

CD CDV LD Player

MDP-600

MDP-A1

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

For the Customers in the USA

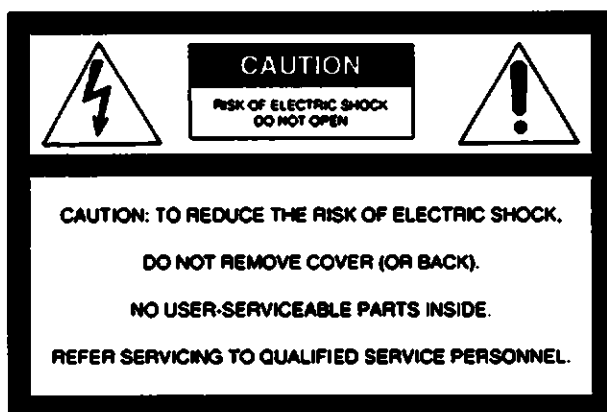
Owner's Record

The model number is located on the rear panel. The serial number is located on the top of front panel. Record the model number and the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. _____ Serial No. _____

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.



This symbol is intended to alert the user to 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.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

For detailed safety precautions, see the leaflet "IMPORTANT SAFEGUARDS".

INFORMATION

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful 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 or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION

The use of optical instruments with the product will increase eye hazard.

As the laser beam used in this videodisc player is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

NOTICE FOR THE CUSTOMERS IN CANADA

This apparatus complies with the Class B limits for radio noise emissions set out in radio Interference Regulations.

CAUTION:

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

Table of Contents

	About Operating Voltage	4
Introduction	About These Instructions	5
	What to Do First	6
	The Principles of Operation	6
	Introduction to Your Player	7
Installation and Connection	Front and Rear Panel Controls and Supplied Accessories	8
	Controls on the Remote Commander	10
	How to Connect the Television	11
	How to Connect Audio Equipment	13
To Play a Laser Disc	How to Load and Play an LD (Laser Disc)	14
	Understanding Displays and Messages When Playing LDs	17
	How to Search Using Variable Speed Play (for CAV discs)	18
	How to Search by Chapter Numbers	19
	How to Search by Frame Number or Time—Frame/Time Search	20
	How to Replay the Same LD Selections	21
	How to Play Only Certain Chapters—Programmed Play	23
	How to Play Frame-by-Frame (for CAV discs)	25
	How to Continue Play from the Point You Stopped at—Memory Play ...	25
To Play a Compact Disc	How to Load and Play a CD (Compact Disc)	26
	Understanding Displays and Messages When Playing CDs	28
	How to Locate a Certain Track	29
	How to Search by Elapsed Playing Time—Time Search	30
	How to Replay the Same CD Selections	31
	How to Play Only Certain Tracks—Programmed Play	32
To Play a Compact Disc Video	How to Load and Play a CDV (Compact Disc Video) or VSD (Video Single Disc)	33
	Understanding Displays and Messages When Playing CDVs or VSDs	34
To Play Any Disc	How to Have the Disc Play Within a Set Period of Time	35
	How to Display the Elapsed Playing Time — Time Counter	36
	How to Program the Player to Pause or Scan Automatically	37
	How to Play Selections in Random Order—Shuffle Play	38
To Play Karaoke	42
Additional Information	Troubleshooting	44
	Optical Disc Maintenance	45
	Player Maintenance and Safety	45
	Glossary	46
	Specifications	47
Index	Specifications	Back cover

About Operating Voltage

Before operating the Multi Disc Player, make sure that the operating voltage of your unit is identical with that of your local power supply.

How to Determine the Correct Operating Voltage

- **MDP-600**

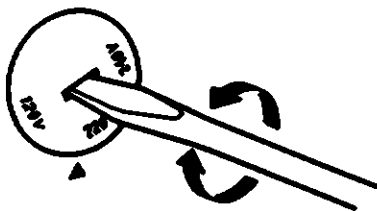
The MDP-600 operates at 120 V AC 60 Hz only and does not have a voltage selector.

- **MDP-A1**

The MDP-A1 has a voltage selector.

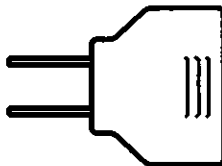
Before operating the unit, find out the local voltage, and if necessary reset the selector at the rear of the Multi Disc Player to the voltage corresponding to your local power supply (120, 220 or 240 volts AC). The voltage selector of this unit is set to 120 V AC originally. When using in Malaysia, reset the selector to 240 V AC.

To reset the voltage selector, disconnect the power cord and turn the selector with a blade screwdriver so that the arrow on the rear panel points to the appropriate voltage.



How to Use the AC Power Plug Adaptor (supplied with the MDP-A1)

- If the AC plug on your Multi Disc Player does not fit into the wall outlet, attach the supplied AC plug adaptor.



If you have any questions or problems concerning your unit, please contact your nearest Sony dealer.

Introduction

This introduction explains the organization of this manual and the principles of operation of the Multi Disc Player (MDP).

About These Instructions

Consumer electronics manuals have been notorious for being hard to comprehend. Having recognized this fact, we have made an attempt with this manual to avoid the usual pitfalls by trying to not pretend that the equipment being described is as simple as a bread toaster. Most likely this is your first Multi Disc Player and may be the only one you will own. With that in mind, we have striven to write the instructions in straight-forward English while trying to keep the procedures simple and systematic.

Differences between the MDP-600 and MDP-A1

This manual covers both the MDP-600 and MDP-A1. Their differences are as follows:

Front panel

- (LD) QUICK START button and indicator In the MDP-600 the button is referred to as the QUICK START button, however, in the MDP-A1 the button is referred to as the LD QUICK START button. In this manual, we use QUICK START.

Rear panel

- Voltage selector The MDP-A1 has a voltage selector (see page 4).
- RFU OUT connectors The MDP-A1 has RFU connectors (see page 9).
- AC IN connector Each model has a different AC IN connector.

The illustrations of the rear panel in this manual are of the MDP-A1.

Supplied accessories

- Remote Commander RMT-M19A is supplied with the MDP-600.
RMT-M19B is supplied with the MDP-A1. RMT-M19B has the DISC/TV button.
 - AC power cable Each model has different plugs.
 - AC plug adaptor Supplied with the MDP-A1 only (see page 4).
-

Because the Multi Disc Player is capable of playing laser discs (LDs), compact discs (CDs), and compact disc videos (CDVs), these instructions are divided into the equivalent of three "manuals"—one for each type of disc—with a fourth section providing instructions common to all discs and the fifth section for enjoying Karaoke.

The following summarizes what you'll find in this manual.

To Play a Laser Disc (LD)

This section covers all functions associated with playing LDs (page 14). Unique to LD play are STILL/STEP, MULTI SPEED play, MEMORY play and FRAME/TIME search. The MDP-600/A1 allows you to playback both sides of an LD without replacing it. The (LD) Quick Start function shortens the waiting time before an LD starts playing.

To Play a Compact Disc (CD)

This section explains the operation of CDs and compares most closely to CDV audio operations (page 26).

To Play a Compact Disc Video (CDV)

This section covers procedures for CDV operation and shares many functions with CD play (page 33). There are no functions unique to CDV play in this Multi Disc Player.

To Play Any Disc (LD, CD, CDV)

Most of the procedures in this section fall into the advanced category (page 35) and are collected here because they are common to LD, CD and CDV play.

To Play Karaoke

This section is a short instruction for Karaoke playing (page 42).

