

Operating Instructions

LASER DISC PLAYER VP-1000

LaserDisc



IMPORTANT NOTICE

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

Caution; Use of controls or adjustments or performance of procedures other than those specified here-in may result in hazardous radiation exposure.

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

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 **PIONEER**[®]

SAFETY INSTRUCTIONS

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

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

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

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

WATER AND MOISTURE

- The appliance should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.
- Do not handle the power cord with wet hands. This is extremely dangerous because you may get an electric shock.
- Moisture forms in the operating sections of the appliance and the appliance's performance will be impaired if the appliance is brought from cool surroundings into a warm room or if the temperature of the room rises suddenly. To prevent impairing performance, let the appliance stand in its new surroundings for about an hour before switching it on, or ensure that the room temperature rises gradually.

LOCATION — The appliance should be installed in a stable location.

- **VENTILATION** — The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings.

HEAT — The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

POWER SOURCES — The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

GROUNDING — The precautions that should be taken so that the grounding of an appliance is not defeated.

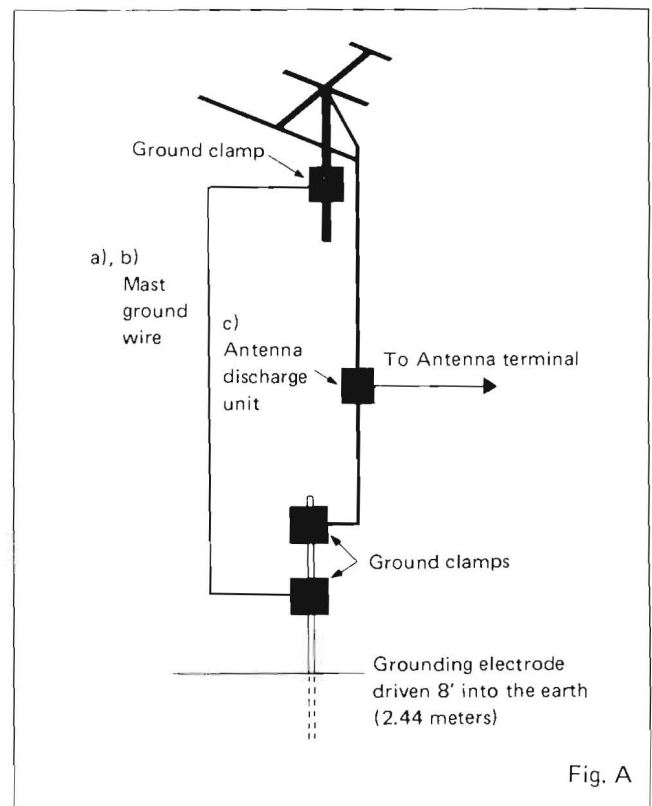
POWER-CORD PROTECTION

- 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.
- Always take hold of the plug to unplug it from the power outlet; do not unplug it by pulling on the cord. The cord may be damaged if you keep pulling on it.

POWER LINES — An outdoor antenna should be located away from power lines.

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. Section 810 of the National Electrical Code, ANSI/NEPA No. 70-1978, 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.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE INSTRUCTIONS



- Use No. 10 AWG copper or No. 8 AWG aluminum or No. 17 AWG copper-clad steel or bronze wire, or larger as ground wires for both mast and lead-in.
- Secure lead-in wire from antenna to antenna discharge unit and mast ground wire 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.

NONUSE PERIODS — The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

OBJECT AND LIQUID ENTRY — Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

SERVICING — The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be contacted nearest Pioneer authorized service center.

DAMAGE REQUIRING SERVICE — The appliance should be serviced by Pioneer authorized service center or qualified service personnel when:

- The power-supply cord or the plug has been damaged; or
- Objects have fallen, or liquid has been spilled into the appliance; or
- The appliance has been exposed to rain; or
- The appliance does not appear to operate normally or exhibits a marked change in performance; or
- The appliance has been dropped, or the enclosure damaged.

FEATURES

Future technologies come to your home

This system uses a laser beam to detect the signal recorded on the laser disc. There is no physical contact between the pickup system and the disc itself since the laser beam is focused on the signal patterns and the variation of the light reflected is converted into the reproduced signal. Unlike an ordinary phonograph record, there is no abrasion and no wear on the disc or the pickup. Even if there are fingerprints or dust on the laser disc surface, this will not usually interfere with reproduction of picture or audio because the laser beam is focused about 1.1 mm under the disc surface. In other words, the recorded signal surface is not exposed, so video disc handling is easy and requires no special care.

High fidelity stereo sound

Besides the video signal, audio is recorded on two separate channels as FM signals. Therefore, stereo or bilingual reproduction is also possible.

Audio frequency response is 40Hz - 20 kHz, signal-to-noise ratio is 55dB or more, and total harmonic distortion is 0.3% or less, making this high fidelity stereo source comparable with conventional phonograph records or FM broadcasts.

Although connection to an ordinary television set is all that is required for normal video and audio reproduction, we recommend that a hi-fi stereo system, one from Pioneer, for example, is used to take full advantage of the hi-fi sound quality of the laser disc.

Both standard play (CAV) and extended play (CLV) laser disc can be played, and VP-1000 automatically detects these laser discs and play accordingly.

The standard play disc, also known as the CAV or constant angular velocity disc, spins at the same, constant speed of 1,800 rpm from the inner circumference to the outer circumference and provides a maximum of 30 minutes playing time per side.

On the CAV disc, one video picture frame is recorded for

each revolution, so a number of additional performance features are possible.

Although the extended play disc, also known as the CLV or constant linear velocity disc, does not offer such additional features, it does have a maximum playing time of one hour per side since the rotational speed continuously varies from 1,800 rpm at the inner circumference to 600 rpm at the outer circumference.

Built-in computer control provides multiple performance features and easy operation.

From the inner to the outer circumference, the Pioneer laser disc has a maximum of 54,000 "tracks" in a continuous spiral pattern. On the CAV (standard play) disc, the signal for one video picture frame is recorded on one track covering one full revolution. Beginning at the inside circumference, each frame is recorded along with its frame number. Thanks to microcomputer control, a single frame can be played repeatedly to provide a still picture, each frame can be played several times for slow motion, and tracks can be skipped for fast-forward or reverse reproduction. There is also a "super action" feature so called frame number random access that will find a specific frame automatically by frame number within 15 seconds, and you can play slow motion, fast action, and etc. from that point. Such complex operations are remarkably easy, as will be apparent when you operate VP-1000 laser disc player.

Infrared wireless remote control is possible.

With the optional RU-1000 remote control unit virtually all operations can be controlled from a distance via infrared light. Remote control using a connection wire is also possible.

Adaptable to PCM digital audio disc reproduction.

VP-1000 is equipped with special output jacks for provision for a PCM adaptor to decode the signal from soon-to-be-available PCM (pulse code modulation) digital audio discs.

REAR PANEL FACILITIES

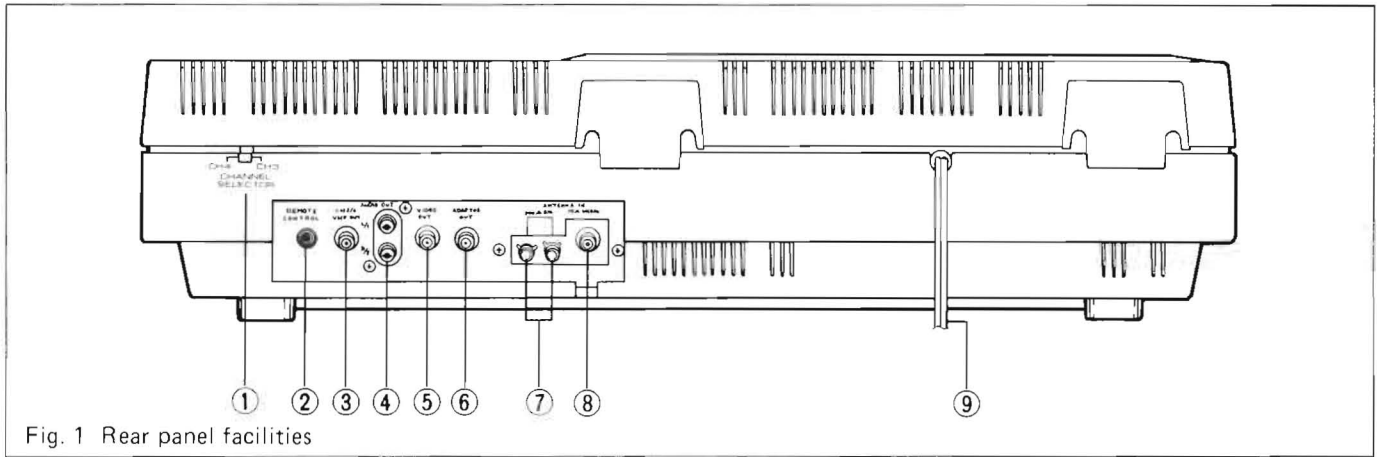


Fig. 1 Rear panel facilities

① VHF CHANNEL SELECTOR

The VHF output channel selector is located inside the opening. It has been set to channel 3 at the factory but can be changed to channel 4. Set to the channel which is not used for commercial TV broadcasts in your area.

