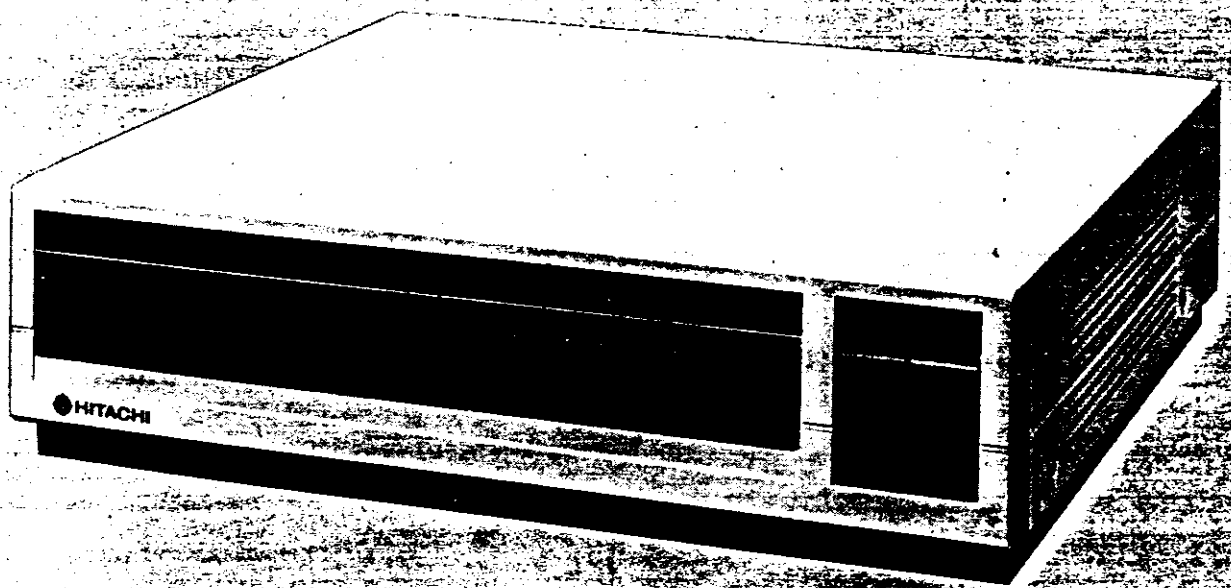


LASER VIDEO DISC PLAYER

 **HITACHI**
INSTRUCTION MANUAL

MODEL VIP9550



DANGER : Invisible laser radiation when open and interlock failed or defeated.



Avoid direct exposure to beam.

CAUTION : Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous exposure.

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CERTIFICATION
THIS PRODUCT COMPLIES WITH
DHHS RULES 21 CFR, SUBCHAPTER
J, PART 1040 AT DATE OF
MANUFACTURE.

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



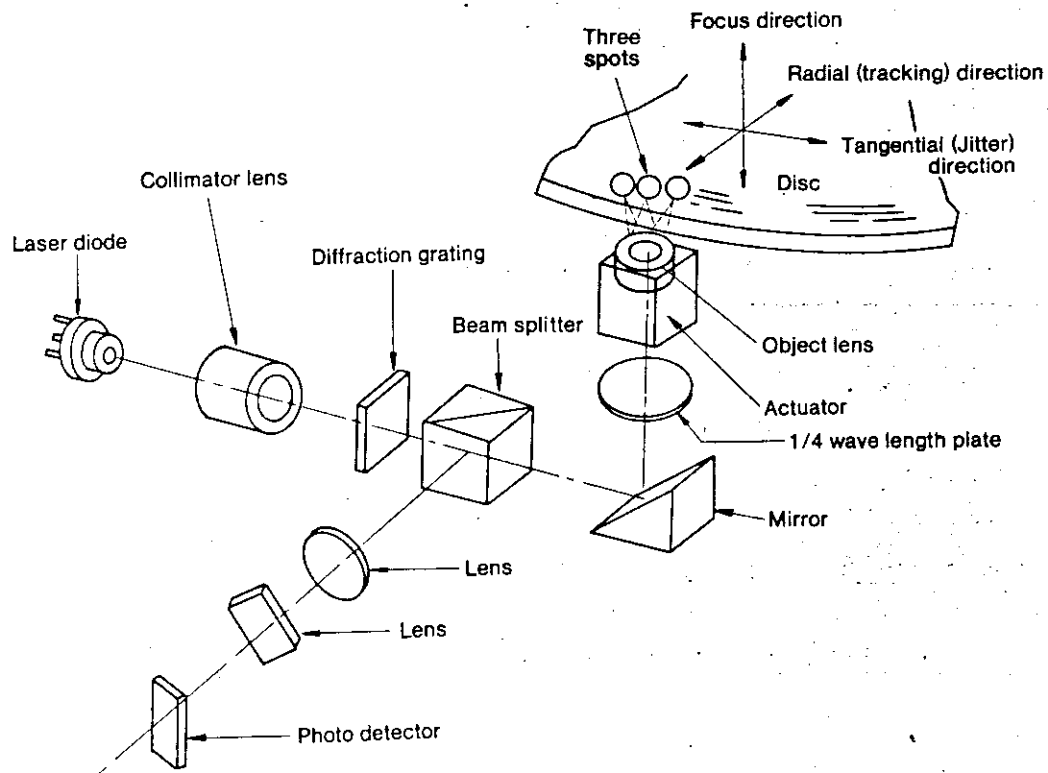
The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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

