SONY

CD CDV LD Player

~~MDP-800~~

MDP-A7

Operating Instructions page 2

Before operating the unit, please read this manual thoroughly
and retain it for future reference.
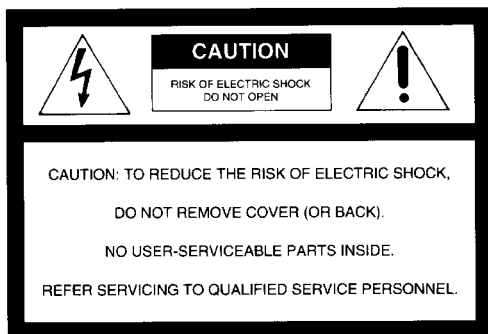
使用說明書　　第50頁

　使用本機器以前，請詳細閱讀本書，並留存本書以備將來參考
之用。

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.

```
⚡        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.
```

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 electic 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".

This CD CDV LD player is classified as a CLASS 1 LASER product.

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.

For the Customers in the USA

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.

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

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-800**

  The MDP-800 operates at 120 V AC 60 Hz only and does not have a voltage selector.

- **MDP-A7**

  The MDP-A7 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 220 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.
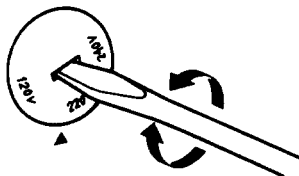
How to Use the AC Power Plug Adaptor (supplied with the MDP-A7)

- If the AC plug on your Multi Disc Player does not fit into the wall outlet, attach the supplied AC plug adaptor.
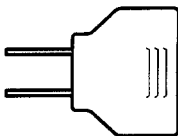
If you have any questions or problems concerning your unit, please contact your nearest Sony dealer.

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 models
This manual covers the MDP-800 and MDP-A7. Their differences are as follows:

	MDP-800	MDP-A7
Front panel		
• (LD) QUICK START button and indicator	QUICK START	LD QUICK START
• (CAV) STILL MODE button	STILL MODE	CAV STILL MODE
Rear panel		
• Voltage selector	not equipped	equipped
• AC power cable	detachable	not detachable
Supplied accessories		
• AC plug adaptor	not supplied	supplied

The illustrations in this manual are of the MDP-A7.

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 13). Unique to LD play are Step Play, Multi Speed Play, Memory Play, Frame Search and Digital Picture functions. The MDP-800/A7 allows you to playback both sides of an LD without turning it over. The (LD) Quick Start function shortens the waiting time before an LD starts playing. The Digital Picture function allows you to flash, freeze or recall pictures as the normal sound continues.

To Play a Compact Disc (CD)

This section explains the operation of CDs and compares most closely to CDV audio operations (page 27).

To Play a Compact Disc Video (CDV)

This section covers procedures for CDV operation and shares many functions with CD play (page 34). 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 36) 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 "Principles of Operation", then go ahead and connect up the Multi Disc Player to your television and/ or stereo system using the connection diagrams on pages 11 and 12. 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 playing 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,
Functions   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 at. 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	Variable Speed Scan	Pre-Programmed Play	Picture Enhance Function:
Open/Close	(JOG/SHUTTLE	(AUTO PGM, PGM)	(PICTURE ENHANCE)
Play	Ring)	Intro Scan (INTRO)	Sound Quality Functions:
Pause	Still/Step Scan	Random Play	(AUDIO MONITOR,
Stop	(STILL/STEP)	(SHUFFLE)	ANALOG/CX)
Side A/B	Variable Speed Play	Chapter/Track Search	On-Screen Display
	(MULTI SPEED)	(ACS/AMS)	(DISPLAY)
	Digital Picture functions:	Frame/Time Search	Audio/Video Time Counter
	(FLASH MOTION,	(FRAME/TIME)	(AV TIME)
	STOP MOTION,	Memory Play	Karaoke Functions:
	PICTURE CALL)	(MEMORY PLAY)	(ECHO/MIC LEVEL)
		Auto Pause	
		(AUTO PAUSE)	
		Repeat Play	
		(1/SIDE/ALL, REPEAT,	
		REPEAT A↔B)	

Introduction to Your Player

The MDP-800/A7 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 is an explanation of the kinds of discs the Multi Disc Player plays.

The MDP-800/A7 Plays Three Classes of Optical/Digital Discs*

The MDP-800/A7 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	*LASER DISC* *Laser Vision*	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	COMPACT DISC DIGITAL AUDIO	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)	CD VIDEO	CDV	5 in. (12 cm)	Single Side	Video+Audio 5 min Audio 20 min	
	VIDEO SINGLE DISC	VSD	5 in. (12 cm)	Single Side	Video + Audio 5 min	

Multi Audio Discs

digital audio   MULTI AUDIO

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-800/A7 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

DIGITAL MEMORY indicator
Lights up when the digital memory
function is activated.

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

**LD QUICK START (MDP-A7)
or QUICK START (MDP-800)
button and indicator**
To turn off the indicator,
press the button while
in stop mode.
(See page 16.)

**POWER
button and
indicator**
ON: Green
OFF: Off (MDP-800)
STANDBY: Red
          (MDP-A7)

**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.

**CAV STILL MODE (MDP-A7)
or STILL MODE (MDP-800)
button**
Press the button to view a finer
freeze frame on a CAV disc.

**PICTURE CALL
button and indicator**
Press the button to recall a picture
stored in the digital memory of the
player.

◄◄/►► SCAN buttons
Press the right button to scan forward;
press the left button to scan backward.