What to Do First

Once you have read through this page, read "Principles of Operation" (page 6), then go ahead and connect up the Multi Disc Player to your television and/or stereo system using the connection diagrams on pages 11, 12 and 13. After you have done this, you will be ready to play a disc. We suggest an LD or CD. Begin with the section, "How to Load and Play an LD (or a CD)".

The Principles of Operation

Beyond the play of discs, the functions of the Multi Disc Player range from simple to advanced. Some functions vary depending on what type of disc (laser disc, compact disc, or compact disc video) you are playing. Nevertheless, keep in mind that the majority of the buttons have been designed to achieve a comparable effect for each type of disc you are playing. Therefore, the following paragraphs can briefly summarize what the basic Multi Disc Player functions allow you to do. (Control names that differ from the function name appear in uppercase letters.)

Primary Functions	are so-called because they entail the traditional functions of all disc players.
Variable Speed	group operations according to the fact that they let you vary play speed, therefore, easily locate ("search") scenes or tracks as you watch or listen.
Repeatable Functions	are memory functions that let you play selections repeatedly, according to a play list or randomly. Playback can be started from the point you stopped. Because the system finds and plays selections according to your request, some repeatable functions also serve as "search" functions.
Auxiliary Functions	are additional functions that simply add to what you can do with the Multi Disc Player.





Primary Functions	Variable speed Functions	Repeatable Functions	Auxiliary Functions
Power Open/Close Play Pause Stop Side A (B)	Variable Speed Scan (SHUTTLE RING) Still/Step Scan (STILL/STEP) Variable Speed Play (MULTI SPEED, SPEED SET)	Pre-Programmed Play (AUTO PGM, PGM) Intro Scan (INTRO) Random Play (SHUFFLE) Chapter/Track Search (ACS/AMS) Frame/Time Search (FRAME/TIME) Memory Play (MEMORY PLAY) Auto Pause (AUTO PAUSE) Repeat Play (1/SIDE/ALL, REPEAT, REPEAT A↔B)	Picture Enhance Functions: (PICTURE ENHANCE) Sound Quality Functions: (AUDIO MONITOR, ANALOG, CX) On-Screen Display (DISPLAY) Audio/Video Time Counter (AV TIME) Karaoke Functions: (ECHO/MIC LEVEL)

Introduction to Your Player

The MDP-600/A1 Multi Disc Player integrates the functions of three machines into one: laser disc, compact disc, and compact disc video player. The entertainment potential afforded by the combined capabilities of this multi-faceted machine amounts to some 40 to 45 functions. Below follows an explanation of the kinds of discs the Multi Disc Player plays.

The MDP-600/A1 Plays Three Classes of Optical/Digital Discs*

The MDP-600/A1 Multi Disc Player plays all three types of optical discs currently available for home entertainment. The following table illustrates their types and features.

Disc Class	Disc Logo	Disc Type	Size	Play Side	Play Time	
Laser Discs For movies, operas, and concerts		LD Single	8 in. (20 cm)	Single Side	CAV	14 min
					CLV	20 min
		8-inch LD	8 in. (20 cm)	Double Side	CAV	28 min
					CLV	40 min
		12-inch LD	12 in. (30 cm)	Double Side	CAV	1 hr
					CLV	2 hr
Compact Discs For music		CD Single	3 in. (8 cm)	Single Side	20 min	
		CD	5 in. (12 cm)	Single Side	74 min	
Compact Disc Videos For music videos and educational material (Digital Audio)		CDV	5 in. (12 cm)	Single Side	Video+Audio	5 min
		VSD	5 in. (12 cm)	Single Side	Video + Audio	5 min

Multi Audio Discs



On laser discs bearing this logo, the analog tracks are recorded in multiplex, and the digital tracks are recorded in stereo.

* These apply only to those discs recorded in the NTSC standard. The MDP-600/A1 cannot play CED, VHD discs or PAL video discs, CD-ROM, CD-GRAPHICS, CD-I discs or aluminum-lined discs.

Installation and Connection

Front and Rear Panel Controls and Supplied Accessories

Front Panel

FL DISPLAY button

Each time you press the button, the front panel display turns on/off.

QUICK START (MDP-600)

LD QUICK START (MDP-A1) button and Indicator

To turn off the indicator, press the button while in the stop mode. (See page 16.)

POWER (ON/OFF) button and indicator

ON: Green
OFF: Off (MDP-600)
Red (MDP-A1)

Remote Commander Sensor

PHONES jack and LEVEL control

To listen with headphones, plug stereo headphones into the PHONES jack. Adjust the volume with the LEVEL control.

Front Cover

Automatically slides down when you press the OPEN/CLOSE (▲) button, and the disc tray comes out.

◀◀/▶▶ SCAN buttons

Press the right button to scan forward; press the left button to scan backward.

◀◀/▶▶ ACS/AMS buttons

Press the right button to advance one chapter/track; Press the left button to go back a chapter/track.

SIDE A/SIDE B button and indicators

Press the upper or lower side of the button to select the playing side of an LD.

▲ OPEN/CLOSE button

▶ PLAY button

|| PAUSE button

■ STOP button

MIC jack and ECHO/MIC LEVEL controls

To play Karaoke, plug a microphone into the MIC jack. Adjust the microphone volume and echo level with the controls.

Front Panel Display

Rear Panel

S VIDEO OUT 1, 2

Connect the YC-15V Cable (not supplied).

LINE OUT 1, 2

Audio Connectors

ATT (Attenuator) switch

Distorted singing sounds can be corrected by setting this switch to ON. This will lower the volume.

Voltage selector
With the MDP-A1 only
(See page 4.)

AC IN-

MDP-600

AC IN connector
Connect the AC power cable (supplied).

RFU OUT

Audio/Video Connectors

These connectors are on the MDP-A1 only. Connect the RFU adaptor when your TV does not have Audio/Video inputs (see page 12).

AUDIO OUT (MONO) jack
(phono jack)

RFU DC OUT jack
(mini mini jack)

This jack supplies power to the RFU adaptor.

VIDEO OUT jack (phono jack)

LINE OUT 1, 2

Video Connectors

DIGITAL OUT

Fiber Optical Connector

CONTROL S IN jack (mini type)

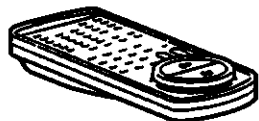
Use this jack if your TV etc. has a CONTROL S output jack.

- By connecting this jack to the CONTROL S output jack on your TV, you can control this player with the Remote Commander pointed at the TV.
- Connect the RK-G69 cable (not supplied).
- If you plug one end of the cable into the player and leave the other end unplugged, the Remote Commander will not work.

Accessories

Make sure the shipping box contains the following accessories:

RMT-M19A Remote Commander
(RMT-M19B supplied with the MDP-A1)



Two AA (R6) batteries



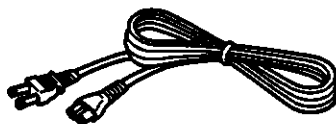
Audio/Video connecting cable
(phono 3 ↔ phono 3)



AC plug adaptor
supplied with the MDP-A1
(See page 4.)