1 Features

- Laser diode pickup for a longer service life and improved reliability.



- Front loading mechanism.
- High speed random access function enables to search for any desired picture location instantaneously.
- Versatile special play functions such as long play still pictures, etc.
- Easy operation with infrared remote control transmitter (option).
- Interface function with personal computer is provided through RS232C.
- Clear and high-resolution picture, Hi-Fi sound with stereo or bilingual playback.
- Compact, lightweight and low power consumption.

2 Cautions on use

- **Do not disassemble the unit.**
Do not disassemble the unit, it may cause an electric shock or hazard.
- **Do not drop any foreign objects inside the unit.**
Do not spill liquid inside the unit or drop inflammable or metal objects inside; this will cause trouble or an accident.
- **Do not move the set while the disc is rotating.**
The disc is rotating at high speed and may be damaged if it is moved during operation.
- **Do not use or store the unit in such places as**
 - Extremely hot or cold places
 - Place where sunlight shines directly on it or near heating appliances.
 - Moist place
 - Dusty place
 - Where there are violent vibrations
 - Near equipment which generates a magnetic field
- **Do not block the ventilation holes**
Do not wrap the unit in cloth, etc. during operation or place the unit in a place with bad ventilation.
- **Do not give any shock or vibration**
Do not drop the unit or give shocks to the unit; this may cause trouble.
- **Use the unit in a horizontal position**
This unit is designed for use in a horizontal position.
- **Avoid rapid temperature changes before use**

IMPORTANT

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient the receiving antenna
- relocate the player with respect to the receiver
- move the player from the receiver
- plug the player into a different outlet so that player and receiver are on different branch circuits.

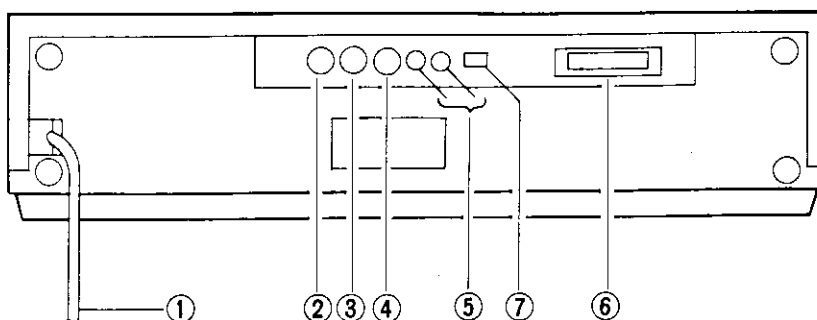
If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

NOTICE:

When Interface cable is used for the purpose of connecting Ext Connector to a personal computer, this cable needs to be shielded whose length is less than 1.9m in order to comply with FCC Part 15 Subpart J computing device, class B.

3 Rear panel



① POWER CORD

Insert this CORD into the power socket. (AC120V)

② SC

Connect the 75 ohm coaxial cable for external 3.58MHz SC (=subcarrier) generator to this connector for locking video out to SC input.

③ SYNC

Connect the 75 ohm coaxial cable for external C.SYNC(=Composite Synchronizing Signal) generator to this connector.

④ VIDEO OUT

Connect the cable for VIDEO INPUT of the Video monitor to this connector.

⑤ AUDIO R/L OUT

Connect the cable for AUDIO R/L OUT of the Audio monitor to this connector.

⑥ Ext CONTROL (compatible with RS232C interface)

Connect to the external computers to operate the player.

⑦ BAUD RATE

These switches are utilized when using the RS-232C terminal, to select the various circuit control information (Baud rate, Data length, Parity check, etc.). These switches should be set before Power is ON.

