect the player to a stereo amplifier etc.

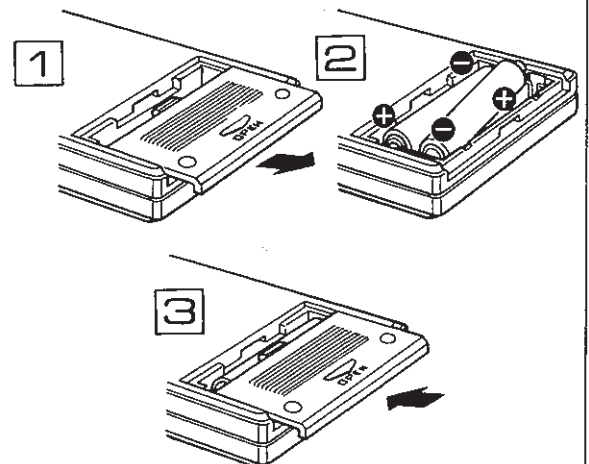


- Operating instructions
- Warranty card
- F-type jack — IEC plug adaptor (U.S. Military model only)



PUTTING BATTERIES INTO THE REMOTE CONTROL UNIT

1. Open the battery compartment cover on the rear of the remote control unit. The cover should open easily if you press on it with your thumb while sliding it in the direction of the arrow.
2. Take out the two accessory size "AAA" (IEC R03) dry batteries, and insert them into the battery compartment in accordance with the indications in the compartment.
3. Close the cover of the battery case.



Incorrect use of batteries may lead to leakage or rupture. Always be sure to follow these guidelines:

- A. Always insert batteries into the battery compartment correctly matching the positive (+) and negative (-) polarities, as shown by the display inside the compartment.
- B. Never mix new and used batteries.
- C. Batteries of the same size may have differing voltages, depending on brand. Do not mix different brands of batteries.
- D. Both rechargeable and non-rechargeable batteries are available. Be sure to use your batteries in accordance with the caution labels affixed to them.

PRECAUTIONS

INSTALLING THE PLAYER

- Choose a stable platform next to the television and stereo system with which you plan to use the player.
- When using the player with a stereo system, your speakers should be installed somewhat separated from your television (or TV monitor).
- Do not place heavy objects such as your television or TV monitor on top of the player.
- Do not place the player on top of your TV set or TV monitor. Also, keep the player away from devices such as cassettes decks which are sensitive to magnetic fields.

When FM or AM stations are being received, signal noise may be generated if the player is turned on. Turn off the player when not in use.

Also, if there is signal noise when receiving radio stations with an indoor antenna, adjust the position or direction of the antenna.

INSTALL THE PLAYER IN A WELL VENTILATED PLACE AWAY FROM HEAT AND HUMIDITY

Do not install the player in a location subject to direct sunlight, or near a stove or radiator etc. This could adversely affect the cabinet and internal components. Also avoid installing the player in a humid or dusty location. This could result in a malfunction or accident. Do not install near cooking ranges where the player could be affected by smoke, steam, or heat.

AVOID SOURCES OF HEAT

Do not put the player on sources of heat, such as an amplifier. When installing with audio components on a rack, avoid components that generate heat such as amplifiers, by placing the player below such components where there is adequate ventilation with little dust.

Avoid placing the player on surfaces such as shaggy carpets, beds, and sofas which may block ventilation under the player and cause damage.

CAUTIONS FOR AUTOMATIC LOADING OPERATIONS

Since this player has an automatic loading construction, use the keys on the player or the remote control keys for removal and insertion of the disc table. To avoid damage, be careful not to apply any force to the moving disc table.

CONDENSATION

Moisture will form in the operating section of the player and the player's performance will be impaired if the player is brought from cool surroundings into a warm room or if the temperature of the room rises suddenly.

To prevent this, let the player stand in its new surroundings for about an hour before switching it on, or ensure that the room temperature rises gradually.

The same symptoms of condensation may be caused during summer, if the player is exposed to the breeze from an air conditioner. In such cases change the location of the player.

CLEANING CARE

Use a soft, dry cloth for cleaning. For stubborn dirt, rinse the cloth in a weak detergent solution, wring well, then wipe. Use a dry cloth to wipe it dry. Do not use any volatile agents such as benzene and paint thinner, as it may damage the surface of the player.

LASERVISION VIDEODISCS

The CLD-1010 can play both LaserVision discs and Compact Discs. Unlike conventional phonograph records, these discs are played back from the inside edge out.

LaserVision discs are available as both standard play discs and extended play discs. Discs with digitally recorded sound are also available.

STANDARD PLAY (CAV) DISC

Standard play discs are played at constant angular velocity (CAV). Still-frame and other forms of trick playback are possible with these discs.

EXTENDED PLAY (CLV) DISCS

These discs are played back at constant linear velocity (CLV), and are therefore able to play for a longer length of time than standard play discs. Extended play discs cannot be used for trick playback, but random access and repeat playback etc. are possible.

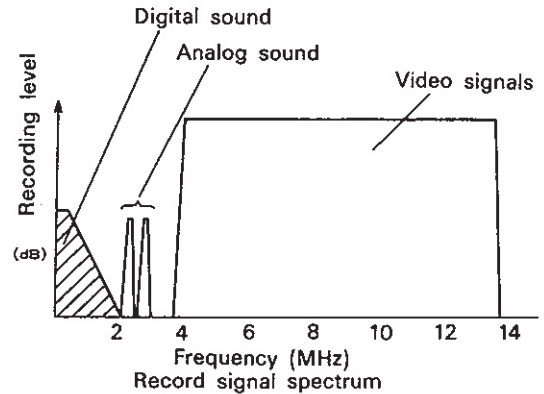
LASERVISION WITH DIGITAL SOUND DISCS



The jackets and labels of these discs bear the symbol on the left.

In addition to conventional analog sound signals, LaserVision with Digital Sound Discs also have recorded on them the same kind of PCM sound signals that are recorded on Compact Discs. With these discs, the high quality pictures of LaserVision discs and digital sound, can be enjoyed at the same time.

The two types of sound, digital and analog, are recorded onto the discs using different frequency bands.



CARE OF DISCS

How to hold discs

When loading or removing discs, try not to touch their playing surfaces.

How to hold the LaserVision Disc

Holding with both hands... Hold the disc by its edges with both hands, as shown in Fig. A.

Holding with one hand... As shown in Fig. B, hold the disc by its center hole and one edge.

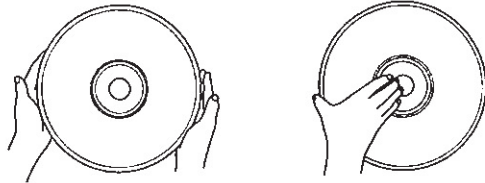


Fig. A

Fig. B

How to hold the Compact Disc

Hold the disc by its edges as shown in Fig. C

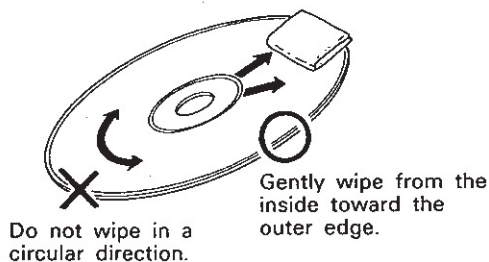


Fig. C

Cleaning

The presence of fingerprints or other dirt etc. on the disc, will not directly affect the recorded signal. Nevertheless, dirt on the disc will cause the brightness of the light reflected from the signal surface to be reduced, which may adversely affect sound and picture quality. If a disc is dirty, clean the disc before playing it.

To clean your discs, use a soft clean cloth to wipe them. If necessary, moisten a soft cloth with diluted neutral detergent to remove heavy dirt or fingerprints.



Do not wipe in a circular direction.

Gently wipe from the inside toward the outer edge.

Discs may not be cleaned with record cleaning sprays, or static prevention sprays etc. Also do not use volatile liquids such as benzene, or thinner etc.

Do not use damaged discs

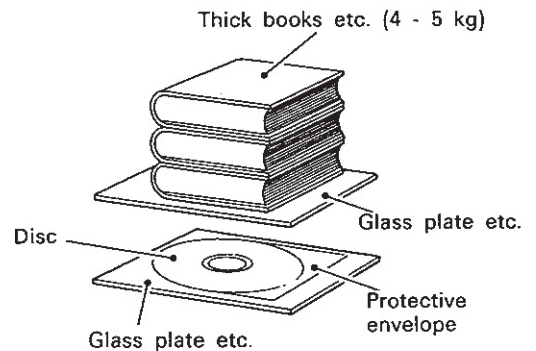
Do not use damaged discs that are warped or cracked etc. This may result in damage to the player.

After using discs, store them vertically upright

After playing a disc, always remove it from the player and return it to its jacket. Then store it standing vertically upright away from heat and humidity.

- Take care when storing discs. If you store discs at an angle, or stacked on top of each other, discs may become warped even when in their jackets.
- Do not leave discs in locations such as the seat of car, which may become unbelievable hot.

If a disc becomes warped, put the disc into its protective envelope, and then place it between flat plates made of glass etc. Then place thick books etc. on top of the plates so as to apply a weight of 4 to 5 kg, and leave the disc like this for a day or so. This may alleviate the warp.



Thick books etc. (4 - 5 kg)

Glass plate etc.

Disc

Glass plate etc.

Protective envelope

CAUTION WHEN USING THE DISC

All rights reserved.

Unauthorized public performance, broadcasting or copying is a violation of applicable laws.

REAR PANEL FACILITIES

ANTENNA terminal (75 Ω F-type jack)

Connect the coaxial cable (75 Ω) from the VHF TV antenna to this terminal.

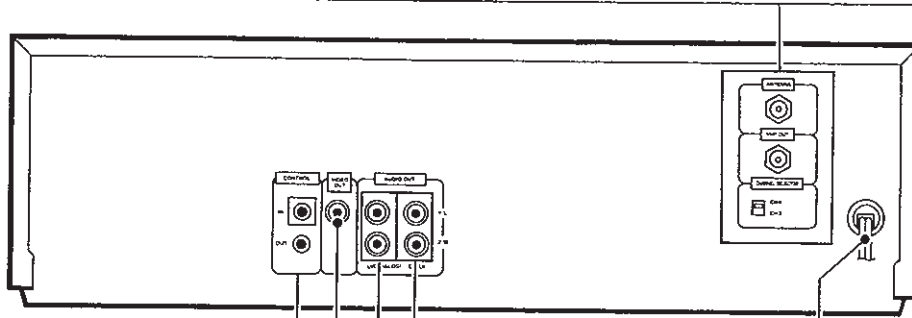
VHF OUT terminal (75 Ω F-type jack)

Connect this terminal to your TV set's VHF antenna terminal.


VHF CHANNEL SELECTOR (CH3/CH4)

This switch is for switching the internal VHF converter.

Set to the channel which is not used for TV broadcasts in your area.



CONTROL IN and OUT terminals (miniature phone jack)

These terminals are for communication of control codes, when the player is used together with other Pioneer products with the Pioneer  mark.

VIDEO OUT terminal (RCA jack)

Connect this jack to a TV monitor or a TV set which is provided with a video input terminal.

LV (ANALOG) AUDIO OUT terminals (RCA jacks)

These terminals output the analog audio only of LaserVision Discs. Connect them to the AUX input terminals etc. of your stereo amplifier.

Do not connect these terminals to your amplifier PHONO input.

These terminals do not output the digital sound from Compact Discs or LaserVision with Digital Sound Discs.

CD/LV AUDIO OUT terminals (RCA jacks)

These terminals output Compact Disc audio, LaserVision Disc audio (analog) and the audio for LaserVision with Digital Sound Discs. Selection of either digital or analog sound can be made by operating a button on the front panel.

Connect these terminals to the CD or AUX input terminals etc. of your stereo amplifier.

Do not connect them to your amplifier PHONO input.



Power cord

Connect this to a power outlet.

ABOUT THE AUDIO OUTPUT TERMINALS

This player is equipped with two sets of audio output terminals.

As shown in the table below, the CD/LV terminals are able to output all the audio signals that can be played back by the player.

Type of Disc	Playback Sound	Output Terminals
Compact Disc	Digital	CD/LV
LaserVision with Digital Sound Discs (Discs with the  mark)	Digital	CD/LV ← Can be selected with the AUTO DIGITAL/ANALOG key on the remote control unit.
	Analog	CD/LV ← LV(Analog)
LaserVision Discs (Discs without the  mark)	Analog	CD/LV LV(ANALOG)

For ordinary operation, connect the CD/LV terminals to your amplifier.

The LV (ANALOG) terminals are provided for developmental use. They do not need to be used for ordinary operation.

For details regarding selection of either digital sound or analog sound when playing back LaserVision with Digital Sound Discs, please refer to page 21 "AUDIO REPRODUCTION".

NOTE:

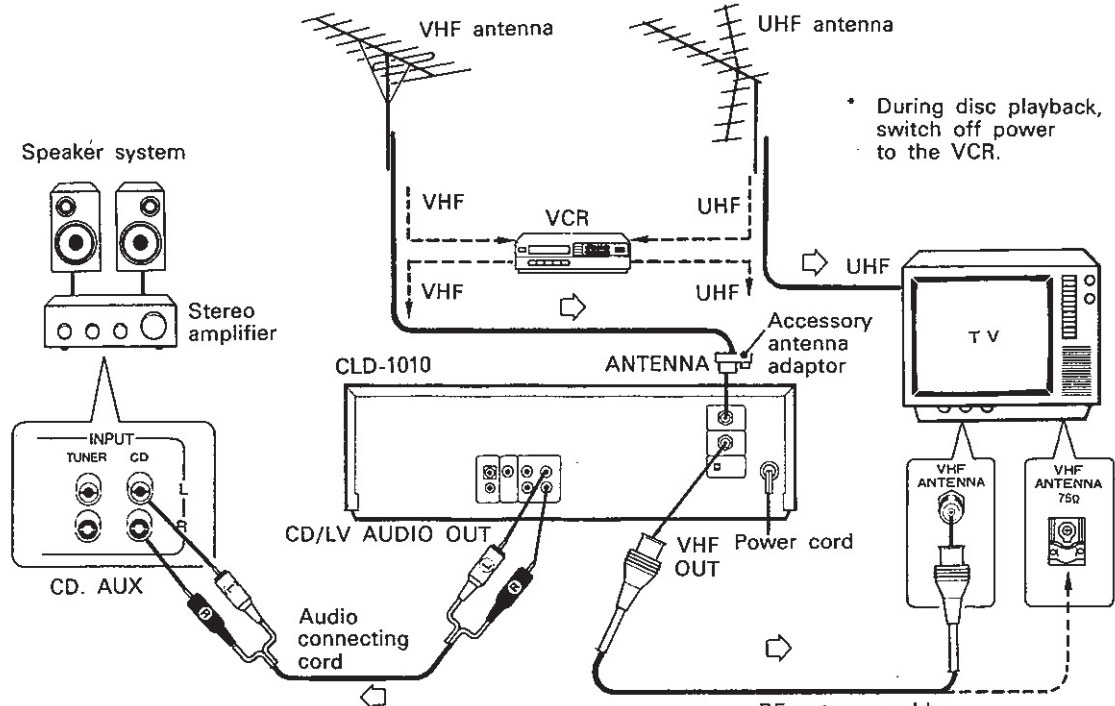
The sound output from the VHF output terminal is analog sound. When a TV set is connected to the VHF output terminal, it cannot be used to listen to Compact Disc sound, or to the digitally recorded sound on LaserVision with Digital Sound Discs.