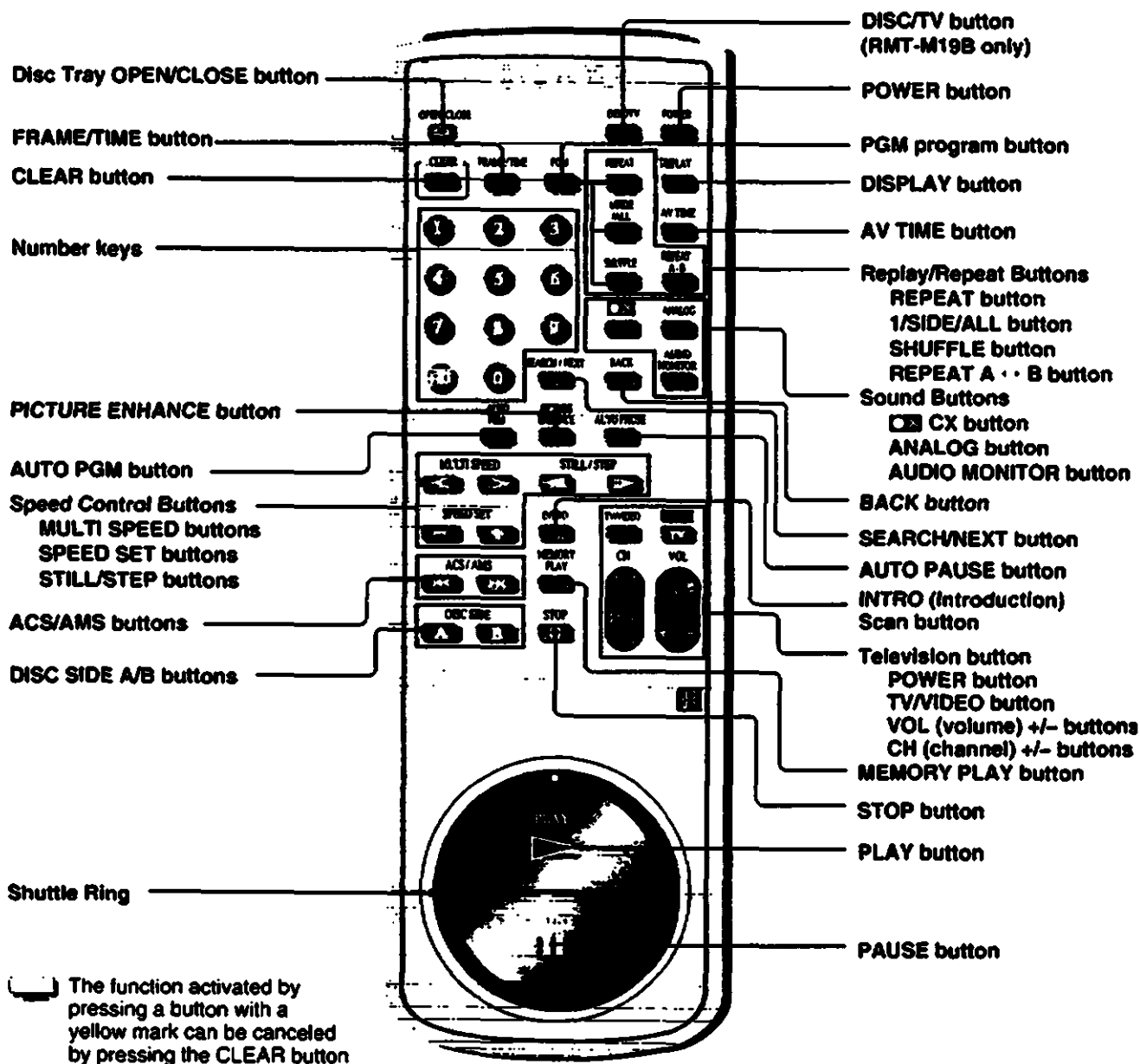
AC power cable

The plugs for the AC power cable of the MDP-A1 differ from the plugs of the MDP-600 (shown below).



Controls on the Remote Commander

You can use the Remote Commander (Remote) to control the player or the identical buttons on the player itself.

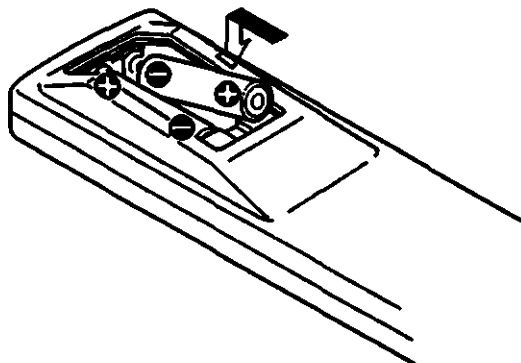


To Activate the Remote Commander

Open the back cover, and insert two size AA (R6) batteries according to the polarity indicated in the illustration. The batteries will last for about 6 months. If the range of the Remote Commander becomes noticeably short, replace all the batteries with new ones. If the Remote Commander is not to be used for a long time, remove the batteries to avoid damage from possible battery leakage.

Remote Commander Precautions

- Do not let sunlight or powerful artificial light fall directly on the Remote Commander sensor on the front panel (of the player) as it may interfere with Remote Commander operation.
- Use size AA (R6) batteries only.