SC AND SYNC TERMINALS

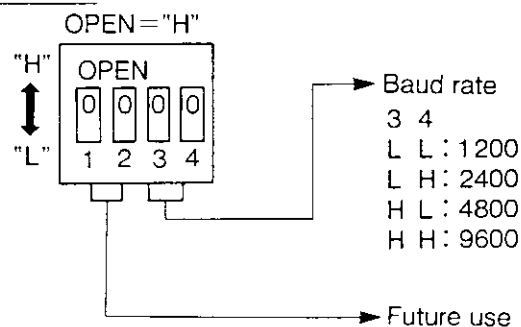
SC \ SYNC	YES	NO
	YES	EXT. Mode 1
NO	EXT. Mode 2	INT. Mode

EXT. Mode1 : Color Lock Mode.
(Offset voltage adjustment may be required to the interfaced device by using the Sync. Generator.)

EXT. Mode2 : H-V Sync. Lock Mode.

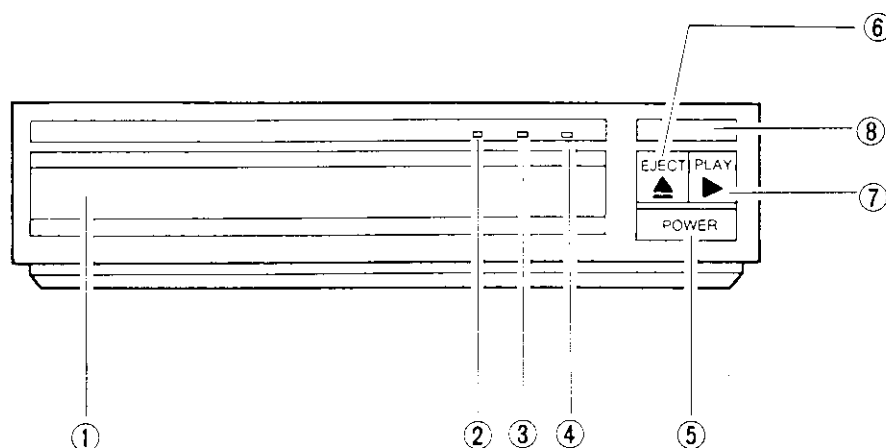
INT. Mode : Internal Sync. Lock Mode.

BAUD RATE



4 Front panel control

4.1 Player



① DISC TABLE

When the EJECT button (▲) is pressed, the disc table will appear slightly toward the front. It can then be pulled out further by hand to load a disc.

② PLAY/STAND BY indicator

This indicator lights when the player is in PLAY mode. This indicator flashes until the corresponding mode is executed or completed after the operation button is pressed.

③ POWER indicator

This indicator lights when the POWER is on.

④ REMOTE CONTROL reception indicator

This indicator lights while remote control function is operated.

⑤ POWER SWITCH

Press the switch to turn on. Press again this switch to turn off.

⑥ EJECT button (▲)

Press this button to stop playing or to draw out the disc table.

⑦ PLAY button (▶)

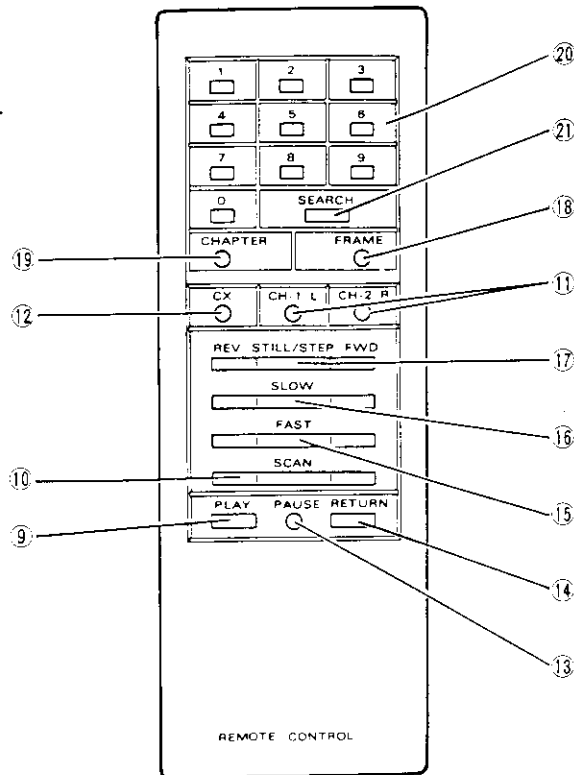
Press this button to play or to resume play mode.

⑧ REMOTE CONTROL RECEIVER

When using the optional remote control unit in the wireless format, the infrared commands from the unit are received here.

4.2 Remote control transmitter

< LIV800: option >



⑨ PLAY button

Press this button to start play or to resume play mode.