CONNECTIONS

BASIC COMBINATION

CLD-1010 + TV set + Stereo system + (VCR)

When making connections, switch off power to the player and other units to be connected, and remove the plugs of each unit from the power outlets. Switch on power after connections have been made.



1. VHF TV ANTENNA CONNECTION

Detach the VHF antenna cable from the VHF antenna terminal on your TV set, and connect the cable to the ANTERNA terminal on the player.

If the end of the cable does not match the ANTERNA terminal, attach the accessory antenna adaptor.

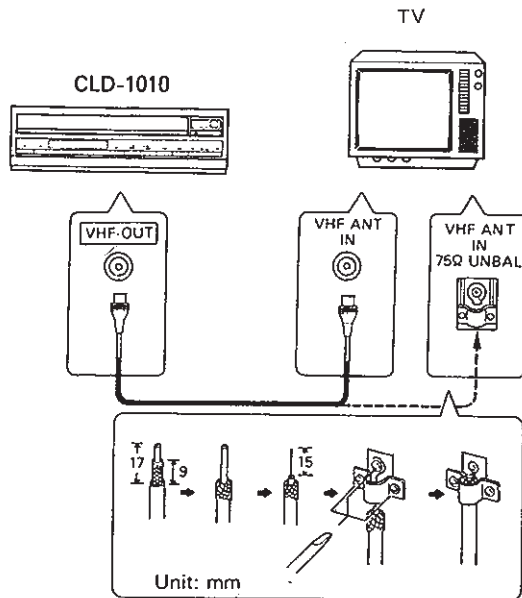
RF antenna cable
To obtain a good picture quality, keep RF antenna cable away from power cord.

Mounting the antenna adaptor

<p><With a 75 Ω coaxial cable></p>		<p><With a 300 Ω parallel feeder></p>	
<p>① Prepare the end of the cable.</p>	<p>② Remove the cover.</p>	<p>① Prepare the end of the feeder.</p>	
<p>③ Remove the leads (thus making the terminal a 75-ohm adaptor).</p>	<p>④ Attach the coaxial cable.</p>	<p>② Attach the cable to the 300 Ω terminal.</p>	
<p>⑤ Replace the cover.</p>	<p>Loosen the screw, clamp the feeder cable and tighten up the screw.</p>	<p>③ Remove the leads (thus making the terminal a 75-ohm adaptor).</p>	
<p>Unit: mm</p>	<p>Remove this wire.</p>	<p>Unit: mm</p>	

2. CONNECTING TO YOUR TV SET

Connect the VHF OUT terminal of the player to the 75 Ω VHF antenna terminal of your TV set with the accessory RF antenna cable. If the VHF antenna terminal of your TV set is not an F type terminal, modify one end of the cable.



75 Ω coaxial cable preparation

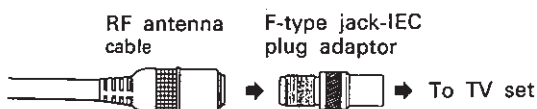
1. Strip the end of the cable as shown in step 1.
2. Prepare the end as shown in steps 2 and 3.
3. Loosen the three screws and insert the cable.
4. Tighten the three screws firmly.

NOTE:

- Push the plug in firmly. If the plug is not properly pushed in, this may result in snow on the screen or noise.
- The shape of the VHF antenna input terminal and the method of connecting the antenna cable may differ from one TV set to another. For details, please refer to your TV instruction manual.
- The sound output from the VHF OUT terminal is Laser-Vision Disc analog sound. This terminal does not allow the playback of digital sound or Compact Disc sound.

[FOR U.S. MILITARY MODEL]

If the VHF antenna input terminal of your TV set is an IEC terminal, install the accessory F-type jack-IEC plug adaptor to one end of the RF antenna cable and connect it to the TV set.



3. SET THE CHANNEL SELECTOR SWITCH

If channel 3 is not being used for broadcasts in your area, set the channel selector switch to the channel 3 side, or if channel 4 is not being used, set the switch to the channel 4 side. The setting you choose will be the disc playback channel.

4. CONNECTING TO YOUR STEREO AMPLIFIER

Connect the CD/LV audio output terminals of the player to the AUX or CD input terminals etc. of your stereo amplifier.

NOTE:

- Do not connect these terminals to your amplifier PHONO input terminals.
- The LV (ANALOG) audio output terminals do not output the digital sound from Compact Discs or LaserVision with Digital Sound Discs.

5. PLUG THE POWER CORDS INTO AC OUTLET

Plug the AC power cords of the player, stereo amplifier and TV set into an AC outlet.

[NOTE FOR U.S. MILITARY MODEL]

Please check that the VOLTAGE SELECTOR is set properly.

WHEN USING A TV MONITOR (OR A TV SET WITH VIDEO AND AUDIO INPUT TERMINALS)

Connect the VIDEO OUT terminal of the player to the video input terminal of the TV monitor (or TV set). Connect the CD/LV audio output terminals of the player to the AUX or CD terminals etc., of your stereo amplifier.

WHEN COMBINED WITH OPTIONAL PIONEER PROJECTION MONITOR (or COMPONENT DISPLAY):

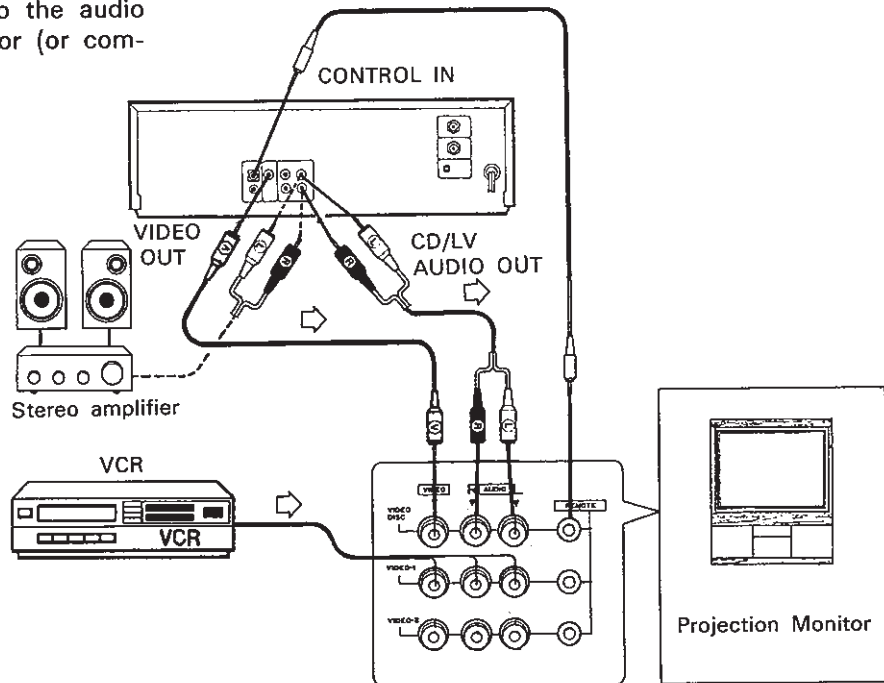
Connect the VIDEO OUT terminal of the player to the video input terminal of the projection monitor (or component display), and connect the CD/LV audio output terminals of the player to the audio input terminals of the projection monitor (or component display).

(System Control)

By connecting the control input terminal of the player to the remote terminal of the projection monitor (or component display), the system can be controlled by aiming the remote control unit of the player at the remote control receiver of the projection monitor (or component display).

- To use the CONTROL IN terminal, make use of a miniature phone plug cord.

Please also refer to the operating instructions for the projection monitor (or component display).



NOTE:

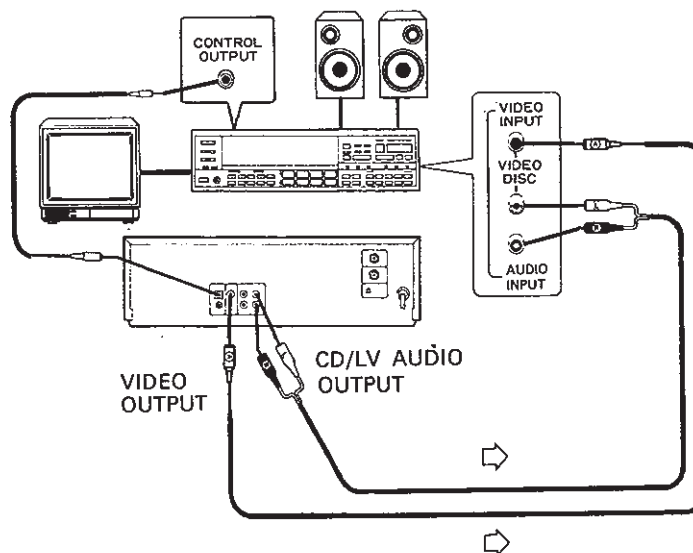
When system control connections have been made, the player can not be directly controlled by the remote control unit. To operate the player, aim the remote control unit at the projection monitor (or component display).

WHEN CARRYING OUT SYSTEM CONTROL WHEN THE PLAYER IS COMBINED WITH A PRODUCT WITH THE PIONEER SR MARK:

When the player is combined with an AV receiver or AV master amplifier (optional), which can provide centralized control of Pioneer products with the SR mark, system control can be carried out. Connect the VIDEO OUT terminal of the player to the video disc video input terminal of the stereo receiver (or amplifier), and connect the CD/LV audio output terminals of the player to the audio input terminals of the stereo receiver (or amplifier). Connect the CONTROL OUT (OUTPUT) terminal of the stereo receiver (or amplifier) to the CONTROL IN terminal of the player, using a miniature phone plug ↔ miniature phone plug connecting cord. For details concerning method of connection and operation, please refer to the operating instructions for your stereo receiver (or amplifier).

NOTE:

When a connecting cord has been connected to the CONTROL IN terminal, direct control of the player with the remote control unit is not possible. Operate the player with the remote control unit by aiming it at the AV receiver or AV master amplifier.



PANEL AND REMOTE CONTROL UNIT FACILITIES

[PLAYER FRONT PANEL]

DOOR

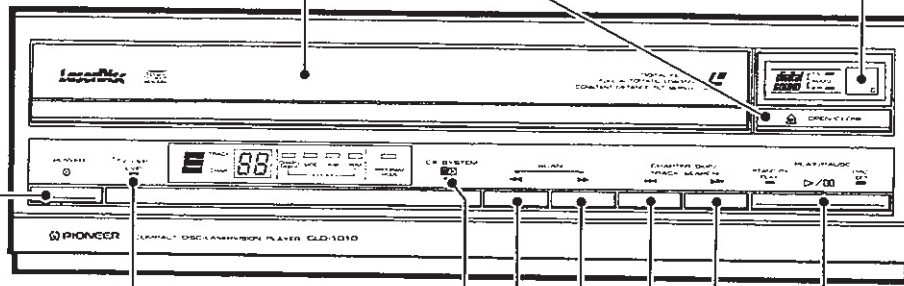
When power is switched on, and OPEN/CLOSE button is pressed, the door opens downward, and at the same time, the disc table is expelled outward a specified distance.

POWER button and indicator

OPEN/CLOSE () button

This button is used to open and close the disc table. Setting a disc on the disc table then pressing this button retracts the disc table in to the player and begins play of the disc. Pressing this button during play stops play and extends the table from the player.

REMOTE SENSOR window



TV/LVP indicator

This indicates whether the pictures on the TV connected to the rear panel VHF OUT terminal, are being played back from the disc or received from the TV broadcasting station.

ON : LaserVision Disc or Compact Disc playback

OFF : VHF TV broadcast reception

After switching on power the indicator is ON, indicating selection of disc playback.



CX SYSTEM indicator (For LaserVision Disc playback only)

Lights when the CX noise reduction system is operating.



CX is a trademark of CBS Inc.

This player meets the CX EXPANDING SPECIFICATION.

SCAN (,) buttons

After play has begun, the disc is fast forwarded as long as the  button is held down or fast backwarded as long as the  button is held down. There are two speeds. The first two seconds while one of the scan buttons is held down the scanning is at low speed, then it is at high speed.

CHAPTER SKIP/TRACK SEARCH (,) buttons

- This is used to move to the head of the chapter for a LaserVision disc or the head of the track for a compact disc.
- Pressing the  button during entry of a program for programmed play cancels the last number input. Pressing this button again cancels the number entered before that. Each time this button is pressed, the last number still retained is cancelled (edit function). The  button has no effect during program input.

PLAY/PAUSE (/) button

- Setting a disc on the disc table then pressing this button retracts the disc table into the player and begins play of the disc.
- Pressing this button while the disc is stopped begins play of the disc.
- Pressing this button during play pauses the play. Pressing this button again restarts the play from the point at which it was paused.
- Press this button to begin chapter programming.

PROGRAM MODE indicator
Shows that the player is in program playback mode.

Numeric display

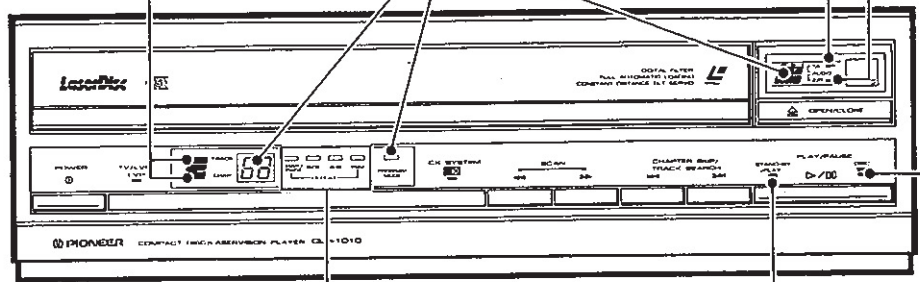
- When playing back a LaserVision Disc, displays the "chapter" number presently being played back.
- When playing back a Compact Disc, displays the "track" number presently being played back.

COMPACT DISC (CD) indicator
Lights during Compact Disc playback mode.
LASERVISION DISC (LV) indicator
Lights during LaserVision Disc playback mode.

DIGITAL SOUND indicator
Lights at the following times to indicate that audio signal output from the CD/LV audio terminal on the rear panel is digitally recorded sound:

- During Compact Disc playback.
- During playback of a LaserVision with Digital Sound Disc.

AUDIO indicators
(For LaserVision Disc playback only)
These indicate the audio channels being played back. When power is switched on, both 1/L and 2/R light up, indicating stereo mode.



CHAP./TRACK REPEAT indicator

- During playback of a LaserVision Disc, lights when chapter repeat playback is selected.
- During playback of a Compact Disc, lights when track repeat playback is selected.

SIDE REPEAT indicator
Lights when repeat play of one side of a disc is selected.

A-B REPEAT indicator
Lights when repeat play of an interval between two points A and B is selected.

PROGRAM REPEAT indicator
This indicator shows that the player is in program repeat play mode.