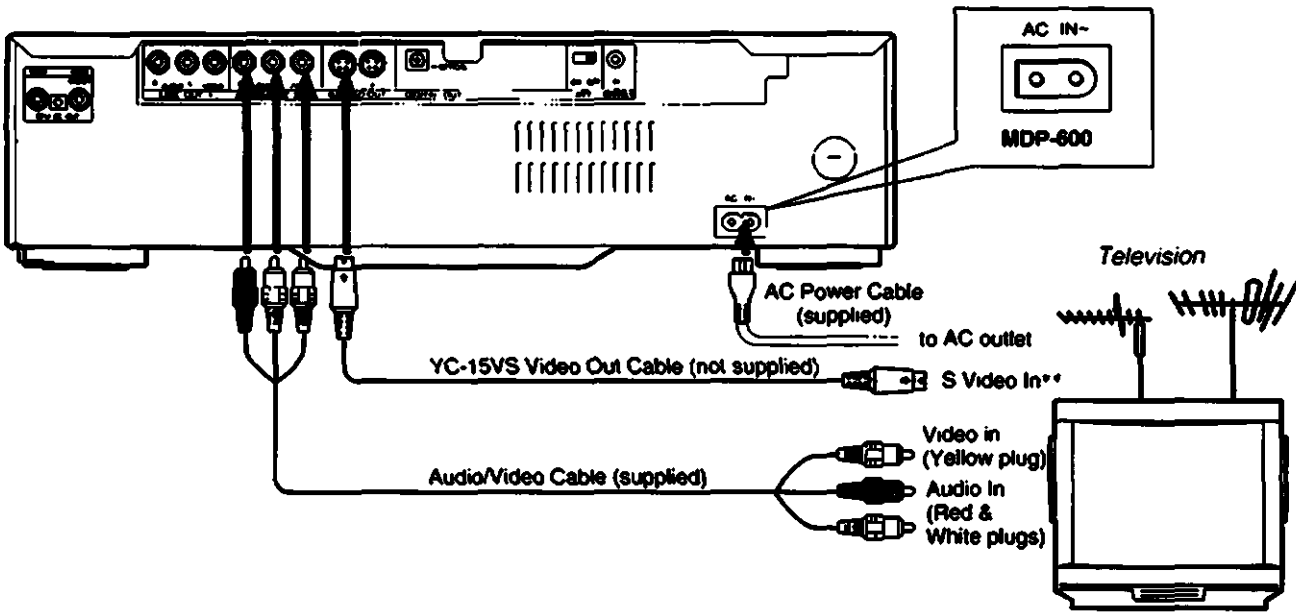


Insert two size AA (R6) batteries

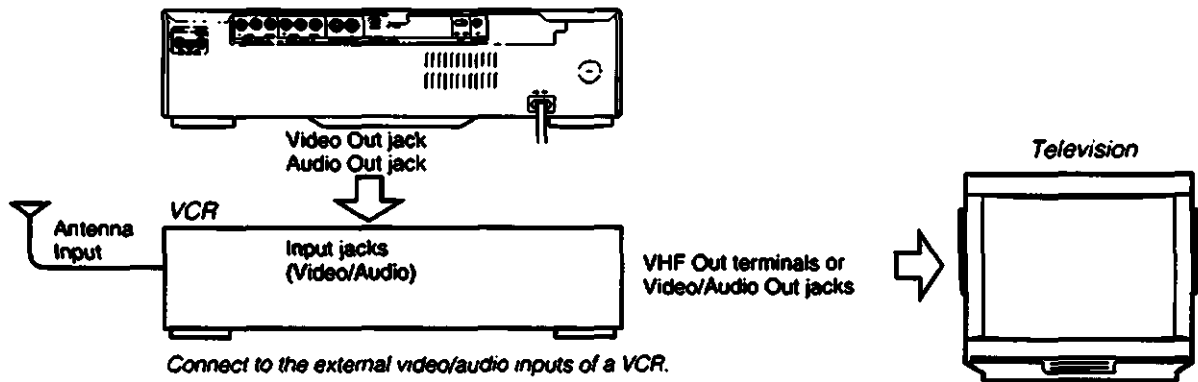
How to Connect the Television

To play LDs or CDVs, hook up a television to the Multi Disc Player. Take out the supplied audio/video connecting cable (yellow, red and white plugs). Use this to connect the player to the television.* Once you have hooked-up the television, set the input selector on the TV to "Video". Before connecting or disconnecting any of the cables, turn off all equipment.

Television Hook-Up



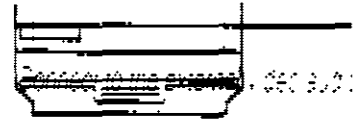
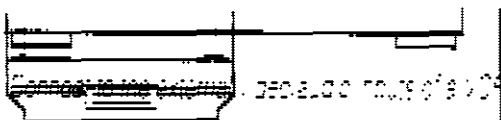
Television/VCR Hook-Up



Connecting Precautions:

- Make sure all equipment is turned off before connecting or disconnecting any cables.
- Connection methods may differ; when in doubt about a connection consult the TV or VCR manufacturer's manual.
- If the sound or picture is disturbed by noise, try moving the equipment farther apart.
- Firmly insert plugs into the jacks. A loose connection may cause noise.
- To prevent later interference with TV broadcast reception, turn off all equipment connected but not currently in use.

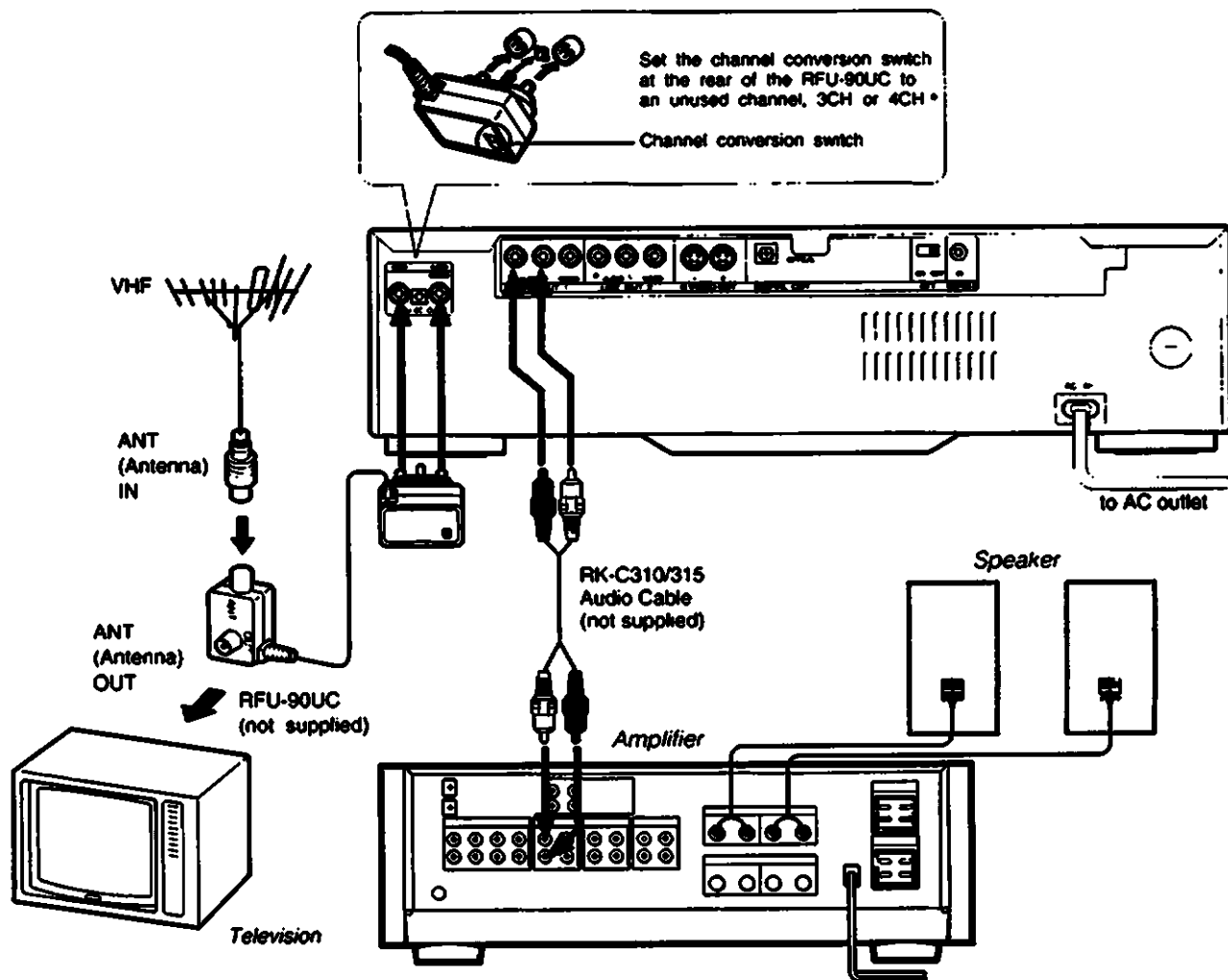
* If the TV only has a monaural phono jack for audio input, use a VMC-910MS/915MS Connecting Cable (not supplied).
** If your TV has an S Video Input jack, obtain a YC-15V S Video Connecting Cable, and use this instead of the supplied video cable to connect your television to the S VIDEO OUT connector on the Multi Disc Player.



If Your TV Does Not Have Audio/Video Inputs (MDP-A1 only)

For connection, use the optional RFU-90UC (RFU adaptor).

The audio signal of the disc is reproduced in monoaural when connected to the TV via the RFU-90UC. To enjoy the disc in stereo, connect the player to an audio system (page 13).



Note on Connection:

One of the most important of your Multi Disc Player is its digital stereo sound (from either LD's or CD's). To get the advantage of stereo sound, hook your player's L/R audio outputs to a stereo audio system or stereo TV. In addition, by using the video output jack, you will get a noticeably better picture. To connect this player to a TV without A/V inputs, use an RFU-90UC adaptor (not supplied). However, if you connect your Player this way, you will not get stereo sound, and the picture quality will not be as good as it could be.