⑩ SCAN (fast-forward) button

Press this button to search for the picture you want to see or to skip the program.

FWD (right) side: Picture advances at high speed while this button is pressed.

REV (left) side: Picture moves back at high speed while this button is pressed.

⑪ CH-1/L, CH-2/R (1/left, 2/right audio output buttons)

These are ON/OFF buttons for 1/left, 2/right audio outputs.

⑫ CX (CX system decoder) button

This is the CX noise reduction system ON/OFF switch. Set to ON when playing a CX-encoded disc.

⑬ PAUSE button

Press to suspend play temporarily. Press again, to resume PLAY mode.

⑭ RETURN (play finish) button

Press to cancel any mode and stop the disc.
Press to open the disc table at Standby.

⑮ FAST (◀ × 3 speed × ▶) button

The picture is advanced at 3 times normal speed while the FWD (right) side of the button is pressed, and the picture is reversed at the 3 times normal speed while the REV (left) side of the button is pressed.

⑯ SLOW (◀ slow ▶) button

This button is for slow motion play. The picture advances when the FWD (right) side of the button is pressed, and reverses when the REV (left) side of the button is pressed. The speed is set to 1/5.

⑰ STILL/STEP (◀ still/step ▶) button

This is a key to set to the STILL or FRAME-SHIFT mode. The picture stops when either the left or right end is pressed, and then the picture advances frame by frame every time the FWD (right) side is pressed, or reverses frame by frame every time the REV (left) side is pressed.

⑱ FRAME button

Press for the frame number on screen display, press again to erase it. This button also serves as the mode designation/number correction at random access operation.

⑲ CHAPTER button

Press for the chapter number on screen display, press again to erase. This button is also serves as the mode designation/number correction at random access operation.

⑳ 0-9 buttons

These buttons are for number input at random access operation.

㉑ SEARCH button

Press for random access operations such as frame number search and chapter number search, etc.

Example 1.

Example 2.

IMPORTANT

When the player is brought from a cold area into a warm and highly humid room, it may dew inside the player and the normal playback will not be performed. Leave the player alone in the room for a hour or two, or warm the room gradually before turning on the player.

5.1 To start playback

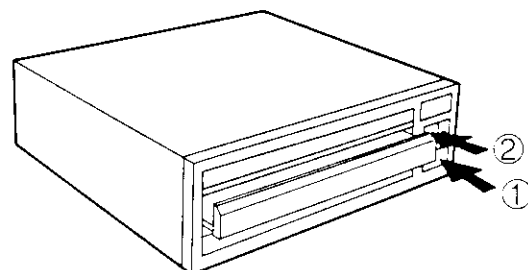
- ① Press the power switch.
- ② Press the EJECT button.
- ③ Pull the disc table out slowly with your hand.
- ④ Set the disc on the disc table.

NOTE:

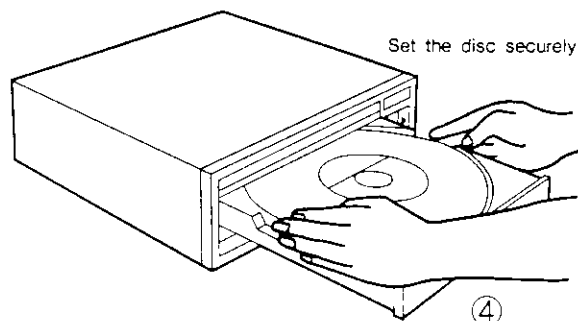
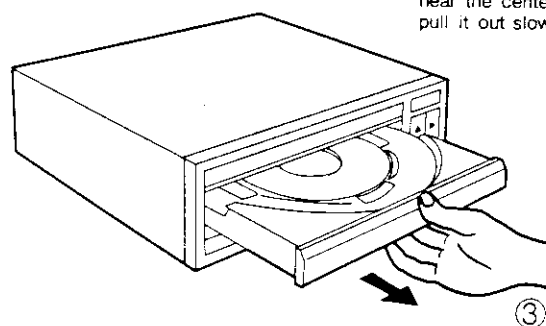
- Only one video disc should be inserted at a time.
 - For 8-inch discs, set the disc inside the guides on the disc table and be sure that the disc is mounted securely.
- ⑤ Push in the disc table. Push the disc table in slowly until it locks with a click. If the disc is not set in the proper position, the disc table will not lock, and will come out again. In this case, pull the disc table, and reload the disc correctly.
 - ⑥ Press the play button.