② REMOTE CONTROL

This jack is for connecting a cord to a remote control unit. A dummy plug has been furnished with the player. Attach the dummy plug if you do not use the remote control for a long period of time. This will eliminate disturbance of function by other infrared signals such as remote control for TV set.

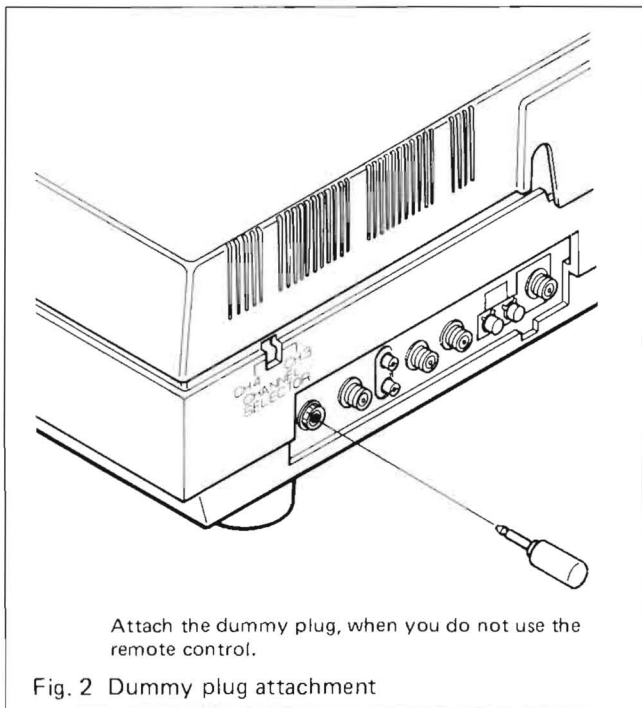


Fig. 2 Dummy plug attachment

③ VHF OUTPUT CH. 3/4

This terminal provides audio and video signals, which are converted to the VHF channel 3 or channel 4 by the built-in VHF converter. Set the CHANNEL SELECTOR (1) to the open channel that you will use to receive the laser disc signal on your TV set. We suggest also that you connect your VHF antenna lead directly to the ANTENNA IN terminals (7) or (8) on VP-1000; this will allow automatic switching between laser disc playback and regular TV reception: When you turn on VP-1000, the laser disc signal will be sent to your TV set, and when you turn off VP-1000, TV (VHF) broadcasts will be received.

④ AUDIO OUTPUT

These jacks provide the left and right channel audio signals for connection to a stereo hi-fi system.

⑤ VIDEO OUTPUT

This terminal is only for connection to a color video monitor TV (that has a video input terminal). It provides the direct video signal. This terminal is not for conventional TV set.

⑥ ADAPTOR OUT

This terminal is a provision for a PCM adaptor for playback of PCM digital audio discs. PCM discs and adaptors are expected to be introduced in a near future as a new hi-fi music source offering superb sound quality.

⑦ ANTENNA IN 300 OHMS BAL

If your VHF antenna cable is of the 300 ohms twin-lead feeder type, connect it to these terminals.

⑧ ANTENNA IN 75 OHMS UNBAL

If your antenna cable is of the 75 ohms coaxial cable type, connect it to this terminal.

⑨ POWER CORD

Plug this into a wall socket.