• Why is it necessary to select 3 or 4?

The Multi Disc Player sends its output to the TV as a VHF broadcast signal. Selection an unused channel avoids interfering with regular broadcasts. When watching regular TV programs, turn the player off or press the DISC/TV button on the Remote Commander so that you can obtain a better picture. If TV picture quality is not satisfactory, refer to the manufacturer's manual and adjust the reception.

When watching TV broadcast.

Always turn off the Multi Disc Player to get better reception.

During FM or AM reception

Turn off the power of the Multi Disc Player to prevent the possibility of noise interference.

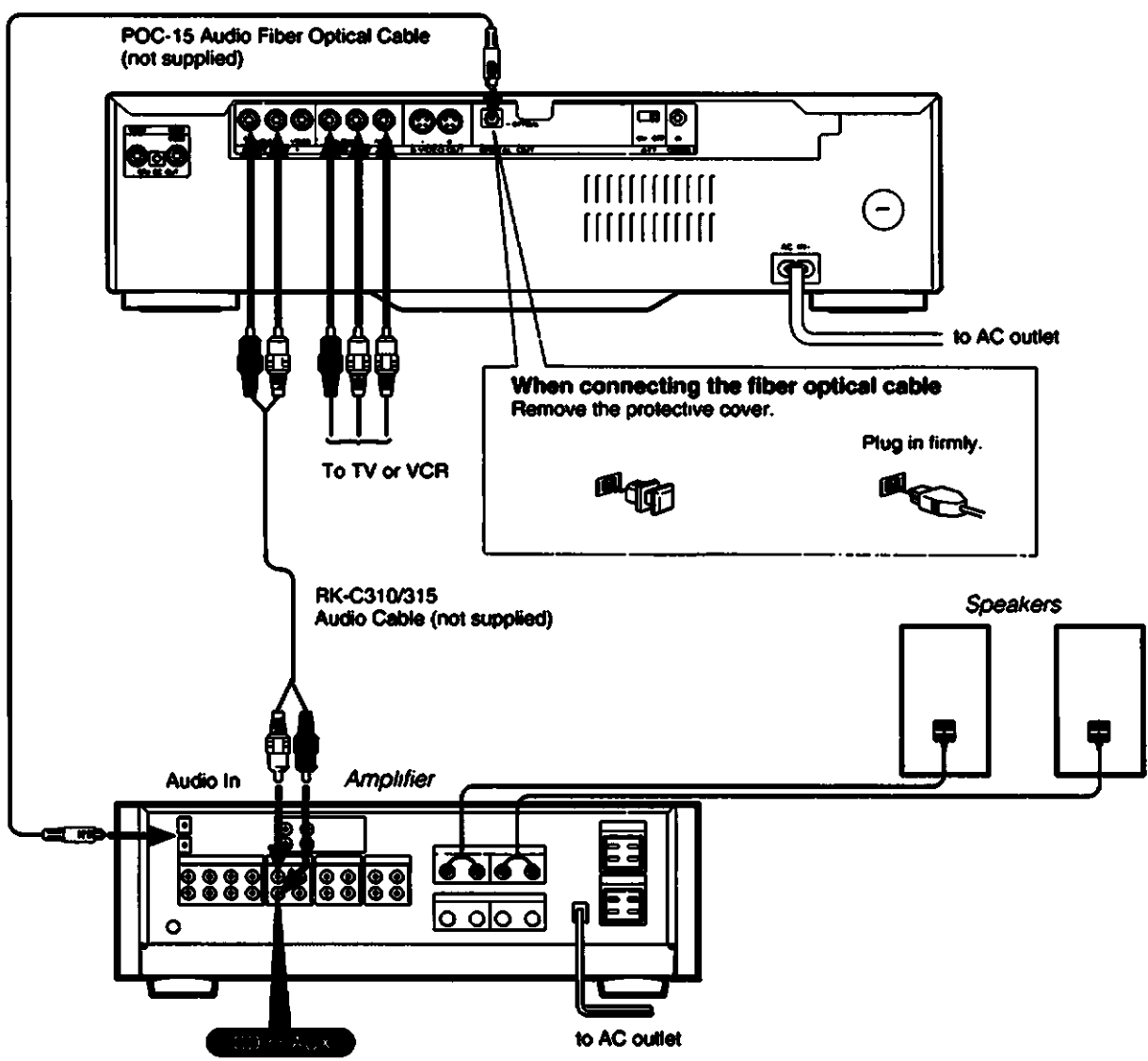
How to Connect Audio Equipment

To achieve full stereo sound from your Multi Disc Player, hook up a stereo system following the diagram below. Use an RK-C310 (or RK-C315) audio connecting cable (not supplied) to connect the Multi Disc Player to your amplifier or receiver. Before connecting or disconnecting any of the below cables, turn off all equipment.

To Achieve Digital Sound

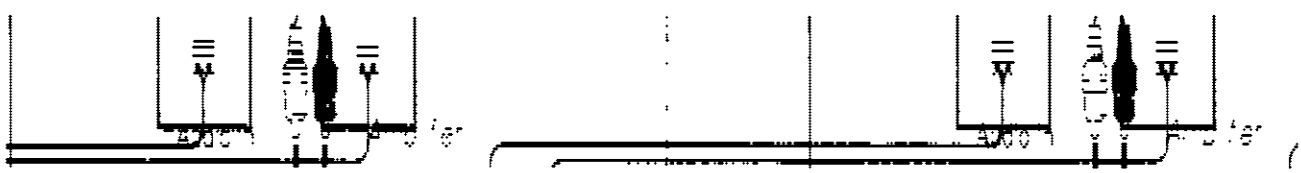
Digital sound recordings afford high quality sound reproduction, (see Glossary, page 46). If your amplifier also has a fiber optical connector, or if you have a D/A converter unit with optical input, according to the diagram below, connect the POC-15 Audio Fiber Optical Cable (not supplied) between the DIGITAL OUT connector on the Multi Disc Player and the amplifier or D/A converter. Note that digital signals are always output from the Multi Disc Player except when you play discs that are not digitally recorded. Such discs output analog sound from LINE OUT only. Sound from a microphone cannot be output from the DIGITAL OUT connector. To output sound from a microphone, connect the player to the amplifier with an Audio Cable (Red & White plugs).

Audio Equipment Hook-Up



Connection Precautions

- Make sure all equipment is turned off before making any of the above connections.
- Firmly insert plugs into the jacks. A loose connection may cause noise.
- When listening to a radio broadcast, switch off the Multi Disc Player to get better reception.



To Play a Laser Disc

This section shows you how to conduct all the procedures associated with playing LDs.

How to Load and Play an LD (Laser Disc)

After you have connected the Multi Disc Player to the TV and/or stereo system, you can begin playing a laser disc. Locate the POWER, OPEN/CLOSE, and PLAY buttons on the Remote Commander or the front panel of the player.

Do not transport the player while playing a disc as it may cause damage to the disc.

- 1 Turn on the multi disc player.**



(Player)



(Remote)

Press the POWER button on the player or Remote commander.

- 2 Turn on the TV and stereo system.**

TV. Set the input selector on the TV to "Video".
Stereo System. Turn on the amplifier or receiver and select CD or AUX for audio output.

- 3 Open the disc tray.**



(Player)

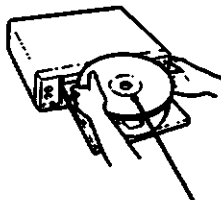


(Remote)

Press the OPEN/CLOSE () button.