Cautions:

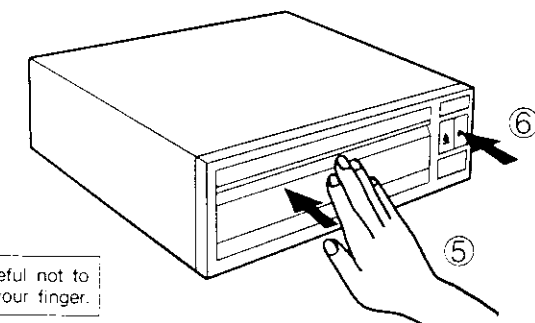
- The player will not operate if the blank side of a disc is played.
- If the POWER is off, the DISC TABLE cannot be drawn out.
- X3 speed, slow, still, frame-advance and frame number search operations are not available with a CLV extended play disc.



Holding the disc table near the center, pull it out slowly



Set the disc securely.



Be careful not to pinch your finger.

CAUTION

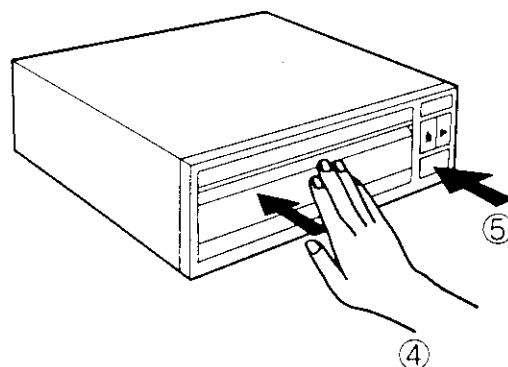
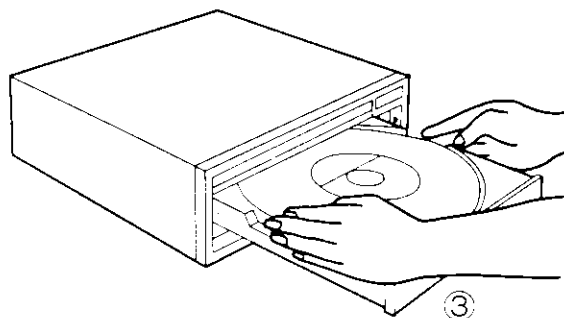
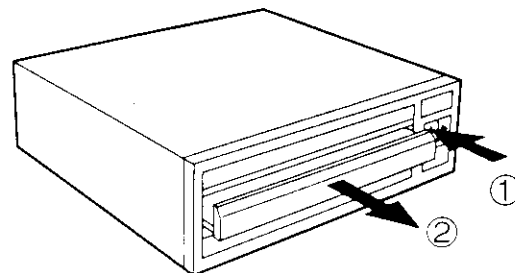
- Turning power ON again
If you turn the power switch OFF and immediately turn it back ON again, the player might not be operable with control buttons nor through computer control, this is not the malfunction of the player. Just turn OFF the power switch, wait at least two seconds before you turn it ON again.

5.2 To remove disc

- ① Press the EJECT button. When the EJECT button is pressed, the player will enter the eject mode, and the disc table will come out slightly.
- ② Pull the disc table out slowly by hand.
- ③ Remove the disc. Be sure to return it to its jacket, and store it in a vertical position.
- ④ Push in the disc table.
- ⑤ Turn power off.

CAUTION

When the disc table is in its eject (pulled out) position, do not press down on it strongly, or place items other than discs (particularly heavy items) on it. Forcing the disc table up or down when it is in its open position may cause damage to the player. It is also dangerous since, depending on the installation location, it may even cause the player to fall over. When not using the player, always be sure to push the disc table into the player.



IMPORTANT

When shipping player, confirm that there is no disc in the player. If disc is in the player, remove it.

Otherwise player may get damaged during transportation.

To confirm whether disc is in the player or not, follow the following procedure:

1. Turn on the POWER switch.
2. Press the Eject button.
3. Draw out the Disc Table.

4. Turn off the POWER switch.

Note: The POWER switch must be turned off before the Disc Table is push into the player.

5. When there is a disc on the Table, remove it.
6. Push the Disc Table into the player completely.

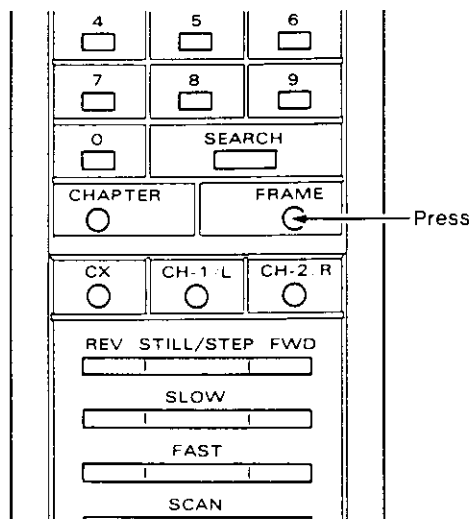
- **Remote control operation**

- Remote control operationable range: approx. 5m.
- Remote control is in operation when the REMOTE CONTROL indicator on the player lights when each button of the remote control transmitter is pressed.

