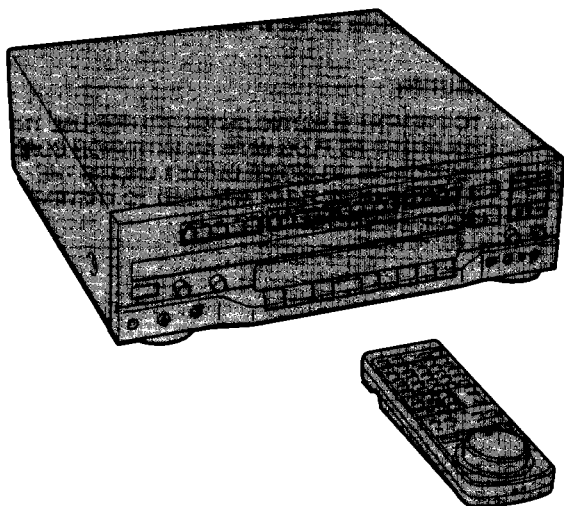# SONY

CD CDV LD Player

Operating Instructions page 3

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

Mode d'emploi page 51

Avant la mise en service de l'appareil prière de lire attentivement
ce mode d'emploi que l'on conservera pour toute référence ultérieure.
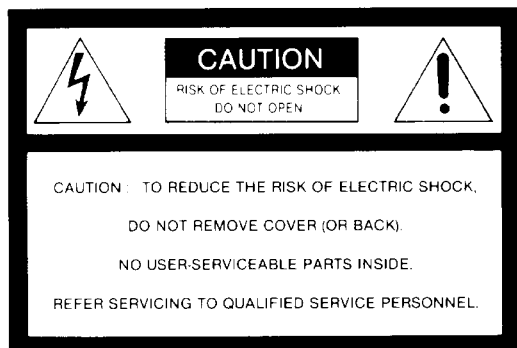
Owner's Record

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

Model No. MDP-K5 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 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.

INFORMATION

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

    Reorient the receiving antenna
    Relocate the equipment with respect to the receiver
    Move the equipment away from the receiver
    Plug the equipment into a different outlet so that
    equipment and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No. 004-000-00345-4.

CAUTION

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

As the laser beam used in this 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 THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

This equipment is produced for home entertainment purposes only. Malfunction originating from the usage other than home entertainment purposes (prolonged usage at restaurant establishment, usage in vehicles or ships, etc.) may lead to the voiding of the Warranty Period resulting in repair services at the owners expense.

English

Table of Contents

Introduction

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 not to 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 this in mind, we have striven to write the instructions in straight-forward English while trying to keep the procedures simple and systematic.

Because the Multi Disc Player is capable of playing laser discs (LDs), compact discs (CDs), and compact disc videos (CDVs), the 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. The following summarizes what you'll find in this manual.

Karaoke Features

Karaoke microphone
The Karaoke microphone (supplied) enhances Karaoke entertainment with features like Repeat and Key control.

20 Direct select buttons
You can play any given selection quickly and easily by simply pressing the number of that selection.

Digital surround selector
Three digitally enhanced surround effects can be used are available for playing movies or music, and three more are available especially for Karaoke use.

Digital key control
Use this feature to adjust the music to your singing tone. Controls are located on the player, the Remote Commander and the Karaoke microphone.

Selection Reservation
For non-stop Karaoke entertainment, use this feature to reserve the next selection while one is already being played.

Assistant vocal feature
This feature let's you listen to the singer's voice through the headphones while the audience hears only your voice from the speakers. Great for practice or to pick up a new song in a short time.

Vocal balance control
The vocal balance control is exclusively for multiplex recorded Karaoke discs. It let's you control the volume of the singer's voice and is useful when you lose the melody or want to practice.

Hi-Fi Karaoke mode
This feature is exclusively for MULTI AUDIO recorded Karaoke discs. In Hi-Fi Karaoke mode, the digitally recorded instrumental portion can be played in stereo while you adjust the mixing balance of the analog recorded vocals with the VOCAL BALANCE knob.

AUX inputs
Other auxiliary equipment such as tape decks can also be used to playback Karaoke music. You can still use the Key Control and Karaoke Pon features as you would with discs.

Karaoke Pon
Karaoke Pon instantly removes the vocals from most stereo recorded disc/tape for instant Karaoke fun.

Otasuke vocal feature
This feature is inactive while you're singing from the microphone, but when you're not and you should, it helps out by outputting the original singer's voice.
This feature is also good for singing duets by yourself. You sing the part of the male, (or female), and the other half comes in for you. But this feature is not good for singing duets with your partner.

To Play a Laser Disc (LD)
This section covers all functions associated with playing LDs (page 20). Unique to LD play are STILL/STEP, MULTI SPEED play, and FRAME/TIME Search.