I◄◄/►►I 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

■ STOP button

II PAUSE button
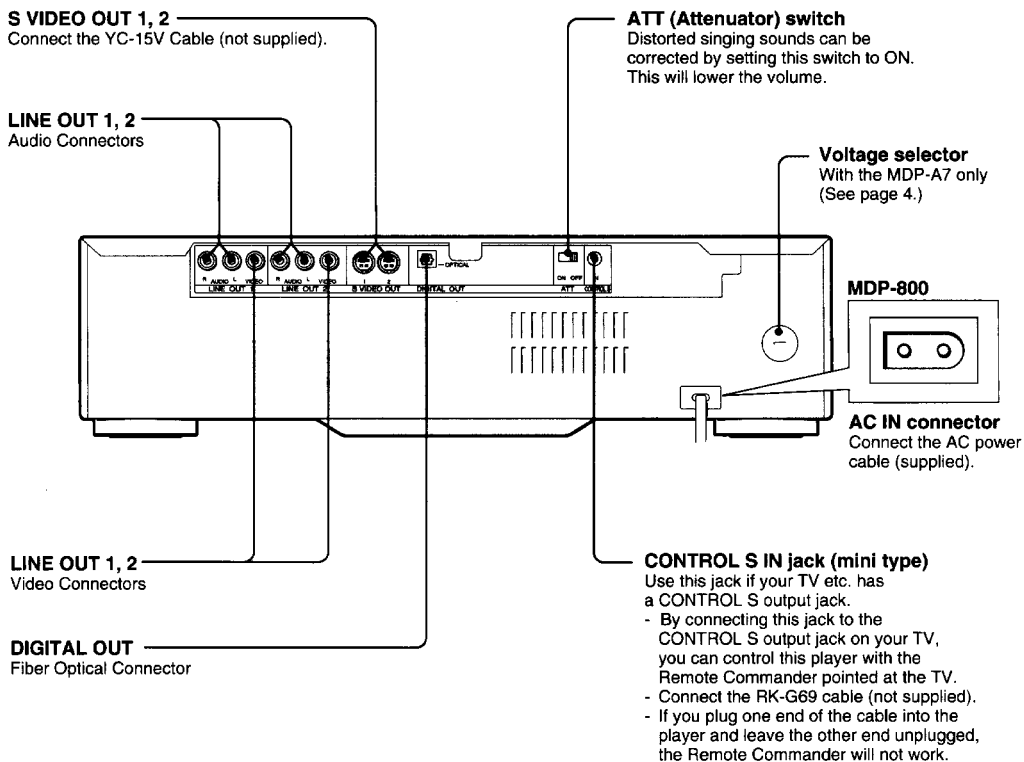
**MIC jack and ECHO/MIC
LEVEL controls**
To play Karaoke, plug a
microphone into the MIC jack,
Adjust the microphone volume
and echo level with the controls.

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

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-A7 only
(See page 4.)

MDP-800

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

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-M20A Remote Commander
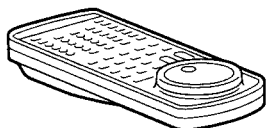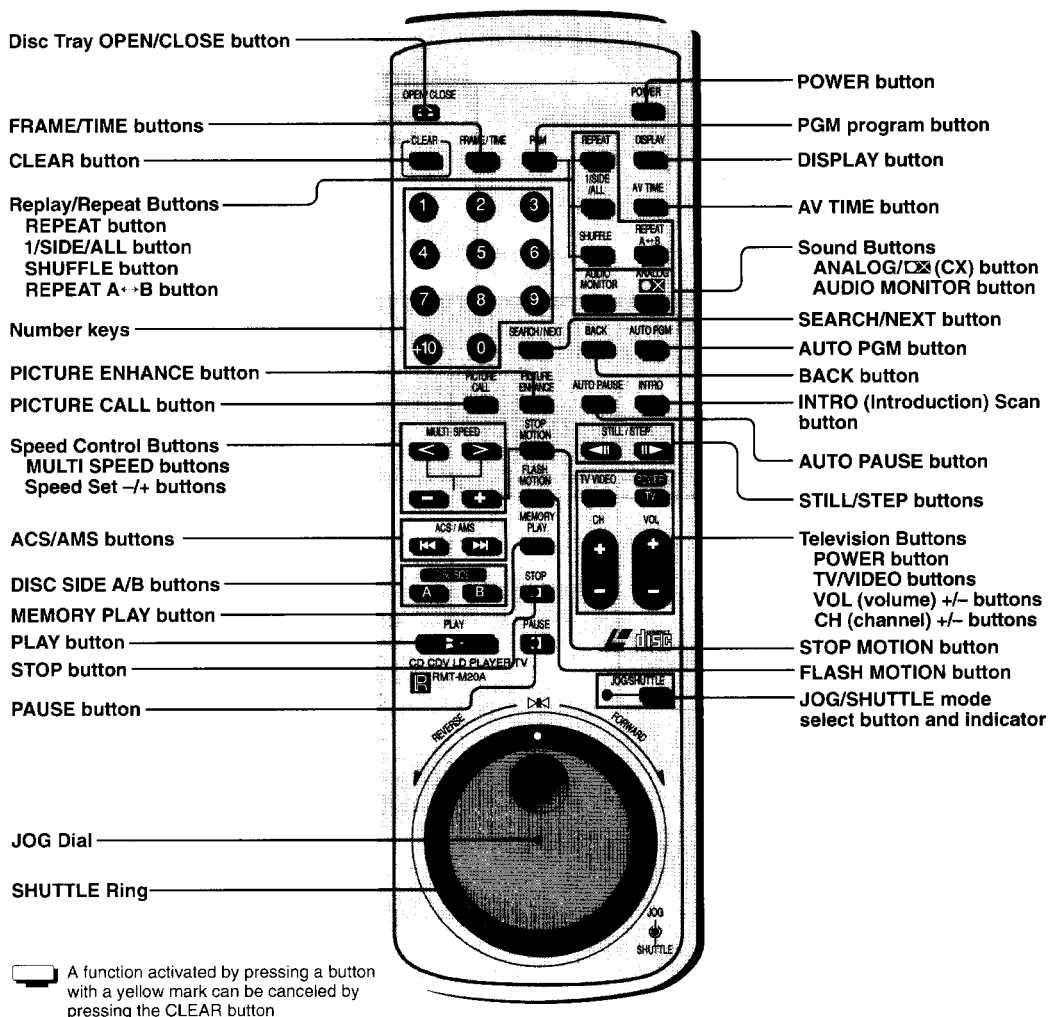
Audio/Video connecting cable
(phono 3↔ phono 3)