- **Frame number indication**

Each picture frame is identified by the frame number starting from "00001", in case of using CAV disc.

Search, program operations and other applications are obtained with this number.

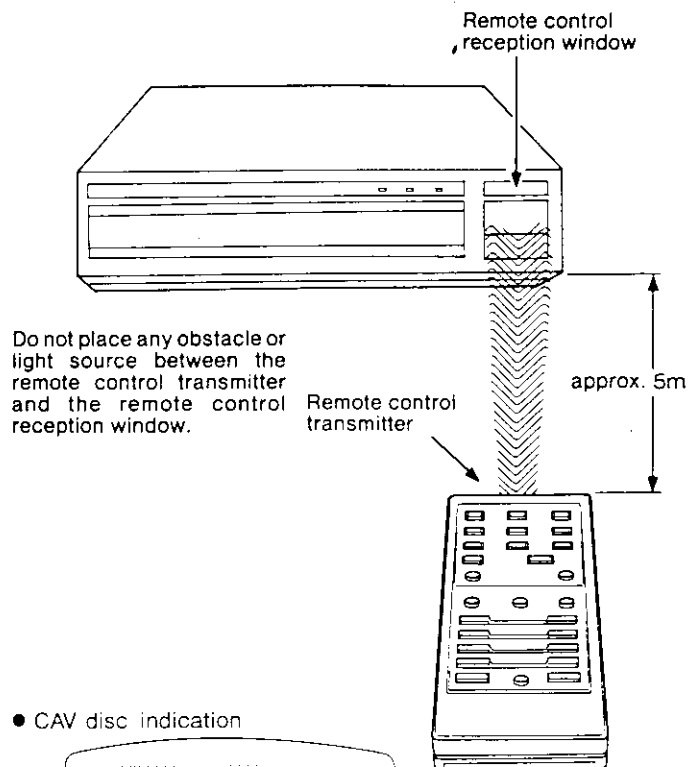


- In case of CLV disc, the time number is recorded in place of the frame number. The time number shows the elapsed time starting from "00:00".

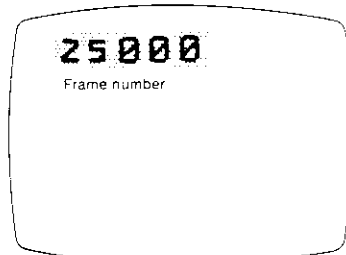
- **Chapter number indication**

Chapter numbers, as in a book, are also obtainable as on screen display, from those discs thus recorded.

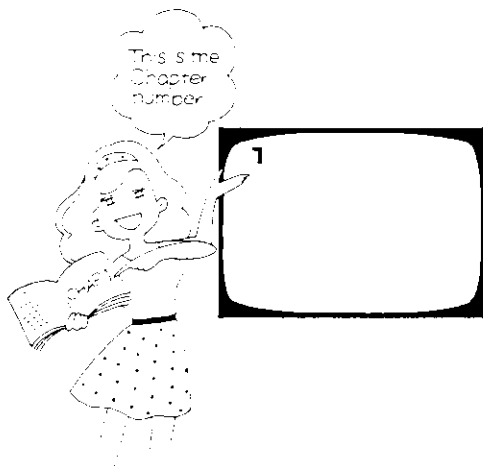
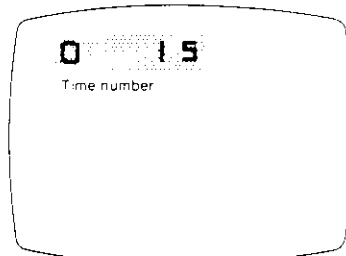
- Some discs without these chapter numbers can not reproduce, the chapter number indication even if the chapter button is pressed, nor the chapter-stop and chapter-search functions.