To Play a Compact Disc (CD)
This section explains the operation of CDs and compares most closely to CDV audio operations (page 29).

To Play a Compact Disc Video (CDV)
This section covers procedures for CDV operation and shares many functions with CD play (page 35). There are no functions unique to CDV play in this MDP.

To Play Any Disc (LD, CD, CDV)
Most of the procedures in this section fall into the advanced category (see page 37) and are collected here because they are common to LD, CD and CDV play.

Auxiliary functions like surround sound are briefly described in "Front and Rear Panel Controls and Supplied Accessories" (pages 8, 9).

What to Do Next

Once you have read through this page, read "The 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 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.

Karaoke Functions provide Karaoke entertainment using Karaoke laser discs and compact discs, or by converting regular stereo recorded discs into Karaoke discs. These functions can also be used with auxiliary equipment like tape decks.

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. 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	Karaoke Functions	Variable Speed Functions	Repeatable Functions	Auxiliary Functions
Power	Next Selection Reserve	Variable Speed Scan	Pre-Programmed Play	Picture Enhance
Open/Close	(RESERVE)	(SHUTTLE RING)	(AUTO PGM, PGM)	Sound Quality Functions:
Play	Singing Tone	Still/Step Scan	Intro Scan (INTRO)	(AUDIO MONITOR,
Pause	(KEY CONTROL)	Variable Speed Play	Random Play	ANALOG, CX)
Stop	Voice Control	(MULTI SPEED)	(SHUFFLE)	On-Screen Display
	(MIC KEY CONTROL,		Index play	(DISPLAY)
	DIGITAL ECHO)		(CUSTOM INDEX)	Audio/Video Time Counter
	Karaoke with Regular		Chapter/Track Search	(AV TIME)
	Discs		(ACS/AMS)	
	(KARAOKE PON)		Frame/Time Search	
	Practice Features:		(FRAME/TIME)	
	(ASSISTANT VOCAL,		Auto Pause	
	VOCAL BALANCE)		(A.PAUSE/A.SPACE)	
	Vocal Support Feature		Repeat Play	
	(OTASUKE VOCAL)		(1/ALL, REPEAT,	
	Karaoke with Auxiliary		REPEAT A↔B)	
	Equipment			
	(INPUT SELECTOR)			
	Atmosphere Control			
	Feature			
	(SURROUND)			

Introduction to Your Player

The MDP-K5 Multi Disc Player integrates the functions of three machines in one: laser disc, compact disc, and compact disc video player. The entertainment potential afforded by the combined capabilities of this multi-faceted machine amount to some 35 to 40 functions. Below follows an illustration of the kinds of discs the Multi Disc Player plays.

The MDP-K5 Plays Three Classes of Optical/Digital Discs*

The MDP-K5 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	*L* LASER DISC *L* LaserVision LaserDisc	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	20 min	
		CD	5 in. (12 cm)	Single	74 min	
Compact Disc Videos For music videos and educational material (Digital Audio)	CD VIDEO	CDV	5 in. (12 cm)	Single	Video + Audio 5 min Audio 20 min	
	VIDEO SINGLE DISC V	VSD	5 in. (12 cm)	Single	Video + Audio 5 min	