CONNECTIONS

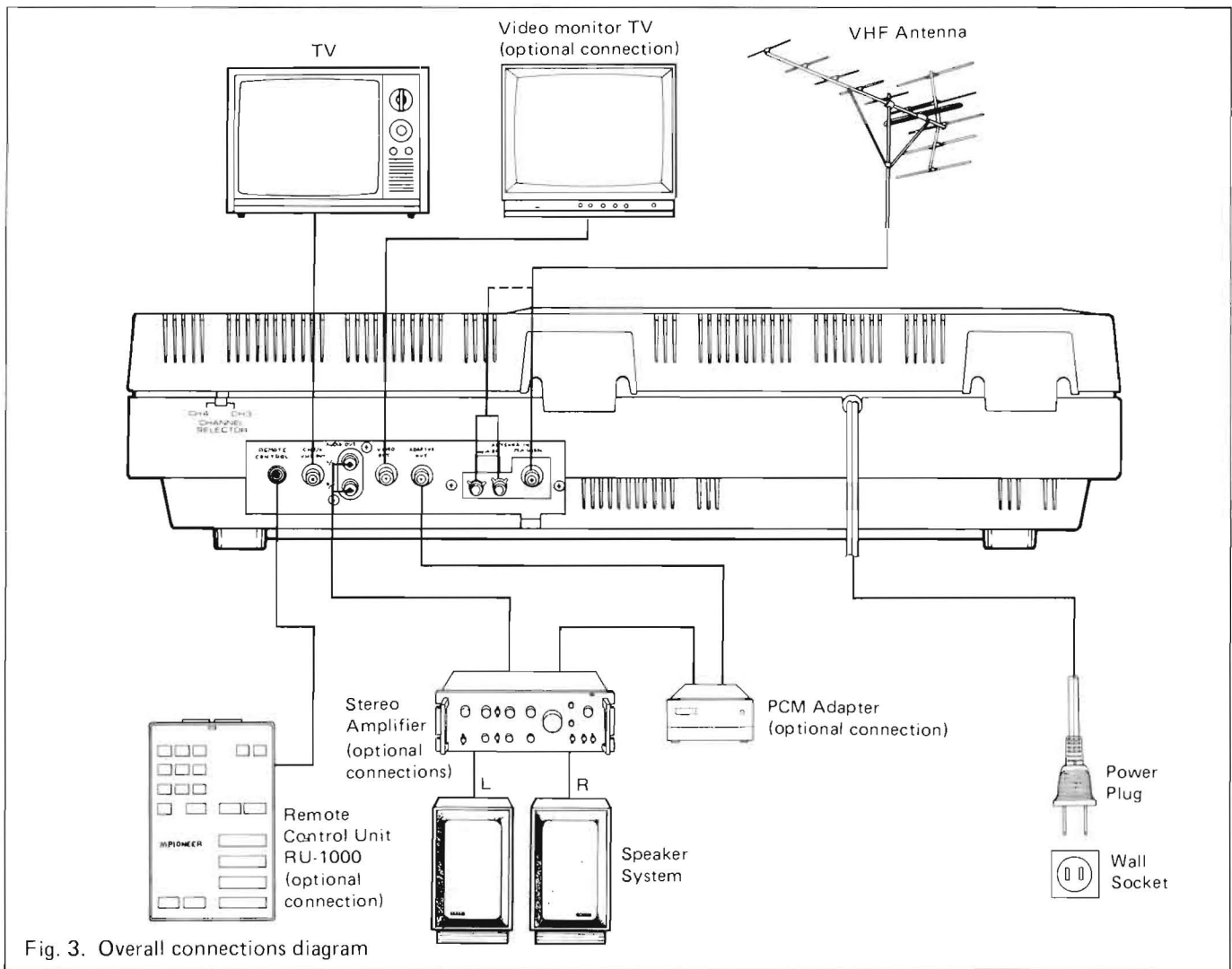


Fig. 3. Overall connections diagram

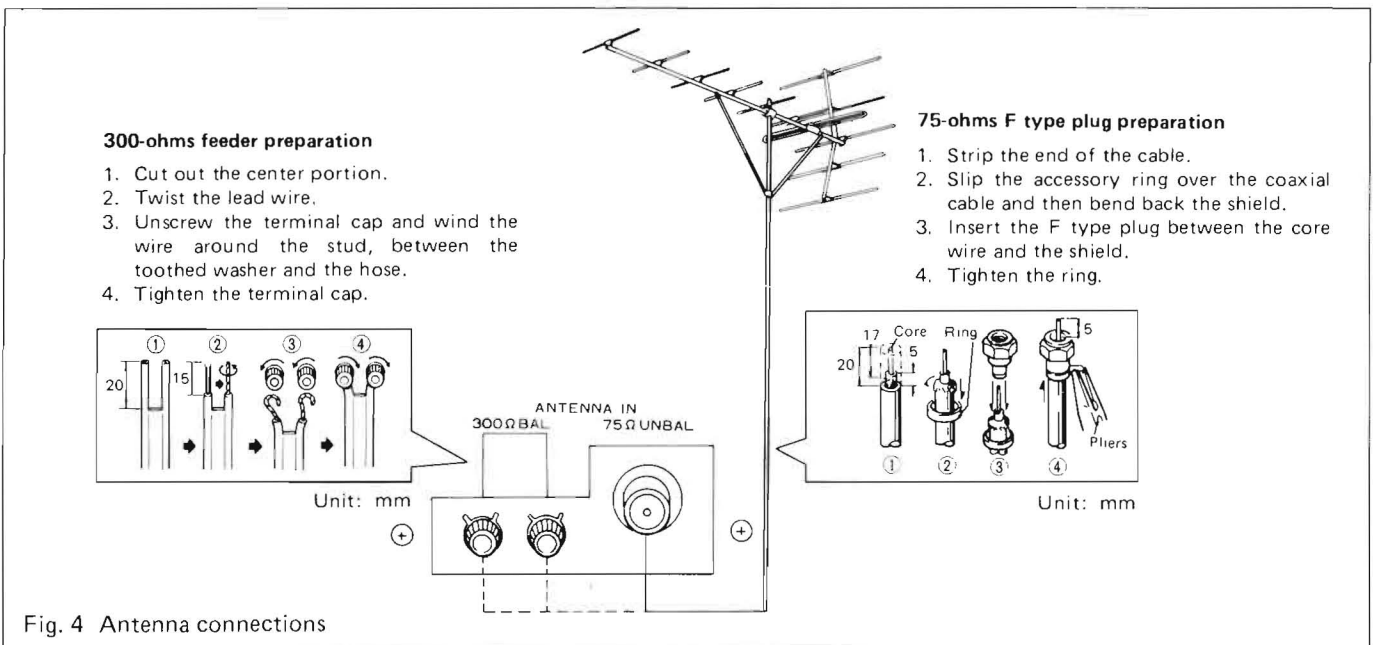
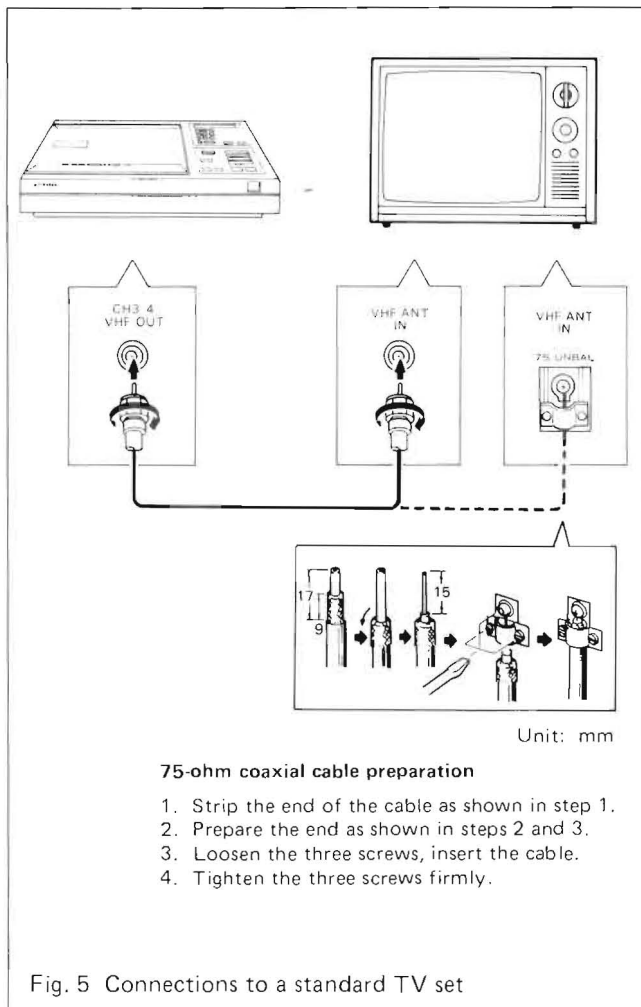


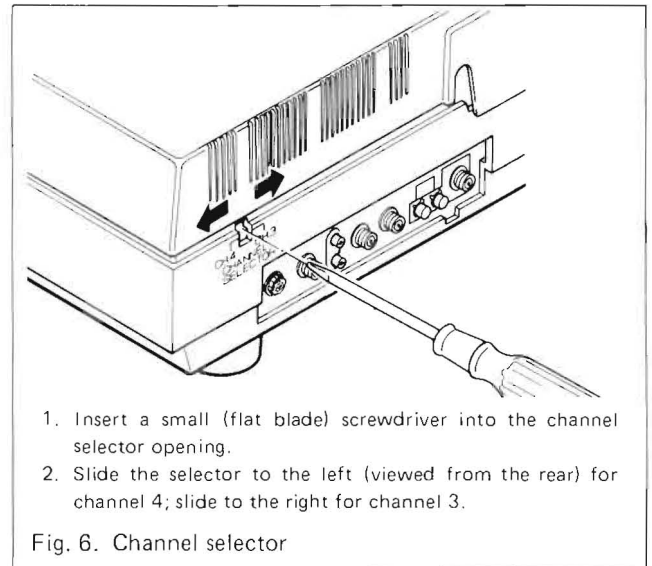
Fig. 4. Antenna connections

CONNECTIONS TO YOUR TV

1. Remove your VHF antenna cable from the VHF ANT terminal(s) on your TV set, and connect the cable to the ANTENNA IN terminal(s) on VP-1000. For twin-lead feeder antenna cable (300 ohms) prepare the wire leads as shown in the left of fig. 4 and connect to the ANTENNA IN 300 ohms BAL terminals. For coaxial antenna cable (75 ohms), an F type plug must be fitted to the end of the cable, as shown in the right of fig. 4, in order to connect it to the ANTENNA IN 75 ohms UN-BAL terminal.
2. An accessory cable with F type plugs at both ends is supplied with VP-1000. Connect one end of this cable to VHF OUT terminal on VP-1000 and connect the other end to the VHF IN (75 ohms, unbalanced, F type jack) terminal on your TV set. If your TV has no F type VHF IN terminal, prepare the end of the cable as shown in fig. 5. If your TV has no 75 ohms antenna terminal, purchase a 75 ohms-to-300 ohms adaptor and connect the cable to the adaptor. Then connect the adaptor's twin-lead feeder to the TV's VHF IN (300 ohms balanced) antenna terminals.



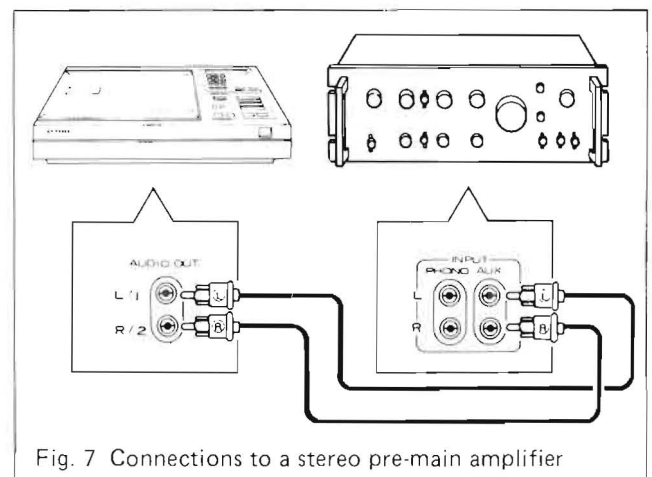
3. Next, set your TV to channel 3 or 4, whichever is not used for commercial TV broadcasts in your area. Then set VHF CHANNEL SELECTOR on VP-1000 to the same channel accordingly as shown in fig. 6.
4. Plug AC power cord for VP-1000 into a standard wall socket (120V, 60Hz). This completes the standard connection procedure for video and audio reproduction through your TV.