- **CAV disc indication**

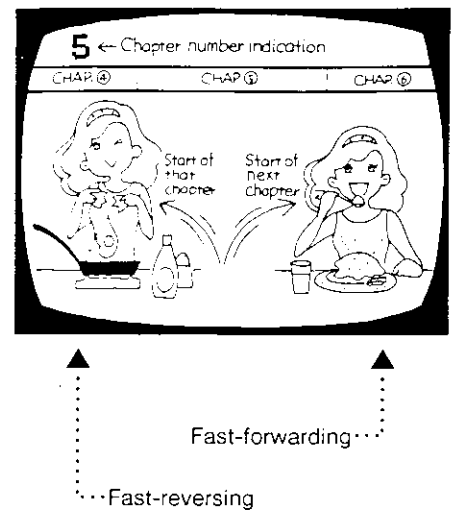


- **CLV disc indication**



● Chapter stop

With a disc with chapter numbers recorded, it is possible to skip to the start of the next chapter or to return to the start of the current chapter by chapter stop function. This operation is performed (1) When the chapter number is displayed on screen and (2) Continuously pressing the SCAN button. Then player resumes the previous mode automatically from the start of the chapter with a CAV (standard) disc, or the player is set to play mode with a CLV (long playing) disc. Release your finger from the SCAN button at that time. Press again the SCAN button for further chapter search is desired.



● Random access

This operation is performed by the remote control with a frame number and search buttons.

(1) Frame number search



- The frame number search function is obtained only with CAV (standard) discs.
(Example)
For searching frame No. 12340

Press SEARCH and FRAME
(Preparation for search) (Search using frame number)



* The picture becomes still to prepare for the frame number search.

- Press the play button to cancel the search mode.

Press the frame button again if you make an error.



Press 1 2 3 4 0
(frame number)

with the number buttons.



- When incorrect frame number is pressed, press again the frame button to correct frame number.
- When a larger number than the number of the frames recorded on the disc is pressed, the search operation is done to the outer circumference of the disc.



(2) Press **SEARCH**

(execution of search)

- The picture disappears from the screen and the standby indicator flashes while the pickup is searching for the desired frame. When the frame is found, it is played back as a still picture.



● Section play

Extended operation of repeat play is available with using STILL/STEP FWD and STILL/STEP REV buttons, as follows.

Example 1.

Press for repeated section play starting from frame number 123 to frame number 234 for 10 times (254 is the largest number), as

SEARCH **FRAME** **1** **2** **3** **STILL/STEP FWD**

2 **3** **4** **STILL/STEP REV** **1** **0** **SEARCH**

Example 2.

Repeat the same section play continuously, as

SEARCH **FRAME** **1** **2** **3** **STILL/STEP FWD**

2 **3** **4** **STILL/STEP REV** **SEARCH**

Example 3.

Repeat the same section play back and forth continuously, as

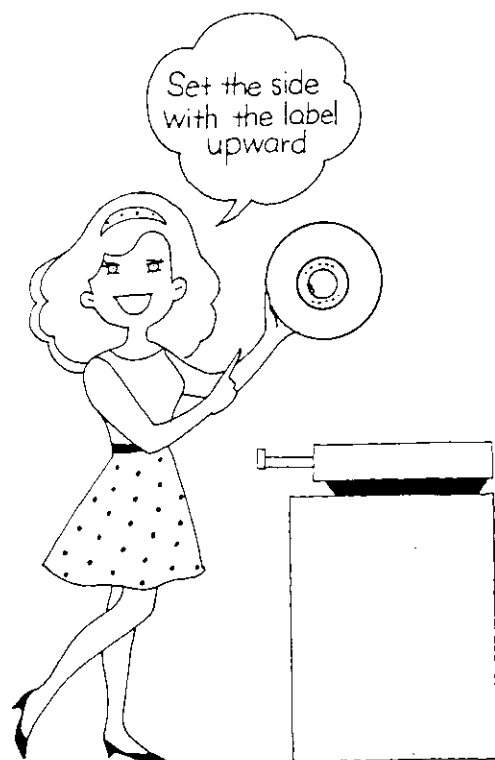
SEARCH **FRAME** **1** **2** **3** **STILL/STEP FWD**

2 **3** **4** **STILL/STEP REV** **2** **5** **5** **SEARCH**

- (1) The "standard play" mark on the jacket or label on the disc shows CAV (standard) disc and the "extended play" mark, a CLV (long playing) disc. Slow motion, $\times 3$ speed, still, frame-advance and frame number search operations are not obtainable with these marked Extended Play (CLV).

Standard Play = CAV/standard disc
Extended Play = CLV/long playing disc

- (2) Load the laser disc with the side you want to see (with its label) up in the same way as a normal audio record.



- (3) Handle the disc as shown below when loading and unloading it.

● Holding the disc

Holding with both hands: Hold both sides of the disc as shown in Fig. 1.

Holding with one hand: Hold the disc with your fingers in the center hold and at the edge as shown in Fig. 2.