**AC power cable supplied
with the MDP-800**

Two AA (R6) batteries
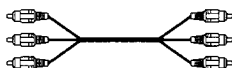
**AC plug adaptor
supplied with the MDP-A7**
(See page 4.)
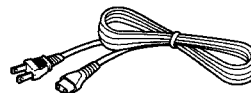
Controls on the Remote Commander

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

Disc Tray OPEN/CLOSE button

FRAME/TIME buttons

CLEAR button

Replay/Repeat Buttons
  REPEAT button
  1/SIDE/ALL button
  SHUFFLE button
  REPEAT A↔B button

Number keys

PICTURE ENHANCE button

PICTURE CALL button

Speed Control Buttons
  MULTI SPEED buttons
  Speed Set –/+ buttons

ACS/AMS buttons

DISC SIDE A/B buttons

MEMORY PLAY button

PLAY button

STOP button

PAUSE button

JOG Dial

SHUTTLE Ring

POWER button

PGM program button

DISPLAY button

AV TIME button

Sound Buttons
  ANALOG/⊠ (CX) button
  AUDIO MONITOR button

SEARCH/NEXT button

AUTO PGM button

BACK button

INTRO (Introduction) Scan button

AUTO PAUSE button

STILL/STEP buttons

Television Buttons
  POWER button
  TV/VIDEO buttons
  VOL (volume) +/– buttons
  CH (channel) +/– buttons

STOP MOTION button

FLASH MOTION button

JOG/SHUTTLE mode select button and indicator

▭ A function activated by pressing a button with a yellow mark can be canceled by pressing the CLEAR button

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.
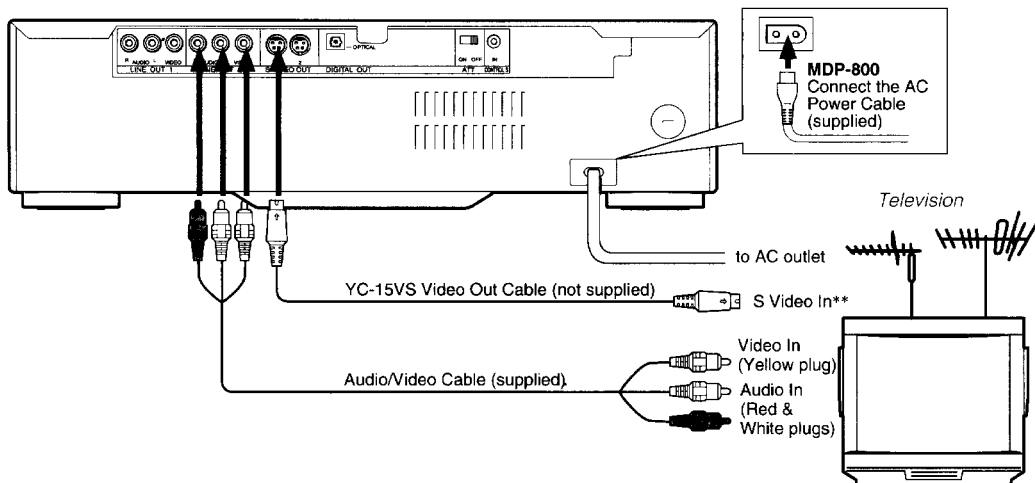• Use size AA (R6) batteries only.
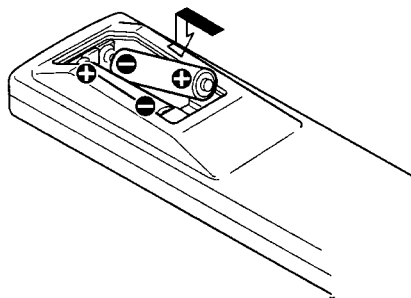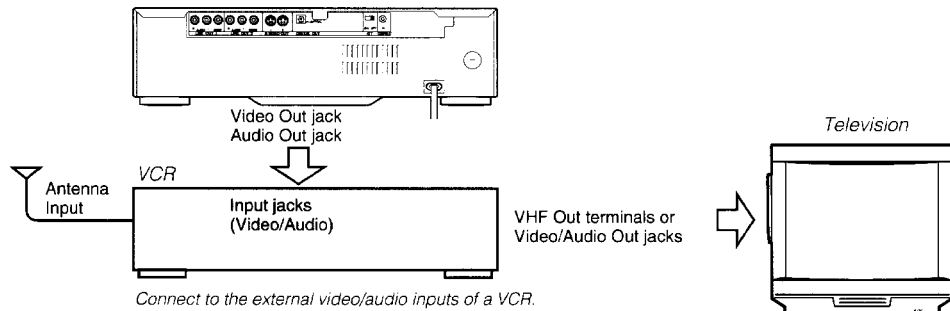
Insert two size AA (R6) batteries