OPTIONAL CONNECTIONS

1. Stereo amplifier

VP-1000 can reproduce two channel stereo hi-fi signals from laser discs. To take full advantage of this capability, use the two accessory audio connection cords to connect AUDIO OUT jacks on VP-1000 to the left and right channel AUX input (or tape or tuner input) jacks on your stereo amplifier or receiver. Place the TV set (to which you have the cable connected) between the two stereo speakers and shut off the TV set's volume control for best results.



2. Video monitor TV

If you are using a video monitor TV (equipped with a video input terminal), use the accessory coaxial cable to connect VIDEO OUT terminal on VP-1000 to video input terminal on the monitor TV (terminated video input terminal).

In this case, audio outputs on VP-1000 must be connected to audio inputs of the monitor TV or to a stereo system for audio reproduction.

3. Wired remote control

To use the optional remote control unit (RU-1000) for wired remote control, connect the RU-1000 accessory cord from the remote control unit's WIRED REMOTE CONTROL jack to the REMOTE CONTROL jack on VP-1000.

For more information please follow instruction on the optional remote control unit RU-1000.

FRONT PANEL FACILITIES

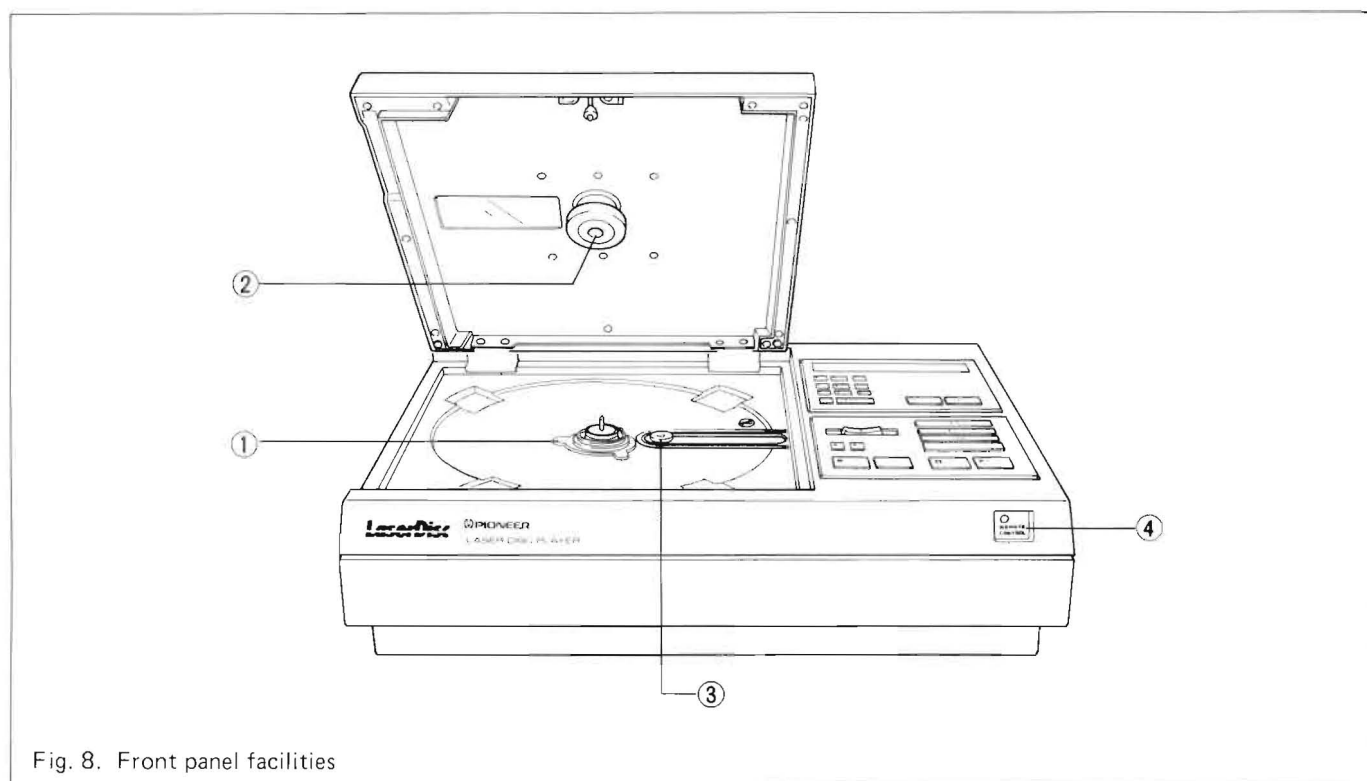


Fig. 8. Front panel facilities

① SPINDLE

Place the laser disc over this spindle. The spindle is coupled directly to the motor which rotates the disc at desired revolution.

② DISC CLAMP

When you close the lid, the magnetic clamp holds the disc on the spindle automatically to ensure stable rotation.

③ OBJECTIVE LENS

This is the key part of the player that "reads" the signals recorded on the laser disc. Note that the lens surface must

be kept clean in order to maintain optimum performance. Always avoid exposing the lens to dust and dirt. The player is shipped from the factory with a protective cap over the lens.

④ REMOTE CONTROL INDICATOR

This lights up momentarily when you press the mode keys on the player's top panel as fig. 8 or on the remote control unit. When the remote control is operated with infrared wireless, this acts as the receiver as well as indicator for commands sent from the remote control unit.

TOP PANEL FACILITIES

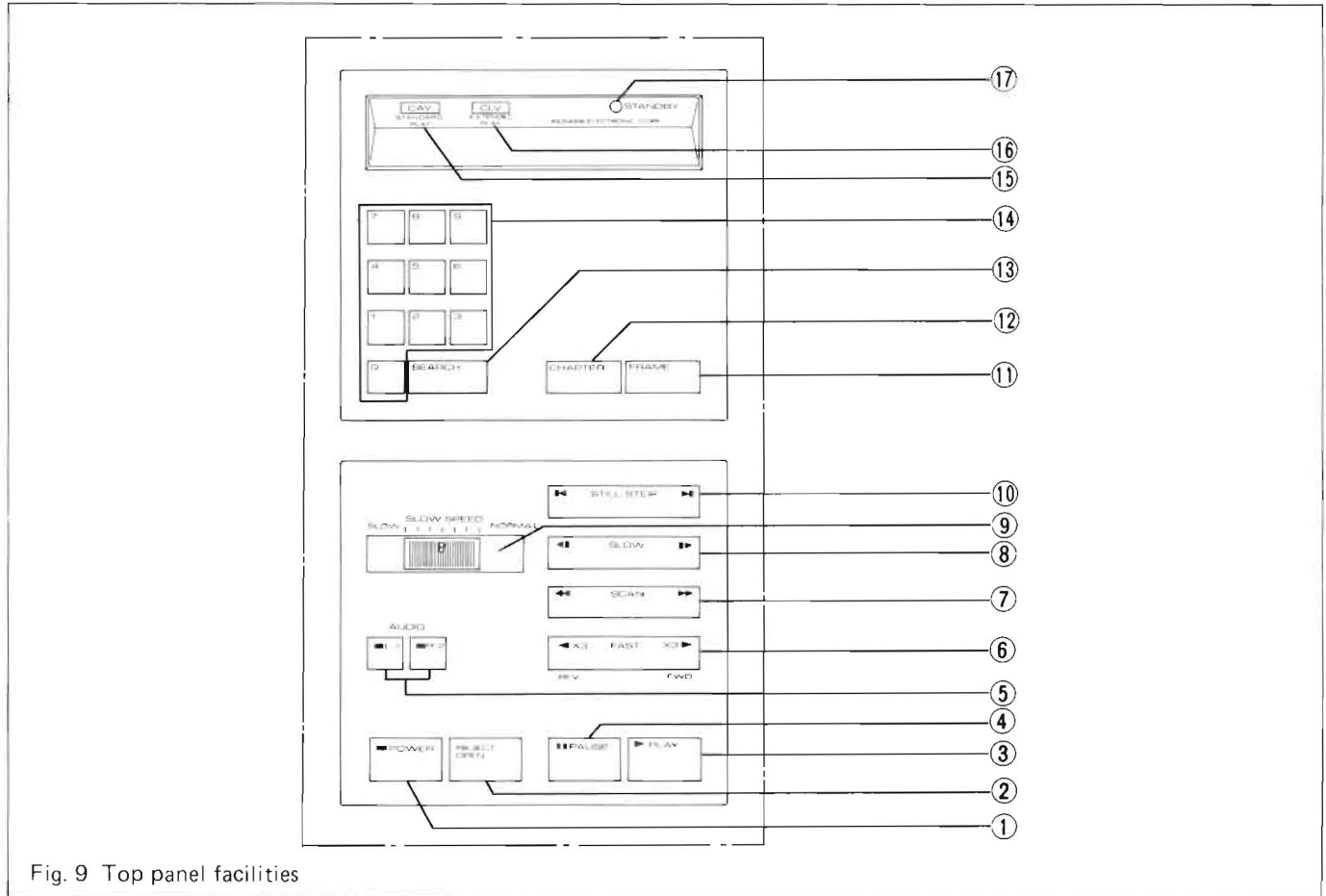


Fig. 9 Top panel facilities

① POWER

Press this key to turn the power on and off. A red indicator on the key lights up when the power is on.