* *These apply only to those discs recorded in the NTSC standard. The MDP-K5 cannot play CED, VHD discs, PAL video discs, CD-ROM, CD-GRAPHICS discs, CDI discs or aluminum-lined disc.*
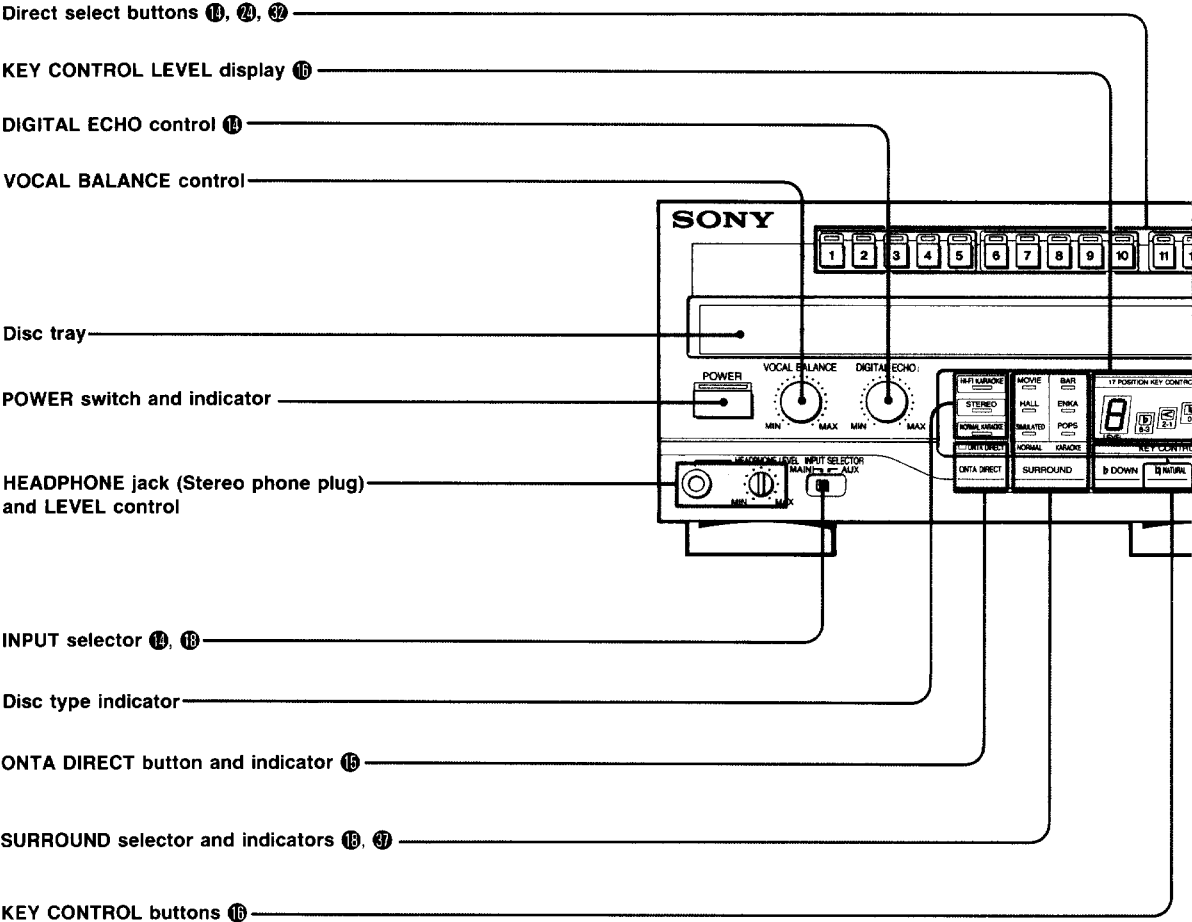
Multi Audio Discs

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. This player automatically detects the type of disc loaded in the unit. If the disc is a MULTI AUDIO laser disc, the Hi-Fi KARAOKE indicator will turn on.

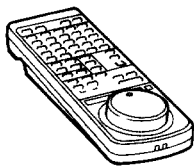# Front and Rear Panel Controls and Supplied Accessories

Front Panel

Direct select buttons ⑲, ㉔, ㉒ ─────────────────────────────────

KEY CONTROL LEVEL display ⑯ ─────────────────────────────

DIGITAL ECHO control ⑭ ────────────────────────────

VOCAL BALANCE control ─────────────────────────

Disc tray ────────────────────

POWER switch and indicator ────────────────────

HEADPHONE jack (Stereo phone plug)
and LEVEL control

INPUT selector ㉔, ⑱ ────────────────────

Disc type indicator ──────────────────────

ONTA DIRECT button and indicator ⑮ ──────────────

SURROUND selector and indicators ⑬, ㉗ ──────────────

KEY CONTROL buttons ⑯ ──────────────────────

Accessories

Make sure the shipping box contains the following accessories:
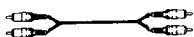
Remote Commander

Two size AA (R6) batteries

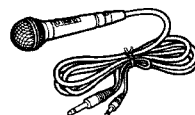**Video connecting cord**
(phone plug 1 ↔ phone plug 1 Yellow)

AUTO PAUSE indicator

DIGITAL SOUND indicator

CHAPTER/TRACK display

Remote sensor

RESERVE button ⑯

⏏ Disc tray OPEN/CLOSE button

◄◄/►► CLEAR SCAN buttons ㉓, ㊷

► PLAY button and indicator

❙❙ PAUSE button and indicator

■ STOP button

MIC 1 2 volume control and indicator

MIC 2 jack ⑮

MIC CONTROL jack ⑮, ⑲
Use with supplied Karaoke
microphone F-KM1.

MIC 1 jack ⑮

MODE selector ⑱, ⑳, ㉙

KARAOKE PON button and indicator ⑰

OTASUKE VOCAL button and indicator ⑰

ASSISTANT VOCAL button and indicator ⑰

MIC KEY CONTROL button and indicator ⑯

Audio connecting cord
(phone plug 2 ↔ phone plug 2 Red/white)

RFU adaptor RFU-90UC (1)

Karaoke microphone (1)

Rear Panel

LINE OUT 1 (AUDIO/VIDEO)

VIDEO OUT jack
(phono jack)
Connect to the RFU adaptor.