The front cover of the player slides down and the disc tray comes out.

- 4 Place a disc on the tray.**



Side A*

Carefully center a single disc on the tray. If you insert more than one disc, or if the disc is not seated properly, it may not play or it may damage the disc.

What is this indication?

NO DISC

This indication appears in the front panel display when the tray is empty.

- 5 Start playback.**



(Player)



(Remote)

Press the PLAY () button.**

The disc tray closes and the upper side of the disc starts playing.

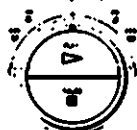
To Advance or Reverse



(Player)



Hold down the SCAN () button on the player or rotate the Shuttle Ring on the Remote.



(Remote)

To Advance or Go Back a Chapter at a Time



(Player or Remote)

Press the ACS/AMS () button.

* The player determines that the upper side of the disc is side "A," and the other side is "B," regardless of the label "A" or "B" printed on the disc.

** When playback of the upper side of the disc (side A) ends, the other side (side B) starts playing automatically. If nothing is recorded on side B, playback stops.

To Select the Disc Side



(Player)



(Remote)

Press **(DISC) SIDE A** to play the upper side of the disc from the beginning.

Press **(DISC) SIDE B** to play the other side of the disc from the beginning.*

To Interrupt Play



(Player)



(Remote)

Press **PAUSE (II)**. The sound mutes, and the picture freezes when playing a CAV disc.** To resume playback, press **PAUSE (II)** or **PLAY (▶)**.

To Stop Playback



(Player or Remote)

Press **STOP (■)**.

To play again from the beginning of the disc, press **PLAY (▶)**.

To Stop Play and Remove the Disc



(Player)



(Remote)

Press **OPEN/CLOSE (▲)**. Remove the disc and press **▲** again to close the empty tray.

To Have the Player Pause Before Starting



(Player)



(Remote)

Press **PAUSE (II)** after doing step 4 on page 14.

The tray closes and the player waits at the start of the disc until you press **PLAY (▶)** or **PAUSE (II)**. If you want to play side B, press **(DISC) SIDE B**, then **PAUSE (II)**.

To Get Sharp/Soft Image

PICTURE ENHANCE



(Remote)

Press **PICTURE ENHANCE** on the Remote to select the mode. The selected mode appears on the TV screen (lower left-hand corner) for three seconds. Each time you press this button the mode changes in the order of **STANDARD**, **SHARP** and **SOFT**.

SOFT: Soft picture

Reduces screen noise

STANDARD: Standard picture

SHARP: Sharp picture

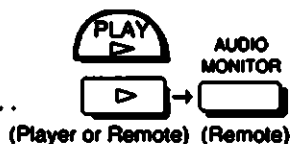
Refines the images

Even if you turn off the power, the mode will remain stored in the player's memory. If you unplug the power cord, the mode will return to **STANDARD**.

* When playback of side B ends, the player stops playing.

** When playing a CLV disc, the TV screen goes blank.

To Play a Stereo LD or a Second Audio Program (SAP) LD



Press **PLAY** (▶), then press the **AUDIO MONITOR** button on the Remote. This function alternates the sound output on a disc that has been recorded on two sound tracks, such as bilingual discs.

The procedure below indicates how the output and the display changes with each press. The active track appears for three seconds on the TV screen. It always appears in the front panel display.

Procedure	Screen message	Output Sound	
		Stereo Disc	SAP Disc
1 Press PLAY (▶).	No message	Stereo (Both channels)	Soundtrack 1 (left channel) Soundtrack 2 (right channel)
2 Press AUDIO MONITOR .	1/L	Left channel	Soundtrack 1 (left channel)
3 Press AUDIO MONITOR again.	2/R	Right channel	Soundtrack 2 (right channel)
4 Press AUDIO MONITOR again to return to stereo status.	1/L 2/R	Stereo (Both channels)	Soundtrack 1 (left channel) Soundtrack 2 (right channel)






To Switch from Digital to Analog Sound



Press the **ANALOG** button on the Remote to switch the player to analog or digital sound. Digital affords a better quality sound reproduction. If the LD contains a digital sound signal, the player automatically sends that output to the amplifier or receiver. When you press the **ANALOG** button on the Remote, you can switch to analog sound. To return to digital sound, press the **ANALOG** button again. With certain discs there may be a difference in volume.

Discs with a (CX) Label



Discs bearing the  label are recorded with the CX noise reduction system, which gives lower noise levels and higher dynamic range on analog sound. The player detects most  discs and activates the CX noise reduction system automatically. Press the  button on the Remote. "CX ON" will appear on the TV screen for three seconds. When playing a  disc which does not contain a code to activate the CX noise reduction system, press the  button. "CX ON" will appear and the noise reduction system will be activated.

Understanding Displays and Messages When Playing LDs

You can determine player operating status or disc information in one of two ways: (1) by displaying the information on the TV screen, or (2) by looking at the front panel display. Locate the DISPLAY button on the Remote Commander.

To View On-Screen Information...

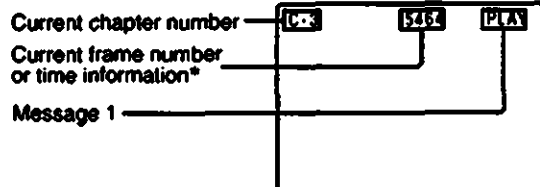
DISPLAY



Press DISPLAY on the Remote.

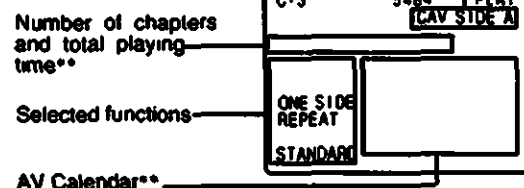
Each time you press DISPLAY, messages appear on the TV screen as shown below. The tables below are keys to the messages that appear on the right of the screen.

Press DISPLAY once.



Press DISPLAY twice.

Message 2



Message 1 (Examples)

Screen Display	Current Status of the Player
OPEN	Disc tray open
CLOSE	Disc tray closed
PLAY	Playing LD
STOP	Operation stopped
PAUSE	Operation momentarily stopped
Ⓢ / Ⓢ	Variable speed (Shuttle Ring) scan
SEARCH	Searching
▶ X 1/2	Scanning at 1/2-speed

Message 2 (Examples)

Screen Display	Currently Playing
CAV SIDE A	Standard-play disc side A
CAV SIDE B	Standard-play disc side B
CLV SIDE A	Extended-play disc side A
CLV SIDE B	Extended-play disc side B
1/L	First soundtrack/left channel
2/R	Second soundtrack/right channel
♪ DIGITAL	Digital sound
♪ ANALOG	Analog sound

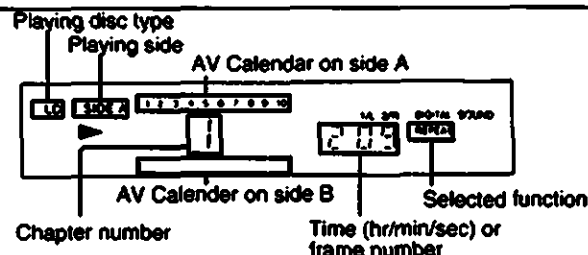
To turn off the display, press DISPLAY again.

* Discs not indicating time data to the second indicate instead as two-digit numbers such as, "22:".