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

MDP-800
Connect the AC
Power Cable
(supplied)

Television

to AC outlet

YC-15VS Video Out Cable (not supplied)   S Video In**

Video In
(Yellow plug)

Audio/Video Cable (supplied)   Audio In
(Red &
White plugs)

Television/VCR Hook-Up

Video Out jack
Audio Out jack

Television

Antenna
Input

VCR

Input jacks
(Video/Audio)

VHF Out terminals or
Video/Audio Out jacks

Connect to the external video/audio inputs of a VCR.

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 has only 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.
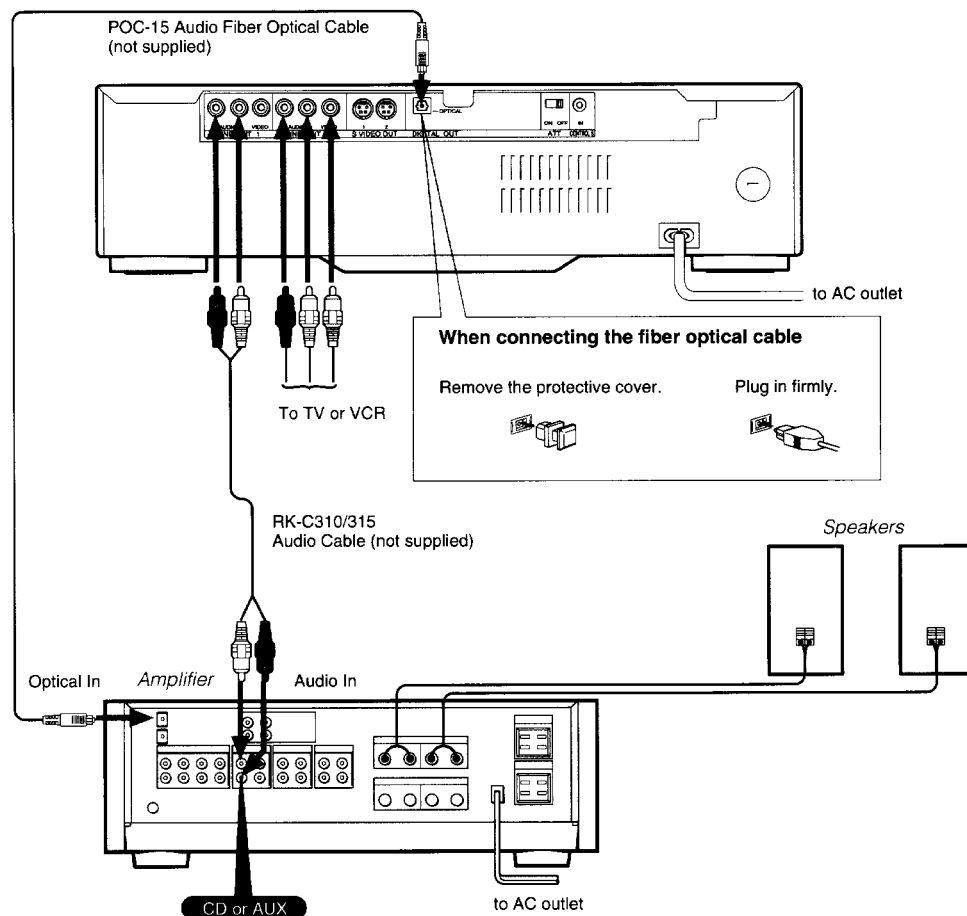
How to Connect Audio Equipment

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

POC-15 Audio Fiber Optical Cable (not supplied)

to AC outlet

When connecting the fiber optical cable

Remove the protective cover.   Plug in firmly.

To TV or VCR

RK-C310/315
Audio Cable (not supplied)

Speakers

Optical In   *Amplifier*   Audio In

CD or AUX   to AC outlet

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.
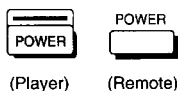
To Play a Laser Disc

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.

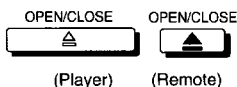**Do not transport the player while playing a disc as it may cause damage to the disc.**

1	**Turn on the multi disc player.**	**Press the POWER button** on the player or Remote commander (Remote).

(Player)   (Remote)

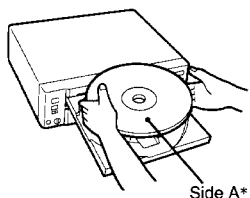|		
2	**Turn on the TV and stereo system.**	**TV:** Set the input selector on the TV to **"Video".** **Stereo System:** Turn on the amplifier or receiver and select CD or AUX for audio output.