② REJECT/OPEN

Press this key to cut off the operation and to open the lid.

③ PLAY

To begin playing a laser disc or resume play after a temporary pause, press this key. A red indicator on the key lights up during the normal play mode.

④ PAUSE

Press this key to temporarily halt laser disc operation. Operation stops at the frame when the pause key is pressed, and no video image is reproduced on TV set. While in the pause mode, a red indicator lights up on the pause key. Pause is released by pressing the pause key again.

⑤ AUDIO L/1, R/2

These are on/off keys for the two audio channels. During normal playback, indicators on these keys light up to show that the audio channels are being reproduced.

⑥ FAST x 3

Press the right end of this key for triple-speed forward play; press the left end for triple-speed reverse play. Audio is not reproduced while this key is pressed.

⑦ SCAN

Use this key to quickly locate a specific part of the program that you want to see. Press the right end of the key for forward scanning; press the left end for reverse scanning. Audio is not reproduced while this key is pressed.

⑧ SLOW

This key is used for slow motion video reproduction. Press the right end of the key for slow forward play; press the left end of the key for slow reverse play. Once this key has been pressed, the audio signal will not be reproduced. Indicators on the SLOW key light up when it is pressed.

⑨ SLOW SPEED

Use this to adjust the speed of slow motion play. At the far right NORMAL position, the laser disc will be played at the normal speed of 30-frames/sec. At the far left position, the laser disc will be played at the rate of 1-frame every 5-seconds. Speed is continuously adjustable between these two extremes.

⑩ STILL/STEP

This is used for single frame play and frame-by-frame play. When either end of this key is pressed, a single video frame will be reproduced. Then, every time the right end of the key is pressed, the video image will advance a frame at a time; every time the left end is pressed, the video image will go in the reverse direction a frame at a time.

⑪ FRAME

This key is used to display or erase frame numbers on the TV screen.

⑫ CHAPTER

This key is used to display or erase chapter numbers on the TV screen.

⑬ SEARCH

This is used to find specific frames or chapters on the laser disc.

⑭ DIGIT KEYS

These keys are used to select the desired frame and chapter number for the SEARCH mode.

⑮ CAV INDICATOR

This lights up during play of a CAV (standard play) disc.

⑯ CLV INDICATOR

This lights up during play of a CLV (extended play) disc.

⑰ STANDBY INDICATOR

This flashes during those periods when some time is required for the player to switch to a next commanded function mode. For example: when the PLAY key is pressed after REJECT, during the SEARCH mode, during the return period in the auto-repeat mode.

BEFORE OPERATION

OPENING THE LID

The power must be turned on before the REJECT/OPEN key is pressed in order to open the lid. Never try to force the lid to open.

REMOVING THE SHIPPING SCREW

To prevent possible damage of the internal mechanism during shipment, a shipping screw is provided on the right of the objective lens, as shown in fig. 10. This screw must be removed before operating the player. Do not lose this shipping screw. It must be screwed back into place if you ever need to ship or transport VP-1000 in future.

REMOVING THE LENS CAP

The objective lens is covered with a protective cap to prevent damage and keep out dust during shipment. (Refer to fig. 10.) This lens cap must be removed before operating VP-1000. Save the lens cap and use it to protect the lens when the player is not use for long periods of time or when shipping the player.

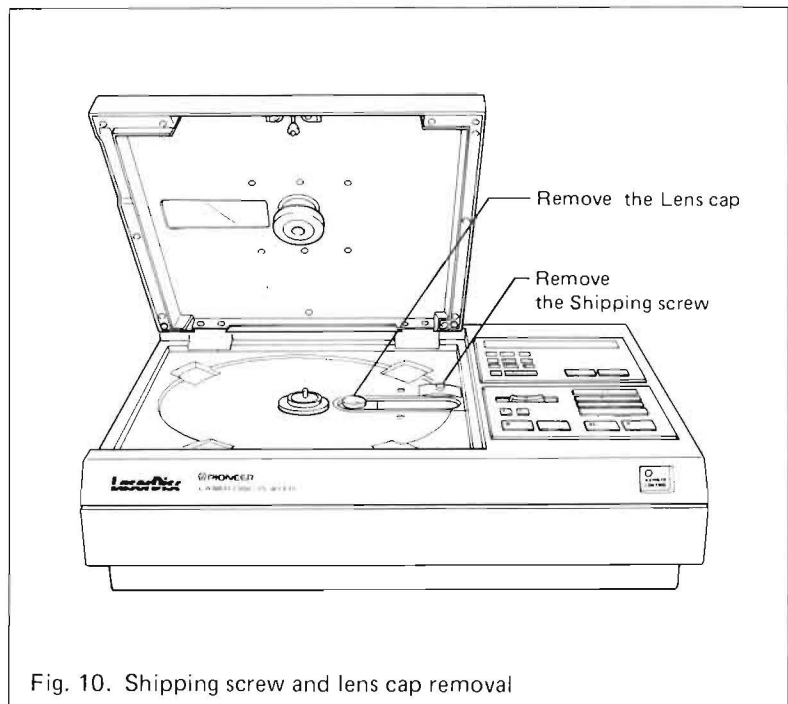


Fig. 10. Shipping screw and lens cap removal

OPERATION

OPENING AND CLOSING THE LID.

- 1) Plug AC power cord into a standard wall socket, then press the POWER key to turn on the player. (A red indicator on the key will light up.)
- 2) Press the REJECT/OPEN key to release the lid latch.
- 3) Then lift up at the left side of the lid to open. Be careful not to force the lid beyond its normal fully open position.
- 4) When closing the lid, push down firmly so that the latch locks securely.

INSTALLING AND REMOVING THE LASER DISC.