STAND-BY/PLAY indicator
This indicator lights up when the disc is being played and blinks during stand-by.
Lights up: during play mode (normal playback)
Blinks:

- From the time the PLAY key is pressed until the playback actually begins.
- After the playback is over until the disc stops.
- During the time that the table is extended from the player for removing or changing the disc. This indicator also blinks during operations such as search and skip.

DISC SET indicator
Lights up when there is a disc in the player.

[REMOTE CONTROL UNIT]

The accessory remote control unit can be used during playback of both LaserVision discs and Compact Discs.

- The functions shown in black are used for LaserVision Discs only.
- The functions shown in green are used for Compact Discs only.

Keys appearing in other colors have the same functions for both kinds of disc.

CX key
This is the on/off key for the CX noise reduction system.

AUDIO MONITOR key
Switches the audio channel. When the player is first turned on, the audio is stereo and the 1/L and 2/R AUDIO indicators are both lit up. Each time this key is pressed, the audio channel moves one step through the sequence: 1/L → 2/R → Stereo → 1/L ...
(See Page 21 "Audio Reproduction Playback".)

REPEAT (A, B) keys
These are used for repeat playback.

DIGIT (0 - 9) keys

SEARCH/MEMORY key
This is used for:
● Execution of search operation.
● For memory repeat operation.
(Memory key function)
This key is also used to input programs for programmed play.

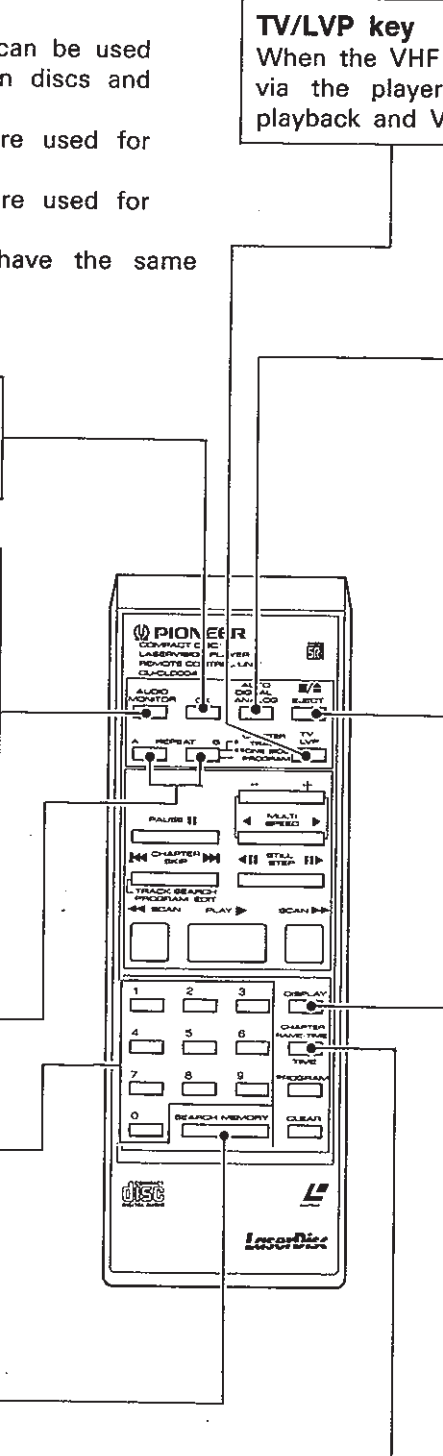
TV/LVP key
When the VHF antenna is connected to the TV set via the player, this key switches between disc playback and VHF TV broadcast reception.

AUTO DIGITAL/ANALOG key
Pressing this key selects the audio output from the CD/LV audio output terminals on the back of the player during playback of a LaserVision disc with digital audio.
(See Page 21 "Audio Reproduction Playback".)
This key has no effect for playback of compact discs or LaserVision discs without digital audio.

EJECT (■/▲) key
This key is used to stop playback and remove the disc. The first time this key is pressed stops the rotation of the disc. The second time this key is pressed extends the disc table from the player. If there is no disc on the disc table, the disc table is extended out from the player the first time this key is pressed.

DISPLAY key
● For a LaserVision disc, the display key is used for displaying or erasing the screen display of the chapter or frame being played or the time during playback of a LaserVision disc.
● When a compact disc is played, each time this key is pressed, the display on the screen will change to show the REMAIN time, the TOTAL time, the TIME, and back to the REMAIN time respectively.

CHAPTER/FRAME·TIME, TIME key
This key is used to call up the part of the disc that you wish to see or listen to (search).



PAUSE (||) key

When this is pressed, the playback is temporarily interrupted. To release the pause mode, press the PAUSE key again.

CHAPTER SKIP/TRACK SEARCH (◀◀, ▶▶), PROGRAM EDIT (◀◀) key

This key has the same functions as the CHAPTER SKIP/TRACK SEARCH button on the front of the player.

SCAN (◀◀, ▶▶) key

This is used for fast forward and fast backward playback.

PLAY (▶) key

- Setting a disc on the disc table then pressing this key retracts the disc table into the player and begins play of the disc.
- Pressing this key when the disc is stopped starts playback.
- Pressing this key when player is paused restarts normal playback.
- Pressing this key after chapter programming starts play for that chapter program. (See Page 35 "Program Playback".)

PROGRAM key

This key is used for programmed playback, which is playback in which the order of chapters for a LaserVision disc or the order of tracks for a compact disc is changed.

◻, ◻ key

This key is used for setting the speed for multi-speed playback. (See Page 23 "Multi-speed".)

MULTI-SPEED (◀, ▶) key (LaserVision disc)

- Pressing the ▶ side of this key during playback of a standard disc plays back the disc in the forward direction at the preset speed. Pressing the ◀ side of this key during playback of a standard disc plays back the disc in the reverse direction at the preset speed (with no audio). The speed is set with the -, + key. (See Page 23 "Multi-speed".)
- This key has no effect for extended play discs and "CLV" is displayed on the screen.

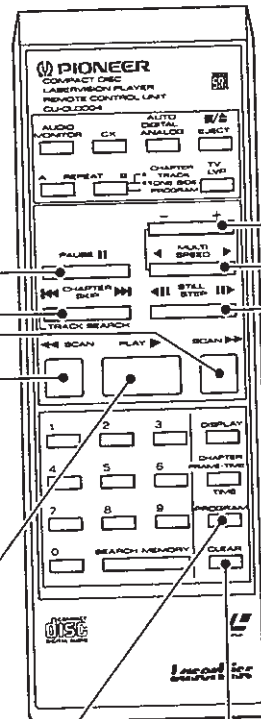
STILL/STEP (◀◻, ◻▶) key (LaserVision disc)

- Pressing either end of this key causes still frame playback. Then, pressing the ◻▶ side of this key advances the playback one frame, while pressing the ◀◻ side of this key reverse the playback one frame.
- This key has no effect for extended play discs and "CLV" is displayed on the screen.

CLEAR key

The CLEAR key is used in the following cases:

- To stop repeat playback, to interrupt a search, or to correct input made with the DIGIT keys. (Pressing the CLEAR key and holding it down ends numeric input mode itself.)
- To erase the last step of the program. (Pressing the CLEAR key and holding it down ends program input mode itself.)
- To end program playback.



BASIC OPERATION (FOR PLAYBACK OF LASERVISION DISCS AND COMPACT DISCS)

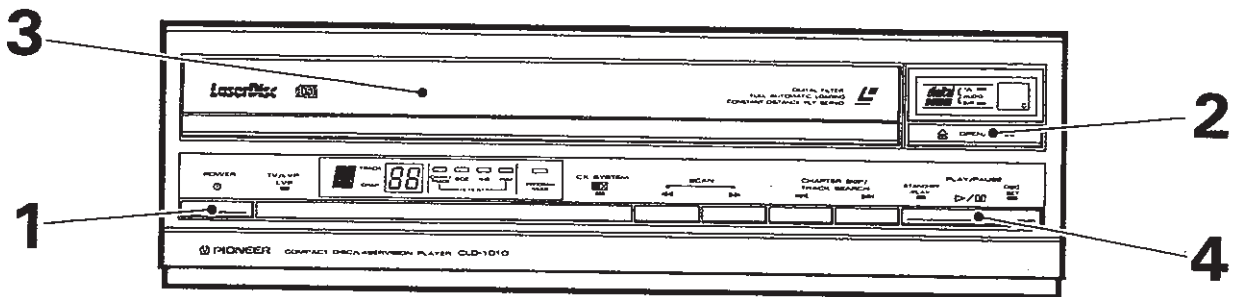
[Preparations]

- Turn on your television, and set it to a channel (3 or 4) which is not being used for broadcasting.
(When using a TV set with a video input terminal, select video input.)
When using a TV monitor, switch on power to the TV monitor.
- Switch on power to your stereo system.

BEFORE BEGINNING PLAYBACK, BEWARE OF EXCESSIVE INPUT.

A characteristic of the digital sound recorded on Compact discs and LaserVision with Digital Sound Discs, is a very low noise level combined with a very large dynamic range. As a result, be extremely careful when playing back these discs and adjust the sound volume properly in order to prevent damage to your speakers from an excessive input.

TO BEGIN PLAYBACK



1. Turn on the player.

- The LVP, AUDIO (1/L and 2/R) DIGITAL SOUND indicators and either CD or LV on the display section (for whichever type of disc was mounted) light up.
- The screen of the TV set or TV monitor will turn blue, and the message "LASERDISC" or "COMPACT DISC" will appear. (This will be in accordance with the previously played disc.)

[Screen display]

(LaserVision disc)



(Compact disc)



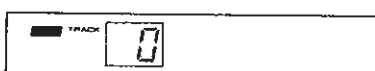
If the player is left like this for about 20 minutes, the screen display goes off.

[Player display]

(LV mode)



(CD mode)



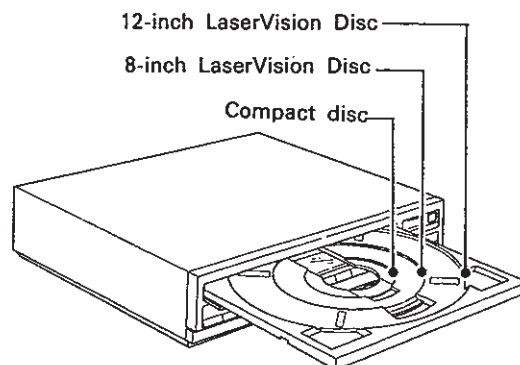
2. Press the OPEN/CLOSE button.

- The door will open, and the disc table will emerge a specified distance. The disc table will not open or close if power is not turned on.

ABOUT THE SHAPE OF THE DISC TABLE

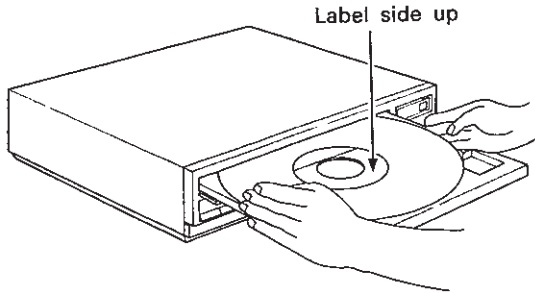
The CLD-1010 can play 12-inch diameter LaserVision Discs, 8-inch diameter LaserVision Discs and Compact Discs, so can play discs of three different sizes.

When setting each size of disc, set the disc so that the edge is properly aligned with the appropriate guides shown in the figure.



3. Load the disc

- Whether a LaserVision Disc or Compact Disc, be sure to load the disc so that the label of the side you wish to play is facing up, in the same way as for an audio record.



NOTE:

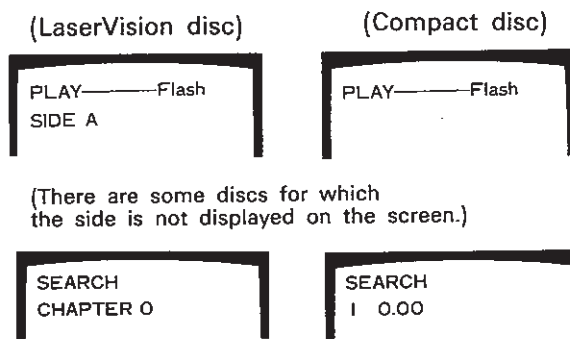
- Only one disc can be loaded at any one time. Loading a LaserVision Disc and a Compact Disc on top of one another may result in breakdown, or in scratching of the discs. Please only load one disc at a time.
- If fingerprints or dirt adheres to the playback surface of the disc, the video and audio quality will be impaired. Before loading a disc, clean the disc's bottom surface if it is dirty (this is the opposite side to the label side, but it is the side with the signal which will be played back).

4. Press the PLAY/PAUSE (▶ / ||) button.

- The disc table is retracted into the player and the playback begins.
- The OPEN/CLOSE button can be pressed instead of the PLAY/PAUSE button to retract the disc table and begin playback (autostart)

For a LaserVision disc, the side of the disc is displayed on the screen (although there are some discs without the side display).

[Screen display]



[Player display]

(LaserVision disc)



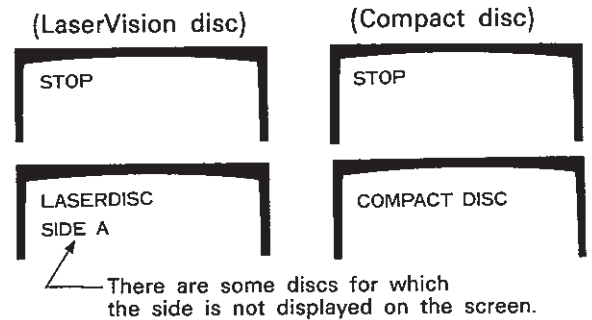
(Compact disc)



TO STOP PLAYBACK

When one side of a disc is played to the end, playback automatically stops and the disc stops rotating. To stop playback part way through a disc, proceed as follows.

- Press the OPEN/CLOSE button on the player, or the EJECT key (■/▲) on the remote control unit.
 - When the OPEN/CLOSE button on the player is pressed, the disc stops rotating, and the disc table emerges.
 - When the EJECT key on the remote control unit is:
 - Pressed once : The disc stops rotating.
 - Pressed twice : The disc stops rotating and the disc table emerges.



Even if the power is left on, if the disc is stopped for about 20 minutes, the screen display goes off.

- Remove the disc
 - Return the disc to its jacket or case, and store it vertically.
- Press the OPEN/CLOSE (▲) button.
 - The disc table is retracted into the player.
- After the STAND-BY/PLAY indicator stops blinking, switch off the power.

NOTE:

Do not switch off the power with the disc table out of the player. A strong force applied to the disc table while it is out of the player can damage it. Depending on where the player is, there may also be a danger of the player falling. Always retract the disc table back into the player except when taking out or mounting a disc.

CAUTION

- Do not place anything on the disc table other than a disc.
- Do not open the door with your hands during playback.
- Do not tilt or lift up the player during playback, as this could result in damage to the disc.
If you need to move the player, first take out the disc, switch off the power, and remove the plug from the power outlet.
- If the picture is not clear, adjust the fine tuning of your TV set.
- If fingerprints or dirt adheres to the playback surface of the disc, the video and audio quality will be impaired. Before loading a disc, clean the disc's bottom surface if it is dirty (this is the opposite side to the label side, but it is the side with the signal which will be played back).