3	**Open the disc tray.**	**Press the OPEN/CLOSE (⏏) button.** The front cover of the player slides down and the disc tray comes out.

(Player)   (Remote)

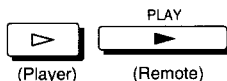|		
4	**Place a disc on the tray.**	**Carefully center a single disc on the tray.** If you insert more than one disc, or if the disc is not seated properly, it may not play or damage the unit.

Side A*

What is this indication?

NO dISC

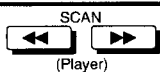This indication appears in the front panel display when the tray is empty.

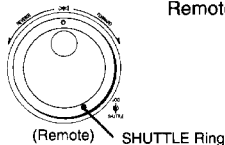|		
5	**Start playback.**	**Press the PLAY (▶) button.**** The disc tray closes and the upper side of the disc starts playing.

PLAY
(Player)   (Remote)

To Advance or Reverse . . . .
SCAN
(Player)

Hold down the SCAN (◀◀/▶▶) button on the player or **rotate the SHUTTLE Ring** on the Remote.

(Remote)   SHUTTLE Ring

To Advance or Go Back One Chapter at a Time . . . .
ACS/AMS
(Player or Remote)
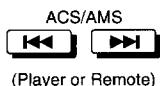
Press the ACS/AMS (I◀◀/▶▶I) button.

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* 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. While the playing side is changing, the last frame on side A appears. If nothing is recorded on side B, playback stops.
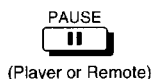
To Select the Disc Side . . . .

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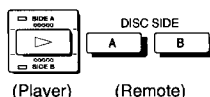
Press the (DISC) SIDE A button to play the upper side of the disc from the beginning.

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

To Interrupt Play . . . .

PAUSE

(Player or Remote)

Press the PAUSE (II) button. The sound mutes and the picture freezes. To resume playback, press PAUSE (II) or PLAY (▶).

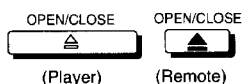**To Stop Playback** . . . .

STOP

(Player or Remote)
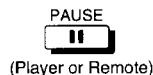
Press the STOP (■) button.
To play again from the beginning of the disc, press PLAY (▶). If you want to resume playback from the point you stopped at, press MEMORY PLAY on the Remote.

To Stop Play and Remove the Disc . . . .

OPEN/CLOSE

(Player)   (Remote)

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

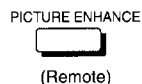**To Have the Player Pause Before Starting** . . . .

PAUSE

(Player or Remote)

Press the PAUSE (II) button after doing step 4 on page 13.
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 the PICTURE ENHANCE button 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 the button, the mode changes in the order of SHARP, SOFT and STANDARD.

SHARP: Sharp picture
   Refines the images
SOFT: Soft picture
         Reduces screen noise
STANDARD: Standard picture

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 be reset to STANDARD.

---

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

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

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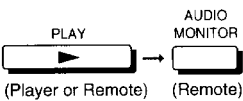
Press the PLAY (▶) button, then press the AUDIO MONITOR button on the Remote. This function alternates the sound output on a disc that has been recorded with two sound tracks, such as bilingual discs.

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.
When you select 1/L (or 2/R), the sound of the left (or right) channel is output from both speakers.

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 . . . .

ANALOG ◯▨ (Remote)

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. To switch to analog sound, press the ANALOG/◯▨ button on the Remote. "♪ ANALOG" appears on screen for three seconds. To return to digital sound, press the ANALOG/◯▨ button until "♪ DIGITAL" appears on screen.
With certain discs there may be a difference in volume.

Discs With a ◯▨ (CX) Label . . . .

ANALOG ◯▨ (Remote)

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 when you switch to analog sound, it activates the CX noise reduction system automatically. When playing a ◯▨ disc which does not contain a code to activate the CX noise reduction system, press the ANALOG/◯▨ button until "CX ON" appears on screen. The CX noise reduction system will be activated.

Understanding Displays and Messages When Playing LDs ──────────

You can determine the 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.
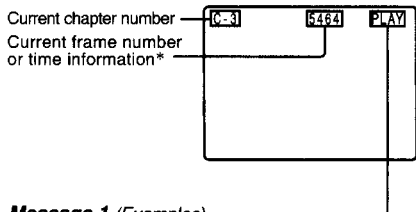
To View On-Screen Information...

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.

Current chapter number ── [C-3] [5464] [PLAY]
Current frame number
or time information*

Press DISPLAY twice.

Number of chapters │ C-3   5484   PLAY
and total playing │   [CAV SIDE A]
time** ──

Selected functions ── [ONE SIDE REPEAT]
                      [STANDARD]

AV Calendar** ──

***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
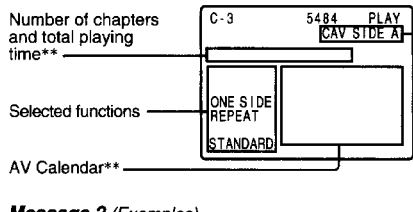
***Message 2** (Examples)* ──

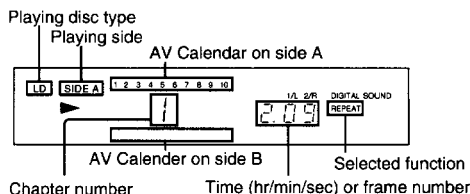| Screen Display	Currently Playing
CAV SIDE A	Standard-play disc side A
CAV SIDE B	Standard-play disc side B
CLV SIDE A	Extended-play disc side A
CLV SIDE B	Extended-play disc side B
1/L	First soundtrack/left channel
2/R	Second soundtrack/right channel
♪ DIGITAL	Digital sound
♪ ANALOG	Analog sound

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 (LD) 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.