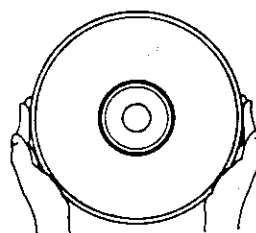


Fig. 1

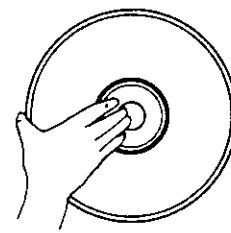


Fig. 2

- When you finish playing a disc, always remove it from the player and replace it in its jacket. The disc is made from plastic in the same way as an ordinary LP; store in a cool place with low humidity, taking care that the discs do not become warped. Be sure to read the cautions on the laser disc for other items.



Perform some checks before contacting a service engineer, sometimes malfunctioning of the TV, stereo system may be case.

Phenomenon	Check point
The disc table does not come out when the disc eject button is pressed.	<ul style="list-style-type: none">● Is the power switch turned ON?
The disc does not start rotating when the play button is pressed.	<ul style="list-style-type: none">● The power cord of the player plugged into the wall outlet?● The power switch turned ON?● The disc table locked?● The blank side being played?
The disc rotates but no picture appears.	<ul style="list-style-type: none">● The power supplied to the TV set?● Connection between the player and TV set (color monitor)?● The player set to the pause mode?● The object lens screened?
Poor picture	<ul style="list-style-type: none">● The player and TV set connected correctly?● Is there condensation in the player?
Trick play is not possible.	<ul style="list-style-type: none">● Is the disc a long playing disc? (3 times speed, slow, still/frame-advance and frame number search operations are not possible with a extended play disc.)
No sound	<ul style="list-style-type: none">● The player is in operation other than PLAY mode? (Sound is played back at normal play only.)
No remote control operation.	<ul style="list-style-type: none">● The battery in remote control exhausted?● The aiming angle is correct?● Any obstacle between the player and remote control?● The distance between the player too far?
Poor picture and play is not possible with a certain disc.	<ul style="list-style-type: none">● Any scratches on the disc or the disc deformed?

1) General		6) Functions with computer control	
System and disc specs	Comply with Philips-MCA specifications	6-1) CAV disc play	Normal play, with sound
Maximum playing time	Standard video disc (CAV): 30 minutes/side Extended video disc (CLV): 60 minutes/side	Fast *	(i) Frame type (FWD, REV) X0,X1,X2,X3 (ii) Field type (FWD) X0,X1/4,X1/2,X1,X2,X3, X4,X5,X6,X7
Spindle motor revolution	Standard video disc: 1,800 RPM Extended video disc: 1,800 RPM (Inner circumference) to 600 RPM (Outer circumference)	Slow *	Variable from X1 to X1/127 (FWD, REV)
Laser	7,800 angstrom, Semiconductor, 3mW	Freeze/Step	Freeze and Step (FWD, REV)
2) Video characteristics		Terminate/Section play	Section play from 1 to 254 times (Chapters) or endless
Video response	NTSC specification	Terminate/ * Seamless section play	Section play without seams (noiseless)
Video output	1 Vp-p/75 ohms (Terminal: BNC)	Random access	Frame and Chapter search
Signal to noise ratio	More than 42 dB (for CAV Disc)	Access time	Max. 3 sec. (ave. 1 sec.)
3) External sync. terminal		Frame accurate track jump *	Jump (FWD) Up to 200 frames Jump (REV) Up to 200 frames
Sub-carrier input	2 Vp-p, ± 0.5 Vp-p/75 ohms (Terminal: BNC)	Selectable audio channels	Left, right or stereo
Composite sync. signal input	4 Vp-p, ± 1 Vp-p/75 ohms (Terminal: BNC)	Noise reduction	CX noise reduction decoding
4) Audio characteristics		Player operations confirmed with P-Command *	All operations (Freeze, Play, Frame #, Chapter #, etc.) fed back to computer.
Audio output	Two channels; stereo or two individual channels (650 mVrms/50K ohms 1 kHz 100% mod.) (Terminal: Stereo pin jacks)	6-2) CLV disc play	Normal play mode with sound
Signal to noise ratio	70 dB (when CX circuit is on)	Scan	Forward and reverse
Frequency response	40 Hz ~ 20 kHz	Random access	Time and Chapter search
5) Computer terminal		7) Remote control wireless infrared(optional)	
Interface	RS-232C	Above functions with asterisk (*) are partly or not available with remote control.	
Baud rate	9,600, 4,800, 2,400, 1,200 bps	8) Others	
Computer command	Serial	Power requirement	AC 120V, 50/60Hz
		Power consumption	45W
		Net weight	12.5 kg (27.5 lbs)
		Dimensions	Width Height Depth 435 × 120 × 415 mm (17-1/8 × 4-3/4 × 16-3/8 in)
		Operating temperature	+5°C ~ +35°C

CX is a trademark of CBS, Inc.

These specifications are subject to change without notice for future improvement.