**TV CHANNEL ADJUSTMENT
(WHEN THE PICTURE IS NOT CLEAR)**

Confirm that the channel selector switch on the rear panel of the player, is set to the same channel as the channel used for disc playback,

1. Set your TV set to the channel (3 or 4) used for disc playback.
2. Start disc playback.
3. Adjust the fine tuning of your TV set so that a clear picture is obtained.

(The method of fine tuning differs from one TV set to another. Please refer to the operating instructions for your TV set.)

WHEN STRIPES OR NOISES APPEAR ON THE SCREEN, PLEASE KEEP VHF ANTENNA CABLE AWAY FROM POWER CORD.

TO WATCH A TV BROADCAST

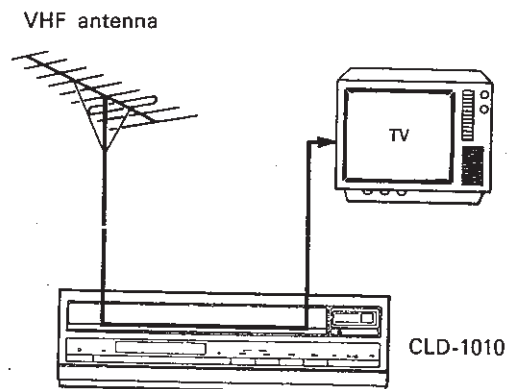
When a VHF TV antenna has been connected to your TV via the player's ANTENNA terminal, in accordance with the connection example given in these instructions (page 10), TV broadcasts can be received normally by proceeding in one of the following two ways:

■ By switching off power to the player

Before switching off power, first perform the steps in "TO STOP PLAYBACK", and stop disc playback.

■ By making the LVP indicator on the front panel turn off. (Use the TV/LVP key on the remote control unit.)

In either case, the signals from the VHF antenna are fed to the TV set via the player.



Press the TV/LVP key on the remote control unit so as to make the indicator turn off, or turn off power.

NOTE:

In an area where the TV broadcast signal is weak, slanting stripes may appear on the TV screen when the TV/LVP key is pressed to receive a TV broadcast. However this does not indicate a fault, and the stripes can be eliminated by turning off power to the player.

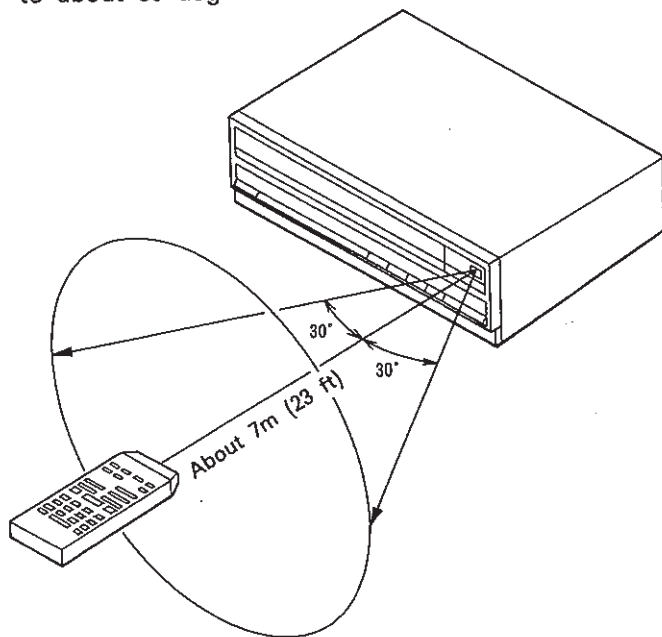
In such cases, or when you wish to watch TV for long periods of time, we recommend that you turn off the power switch of the player.

WHEN USING A TV SET WITH VIDEO AND AUDIO INPUT TERMINALS

When using the video input terminal of your TV, switch to the broadcast using the controls of your TV.

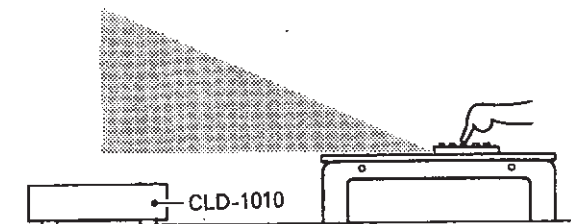
REMOTE CONTROL OPERATIONS

When operating the remote control unit, point the infrared signal transmitter part of the unit at the remote control receiver (REMOTE SENSOR) on the front panel of the player. The remote control unit may be used within a range of about 7 meters (23 feet) from the remote sensor, within angles of up to about 30 degrees.



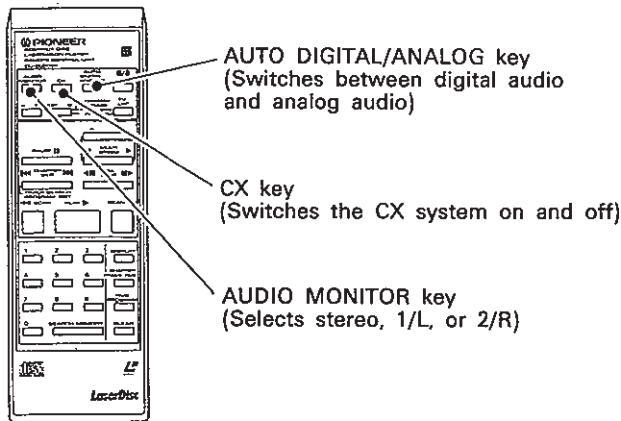
NOTE FOR USING THE REMOTE CONTROL UNIT

- If there is any obstacle between the remote control unit and the player, or if the unit is held at too large an angle relative to the front panel of the player, the signal from the remote control unit may fail to reach the remote sensor.



- If the player is operating in the vicinity of other appliances generating infrared rays, or if other remote control devices using infrared rays are used near the player, the player may operate improperly. Conversely, if the player's remote control unit is operated in the vicinity of other appliances which use an infrared remote control device, the other appliance may operate improperly. If this should happen, change the place of installation so that improper operation does not occur.
- If the range of operation of the remote control unit becomes too short, replace the batteries.
- When the unit is not to be used for a long period of time (more than one month), remove the batteries to prevent them from leaking inside the compartment. If leakage occurs, wipe up the liquid inside the compartment and replace the batteries with new ones.
- Do not place books or other objects on the remote control unit, since they might depress the buttons and run down the batteries.
- The keys on the remote control unit for MULTI-SPEED, STILL/STEP, CHAPTER SKIP and TRACK SEARCH are rocker type switches. They do not operate if pushed at the center.

LASERVISION DISC PLAYBACK FUNCTIONS



AUDIO REPRODUCTION PLAYBACK OF STEREO DISCS

When power is turned on, the player goes into stereo playback mode (AUDIO 1/L and 2/R indicators both light), and disc playback is performed in this mode.

If either of the 1/L or 2/R indicators is off, press the AUDIO MONITOR key on the remote control unit to make both indicators light.

The sound played back via a TV set connected to the VHF output terminal, is not stereo even if a stereo disc is played.

BILINGUAL discs

Press the AUDIO MONITOR key until the AUDIO indicator for the channel you want to listen to lights up and the AUDIO indicator for the other channel goes out. The audio selection moves through the sequence: 1/L → 2/R → stereo

SOUND SELECTION WITH THE AUDIO MONITOR KEY

AUDIO MONITOR key	VHF Output Signal	Audio Output Terminal		Indicators on Player	Screen display
		1/L	2/R		
	Mixture of 1/L and 2/R	1/L	2/R		ST.
	1/L	1/L	1/L		1/L
	2/R	2/R	2/R		2/R

* The sound output from the VHF output terminal is analog sound.

CX SYSTEM

(The CX SYSTEM key is effective only for analog sound)

When the CX SYSTEM indicator does not light when playback of a disc with the mark begins, this indicates that the disc does not perform CX switching automatically. Please press the CX key on the remote control unit, so as to make the CX SYSTEM indicator light.

Some discs have codes recorded on them which switch the CX system on and off automatically. When these discs are played back, switching of the CX system is carried out automatically. Also, once automatic switching has been carried out, switching with the CX key cannot be performed.

CX is a trademark of CBS Inc.

This player meets the CX EXPANDING SPECIFICATION.

NOTE:

When playing back a disc without the mark, always switch the CX system off. If a disc without the mark is played back with the CX system on, the sound will not play back naturally.

DISCS WITH DIGITAL AUDIO

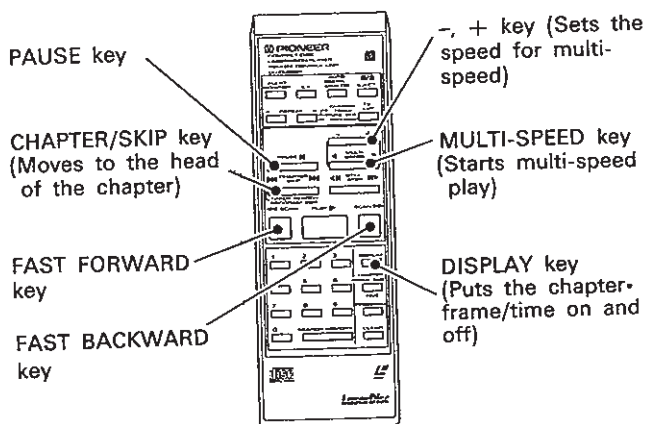
When a disc with digital audio is played, the indicator on the front panel lights up. The audio signals output from the CD/LV audio output terminals on the back of the player can be selected with the AUTO DIGITAL/ANALOG key on the remote control unit. (When the power is first switched on, the player is in auto digital mode.)

The LV (analog) terminal audio output terminals only output analog audio signals.

[Switching the audio signals with the AUTO DIGITAL/ANALOG key]

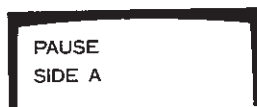
Mode	Screen display	Audio output		
		CD/LV	LV(analog)	VHF
AUTO DIGITAL		Digital	Analog	Analog
ANALOG		Analog	Analog	Analog

Digital audio output can be switched between 1/L, 2/R, and stereo with the AUDIO MONITOR key in the same manner as analog audio output. Switching the channel for analog audio output also switches the channel for digital audio output.



PAUSE

Pressing this key causes the video and sound to disappear, and temporary interruption of playback. The screen becomes blue, and an indication appears of the side being played back ("SIDE A" or "SIDE B") and the word "PAUSE" appears. Pressing the key again causes playback to resume from the point of interruption. (In the case of some discs the "SIDE" indication does not appear.)



NOTE:

- If the screen is displaying the chapter and frame or time, that display takes priority and "PAUSE" is not displayed.
- When the PAUSE key is pressed during search operation, the player pauses when the search ends.
- When the pause mode is cancelled when playing an extended play disc, the point from which playback resumes may differ slightly from the point where playback was interrupted.

Automatic pause function

If the PAUSE key is pressed after a chapter number is specified with the DIGIT keys, then when playback begins, the disc is played until the specified chapter and then it enters still frame mode (if the disc is a standard disc) or pause mode (if the disc is an extended play disc). Even after beginning play, specifying a chapter and pressing the PAUSE key causes an automatic pause in the same manner.

SCAN

After playback has begun, while in pressing either end of this key causes fast forward or fast backward playback.

▶▶ : Fast forward ◀◀ : Fast backward

The scan speed may be one of two speeds. For about two seconds after the key is pressed, the scan speed is fairly slow, but after that becomes high speed.

CHAPTER SKIP

(Discs on which chapter numbers have been recorded)

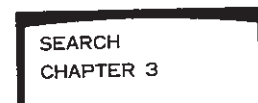
This function causes the player to jump to the beginning of the next chapter, or to jump to the beginning of the chapter currently being played.

This operation can be carried out with either the CHAPTER/SKIP key on the remote control unit or with the CHAPTER SKIP/TRACK SEARCH button on the player.

Pressing the ▶▶ side: Player jumps to the beginning of the next chapter.

Pressing the ◀◀ side: Player jumps to the beginning of the chapter currently being played.

(Skipping to Chapter 3)



If the key is repeatedly pressed, the player jumps to the beginning of chapters in accordance with the number of times the key is pressed.

NOTE:

- If chapter skip operation is performed during repeat playback, the repeat mode is cancelled.
- When chapter skipping in the reverse direction, be careful of the number of times you press the key. The first time you press the key, the player jumps to the beginning of the currently playing chapter. The second time you press the key, the player jumps to the beginning of the preceding chapter.
- In the case of discs on which chapter numbers have not been recorded, the chapter skip function cannot be used.
- If skipping is performed beyond the range of the recorded chapter numbers, the player goes into play mode at the end of the disc, and then stops playing back after about 10 seconds. If you skip to a number which is greater than the recorded number, please return in the reverse direction within 10 seconds.

STILL/STEP (Standard play discs only)

Pressing either end of this key causes still frame playback. Following this, each press of the **▶** mark end of the key causes playback to advance one frame, and each press of the **◀** mark end of the key causes playback to reverse one frame.

To cancel still frame playback, press the PLAY (**▶**) key.

*** In the case of rapidly changing scenes, it may not be possible to obtain completely still frames. This is not a fault of the player or disc.**

AUTOMATIC PICTURE STOP

Some discs have special signals recorded on them called picture stop codes. When such discs are played at either normal speed or in multi-speed (with the exception of double and triple speed) mode, the player automatically stops at the frames specified by the picture stop codes, and plays back a still frame.

MULTI-SPEED

(Standard play disc only)

With this function you can choose from a fast 3-times normal playback speed to an ultra-slow, one frame every 3 seconds, allowing you to enjoy playback at whatever speed you desire.

During multi-speed playback, sound is not output.

[Executing multi-speed]

Pressing the multi-speed key:

On the **▶** side: Plays the disc forward at multi-speed.

On the **◀** side: Plays the disc backwards at multi-speed.

[Speed Selection]

When power is turned on "1/4" is selected.

Using the "+" and "-" keys selection of 9 speeds is possible.

During the time the "+" and "-" keys are being pressed, the speed is displayed on the screen.

"-" Key	Screen Display	Speed	"+" Key
↓	× 3	3-times play mode speed	↑
	× 2	2-times play mode speed	
	× 1	Same as play mode speed	
	1 / 2	1/2 play mode speed	
	1 / 4	1/4 play mode speed	
	1 / 8	1/8 play mode speed	
	1 / 16	1/16 play mode speed	
	STEP 1	Plays one frame every second	
	STEP 3	Plays one frame every 3 seconds	

The selected speed is remembered even when another playback mode is selected, but when playback is stopped and the disc is taken out, the speed is restored to 1/4 of play mode speed.

During playback modes other than multi-speed mode, the player can also accept "+" and "-" key operations, so the speed of multi-speed playback can be set in advance.

When the multi-speed operation keys (**◀**, **▶**) are pressed during chapter number and frame/time number display, the speed is displayed.

[Ending multi-speed play]

To end the multi-speed play, press the PLAY (**▶**) key.