Playing disc type
 Playing side
          AV Calendar on side A

[LD] [SIDE A] [1 2 3 4 5 6 7 8 9 10]   [1/L 2/R DIGITAL SOUND]
►   [|]   [□□□□] [REPEAT]

AV Calender on side B │ Selected function
Chapter number   Time (hr/min/sec) or frame number

To View AV Calendar.....................

When playing an LD containing TOC (Table of Contents) data, the AV Calendar is available.
Press the (LD) QUICK START button on the player while in stop mode to turn off the indicator on 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 (LD) 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.

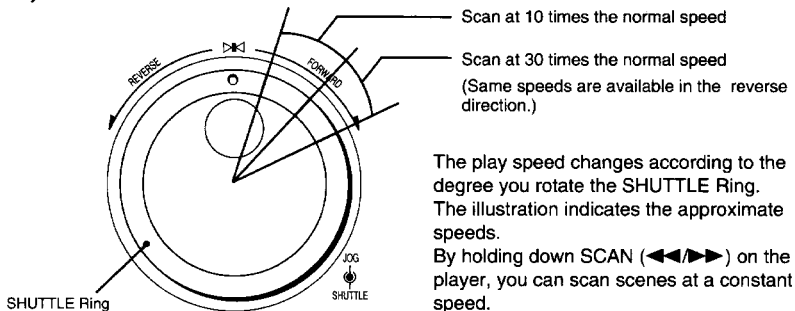## To Turn Off the Front Panel Display.....

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 turns to gray.

How to Search for a Particular Scene

To find a scene, play the disc in reverse or forward at high speed. The sound is automatically muted during search play. Locate the SHUTTLE Ring on the Remote Commander or the SCAN (◄◄/►►) buttons on the front panel of the player.

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

SHUTTLE Ring

To Resume Normal Play . . . .

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

— Scan at 10 times the normal speed

— Scan at 30 times the normal speed
(Same speeds are available in the 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.

Release the SHUTTLE Ring or SCAN (◄◄/►►) button.

---

* A certain amount of visual noise and instability is inevitable with all variable speed operations.

How to Search by Chapter Numbers—Chapter Search

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 (I◀◀/▶▶I) — Automatic Chapter Searching/Automatic Music Sensing—to advance or reverse one chapter at a time.
Locate the number keys on the Remote Commander and the ACS/AMS (I◀◀/▶▶I) buttons on the Remote Commander or player.
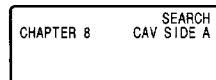
To Locate a Particular Chapter (Chapter Search)

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

(8)

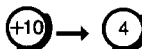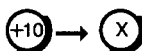**Press one of the number keys on the Remote** corresponding to the chapter you want to play.

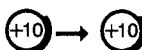The player starts searching for Chapter 8.

```
┌─────────────────────────┐
│                  SEARCH │
│ CHAPTER 8    CAV SIDE A  │
│                         │
│ ......................... │
```

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.

(+10) → (X)   **Press +10 and one of the number keys.**

(+10) → (4) . . . . "14"

(+10) → (+10) → (+10) → (0) . . . . "30"

If you make a mistake while entering, press CLEAR, then enter the correct numbers.
The current chapter number appears in the front panel display.

To Check the Current Chapter Number . . . .

DISPLAY
▭

Press DISPLAY on the Remote to display the chapter number (upper left-hand corner) on screen. When the (LD) QUICK START indicator is off, you can also look at the AV Calendar (see page 16) for the chapters remaining to be played on the LD (with TOC) by pressing DISPLAY twice.

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

ACS/AMS
[I◀◀] [▶▶I]

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

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

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

Hold down ACS/AMS (I◀◀ or ▶▶I) for continuous skip search.

To Resume Normal Play** . . . .

Release ACS/AMS (I◀◀ or ▶▶I).
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

FRAME/TIME

1   **Press FRAME/TIME on the Remote.**

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

CAV
(standard-play) disc

CLV
(extended-play) disc

```
FRAME 00000  CAV SIDE A
```
```
TIME  0:00:00  CLV SIDE A
```

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

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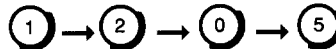Enter two digits for CLVs displaying the time to the minute.

Sample Entry for CAV Discs
To locate frame number 12340, press the number keys in the order shown on the right:
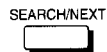
(1) → (2) → (3) → (4) → (0)

Sample Entry for CLV Discs
To locate the 12-minute, 5-second point, press the number keys in the order shown on the right:

(1) → (2) → (0) → (5)

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 . . . .

CLEAR

Before pressing SEARCH/NEXT, **press CLEAR.**

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.

How to Search Using Variable Speed Play

To find a scene, you can play the disc in reverse or forward at varing speeds. There are two ways; using JOG/SHUTTLE and Multi Speed. Locate the JOG/SHUTTLE mode select button, JOG/SHUTTLE Ring, DISPLAY, MULTI SPEED and Speed Set −/+ buttons on the Remote Commander.