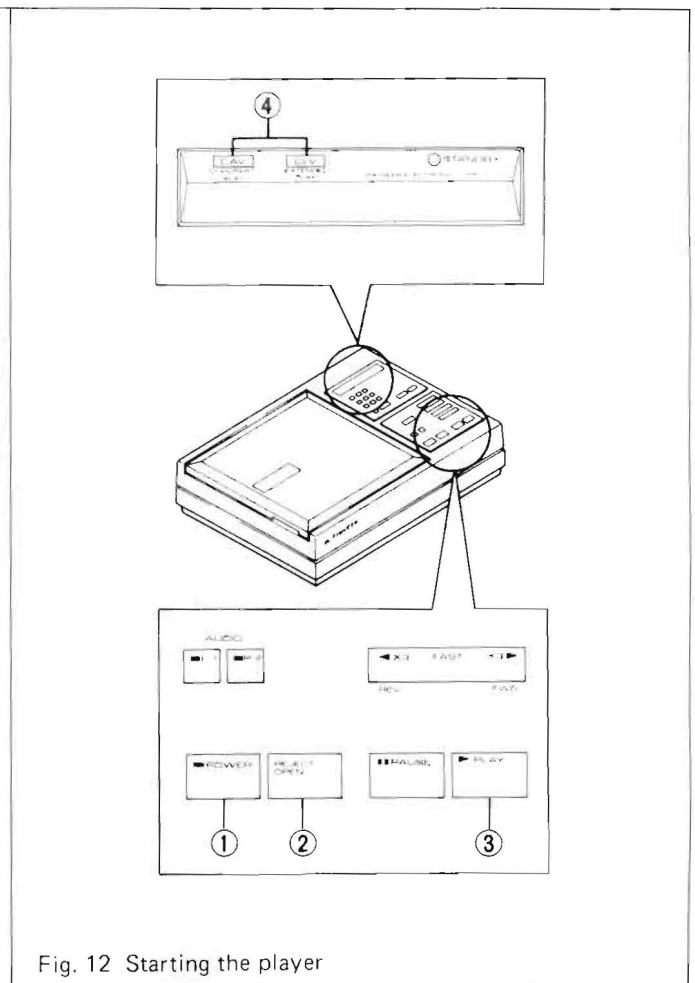
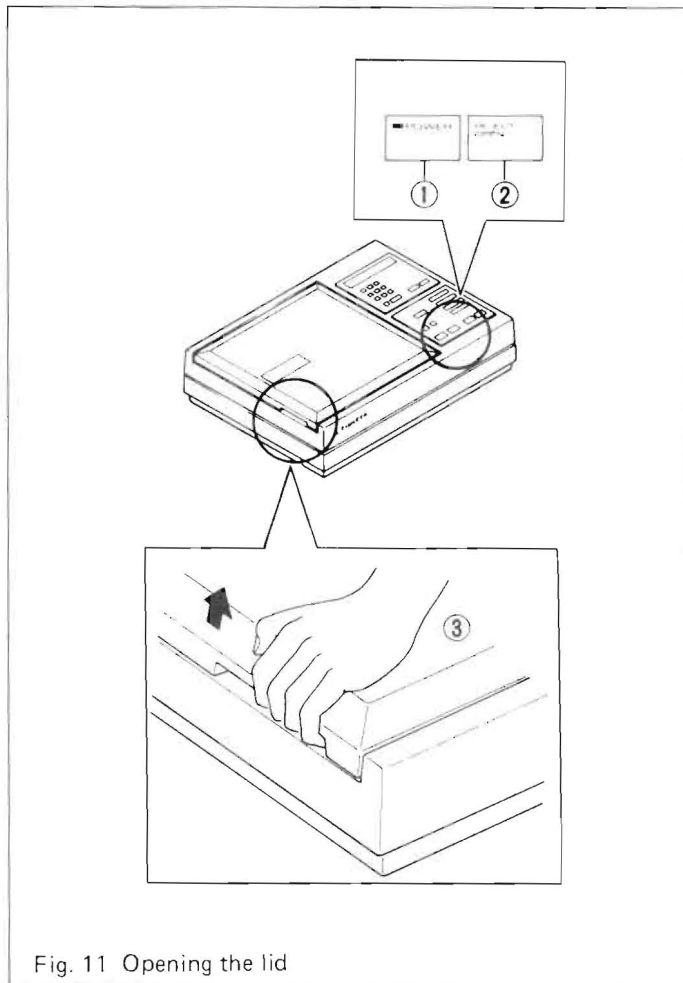
- 1) Open the lid, as described above.
- 2) With the label of the side you want to play facing up, place the laser disc on the spindle. Be sure the center-hole of the laser disc stay in the convexed spindle.
- 3) Shut the lid firmly. The disc clamp on the underside of the lid holds down the laser disc magnetically. Then the laser disc is ready to be played.
- 4) To remove the laser disc, open the lid (as described above), hold the disc by both edges, and lift it off the spindle. Replace the laser disc in its jacket after use.

NOTE:

Only open the lid when it is necessary to remove and to install the laser discs. Otherwise, leave the lid closed to keep out dust and dirt.

STARTING THE PLAYER

- 1) Turn on the power on the player, TV set, and stereo system (if you are reproducing the audio signal through a stereo system).
- 2) As described above, install a laser disc and close the lid. The player will not operate if the lid is not closed firmly.
- 3) Press the PLAY key. After a few seconds the spindle will reach the rated rotational speed, the laser beam will begin picking up the signal from the disc, and the video picture will appear on your TV screen.
- 4) As the video image appears, the player will ordinarily begin laser disc reproduction in the play mode from the beginning of the program. The top panel indicators will automatically display which type of laser disc is being played.



NOTES:

- When the CLV indicator is lit (to show that an extended play disc is being played), the STILL/STEP, SLOW, FAST, and FRAME NUMBER SEARCH functions do not operate.
- If you try to play the players without a disc or if the unrecorded side of a laser disc is installed facing down, spindle rotation will stop automatically, and the lid latch will be released.
- When the player is used for the first time, adjust the fine tuning control on TV set for best picture quality.
- If the player fails to respond to command or continues to exhibit an unusual characteristic, push off the POWER switch. Then start the operation sequence again by pushing the POWER switch followed by PLAY.

- 5) When a laser disc program has been played to the end, the laser pick-up automatically returns to the beginning of the program and play begins again. This function is called "auto-repeat".

STOPPING THE PLAYER

- 1) Press the REJECT/OPEN key. It doesn't matter which function mode the player is in when you press this key.
- 2) The laser disc will gradually slow down and stop. The lid latch is released about 10 seconds after the disc comes to a stop.
- 3) When commercial TV broadcasting is desired to be seen or the player is not in use, please switch off the power of the player.

SPECIAL FUNCTION FEATURES

PAUSE

Operation is interrupted at the point where you press the PAUSE key, and the video picture disappears from the TV screen. To get a picture again, press one of the function keys (PAUSE, PLAY, FAST, SCAN, SLOW, STILL/STEP), and operation will then be resumed. A red indicator lights up on the PAUSE key during the pause mode.

AUDIO

All laser discs have two audio channels. Both audio channels always turn on when the player's power is turned on. The red indicators on both AUDIO keys light up at the same time.

In special cases, such as a bilingual program, you do not want to reproduce both channels simultaneously, press either the L/1 or R/2 key to turn off the sound from the channel you are not using. This will also turn off the indicator light on the key. Press the same key again to turn on the sound from that channel again; the indicator will also come back on.

NOTE:

Audio reproduction is only possible in the normal play mode. Also, there will be no sound if both audio key indicators are off. When one audio channel is in use the sound is fed to both audio outputs.

FAST x 3 (standard play disc only)

Press the right end of the FAST key, as shown in fig. 13, to play the disc at three times the normal speed in the forward direction. Press the left end of the key, as shown in fig. 14, to play the disc at three times the normal speed in the reverse direction. Fast play continues for as long as you keep pressing the key, and audio is not reproduced.

The player returns to the previous mode when you release the FAST key.

NOTE:

The FAST, SCAN, SLOW, and STILL/STEP keys are rocker type switches, so they will not operate if you press the center of the key. Please do not press down hard on both ends of a key at once since this may damage the mechanism.

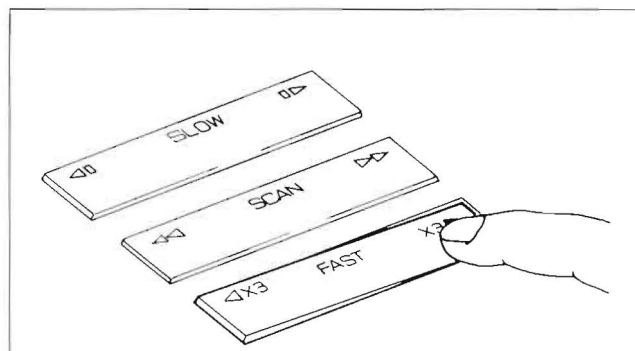


Fig. 13

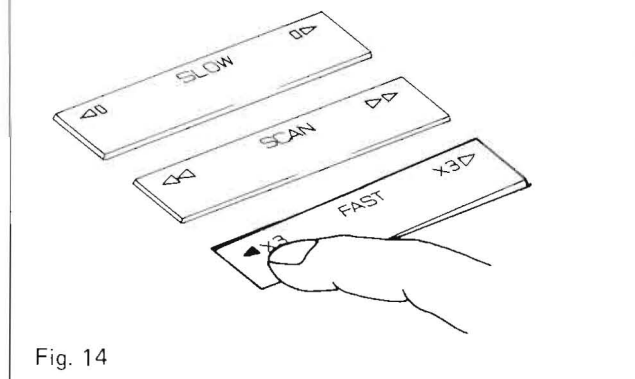


Fig. 14

SCAN

This is for quickly finding a particular point in the program from which you wish to play the disc. Scanning continues in the forward direction for as long as you keep the right end of the SCAN key depressed. Scanning continues in the reverse direction for as long as you keep the left end of the key depressed. Audio is not reproduced during scanning. The player returns to the previous mode when you release the SCAN key.

SLOW (standard play disc only)

Pressing the right end of the SLOW key will produce forward slow motion. Pressing the left end of the key will produce reverse slow motion.

OPERATION

Slide the SLOW SPEED lever, as shown in fig. 15, to adjust the speed of slow motion video play. Speed is continuously adjustable between the normal speed of 30-frames per second and the maximum slow speed of 1-frame every 5-seconds. Note, however, that audio will not be reproduced in the slow forward mode, even if you set the SLOW SPEED lever to the normal speed (NORMAL) position.