CHAPTER NUMBER AND FRAME/TIME NUMBER DISPLAY

LaserVision Discs have chapter numbers, frame numbers (or time numbers) recorded on them, at the time when the video and sound are recorded. Each time the DISPLAY key is pressed, this information is alternately displayed and erased on the screen.

Chapter numbers (Standard play and Extended play discs)

These indicate divisions within a disc program, and correspond to the chapter numbers in a book. Some discs do not have chapter numbers recorded on them. In the case of such discs, chapter numbers are not displayed.

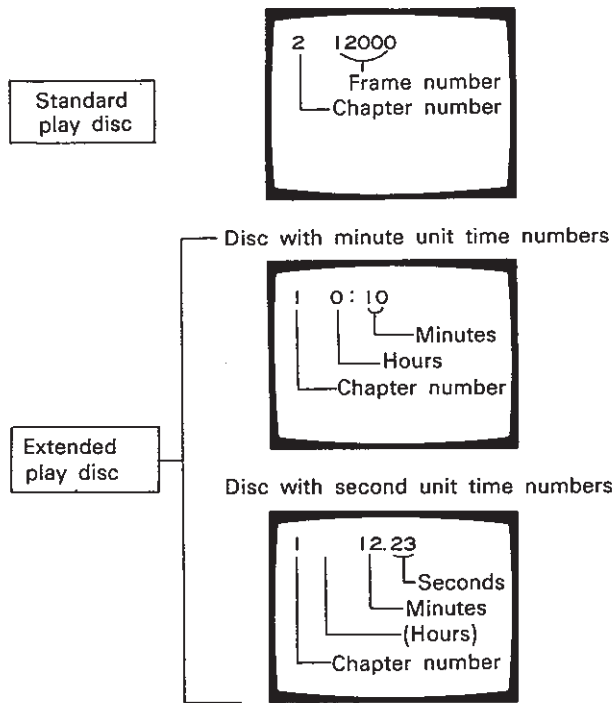
Frame numbers (Standard play discs)

Frame numbers are allocated one by one to each frame from the start of the disc program. These correspond to the page numbers in a book.

Time numbers (Extended play discs)

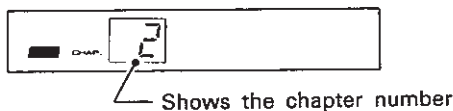
These represent the elapsed time from the start of the disc for normal playback mode.

In the case of some discs time numbers are recorded with minutes as the smallest units, while with other discs, the time numbers are recorded with seconds as the smallest units.



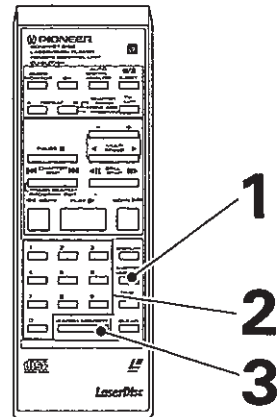
[Player display]

Example: standard play disc



SEARCH (RANDOM ACCESS)

This function searches for the required scene using either frame numbers, chapter numbers, or time numbers. To search for a scene, use the remote control unit after a picture appears on the screen.



NOTE:

- If you specify a chapter number, frame number or a time number which is larger than maximum recorded number, the player will search near the end of the side being played. Please be careful.
- If the PLAY key or multi-speed key is pressed during search operation (when the STAND-BY/PLAY indicator is flashing during the time the player is searching for the specified image), in the case of a standard play disc, the player will play back in that mode (play or multi-speed) after the search operation has been completed.
- Pressing the PAUSE key during a search pauses the disc at the spot searched for.

How to enter the number for a time search

When using the DIGIT keys to specify the time to be searched for, even though the key operations are the same for discs with the seconds recorded and for those without, the times to be input are different.

Take, for example, the time searched for when the 1 and 2 keys are pressed.

- Discs with seconds recorded
TIME 0:12

Thus, the player searches for the video at the 0 minute 12 second point.

- Discs without the seconds recorded
TIME 0:12

Thus, the player searches for the video at the 12 minute point.

FRAME NUMBER SEARCH
(Standard play discs only)

This function allows you to search for the specified frame number, and plays it back as a still picture.

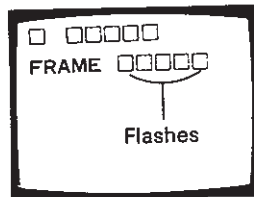
[Example]

To search for frame number 12340

1. Press the CHAPTER/FRAME-TIME key

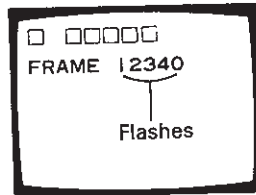
If the chapter is displayed, press the CHAPTER/FRAME-TIME key again.

FRAME □□□□□ appears on the screen. The number which appears is the frame number which was previously searched for.



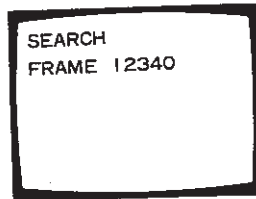
2. Press 1, 2, 3, 4, 0

The indication FRAME 12340 appears on the screen.

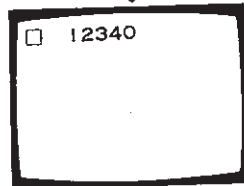


3. Press the SEARCH/MEMORY key

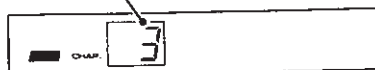
The screen turns blue and the STAND-BY/PLAY indicator blinks.



The image of frame 12340 appears as a still picture.



Chapter to be searched for (Example: 3)



CHAPTER NUMBER SEARCH

(For standard play and extended play discs on which chapter numbers have been recorded.)

The player locates the head of the specified chapter and shows a still picture if the disc is a standard disc or begins to play if the disc is an extended play disc.

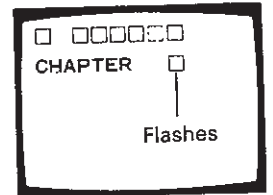
[Example]

To search for the beginning of Chapter 3

1. Press the CHAPTER/FRAME-TIME key

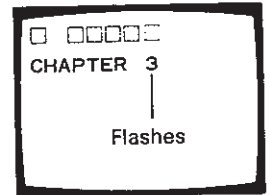
If the frame or time is displayed, press the CHAPTER-FRAME/TIME key again.

CHAPTER □ appears on the screen. The number which appears is the number of the chapter which was previously searched for.



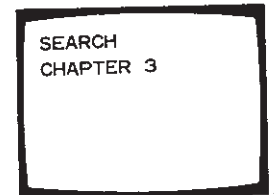
2. Press 3

The indication CHAPTER 3 appears on the screen.

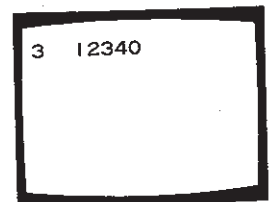


3. Press the SEARCH/MEMORY key

The screen turns blue and the STAND-BY/PLAY indicator blinks.



The start of Chapter 3 appears as a still picture in the case of a standard play disc, or is reproduced in play mode in the case of an extended play disc.



**TIME NUMBER SEARCH
(Extended play discs only)**

This function allows you to search for pictures corresponding to the elapsed playing time from the beginning of a program.

[Example]

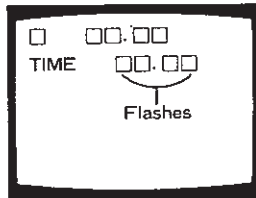
To search for the picture 12 minutes from the beginning of a program.

For discs with "second" time numbers

1. Press the **CHAPTER/FRAME·TIME** key

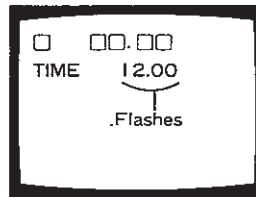
(TIME □□.□□ will be displayed)

If the chapter is displayed, press the CHAPTER/FRAME·TIME key again.



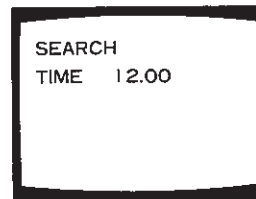
2. Press **1, 2, 0, 0**

(TIME 12.00 will be displayed)

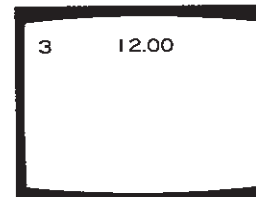


3. Press the **SEARCH/MEMORY** key

The screen turns blue and the STAND-BY/PLAY indicator blinks.



(Playback will start from the picture 12 minutes from the beginning of the program.)



Chapter to be searched for
(Example: 3)



NOTE:

Depending on the disc, time numbers may be recorded with either seconds as the minimum unit, or with minutes as the minimum unit.

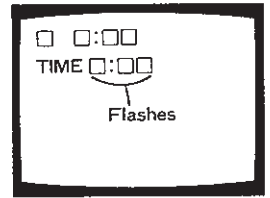
With these different types of disc, searching may be performed to either second accuracy or minute accuracy respectively. As the two types of disc require slightly different methods of numeric entry, please be careful when entering numerals.

For discs with "minute" time numbers

1. Press the **CHAPTER/FRAME·TIME** key

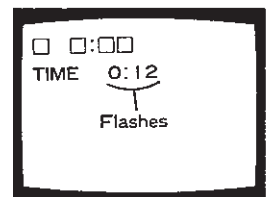
(TIME □:□□ will be displayed)

If the chapter is displayed, press the CHAPTER/FRAME·TIME key again.



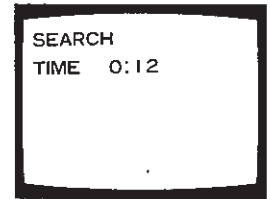
2. Press **1, 2**

(TIME 0:12 will be displayed)

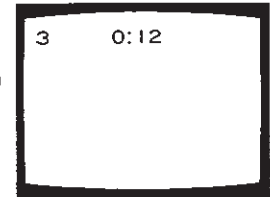


3. Press the **SEARCH/MEMORY** key

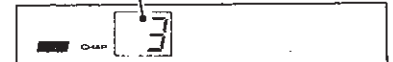
The screen turns blue and the STAND-BY/PLAY indicator blinks.



(Playback will start from the picture 12 minutes from the beginning of the program.)



Chapter to be searched for
(Example: 3)



ABBREVIATION OF SEARCH PROCEDURE

The numerals entered during search operation are not modified until either the stop of disc playback or until a new numeric entry is made.

If you want to search for the same picture indicated by the numeric display which appears when the CHAPTER/FRAME·TIME key is pressed, you can search for the picture by simply pressing the SEARCH/MEMORY key.

Also, if you want to change the search numbers for (frame/time or chapter number search) which you just entered while playing the same disc, you can simplify the operation by omitting to press the CHAPTER/FRAME·TIME key. (You can start with DIGIT key entry operation.)

Beginning play with a chapter search (direct chapter start)

Setting a disc on the disc table then starting a chapter search begins play from the specified chapter. It is also possible to resume play with a chapter search after play has been stopped and the disc rotation stopped.

In this case, even if the disc is a standard disc, the player begins to play it once it finds that specified chapter. (Normally, after a chapter or time is found for a standard disc, that spot is shown as a still frame.)

Correcting the input number

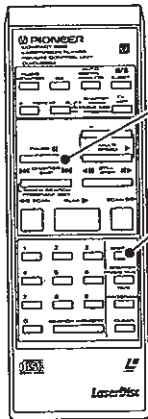
If the wrong number key was pressed, press the CLEAR key then enter the correct number.

Ending a search

Pressing the CLEAR key during search key input sets the search number to 0. Pressing the CLEAR key again at this point ends the search.

Also, pressing the CLEAR key during search mode will cancel the search mode and start video playback from the point the CLEAR key was pressed.

COMPACT DISC PLAYBACK FUNCTIONS



PAUSE key

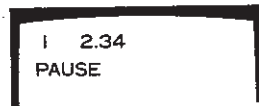
DISPLAY key
(Switches between display of the current track and time, the remaining time, and the total number of tracks and total playing time)

Audio

When a compact disc is played, the AUDIO 1/L and 2/R indicators and the **DIGITAL SOUND** indicator on the front of the player light up and the audio is output from the CD/LV audio output terminals on the rear of the player. (For a compact disc, the audio output is always stereo.) Compact disc audio signals are not output from the LV (analog) audio output terminals or the VHF output terminals.

PAUSE

Press the PAUSE button on the remote control unit or the PLAY/PAUSE (▶ / ⏸) button on the player. The word "PAUSE" is displayed, and the current track number, minute and second flash on the screen.



Pressing the key again causes playback to resume from the point of interruption.

NOTE:

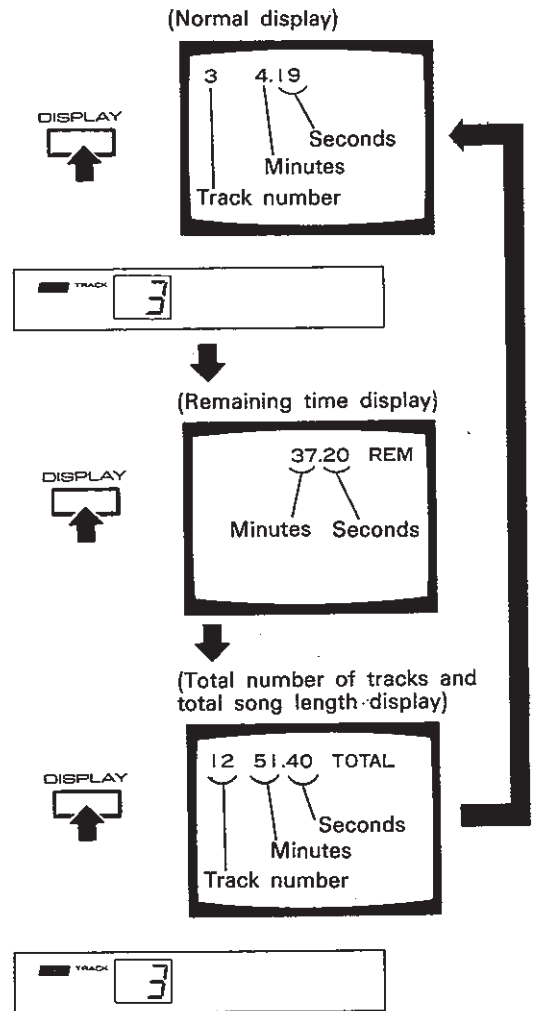
- During track program play, "PAUSE" is not displayed. PAUSE mode is indicated by the flashing of the current track number, minute and second.

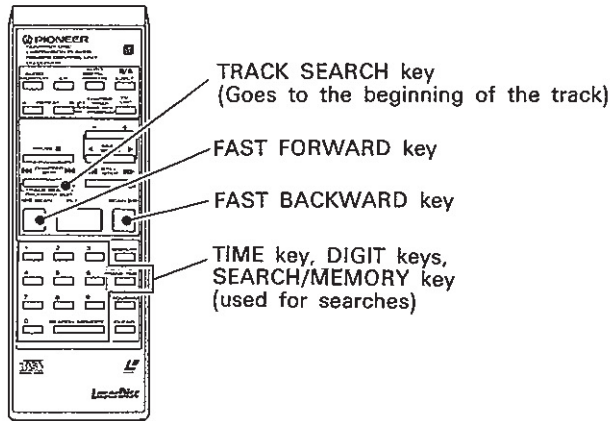
Automatic pause function

If the PAUSE key is pressed after a track number is specified with the DIGIT keys, then when the play is begun, the disc is played until that track and then paused. Even after beginning play, specifying a track and pressing the PAUSE key causes an automatic pause in the same manner.