To Change Speed and Direction (Using JOG/SHUTTLE)

1 **Press JOG/SHUTTLE on the Remote.**

JOG/SHUTTLE

The indicator lights up* and the frame freezes. If you use the JOG/SHUTTLE Ring on the Remote, press PAUSE (**II**) to freeze the frame.

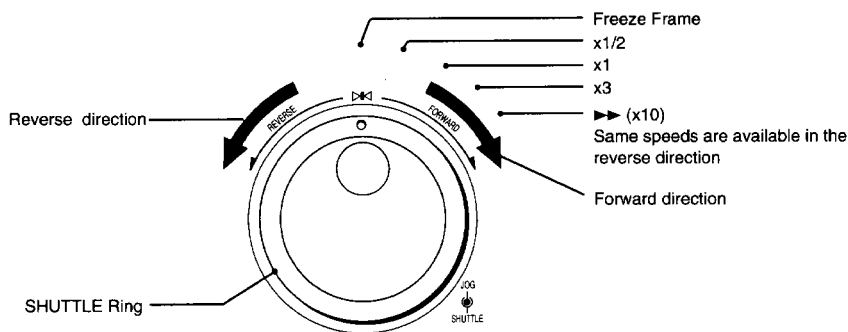2 **Rotate the JOG Dial or the SHUTTLE Ring in the forward or reverse direction.**

When using the JOG Dial . . . .
One rotation of the dial corresponds to one picture frame. The speed varies according to the speed you rotate the dial at. Frame-by-frame, x1/2 the normal, and normal speed are available.

Reverse direction — — Forward direction

JOG Dial
Rotate at the
desired speed.
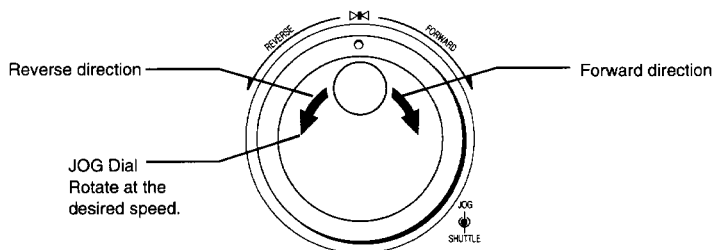
When using the SHUTTLE Ring . . . .
The speed varies according to the degree you rotate the ring. The illustration below indicates the approximate positions of each speed.

Freeze Frame
x1/2
x1
x3
►► (x10)
Same speeds are available in the reverse direction

Reverse direction —
Forward direction

SHUTTLE Ring —

The frame freezes when you release the JOG Dial or the SHUTTLE Ring.

PLAY

3 **Press PLAY (►).**
Normal playback resumes.

* *When the JOG/SHUTTLE mode select indicator is not lit, only ×10 and ×30 the normal speed are available with the SHUTTLE Ring (See page 17).*

To Change Speed and Direction (Multi Speed)

1 Press DISPLAY on the Remote.

DISPLAY

2 Press MULTI SPEED on the
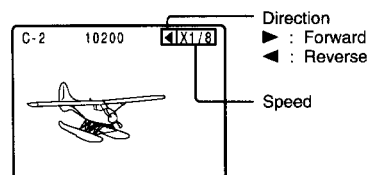   Remote to select the direction.

MULTI SPEED

[<] [>]

To reverse   <
To advance   >
The play speed and direction appear on screen.

3 Press Speed Set –/+ on the
   Remote to select the speed.

[—] [+]

To reduce speed   –
To increase speed   +

```
                              ┌─ Direction
┌──────────────────┐          ▶ : Forward
│ C-2   10200  ◀X1/8│         ◀ : Reverse
│   ___            │
│  /   \          │───────── Speed
│ ━━━━━━━━        │
│    ▼            │
└──────────────────┘
```

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.

How to Play Frame-by-Frame

Once you have found a particular scene, you can examine the progression of that scene by advancing or reversing the action one frame at a time (Step Play), or freezing the action into a still picture (Freeze Frame). Locate the PAUSE, and STILL/STEP buttons on the Remote Commander.

To Play One Frame at a Time (Step Play)

1 Press PAUSE (II) once.

PAUSE

[II]

The frame freezes (Pause mode).

2 Press STILL/STEP on the Remote
   repeatedly.
   For continuous frame-by-frame
   action, press STILL/STEP once, then
   hold down STILL/STEP.

STILL/STEP

[◀II] [II▶]

Each press shifts the image one frame
backward or forward.

To reverse   ◀II
To advance   II▶

In addition to pause mode, you can achieve Step Play while the player is in play mode by pressing one of the STILL/STEP buttons while the disc is playing.

To Freeze the Action . . . .
(Freeze Frame)

PAUSE

[II]

Press PAUSE (II) once.

To Resume Normal Play. . . . .

PLAY

[▶]

Press PLAY (▶).

To View a Finer Picture on
a CAV Disc . . . .

PAUSE   CAV STILL
             MODE
[II] → [   ]

When you view a freeze frame from a scene on a CAV disc that is relatively motionless, press PAUSE (II), then the (CAV) STILL MODE button on the player to turn off the DIGITAL PICTURE indicator. You can then view a finer picture which is not output through the player's memory.

How to Use Digital Picture Functions ─────────────

During Variable Speed Play, Step Play or Freeze Frame, the sound is automatically muted. However, if you use the player's unique digital picture functions, you can view successive flashing pictures (Flash Motion) or a freeze picture (Stop Motion) as the normal sound continues. You can also recall a picture stored in the digital memory of the player at any time, for example, in stop mode, when no disc is loaded, while playing another LD, CD, or CDV (Picture Call). Locate the FLASH MOTION, STOP MOTION and Picture Call buttons on the Remote Commander.