** Appears when the QUICK START indicator is off (for an LD with TOC).

Reading the Front Panel Display

The illustration to the right is an example of what is displayed on the front panel of the player.



To View AV Calendar.....

When playing an LD containing TOC (Table of Contents) data, the AV Calendar is available.

Press the QUICK START button on the player while in the stop mode to turn off the indicator beside the button, then press PLAY (▶). The AV Calendar on disc side A will be displayed. To view the AV Calendar on side B, press (DISC) SIDE B while the QUICK START indicator is off, the AV Calendar on disc side B will be displayed. The calendar shows information on the total number of selections on the disc or those programmed to play. As selections are played, the corresponding numbers in the AV Calendar disappear.

To Turn Off the Front Panel Display.....

Press FL DISPLAY on the player. Each time you press FL DISPLAY, the display turns on/off. When the front panel display is turned off, the blue TV screen during stop or search turns to gray.

How to Search Using Variable Speed Play (for CAV discs)

To find a scene, play the disc back or forward at varying speeds.* Use MULTI SPEED and SPEED SET for CAV standard-play LDs. Use the Shuttle Ring, which lets you scan gradually, for all discs. Locate the MULTI SPEED, SPEED SET, DISPLAY buttons and the Shuttle Ring on the Remote Commander.

To Change Speed and Direction (Multi Speed)

- 1 Press MULTI SPEED on the Remote to select the direction.

MULTI SPEED

< >

To reverse <
To advance >
- 2 Press SPEED SET on the Remote to select the speed.

SPEED SET

- +

To reduce speed -
To increase speed +
(You can press SPEED SET first, or do either step without the other.)
- 3 Press DISPLAY on the Remote.

DISPLAY

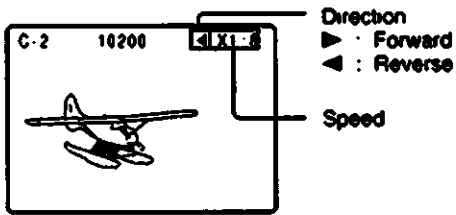
[]

The play speed and direction appear on screen.
- 4 Press PLAY (▶).

PLAY

▶

Normal playback resumes.



Discs with Automatic Picture Stop Code

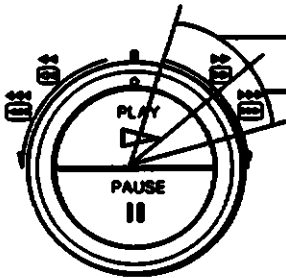
When an automatic picture stop code (found on educational discs) is encountered during X1 or less variable speed play, the unit automatically stops at that frame. To resume playback, press PLAY, MULTI SPEED, or turn the Shuttle Ring.

Extended-Play (CLV) or Non-CAV Discs

Variable Speed Play, Freeze Frame, and Step Play are not possible with CLV discs. When a MULTI SPEED button is pressed, the message "CLV SIDE A (or "B")" appears.

To Change Speed and Direction Gradually (Variable Speed Scan)**

Rotate the Shuttle Ring on the Remote in the forward or reverse direction.



The play speed changes according to the degree you rotate the Shuttle Ring. The illustration indicates the approximate speeds.
By holding down SCAN (◀◀▶▶) on the player, you can scan scenes at a constant speed.

To Resume Normal Play

Release the Shuttle Ring or SCAN (◀◀▶▶) button.

* A certain amount of visual noise and instability is inevitable with all variable speed operations.
** Scanning speed varies as the laser beam moves away from the center of a CLV disc. The frames are skipped.

How to Search by Chapter Numbers

LDs are divided into sections called "chapters". Chapters are usually listed on the jacket or label of the disc. By entering the desired chapter number, you can have the player find the chapter and play it. Use ACS/AMS (◀◀▶▶) — Automatic Chapter Sensing/Automatic Music Sensing—to advance or reverse a chapter at a time. Locate the number keys and the ACS/AMS (◀◀▶▶) buttons on the Remote Commander.

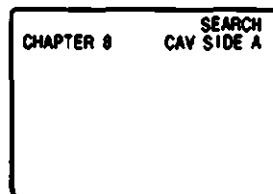
To Locate a Particular Chapter (Chapter Search)

For example, to locate chapter 8, press "8" on the Remote.



Press one of the number keys on the Remote corresponding to the chapter you want to play.

The player starts searching for Chapter 8.



The player finds Chapter 8 and starts playing from the beginning of Chapter 8.

To Enter a Number Greater Than 10*

Do this to make a numerical sum. For example, to enter 14, press +10 and 4; to enter 30, press +10, +10, +10 and 0.



Press +10 and one of the number keys.



If you make a mistake while entering numbers, press +10 repeatedly until "CHAPTER 7-" disappears, then enter the correct numbers. The current chapter number appears in the front panel display.

To Check the Current Chapter Number



Press DISPLAY on the Remote to display the chapter number (upper left-hand corner) on screen. When the QUICK START indicator is off, you can also look at the AV Calendar (see page 17) for the chapters left to be played on the LD with TOC.

To Advance or Go Back a Chapter at a Time (Skip Search)



Press ACS/AMS (◀◀) once to return to the beginning of the current chapter.

Press ACS/AMS (▶▶) to advance to the beginning of the next chapter.

Press ACS/AMS (◀◀) twice before the picture reappears to return to the beginning of the previous chapter.

Press the ACS/AMS button repeatedly for continuous skip search.

To Resume Normal Play**

The player automatically resumes play from the beginning of the selected chapter.

* Chapter Search does not function properly if the disc does not contain chapter numbers, or the chapter number entered does not exist.

** In addition to normal play mode, you can conduct Chapter Search and Skip Search while in Freeze-Frame, Variable Speed Play, Repeat or Pause mode. When the specified chapter appears after the search, play continues in the same mode.

How to Search by Frame Number or Time—Frame/Time Search

Video scenes are counted as a series of still pictures or "frames". The player keeps track of the number of frames that have been played from the beginning of the disc to the current position. Similarly, the player also keeps track of the elapsed playing time from the beginning of the disc. To play from a particular frame or time, use the Frame/Time Search function. Locate the FRAME/TIME, SEARCH/NEXT buttons, and number keys on the Remote Commander.

On CAV (standard-play) discs, enter a frame number. On CLV (extended-play) discs, enter the time.*

To Enter the Elapsed Frame or Time

- 1 Press the FRAME/TIME button.

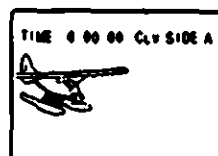
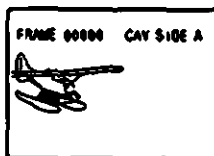
FRAME/TIME



The screen displays "00000" (for CAVs) or "0:00:00" (for CLVs).

CAV
(standard-play) disc

CLV
(extended-play) disc



- 2 Enter the desired multi-digit number corresponding to the frame or time you want found.

Enter five digits for CAVs.
Enter four digits for CLVs displaying the time to the second.
Enter two digits for CLVs displaying the time to the minute.

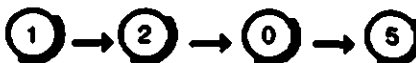
Sample Entry for CAV Discs

To locate frame number 12340, press the number keys in the order on the right:



Sample Entry for CLV Discs

To locate the 12-minute, 5-second point, press the number keys in the order on the right:



If you pressed the wrong key, press BACK to clear the number, then enter the correct number.

- 3 Press SEARCH/NEXT on the Remote

SEARCH/NEXT



Play starts from the time or frame specified in step 2.