TRACK NUMBER AND TIME DISPLAY

The number of the track being played and the time elapsed since the beginning of that track are displayed on the TV monitor. Each time the DISPLAY key is pressed, the display changes to show the REMAIN (time remaining until the end of the disc) time the TOTAL (total number of tracks recorded on the disc and the total length of the disc) time, and back to the current tracknumber and elapsed time.





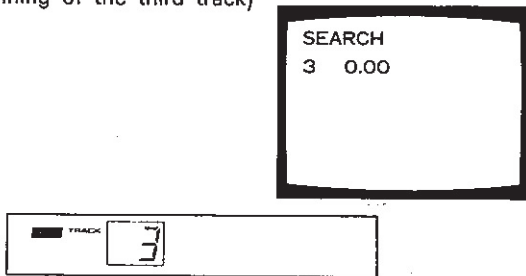
TRACK SEARCH (Skip selection)

This operation can be carried out with either the TRACK SEARCH key on the remote control unit or with the CHAPTER SKIP/TRACK SEARCH button on the player.

- ▶▶ side: Search for the start of the next track
- ◀◀ side: Search for the start of the track currently being played

If these keys are repeatedly pressed, the player jumps to the start of successive tracks. This makes it easy for you to reach the start of the track you want to hear.

(The beginning of the third track)



NOTE:

- If the track search key is pressed during pause mode, the player returns to pause mode after the jump.
- Be careful when you press the key to jump in the reverse direction. The first time you press the key, the player jumps to the beginning of the currently playing track. The second time you press the key, the player jumps to the beginning of the previous track.
- If the forward track search key is pressed during playback of the last track on the disc, or if the player is in pause mode over the last track on the disc, the player does not accept the command from the key. The player also does not accept commands for track searches beyond the last track.
- The track number can also be specified with the DIGIT keys. See the section on "TRACK NUMBER SEARCH (direct selection)".

SCAN (FAST FORWARD, FAST BACKWARD)

These operations are used after the playback has begun.

They can be carried out with the FAST FORWARD and FAST BACKWARD keys on the remote control unit or with the SCAN button on the player itself.

▶▶ : Fast forward ◀◀ : Fast backward

When scan operation is performed from play mode, the playback sound can be heard faintly.

When scan operation is performed from pause mode, scan operation is performed without sound, and when the key is released, the player returns to pause mode.

The speed at which scan operation is performed, is increased in two stages. During the first two seconds following the pressing of the key, low speed scan operation is carried out, but following this, high speed scan operation is carried out.

If scan forward operation is performed to the end of the disc, the player enters pause mode.

The player also enters pause mode, if scan backward operation is performed to the beginning the disc.

SEARCH (RANDOM ACCESS)

This function enables you to specify the track number or the point in time on the disc of the spot you wish to hear. Use the remote control unit for searches once the playback has begun.

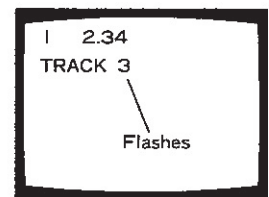
TRACK NUMBER SEARCH (Direct selection)

This function allows you to search for the start of the specified track number, and plays it back.

[Example] To search for Track 3

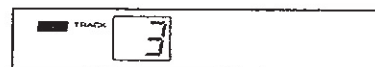
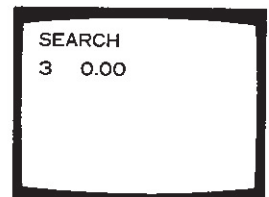
1. Press 3

TRACK 3 appears on the screen.



2. Press the SEARCH/MEMORY key

The player searches for the 0 minute 00 second point on Track 3, and then begins playback.



If desired, pressing of the TRACK key can be omitted. Search operation will be performed if you only press (3), SEARCH/MEMORY.

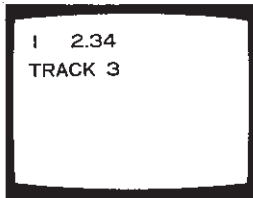
TIME NUMBER SEARCH

This function allows you to search for the point corresponding to a specified time in minutes and seconds, from the start of a specified track.

[Example] To search for the point 1 minute and 23 seconds from the beginning of Track 3

1. Press 3

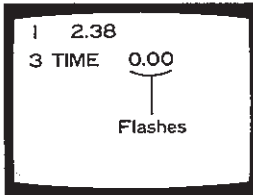
TRACK 3 appears on the screen.



2. Press the TIME key

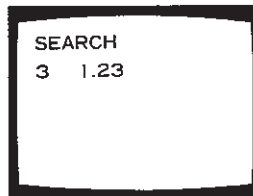
3. Press 1, 2, 3

■ Specifies 1 minute and 23 seconds into the 3rd track.



4. Press the SEARCH/MEMORY key

The player searches for the point 1 minute and 23 seconds from the start of Track 3, and then begins playback.



When the TIME key is pressed without prior entry of the track number, the track being played back is selected.

If the specified search time is longer than the length of the track, the table of contents (TOC)* cannot be correctly read, and the player does not accept the search command. If the disc is scratched so that the TOC cannot be read, the player searches for the start of the next track.

* The table of contents (TOC), consists of information about track numbers and playback times, and is recorded on the Compact Disc.

Correcting the input number

If the wrong number key was pressed, press the CLEAR key then enter the correct number.

Ending a search

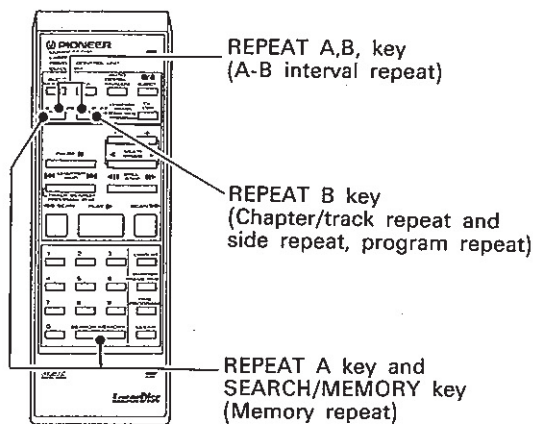
Pressing the CLEAR key during search key input sets the search number to 0. Pressing the CLEAR key again at this point ends the search. Pressing the CLEAR key while the player is actually searching for a chapter or time ends the search and the player plays from disc wherever it was when the search was ended.

Beginning play with a track search (Direct track start)

Setting a disc on the disc table then entering a track search starts the disc playing from the specified track.

REPEAT PLAYBACK

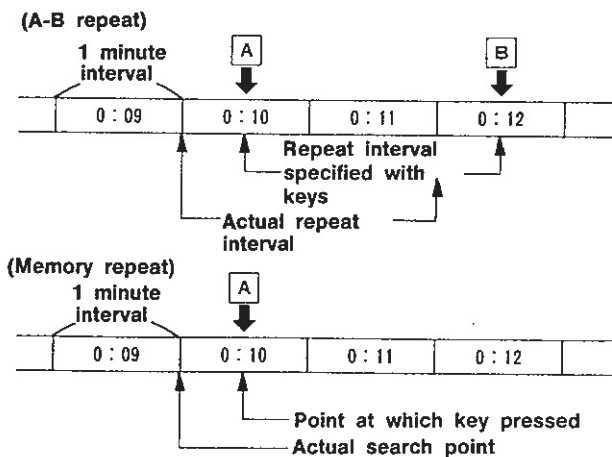
This function allows playback of part or all of a disc. Do this using the remote control unit.



FOR LASERVISION DISCS: REPEAT INTERVALS FOR EXTENDED PLAY DISCS

In the case of extended play discs, repeat playback is carried out using time numbers recorded on the disc. On some discs, time numbers are recorded with seconds as the minimum units, while on other discs, time numbers are recorded with minutes as the minimum units.

When A-B repeat or memory repeat are carried out with extended play discs on which time numbers are recorded with seconds as the minimum units, the point (scene) at which the key is pressed, and the actual repeat interval or search point, corresponds almost exactly, but in the case of discs on which time numbers are recorded with minutes as the minimum units, these points do not always correspond.



NOTE:

In the case of discs on which time numbers are recorded in minute units, the minimum A-B repeat interval is one minute. Also if the [A] and [B] repeat keys are pressed within the same "minute", A-B repeat is not performed.

REPEAT PLAYBACK BETWEEN TWO POINTS (A-B)

This function repeatedly plays back an interval between specified frames (standard play disc) or between specified times (extended play discs).

[Procedure]

1. At the beginning point of the interval you wish to repeat, press the repeat (A) key.
2. At the end point of the interval you wish to repeat, press the repeat (B) key.

The A-B REPEAT indicator on the front panel of the player will light, and the interval between A and B will be repeatedly played back.

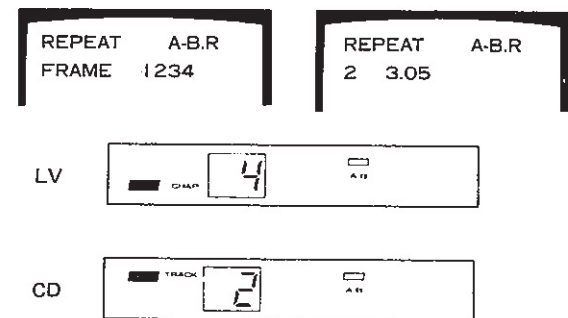
[Screen display]

(Laservision disc: (compact disc)
standard disc)

(When the A key is pressed)



(Press the B key during the search for Point A.)



NOTE:

- If you press the (A) key and then return to an earlier point in the program and press the (B) key ($B < A$), the player will repeat the interval between B and A, using B as the starting point and A as the end point.
- When the chapter and frame or time is being displayed for a LaserVision disc, pressing the A key makes the MEM. A display blink. Pressing the B key displays the A-B.R continuously.

REPEAT PLAYBACK

MEMORY REPEAT

This function allows you to specify a scene which you want to see again, so that you can return to the scene again at any time.

[Procedure]

1. Press the REPEAT (A) key at the scene you wish to memorize.
2. Continue playback, and when you want to return to the scene specified in (1) press the SEARCH/MEMORY key.

[Display]

(LaserVision disc: (compact disc)
standard disc)
(When the A key is pressed)



(When the SEARCH/MEMORY key is pressed)



CHAPTER/TRACK REPEAT

For a LaserVision disc, the same chapter is played over and over; for a compact disc, the same track is played over and over.

[Procedure]

Play the chapter (or track) which you want to be repeatedly played and press REPEAT (B). The CHAP./TRACK REPEAT indicator on the front panel will light.

After playing to the end of the chapter (or track), the player will search for the start of the chapter (or track), and play it again.

NOTE:

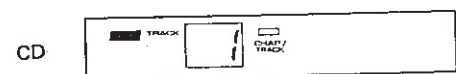
If REPEAT (B) is pressed when a disc without chapter numbers is being played, the player will go into side repeat mode.

[Display]

(LaserVision disc: (compact disc)
standard disc)
(When the B key is pressed)



(The player is searching for the beginning of the chapter or track.)



SIDE REPEAT

This function repeatedly plays one side of a disc.

[Procedure]

Press REPEAT (B) in chapter/track repeat mode.

Accordingly, if you are playing back a disc on which chapter (or track) numbers are recorded, and are not already in chapter/track repeat mode, you should press REPEAT (B) twice in succession.

The SIDE REPEAT indicator on the front panel will light, and the CHAP./TRACK REPEAT indicator will go out.

After playing back to the end of one side of the disc, the player searches for the start of the disc, and plays the disc again.

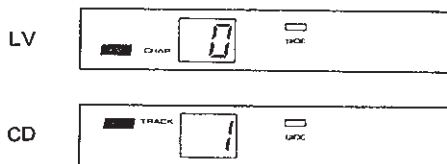
[Display]

(LaserVision disc: (compact disc)
standard disc)

(When the B key is pressed to put the player in side repeat mode)



(The player is searching for the beginning of the disc.)



PROGRAM REPEAT

Pressing the REPEAT B key while the player is playing a chapter program puts the player in program repeat mode. Pressing the PLAY key puts the player back in program play mode.

For more details, see Page 37 "Program Repeat Playback".

TO CANCEL THE REPEAT MODE

To cancel the repeat mode, press the CLEAR key.

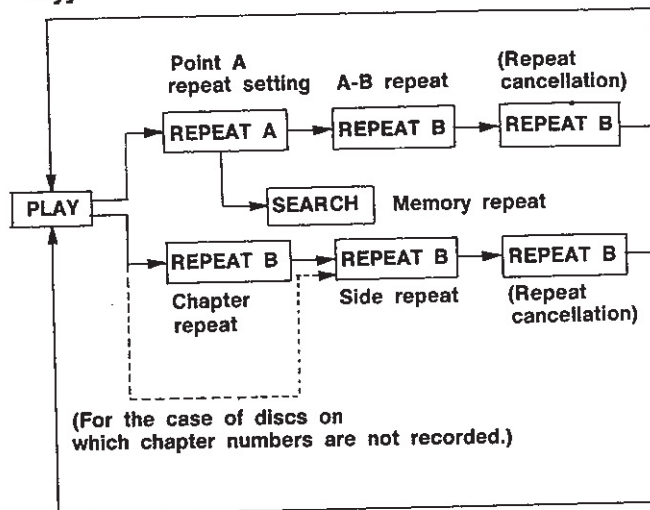
- **During A-B repeat...**
After playing up to point B, the player advances to the next frame number or time number without returning to point A.
- **During chapter/track repeat...**
After playing to the end of the chapter (or track) currently being repeated, the player advances to the next chapter (or track).
- **During side repeat...**
After playing to the end of the disc, playback ends, and the disc stops rotating.
- **During a program repeat**
The last chapter or track in the program is played, then the play stops.

There are operations other than the CLEAR key that also cancel repeat play. See the sections on "Selection of Repeat Mode with the Repeat Key" and "Switching the Repeat Mode during Repeat Play".

SELECTION OF REPEAT MODE WITH THE REPEAT KEY

The repeat mode selections which can be made using the REPEAT (B) key, are shown in the figure below. Please make use of this for specifying and changing the repeat mode.

[Repeat mode selections using the REPEAT (B) key]



SWITCHING THE PLAYBACK MODE DURING REPEAT PLAY

Even during repeat play, remote control operations such as changes in the playback mode or searches are accepted. Some of these operations end the repeat play and some do not.

	LaserVision disc	Compact disc
Do not cancel repeat play	<ul style="list-style-type: none"> ● Play ● Pause ● Still/Step (forward or reverse) ● Multi-speed forward (▶) ● Fast forward, fast backward 	<ul style="list-style-type: none"> ● Play ● Pause ● Fast forward, fast backward
Cancel repeat play	<ul style="list-style-type: none"> ● Chapter skip (forward or reverse) ● Search operations (chapter/frame, time, number entry) ● Program play ● Multi-speed reverse (◀) <p>See note.</p>	<ul style="list-style-type: none"> ● Track search ● Search operations (time or number entry) ● Program play

Note: A side repeat is not canceled.