To Flash Pictures (Flash Motion)	FLASH MOTION	**Press FLASH MOTION on the Remote.** The DIGITAL MEMORY indicator on the player lights up. Still pictures flash in succession at specified intervals. During this, the sound is played normally.
To Change the Interval of the Flashing Pictures	─ +	**Press Speed Set (–/+) to extend or shorten the interval of the flashing pictures.** To extend – To shorten +
To Resume Normal Play	PLAY ►	**Press PLAY (►).** To switch to the STOP MOTION mode, press STOP MOTION.

To See a Freeze Picture with Sound (Stop Motion)	STOP MOTION	**Press STOP MOTION on the Remote.** The DIGITAL MEMORY indicator lights up and the picture freezes. During this, the sound is played normally. The disc continues to be played even while you see only one still picture. If you press STOP MOTION again, the picture advances to correspond with the sound track.
To Resume Normal Play		**Press PLAY (►).** To switch to the STOP MOTION mode, press STOP MOTION.

To Recall a Picture Stored in the Digital Memory (Picture Call)

1 **Press PAUSE (II) at the picture you want to store.**	PAUSE II	The DIGITAL MEMORY indicator lights up and the picture is stored in the players memory.*
2 **You can then play, stop, or replace the disc.**		
3 **Press PICTURE CALL on the Remote.****	PICTURE CALL	The picture stored in the memory appears. To make the picture disappear, press PICTURE CALL again.

What Picture is Stored in the Digital Memory?
The player automatically stores the last picture viewed while the DIGITAL MEMORY indicator is lit by such operations as shown below:
• When you press PAUSE (II)
• Flash Motion, Stop Motion, Intro Scan or Search Play
• Scan, Variable Speed, Step Play on a CLV, VSD or video section of CDV disc
• When an LD's playing side is automatically changed from side A to B

* *The picture stored in the digital memory is cleared when the player is turned off.*
** *Picture Call is not operable during Stop Motion or Flash Motion play.*

# 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.
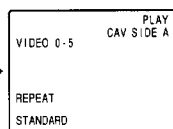
To Repeat Both Sides of the Disc ....

REPEAT

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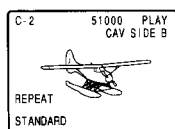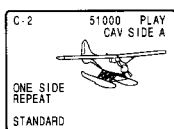

At the end of side B

Returns to the beginning of side A.

To Repeat the Current Side of the Disc (One Side Repeat) ....
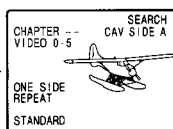
1/SIDE /ALL → 1/SIDE /ALL → REPEAT

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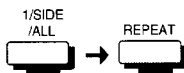

At the end of one side

Returns to the beginning of the side

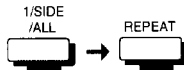## To Repeat the Current Chapter (Single Repeat) ....

1/SIDE /ALL → REPEAT

Press 1/SIDE/ALL once, then REPEAT.
"REPEAT" and "1" light up in the front panel display. The current chapter repeats continuously.
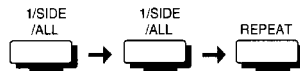
To Cancel Repeat Play ....

REPEAT

Press REPEAT.

To Cancel One Side Repeat ....

1/SIDE /ALL → REPEAT

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

To Cancel Single Repeat ....

1/SIDE /ALL → 1/SIDE /ALL → 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 (Repeat A↔B)

1 Go back to the start of the scene you want to replay.

2 **Press REPEAT A↔B on the Remote** at the beginning of where you want replay to begin. This marks where replay is to begin. The "REPEAT" and "A-" light up, and "B" indication flashes.

REPEAT
A↔B

```
                    SEARCH
FRAME 12345   CAV SIDE A

A-B
REPEAT
STANDARD
```

↓

```
C-2        12345   PLAY
              CAV SIDE A

A-B
REPEAT
STANDARD
```

3 Let the player run to the end of the scene you want to repeat.

4 **Press REPEAT A↔B again.** This marks where replay is to end.
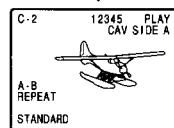
REPEAT
A↔B

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

To Cancel Repeat A↔B . . . .

CLEAR

Press CLEAR.

To Replay From a Specific Point on the Disc (Memory Search)

1 Go to the point from where you want to start playback.

```
                    SEARCH
FRAME 12345   CAV SIDE A

STANDARD
```

↓

```
C-2        12345   PLAY
              CAV SIDE A

STANDARD
```

2 **Press REPEAT A↔B to mark the** starting point.

REPEAT
A↔B

3 **Press CLEAR to turn off the** indication "A–B REPEAT". (Thus not setting an end point.)

CLEAR

4 **Press SEARCH/NEXT on the** Remote at any point you like on the disc.

SEARCH/NEXT
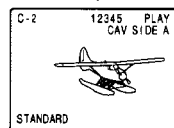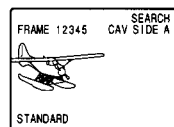
The player goes to the point you marked and starts playing.*

---

* The point marked "A" from where you can resume playback is cleared if you open the disc tray, turn off the player, carry out a Frame/Time Search or Chapter Search.