STILL/STEP (standard play disc only)

Press this button for still video reproduction or step-by-step reproduction of a frame. Pressing either end of the key will produce a still video image. Then, each time you press the right end of the key, the image will advance to the next frame. Likewise, each time you press the left end of the key, the image will go backwards to the preceding frame.

FRAME NUMBER DISPLAY

Each frame on a standard play laser disc (CAV) is recorded along with its frame number, beginning with "1" for the first frame on the innermost track and advancing in numerical order with each succeeding frame. Frame numbers of frames being played will be displayed in the upper left hand part of the TV screen when you press the FRAME key. Press the FRAME key again to erase the frame number from the screen.

Frame numbers are not displayed for extended play (CLV) laser discs. Instead, the time elapsed since the beginning of the program is displayed digitally: The first one digits show hours, and the second two digits show minutes.

PICTURE STOP

Even though this would be a rare case, there is a function called picture stop which freeze the frame by a specially recorded code in the laser disc.

The freeze frame occurs when the player is in either normal play or slow motion with frame number displayed.

Even though a picture stop coded laser disc is played, the picture stop will not be implemented if the frame number is not displayed.

CHAPTER NUMBER DISPLAY

Laser discs containing more than one program are often recorded with convenient chapter number for each program segment (in addition to the frame numbers or the elapsed time). This chapter number will be displayed as a one or two digit number in the upper left hand corner of the TV screen, as shown in fig. 17, when you press the CHAPTER key. Press the CHAPTER key again to erase the number. Both chapter numbers and frame numbers can be displayed on the screen together.

NOTE:

Some laser discs are not recorded with chapter numbers, therefore no chapter number can be displayed and the chapter stop and chapter search functions described below are not possible.

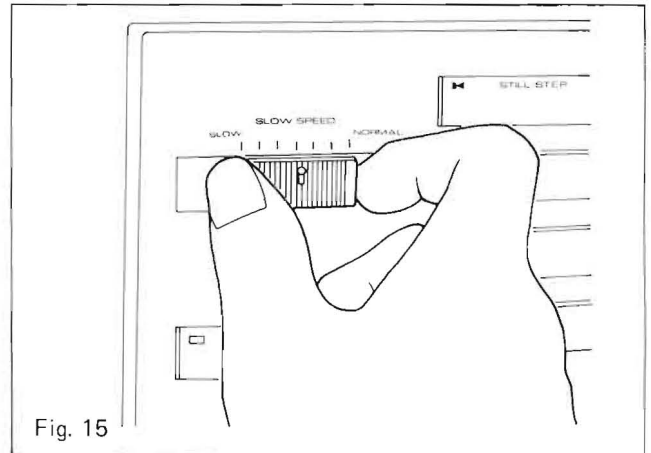


Fig. 15

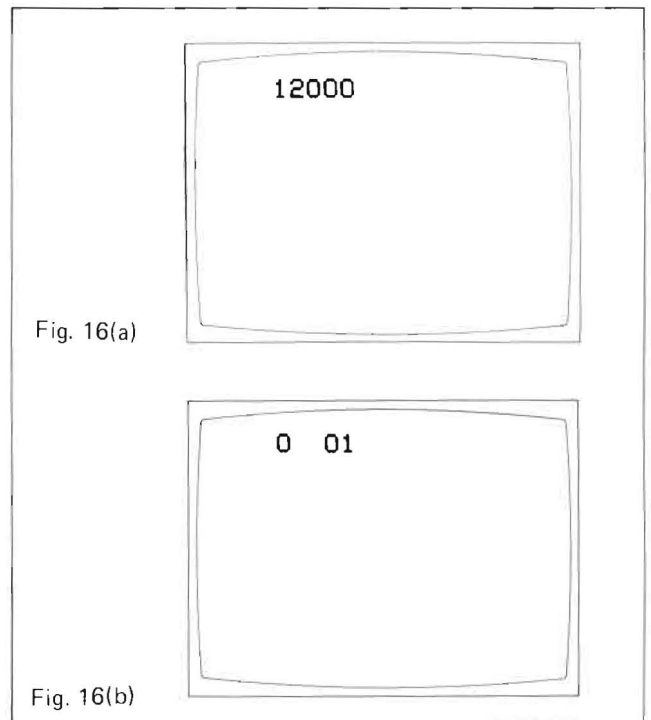


Fig. 16(a)

Fig. 16(b)

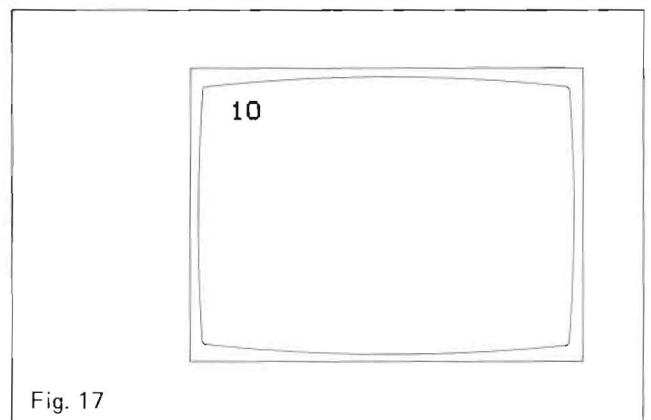


Fig. 17

CHAPTER STOP

Laser discs which have more than one program on a side, it is convenient to be able to skip from the middle of one program to the beginning of the next program. To do this, first press the CHAPTER key so the chapter number is displayed on the TV screen. Then press the right end of the SCAN key. Keep pressing at the right end of the key and the disc will be scanned to the beginning of the next program. Scanning stops automatically when the beginning is reached and the player switches back to the previous function mode with standard play (CAV) discs; with extended play (CLV) discs however, it switches to the normal play mode. Release the SCAN key at this point; scanning will not continue, even if you keep the key depressed. Likewise, if you wish to return to the beginning of a chapter being played, display the chapter number on the TV screen and press the left end of the SCAN key. Release the key when the beginning of the chapter is reached.

SEARCH

A. Frame Number Search (standard play disc only)

This function gives you access to a specified frame number. For example, to search for frame number 12340:

- 1) First, press the SEARCH key then press the FRAME key so the TV screen display is as shown in fig. 18.(a)
- 2) Next, press the DIGIT keys to select the number of the frame you want to go to. (Press keys 1, 2, 3, 4, 0, in that order.) [Fig. 18(b)]
- 3) Check to see that your desired frame number is correctly displayed on the TV screen. Then press the SEARCH key again. While the player is searching for your frame, the TV screen is blank and the STANDBY indicator flashes on and off.

When the desired frame is found, it is reproduced in the STILL mode

NOTE:

If you decide to get out of the search mode, after beginning the input procedure, simply press the PLAY key. If you make a mistake on the frame number input, press the FRAME key to cancel the frame number then enter the correct DIGIT keys.

B. Chapter Number Search

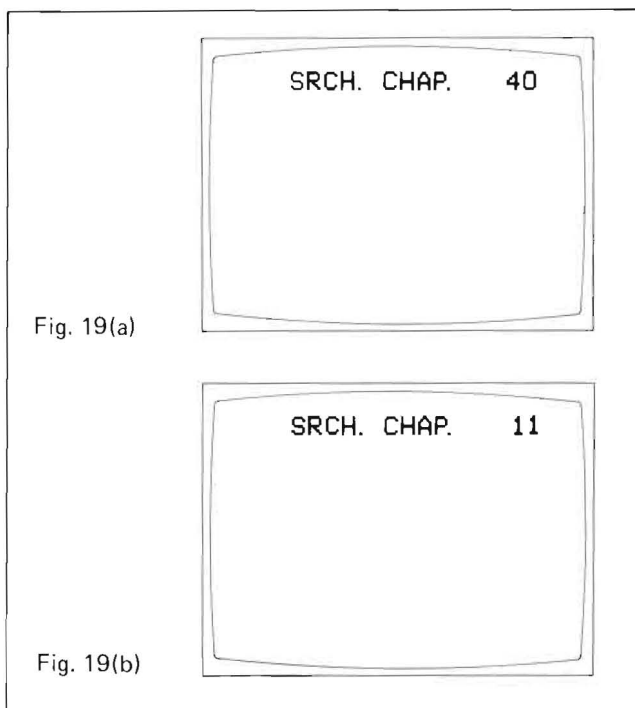
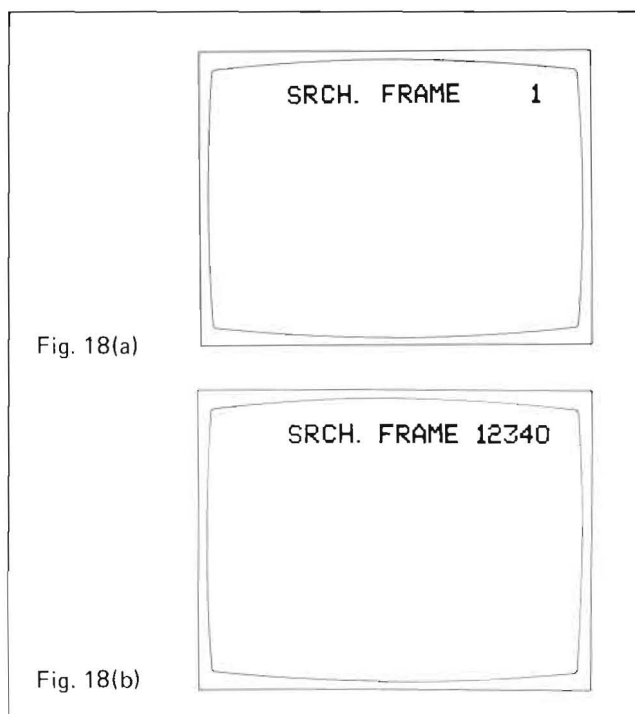
This function gives you access to the very beginning of the chapter numbers recorded in each chapter. For example, to search for chapter 11:

- 1) First, press the SEARCH key so the TV screen display is as shown in fig. 18(b).
- 2) Next, press the CHAPTER key: the middle of the TV screen display will then change from "FRAME" to "CHAP.", as shown in fig. 19(a).
- 3) Press the DIGIT keys to select the chapter number you want to go to. (Press keys 1,1, in that order) [fig. 19(b)]

- 4) Check to see that your desired chapter number is correctly displayed on the TV screen. Then press the SEARCH key again. While the player is searching for your chapter, the TV screen is blank, and the STANDBY indicator flashes on and off.

When the first frame in the desired chapter is found, that frame is reproduced in the STILL mode for standard play disc.

But for extended play disc, PLAY mode will resume.



TROUBLESHOOTING

Before concluding that the laser disc player is out of order, please refer to this trouble-shooting 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
Lid does not open.	<ul style="list-style-type: none"> ● Power cord is not properly plugged into AC wall socket. ● Power switch is not turned on. ● Latch is not released. ● You are pulling up on the wrong part of the unit. 	<ul style="list-style-type: none"> ● Plug in power cord. ● Turn on power switch. ● Press REJECT/OPEN key. ● Lift from left side recess.
Disc does not rotate.	<ul style="list-style-type: none"> ● Power is not on. ● Lid is not shut completely. 	<ul style="list-style-type: none"> ● Plug in power cord. ● Turn on power switch. ● Push lid close firmly so latch locks.
Disc stops rotating soon after starting and lid latch is released.	<ul style="list-style-type: none"> ● You are playing the unrecorded side of a disc. 	<ul style="list-style-type: none"> ● Turn over disc.
Disc rotates but there is no picture.	<ul style="list-style-type: none"> ● TV is not turned on. ● Wrong connection from player to TV. ● TV set is not tuned to channel 3 or 4. ● Player VHF CHANNEL SELECTOR is at wrong setting. ● Player is in the PAUSE mode. 	<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 to same channel. ● Press the PLAY key.
Picture quality is bad.	<ul style="list-style-type: none"> ● Bad connections between player and TV set. ● Player VHF out channel is different from TV channel. ● TV fine tuning has not been adjusted. ● Poor disc. 	<ul style="list-style-type: none"> ● Check all connections, particularly F type plugs. ● Both TV and player must be set to the same channel (3 or 4) which is not used for TV broadcasting in your area. ● Adjust TV fine tuning knob for optimum picture quality. ● Try playing a different disc. If other discs give good quality, the problem is with that particular disc.
TV no longer receives other channels after it has been connected to laser disc player.	<ul style="list-style-type: none"> ● Antenna cable has not been connected. ● Laser disc player is turned on. 	<ul style="list-style-type: none"> ● Connect VHF antenna cable to proper (300Ω or 75Ω) terminals on laser disc player. ● To view regular TV broadcasts, remember to turn off the power on the player.
A particular part of a particular laser disc is not reproduced properly.	<ul style="list-style-type: none"> ● Disc is damaged. 	<ul style="list-style-type: none"> ● Press the SCAN key to skip over damaged portion.
Wireless Remote Control does not work.	<ul style="list-style-type: none"> ● Dummy plug has not been removed. ● Remote control unit batteries are weak. 	<ul style="list-style-type: none"> ● Remove dummy plug. ● Replace batteries.

MAINTENANCE

Cleaning the player

- Use a soft, clean cloth to wipe off dust and dirt accumulated on VP-1000. If necessary, moisten a soft cloth with diluted neutral detergent to remove heavy dirt.
- Never use paint-thinner, benzene, or other solvents. They react with the surface and cause color changes and melting.

Laser disc Care

- Laser discs are made of hard plastic. Use a commercial phonograph record cleaner or soft cloth to lightly wipe

off dust and dirt.

- Finger prints and dust on the laser disc do not affect the recorded signal. However, excessive dirt may interfere with reproduced picture quality, so it is a good idea to keep the laser discs clean.
- Therefore, it is best to handle laser discs by the outer edges and center hole only, just as you would do with ordinary phonograph records.
- Always replace discs in their jackets after use. To prevent warping, keep discs away from high temperature and humidity.

SPECIFICATIONS

General

System and disc spec.

..... Comply with MCA Philips specifications

*1 Maximum playing time

..... Standard laser disc; 30 minutes/side

..... Extended laser disc; 60 minutes/side

Spindle motor revolutions

..... Standard laser disc; 1800 RPM

..... Extended laser disc; 1800 RPM

(inner circumference)

to 600RPM (outer circumference)

Laser..... 6328 angstrom, He-Ne 1mW

Video Characteristics

Video response..... NTSC specification

Video output

Level... 1Vp-p nominal, sync. negative, terminated

Impedance..... 75 ohms unbalanced

Terminal..... F type jack

Signal to noise ratio..... More than 42dB

VHF output

Channel..... Channel 3 or 4 (switchable)

Level..... More than 60dB μ (comply with

FCC specifications)

Impedance..... 75 ohms unbalanced

Terminal..... F type jack

Audio Characteristics

Audio Output..... Two channels; stereo or two individual channels

Level..... 650mV nominal (1kHz 100% mod. 50 kilohms terminated)

Impedance..... Less than 2.2 kilohms unbalanced

Terminal..... Stereo pinjacks

Total harmonic distortion..... Less than 0.3% (1kHz 75% mod.)

Signal to noise ratio..... More than 55dB (1kHz 100% mod. using IHF A network for weighting)

Frequency response... 40Hz to 20kHz (± 3 dB reference to 1kHz 10% mod.)

Functions

Play..... Normal play mode with sounds

Pause

Fast x 3..... Forward and reverse

Scan..... Forward and reverse

Scan time (90 mm travel) less than 30 sec.

Slow... Forward and reverse (standard laser disc only)

Variable speed control

Still/step..... Still picture; step forward and reverse

Frame number display... ON/OFF (standard laser disc)

Elapsed time display... ON/OFF (extended laser disc)

*2 Chapter number display..... ON/OFF

Search; Frame number search (standard laser disc only)

*2 Chapter number search

Search time..... 15 sec.

Auto repeat

*2 Chapter stop

Picture stop..... Special disc only

Remote control..... Infrared wireless remote

control/wired remote control

(Optional function)

Others

Power requirements..... AC 120V 60Hz

Power consumption..... 95 watts

Dimensions..... 550(W) x 405(D) x 142(H)mm

21-11/16(W) x 15-7/8(D) x 5-5/8(H)in

Net weight (without package)..... 17.5kg (38.6lbs)

Grossweight (with package)..... 20.5kg (45.2lbs)

Furnished Accessories

Operating instructions..... 1

VHF connecting cable with F type plugs..... 1

Audio connecting cords with pinplugs..... 1

Dummy plug..... 1

Warranty card..... 1

NOTE:

Specifications and the design subject to possible modification without notice due to improvements.

*1 Actual play back time differs for each disc.

*2 Only for discs with recorded chapter codes.

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