PROGRAM PLAYBACK

CHAPTER PROGRAM PLAY

[LASERVISION DISC]

(Discs on which chapter numbers are recorded only)

TRACK PROGRAM PLAY

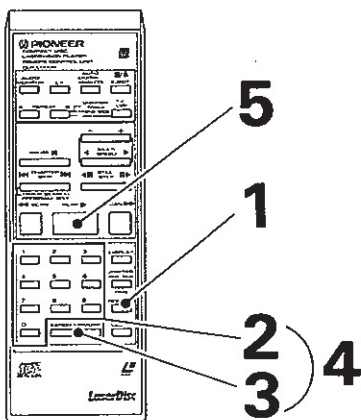
[COMPACT DISC]

This function lets you play back chapters on LaserVision Discs or tracks on Compact Discs, in any order you like. You can program the order you want using the remote control unit.

Chapter programming is not possible for LaserVision Discs on which chapter numbers are not recorded.

NOTE:

- Programming is possible during play, pause and repeat modes, but programming during repeat mode causes repeat mode to be cancelled.
- In the case of standard play LaserVision (CAV) Discs, programming can be done during still frame, and multi-speed playback also.



[Program Playback Procedure]

A maximum of 10 steps can be programmed.

The programmed chapter or track numbers are displayed on the screen in order.

Attempts to program more than 10 items are not accepted.

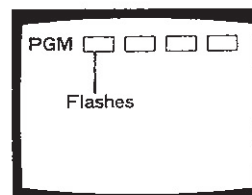
Procedure

- | | |
|--------------------|--|
| STEP 1..... | Press the PROGRAM key. |
| STEP 2..... | Enter a chapter or track number using DIGIT keys 0 - 9. |
| STEP 3..... | Press the SEARCH/MEMORY key. If required, repeat steps 2 and 3. |
| STEP 4..... | Press the PLAY key. |

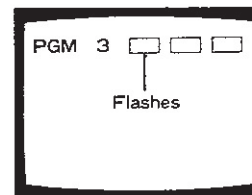
- Playback is in the programmed order.
- When all programmed steps have been played back, the player enters stop mode, and the program is cleared.

[EXAMPLE] To program playback of chapters or tracks 3, 6, and 1, in that order

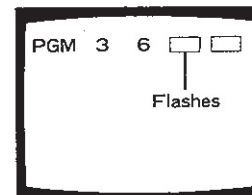
PROGRAM



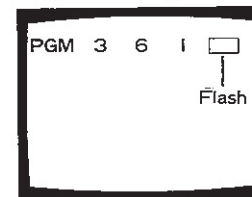
3, SEARCH/MEMORY



6, SEARCH/MEMORY



1, SEARCH/MEMORY



PLAY Start of program play.

NOTE:

If chapter or track numbers not on the disc are entered.

- In the case of LaserVision Discs...
 - Chapter numbers not on the disc are programmed, but are skipped during program playback.
- In the case of Compact Discs
 - If the TOC has been read after beginning playback, track numbers not on the disc can not be entered into the program.
 - If programming was done before playback, entry of track numbers not on the disc is accepted, but when program playback is begun, the numbers are eliminated from the program when the TOC is read.

PAUSE PROGRAM

In place of a chapter or track number, it is possible to program a pause. When this is done, a "P" is displayed on the TV screen.

When recording on both sides of a cassette tape, programming for a pause to occur after the completion of the last track, before the first side of the tape runs out, will enable recording of the next track to begin, after the tape has been turned over.

[Example]

Program Compact Disc playback so that the player plays Track 3, pause, and Track 5. Press PROGRAM, 3, SEARCH/MEMORY, PAUSE, SEARCH/MEMORY, 5, SEARCH/MEMORY and PLAY.

The player will then play Track 3, and search for and pause at the beginning of Track 5 and pauses. When the PLAY key is pressed, playback of Track 5 will begin.

If a pause is programmed during the last step, the player will play back the chapter or track specified for the previous step, and then pause at the beginning of the next track or chapter.

CORRECTION OF NUMERIC ENTRIES

To correct all the numbers that have been entered, press the PROGRAM key and then re-enter the numbers. To correct the number for the current step, press the CLEAR key and then enter the correct number.

ERASING A STEP

Pressing the ◀◀ (program edit) side of the CHAPTER SKIP/TRACK SEARCH key during program input erases the last step input. Holding the ◀◀ side down erases the steps before that as well. The ◀◀ (program edit) side of the CHAPTER SKIP/TRACK SEARCH button on the player has the same effect.

PROGRAM PLAYBACK FROM STOP MODE

If the player is programmed when the disc is not turning, or when the disc table is out, playback can start with program playback.

[Example]

Setting a LaserVision disc on the disc table, then entering:

PROGRAM, 3, SEARCH/MEMORY, 1, SEARCH/MEMORY, PLAY retracts the disc table into the player and plays Chapter 3, then Chapter 1.

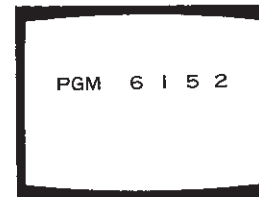
PROGRAM DISPLAY

[While programming]

As shown in the example, the chapter or track numbers entered with the DIGIT keys are displayed on the TV screen.

If 5 or more numbers are entered, the number which was first entered will disappear from the screen, and the numbers will scroll to the left, but they will not be erased from memory.

For example, if 3,6,1,5, and 2 are programmed, the entry of 2 will cause 3 to disappear from the screen, but 3,6,1,5, and 2 will remain in memory.

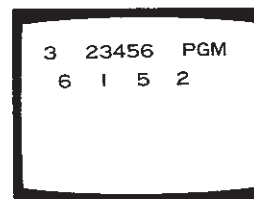


[During program play]

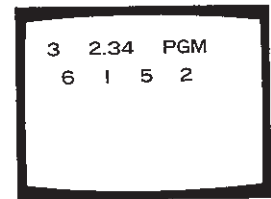
When chapter, chapter/frame-time display is performed during program play of a LaserVision Disc, the program is displayed simultaneously.

During track program play of a Compact Disc, the playback information and program are displayed simultaneously.

(LaserVision disc)



(Compact disc)



NOTE:

Display of playback information during track program play.

During program play of a compact disc, the REMAIN and TOTAL displays show the time remaining in the program or the total number of tracks and total playing time for the program.

- If a pause is programmed, the pause is not included in the TOTAL track number display.
- If the REMAIN or TOTAL time exceeds 99 minutes and 59 seconds, the minutes are displayed as 3 figures.

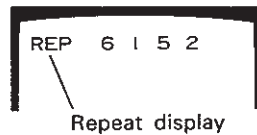
PROGRAM REPEAT PLAYBACK

When the REPEAT B key is pressed during programmed playback, the programmed playback will be repeated. The PGM REPEAT indicator on the player's front panel will also light.

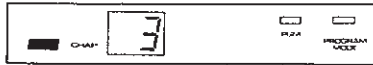
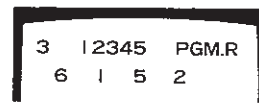
To cancel repeat playback, press either the CLEAR key or the REPEAT B key.

Example: (for LaserVision discs)

Press the REPEAT B key during programmed playback.



When setting to programmed playback with the PLAY key, the program will be repeated.



CANCELLATION OF PROGRAM PLAYBACK

When all of the programmed chapters or tracks have been played back, the disc stops rotating, and the program is cleared.

To cancel playback part way through program playback, press the CLEAR key. (This will also cause the program to be cleared.)

NOTE:

- If scan, search, or repeat operations are performed during program playback, the program playback will be cancelled.
- During playback of a standard play (CAV) LaserVision Disc, program playback will be cancelled if multi-speed operation in the reverse direction (◀) is carried out.

SKIPPING OF PROGRAM STEPS

If the CHAPTER SKIP/TRACK SEARCH key is pressed during program playback, a program step can be skipped.

[Example]

Let us assume 3, 6, 1, 5, and 2 have been programmed for a LaserVision Disc, and that playback is in progress.

- During playback of Chapter 1 (step 3) the ►► side of the CHAPTER SKIP key is pressed. → The player will skip to the beginning of Chapter 5 (step 4).
- During playback of Chapter 1 (step 3) the ◀◀ side of the CHAPTER SKIP key is pressed. → The player will skip to the beginning of Chapter 1 (step 3).

If the key is repeatedly pressed, steps will be skipped accordingly.

If a pause is programmed, the skip operation will ignore the pause, and will skip to the following (or preceding) step.

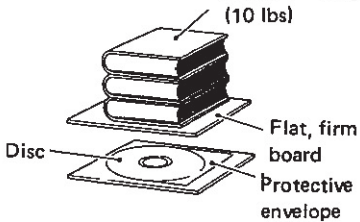
TROUBLESHOOTING

Before concluding that the player is out of order, please refer to this troubleshooting guide to make sure that there is not a simple remedy for the problem. The vast majority of performance problems have their source in set up errors, bad connections to other equipment, or malfunctions of other equipment (TV, stereo system). Find the trouble symptom on the chart below, and try the suggested remedies.

SYMPTOM	CAUSE	REMEDY
1 Disc table is not expelled when EJECT button is pressed.	<ul style="list-style-type: none"> • Power cord is not properly plugged into AC wall socket. • Power switch is not turned on. 	<ul style="list-style-type: none"> • Plug in power cord. • Turn on power switch.
2 Disc table is expelled after STAND-BY/PLAY indicator blinks for approx. 10 seconds.	<ul style="list-style-type: none"> • Disc is warped or dirty. • Moisture has condensed on parts in the player. 	<ul style="list-style-type: none"> • Refer to instructions under "Remedy", item 9, and correct or clean disc. • Remove disc and let player stand for 1 to 2 hours until it is dry.
3 TV no longer receives other channels after it has been connected to the player.	<ul style="list-style-type: none"> • Antenna cable has not been connected. • LVP indicator is lit, and player is in LVP mode. 	<ul style="list-style-type: none"> • Connect VHF antenna cable to antenna terminal on the player. • Press the TV/LVP key on the remote control unit to turn the indicator off, or turn off the player's power switch.
4 Slanting stripes appear on the TV screen when TV/LVP key is pressed to receive TV broadcasts.	<ul style="list-style-type: none"> • Electric field for TV broadcasting is weak. (This does not indicate any trouble.) 	<ul style="list-style-type: none"> • Turn off the power switch of the player. We recommend that you turn off the power switch of the player, whenever you intend to watch TV for a long time.
5 Remote control does not work.	<ul style="list-style-type: none"> • Remote control unit batteries are weak. • There is an obstacle between the player and the remote control unit. • Remote control unit is not in a good location for transmission. 	<ul style="list-style-type: none"> • Replace batteries. • Remove the obstacle or shift the remote control position. • Operate the remote control unit in front of the player.
6 Operation of the remote control unit causes the TV to operate improperly.	<ul style="list-style-type: none"> • Some TV sets have remote control functions that operate improperly in response to the remote control unit of the player. 	<ul style="list-style-type: none"> • Move the TV and the player further apart, or cover the remote sensor of the TV during disc playback.

WHEN A LASERVISION DISC IS BEING PLAYED

SYMPTOM	CAUSE	REMEDY
7 Disc rotates but there is no picture.	<ul style="list-style-type: none"> • The TV set is not turned on. • Wrong connections from player to TV. • TV set is not turned to channel 3 or 4. • Player VHF CHANNEL SELECTOR is at the wrong setting. • The television is not properly tuned. • LVP indicator is not lit. 	<ul style="list-style-type: none"> • Turn on TV. • Make correct connections. • Set TV to the channel (3 or 4) that is not used for TV broadcasting in your area. • Set selector to same channel as the TV's empty channel. • Tune the television properly. (Refer to the User's Manual for the television.) • Press the TV/LVP key on the remote control unit so that the LVP indicator turns on.

SYMPTOM	CAUSE	REMEDY
8 Picture continuously moves vertically	<ul style="list-style-type: none"> • The TV vertical hold control is not adjusted properly. 	<ul style="list-style-type: none"> • Adjust vertical-hold control on TV.
9 Particular disc does not play back properly. The playback stopped in the middle of the disc program.	<ul style="list-style-type: none"> • The playing surface of the disc is dirty. • The disc is warped. 	<ul style="list-style-type: none"> • Use a soft cloth and lightly wipe off the dirt from the surface of the disc. If necessary, moisten a cloth with diluted neutral detergent to remove heavy dirt or fingerprints. • Put the disc into the protective envelope, then place it on a flat desk top. Subsequently, place a flat board on the disc, and load it with weights of about 4 ~ 5 kgs (about 10 lbs). If it is left in this state for one day, sometimes the warp will be alleviated. <p>Thick book of about 4 ~ 5 kg (10 lbs)</p>  <p>Disc Flat, firm board Protective envelope</p>
10 Sound is unnatural or distorted.	<ul style="list-style-type: none"> • CX system is turned ON for disc which has no "CX" mark. 	<ul style="list-style-type: none"> • Press CX key (on remote control unit) to turn CX system OFF.
11 No sound output during playback.	<ul style="list-style-type: none"> • MULTI-SPEED playback is being performed. 	<ul style="list-style-type: none"> • Sound is output only during the normal play mode. The audio channels are not put out during other playback modes.
12 Special effects play cannot be performed.	<ul style="list-style-type: none"> • Playing back an extended play disc. 	<ul style="list-style-type: none"> • With extended play disc, special effects playback, such as STILL/STEP, MULTI-SPEED cannot be performed.
13 During STILL playback, one part of the screen does not remain still.		<ul style="list-style-type: none"> • Even if the disc is a standard play disc, there may be some cases in which a fully still image cannot be obtained, but this does not mean that the player or the disc is defective.
14 CHAPTER SKIP, CHAPTER PROGRAM PLAY and CHAPTER NUMBER SEARCH cannot be performed.	<ul style="list-style-type: none"> • Disc in which no chapter numbers are not recorded is loaded. 	<ul style="list-style-type: none"> • Press DISPLAY key to check if chapter number is displayed.
15 A considerable length of time is required for searching before playback begins.	<ul style="list-style-type: none"> • It takes time to read the recorded code, depending on the disc. 	<ul style="list-style-type: none"> • Press CLEAR key and picture will appear. (At this point, a scene slightly different from that which has been searched for may appear.)
16 The player takes too long to find point A during A - B (INTERVAL) REPEAT operation.	<ul style="list-style-type: none"> • Same as item 15 above. 	<ul style="list-style-type: none"> • The functions that use chapter numbers can not be used with discs that do not have the chapter numbers recorded on them.
17 While a SEARCH, CHAPTER SKIP, or CHAPTER PROGRAM PLAY is carried out, the DISC SET indicator blinks.	<ul style="list-style-type: none"> • Disc is warped or dirty. 	<ul style="list-style-type: none"> • Refer to instructions under "Remedy", item 9, and correct disc or clean.