To Check the Frame/Time Numbers

DISPLAY



The current frame or current time numbers appear on screen when you press DISPLAY. You can also find them on the front panel display.

To Cancel Frame/Time Search



Before pressing the SEARCH/NEXT button, press CLEAR. If you have already pressed the SEARCH/NEXT button, press STOP (■).

In addition to normal play mode, you can conduct Frame/Time Search while in Freeze-Frame, Variable Speed Play, Repeat or Pause mode. When the specified frame or time appears after the search, play continues in the same mode.

* "CAV" or "CLV" should be noted somewhere on the disc jacket.

SEARCH/NEXT



How to Replay the Same LD Selections

These instructions show you how to program the player to play the same scenes over and over until you signal the repetition to stop. You can replay both sides, a single side, a single chapter or a section between one pair of points on the disc. Locate the REPEAT, 1/SIDE/ALL, and the REPEAT A↔B buttons on the Remote Commander.

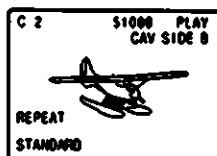
To Repeat Both Sides of the Disc

REPEAT

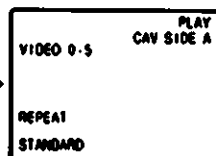


Press REPEAT on the Remote.

"REPEAT" lights up in the front panel display. When the player reaches the end of the disc side B, it returns to the beginning of the disc side A and starts playing again.



At the end of side B of the disc



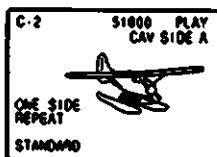
Returns to the beginning of the disc side A.

To Repeat the Current Side of the Disc (One Side Repeat)

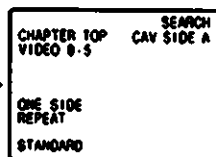


Press 1/SIDE/ALL twice, then REPEAT on the Remote.

"REPEAT" and "ONE SIDE" light up in the front panel display. When the player reaches the end of one side, it returns to the beginning and starts playing the side again.



At the end of one side of the disc.



Returns to the beginning of the side.

To Repeat the Current Chapter (Single Repeat)



Press 1/SIDE/ALL once, then REPEAT on the Remote.

"REPEAT" and "1" light up in the front panel display. The current chapter repeats continuously.

To Cancel Repeat Play

REPEAT



Press REPEAT.

To Cancel One Side Repeat



Press 1/SIDE/ALL once, then REPEAT.*

To Cancel Single Repeat

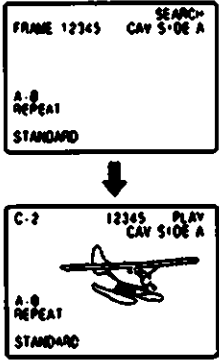


Press 1/SIDE/ALL twice, then REPEAT.*

* You can also cancel Repeat, One Side Repeat and Single Repeat by pressing CLEAR.

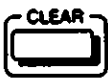
To Repeat One Section of the Disc

- 1 Go back to the start of the scene you want replayed. This marks where replay is to begin.
- 2 Press REPEAT A↔B on the Remote at the beginning of where you want replay to begin. The "REPEAT" and "A-" indication lights up, and "B" indication in the front panel display flashes.
- 3 Let the player run to the end of the scene you want repeated.
- 4 Press REPEAT A↔B again. This marks where replay is to end.



"REPEAT" and "A-B" light up in the front panel display. The player repeatedly plays the same scene between the two points selected.

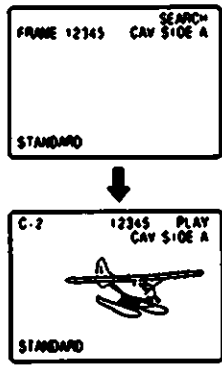
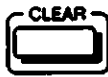
To Cancel REPEAT A↔B



Press CLEAR.

To Return to a Specific Point (Memory Search)

- 1 Go back to the point you want to replay.
- 2 Press REPEAT A↔B on the Remote to mark the point.
- 3 Press CLEAR to turn off the indication "A-B REPEAT".
- 4 Press SEARCH/NEXT on the Remote at any point you like on the disc.



The player returns to the point you marked and starts playing.*

* The point marked "A" from where you can resume playback is stored in the player's memory until you open the disc tray or turn off the player. "A" is also cleared if you carry out a Frame/Time Search.

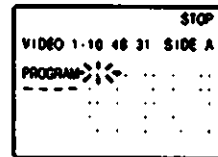
How to Play Only Certain Chapters—Programmed Play

You can choose, in any order you like, the chapters the Multi Disc Player plays. This play list is stored in the player until you either remove the disc or turn off the power. After playing all the selections, the player stops and waits for your next command. You can program up to 25 chapters for sides A and B combined. Locate the number keys, DISC SIDE A/B, PGM and PLAY buttons on the Remote Commander.

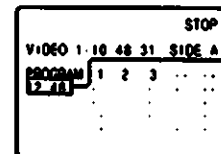
For example, you want to play chapters 1, 2, 3 on side A, chapter 10 on side B, then stop playing momentarily. Continuing with chapter 4 on side B, then back to side A to play 7 (in that order).

1 Press PGM.

"PROGRAM --:--" appears on screen.
"PGM" flashes in the front panel display.

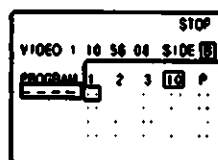


2 Press 1, 2 and 3.



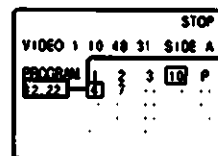
Total playing time* (See the section below, "To Check the Total Playing Time".)

3 Press DISC SIDE B, then +10, 0, PAUSE (II).



When you enter PAUSE (II), the display returns to "--:--" "P" indicates that a PAUSE (II) is entered.

4 Press 4, DISC SIDE A, then, 7.



The total playing time of the programmed chapters entered after the PAUSE (II).

5 Press PLAY (▶).



To Check the Total Playing Time

You can check the total playing time of the programmed chapters on the LD containing TOC (Table of Contents) data. To display the total playing time of the programmed chapters, press the QUICK START button while in the stop mode to turn off the indicator, then press PLAY (▶) to display the AV Calendar before you press the PGM button. When you program chapters on side B while checking the total playing time, press (DISC) SIDE B to display the AV Calendar on side B before pressing the PGM button.

* If you enter 0 or chapter numbers 51 or greater, or if total playing time exceeds 100 minutes, the total playing time turns to "--:--".

To Start Over



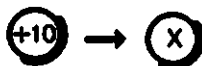
Press **CLEAR**, then **PGM**. Enter the new chapter numbers.

To Change an Entry



Press **SEARCH/NEXT** or **BACK** to advance or go back one entry. Enter the correct number.

To Enter a Number Greater Than 10



Press **+10** and one of the number keys, following the same procedure as on page 19.

To Cancel Programmed Play ...



Press **CLEAR**.
The player resumes normal playback.

To Replay the Programmed Chapters



Press **REPEAT**.
"REPEAT" is displayed on the screen.

To Advance or Go Back a Chapter*.....



Press **ACS/AMS** (◀◀ or ▶▶).

To Check the Contents of the Program



Press **DISPLAY** twice.
The flashing number indicates the chapter now playing.

* The player does not go back to previous chapters if the Shuttle Ring is rotated to the left, although, it does advance to forward chapters if rotated to the right. To go back to preceding chapters press the **ACS/AMS** (◀◀) button.