(To be continued)

TROUBLESHOOTING

SYMPTOM	CAUSE	REMEDY
18 Picture other than that instructed is searched in TIME NUMBER SEARCH mode.	<ul style="list-style-type: none"> Method of inputting numerals in the TIME NUMBER SEARCH mode differs, depending on whether time number is recorded on disc in minutes or seconds, as shown below: [e.g.] 12-minute search Disc in which time number is recorded in minutes <div style="text-align: center;"> </div> <ul style="list-style-type: none"> Disc in which time number is recorded in seconds <div style="text-align: center;"> </div>	

WHEN PLAYING BACK A COMPACT DISC

SYMPTOM	CAUSE	REMEDY
19 Player stops immediately after starting playback.	<ul style="list-style-type: none"> Disc is loaded upside down. The playing surface of the disc is dirty. 	<ul style="list-style-type: none"> Load the disc correctly with the label side upward. Use a soft cloth and lightly wipe off the dirt from the surface of the disc. If necessary, moisten a cloth with diluted neutral detergent to remove heavy dirt or fingerprints.
20 No sound output	<ul style="list-style-type: none"> The stereo amplifier is not correctly connected. You are not operating the stereo amplifier correctly. The connection terminals and/or the plugs of the connection cords are dirty. The plugs of the connection cords are disconnected, or are not fully pushed in. You have connected the amplifier to the player LV (ANALOG) AUDIO OUT terminals. The player is in PAUSE mode. 	<ul style="list-style-type: none"> Connect the amplifier correctly. Refer to the operating instructions for the amplifier, and operate the amplifier correctly. Clean the plugs and terminals and connect again. Make sure that connections are correct. Connect the amplifier to the CD/LV AUDIO OUT terminals. (The LV (ANALOG) AUDIO OUT terminals, do not provide audio output for Compact Disc playback.) Press the PLAY key and restore the player to PLAY mode.
21 Sound is distorted	<ul style="list-style-type: none"> The stereo amplifier is not correctly connected. The connection terminals and/or the plugs of the connection cords are dirty. The plugs of the connection cords are not fully pushed in. The playing surface of the disc is dirty. 	<ul style="list-style-type: none"> Connect the CD/LV AUDIO OUT terminals of the player, to the CD or AUX input terminals etc. of the amplifier. (Do not connect to the PHONO input terminals of the amplifier.) Clean the plugs and terminals and connect again. Push the plug in firmly. Use a soft cloth and lightly wipe off the dirt from the surface of the disc. If necessary, moisten a cloth with diluted neutral detergent to remove heavy dirt or fingerprints.

SPECIFICATIONS

1. General

System.....LaserVision Disc system and Compact Disc digital audio system
 Laser.....Semiconductor laser wavelength 780 nm

Power requirements
 U.S. and Canadian models.....AC 120 V, 50/60 Hz
 U.S. Military model.....AC 110/120/220/240 V (Switchable), 50/60 Hz

Power consumption
 U.S. and Canadian models.....48 W
 U.S. Military model.....44 W

Weight.....11.5 kg (25 lb 6 oz)
 Dimensions.....420(W) x 411(D) x 120(H) mm
 16-9/16(W) x 16-3/16(D) x 4-11/16(H) in
 Operating temperature.....+5 °C — +35 °C
 (41°F — 95°F)
 Operating humidity.....5% — 90%
 (There should be no condensation of moisture.)

2. Disc

LaserVision Discs

*Maximum playing times
 12-inch standard play disc.....1 hour/both sides
 12-inch extended play disc.....2 hours/both sides
 8-inch standard play disc.....28 min/both sides
 8-inch extended play disc.....40 min/both sides

Spindle motor speed
 Standard play disc.....1,800 rpm
 Extended play disc
1,800 rpm (inner circumference)
 to 600 rpm (outer circumference)
 (For a 12-inch disc)

Compact Discs

Disc.....Diameter: 120 mm, Thickness: 1.2 mm
 Rotation direction (pickup side): Counterclockwise
 Linear speed: 1.2 - 1.4 m/sec
 *Maximum playing time.....60 min. or more
 (For stereo playback)

**Actual playback time differs for each disc.*

3. Video characteristics

Format.....NTSC specifications
 Video output
 Level...1 Vp-p nominal, sync. negative, terminated
 Impedance.....75 Ω unbalanced
 Terminal.....RCA jack

VHF output
 Channel.....Channel 3 or 4 (switchable)
 Impedance.....75 Ω unbalanced
 Terminal.....F-type jack

4. Audio characteristics

Output level
 CD/LV OUT terminals
 During analog audio output.....200 mVrms
 (1kHz, 40%)
 During digital audio output.....200 mVrms
 (1kHz, -20dB)

LV ANALOG OUT terminals.....200 mVrms
 (1kHz, 40%)
 (For LV analog audio output,
 1/L, 2/R and stereo selections are possible)
 Terminal.....Both RCA jacks
 Number of channels.....2

Digital Audio Characteristics

Frequency response	4 Hz - 20 kHz (± 0.5 dB) (EIAJ)
S/N ratio	98 dB (EIAJ)
Dynamic range	95 dB (EIAJ)
Channel separation	92 dB (EIAJ)
Total harmonic distortion	0.005% (EIAJ)
Wow and flutter	Limit of measurement ($\pm 0.001\%$ W.PEAK) or less (EIAJ)

● LV is based on EIAJ.

5. Other Terminals

Control input/output.....Both miniature jacks

6. Accessories

U.S. and Canadian models

Remote control unit (CU-CLD004).....1
 Size "AAA" (IEC R03) dry cell battery.....2
 RF antenna cable.....1
 Video connecting cord.....1
 Audio connecting cord.....1
 Antenna adaptor
 (75 Ω/300 Ω → 75 Ω F-type plug).....1
 Operating instructions.....1
 Warranty card.....1

U.S. Military model

Remote control unit (CU-CLD004).....1
 Size "AAA" (IEC R03) dry cell battery.....2
 RF antenna cable.....1
 Video connecting cord.....1
 Audio connecting cord.....1
 Antenna adaptor
 (75 Ω/300 Ω → 75 Ω F-type plug).....1
 F-type jack — IEC plug adaptor.....1
 Operating instructions.....1
 Warranty card.....1

SPECIFICATIONS

7. Functions

Function that can be operated with remote control unit (CU-CLD004)

Functions	LaserVision Disc		Compact Disc
	Standard Play Disc	Extended Play Disc	
PLAY	YES	YES	YES
EJECT	YES	YES	YES
TV/LVP SELECTION	YES	YES	YES
PAUSE	YES	YES	YES
AUTOMATIC PAUSE	YES	YES	YES
SCAN (Forward, Reverse)	YES	YES	YES
AUDIO CHANNEL SELECTION (Stereo, 1/L, 2/R)	YES	YES	—
AUTO DIGITAL/ANALOG SWITCH	YES(1)	YES(1)	—
CX SYSTEM ON/OFF	YES(2)	YES(2)	—
STILL/STEP (Forward, Reverse)	YES	NO	—
CHAPTER SKIP (Forward, Reverse)	YES(3)	YES(3)	—
MULTI-SPEED (Forward, Reverse: variable in 9 steps)	YES	NO	—
MULTI-SPEED DISPLAY	YES	NO	—
FRAME NUMBER DISPLAY	NO	YES	—
TIME NUMBER DISPLAY	YES(3)	YES(3)	—
CHAPTER NUMBER DISPLAY	YES	NO	—
FRAME NUMBER SEARCH	NO	YES	—
TIME NUMBER SEARCH	YES(3)	YES(3)	—
CHAPTER NUMBER SEARCH	YES(3)	YES(3)	—
CHAPTER REPEAT	YES(3)	YES(3)	—
A-B (INTERVAL) REPEAT	YES	YES	YES
MEMORY REPEAT	YES	YES	YES
SIDE REPEAT	YES	YES	YES
PROGRAM PLAYBACK	YES(3)	YES(3)	YES
PROGRAM DISPLAY	YES(3)	YES(3)	YES
PROGRAM REPEAT	YES(3)	YES(3)	YES
PROGRAM EDIT	YES(3)	YES(3)	YES
TRACK SEARCH (SKIP SELECTION)	—	—	YES
TIME SEARCH	—	—	YES
TRACK REPEAT	—	—	YES
TRACK NUMBER SEARCH (DIRECT SELECTION)	—	—	YES
TRACK.TIME DISPLAY	—	—	YES
REMAINING TIME DISPLAY	—	—	YES
TOTAL TRACKS.TOTAL TIME DISPLAY	—	—	YES

NOTE:

- (1) Can only be used with discs with digital sound tracks.
- (2) Valid for analog sound when playing a disc with the CX mark.
- (3) Possible for playback of disc on which chapter numbers are recorded.

Other Functions

- Automatic start (Possible for both CD and LV.)
- Automatic picture stop (LV: Possible only for discs on which picture stop codes are recorded.)

NOTE:

Specifications and design subject to possible modifications without notice, due to improvement.

LaserDisc is a trademark of Pioneer Electronic Corporation.

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HOW TO PLAY CD WITH VIDEO

COMPACT
disc
DIGITAL AUDIO

CD with video is played by following the same procedure as when playing a regular CD.

HOW TO PLAY CD WITH VIDEO

1. Turn on the power to the player.
2. Press the OPEN/CLOSE (\blacktriangle) button.
3. Set a disc in the tray.
4. Press the PLAY/PAUSE (\blacktriangleright / \parallel) button.

(This procedure is the same as that for playing normal compact discs. See the player operating instructions for details.)

The player will begin play operations. It first reads the TOC on the inner-most tracks of the disc to determine the type of disc being played. When it establishes that the disc is a CD with video, the **CDV** indicator lights up on the front panel, the player scans the disc's video tracks, and play begins.



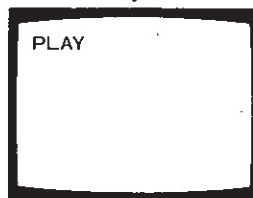
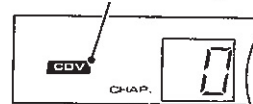
- (1) Player reads CD information from disc.



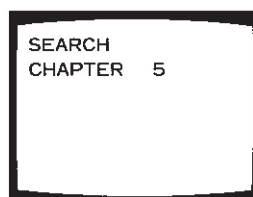
- (2) Player recognizes disc as a CD with video and scans the video tracks.

[Indicator on Player]

The CDV indicator lights up.

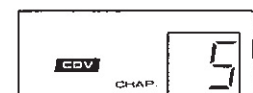


- (3) Player plays video tracks of disc.



- (4) Player scans first chapter of video tracks.

[Indicator on Player]



TO PLAY THE AUDIO TRACKS OF THE DISC

The audio tracks of the disc can be played by pressing the **SEARCH/MEMORY** key of the remote control unit after the player finishes scanning the video tracks (i.e., when the player has entered the state illustrated by (3) in the figure at right).

HOW TO SWITCH BETWEEN THE VIDEO TRACKS AND THE AUDIO TRACKS

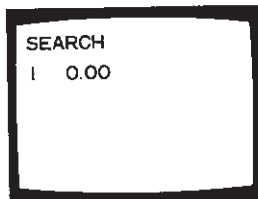
Press the **SEARCH/MEMORY** key to alternate between the video and audio tracks.



Pressing the **SEARCH/MEMORY** key while the video tracks are being played will make the player search for the beginning of the audio tracks. Pressing the **SEARCH/MEMORY** key while the audio tracks are being played will initiate scanning and play of the video tracks from the beginning.

(Switching from the video tracks to the audio tracks)

● Screen display

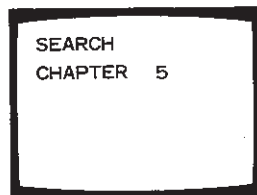
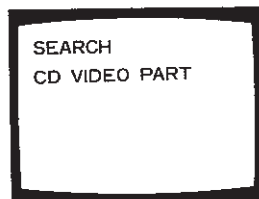


● Indicator on player



(Switching from the audio tracks to the video tracks)

● Screen display



● Indicator on player

Example: When the beginning of the video section is chapter 5.



HOW TO TERMINATE PLAY

The procedure for stopping play is the same as with normal CDs. See the player operating instructions for details.

FUNCTIONS AVAILABLE DURING CD WITH VIDEO PLAY

You can use basically the same functions during play of the audio tracks and the video tracks as when playing normal compact discs and Laser-Vision (extended play) discs, respectively. You may not, however, do repeats, searches, or programmed play that require operation in both the video track and audio track modes.

After playback of the video section ends, the start of the audio section is automatically searched for and playback begins.

Just as with compact discs, the stereo mode is used for playing the sound track of the video tracks. Also, the DIGITAL/ANALOG selector is locked in the DIGITAL mode.

As with compact discs, sound will not be output from VHF output.

● **Functions available during audio track play**

Function	Sequence of remote control key operations
PAUSE*	PAUSE
Track number/time display	DISPLAY
Track search*	◀◀ TRACK SEARCH ▶▶
Forward/reverse scan*	◀◀SCAN, SCAN▶▶
Track number search	DIGIT (track number) SEARCH/MEMORY
Time search	DIGIT (track number) TIME DIGIT (min/sec) SEARCH/MEMORY
A—B repeat	Beginning point REPEAT A , end-point & repeat begin REPEAT B
Memory repeat	Beginning point REPEAT A , beginning point search SEARCH/MEMORY
Track (1 program) repeat	REPEAT B
Side repeat	REPEAT B after track repeat (Note: The player returns to the beginning and repeats audio track play after playing all the audio tracks to the end.)
Track program play	PROGRAM DIGIT (track number) SEARCH/MEMORY DIGIT (track number)..... SEARCH/MEMORY PLAY▶
Program edit	◀◀ PROGRAM EDIT
Program repeat	During programming or after program input : REPEAT B PLAY▶
Switch to video tracks	SEARCH/MEMORY

NOTE:

Functions marked with an asterisk (*) can also be initiated with the buttons on the player unit.

● Functions available during video track play

Function	Sequence of remote control key operations
PAUSE*	PAUSE II
Chapter/time display	DISPLAY
Chapter skip (Track search)*	◀◀ CHAPTER SKIP ▶▶
Forward/reverse scan*	◀◀SCAN , SCAN▶▶
Time number search	CHAPTER-FRAME/TIME DIGIT (min/sec) SEARCH/MEMORY
Chapter number search	DIGIT (chapter number) SEARCH/MEMORY
A—B repeat	Beginning point REPEAT [A], end-point & repeat begin REPEAT [B]
Memory repeat	Beginning point REPEAT [A], beginning point search SEARCH/MEMORY
Chapter repeat	REPEAT [B]
Side repeat	REPEAT [B] after chapter repeat
Chapter program play	PROGRAM DIGIT (chapter number) SEARCH/MEMORY DIGIT (chapter number)...SEARCH/MEMORY PLAY ▶
Program edit	◀◀ PROGRAM EDIT
Program repeat	During programming or after program input : REPEAT [B] PLAY ▶
Switch to audio tracks	SEARCH/MEMORY

NOTE:

- Functions marked with an asterisk (*) can also be initiated with the buttons on the player unit.
- The player automatically returns to the normal play mode when pauses or repeat play continue for 30 minutes or longer; when the video tracks have been played to the end, disc rotation is stopped.