RFU DC OUT jack (mini
mini jack)
This jack supplies power to the
RFU adaptor for TV

AUDIO OUT monaural
jack (phono jack)
Connect to the RFU adaptor.

AUX inputs (phono jacks)
Connect to audio output jacks on a cassette
deck or other auxiliary equipment.

LINE OUT 2 (AUDIO/VIDEO)

S VIDEO OUT
Connect the YC-15V Cable (not supplied)

CONTROL S IN
Use this jack if your TV etc. has a
CONTROL S OUT jack.
- Connecting this jack to the CONTROL S
  IN jack on your TV lets you control this
  player with the Remote Commander
  pointed at the TV.
- Use only connection cable RK-G69, sold
  separately.

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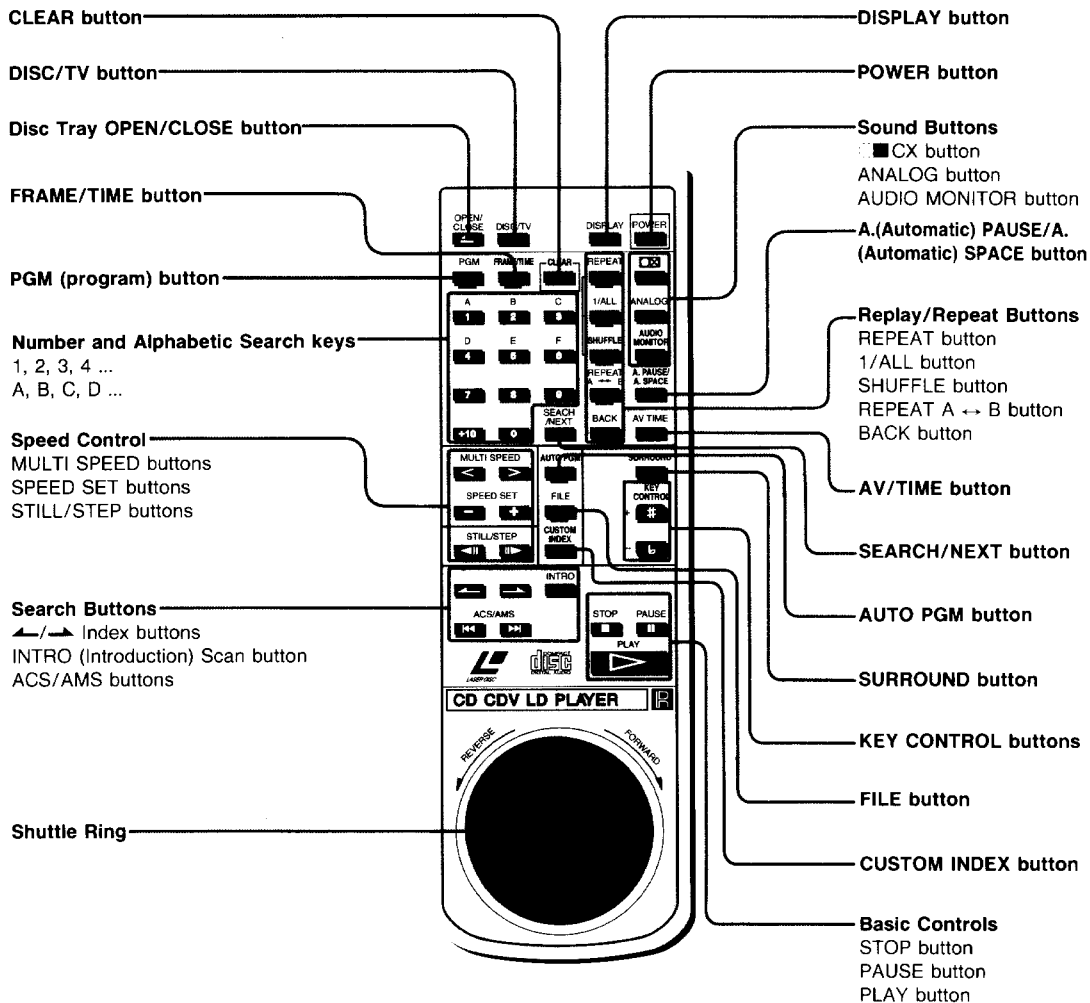by setting this switch to ON. This will
lower the volume.

Controls on the Remote Commander

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

CLEAR button

DISC/TV button

Disc Tray OPEN/CLOSE button

FRAME/TIME button

PGM (program) button

Number and Alphabetic Search keys
1, 2, 3, 4 ...
A, B, C, D ...

Speed Control
MULTI SPEED buttons
SPEED SET buttons
STILL/STEP buttons

Search Buttons
◢─/─◣ Index buttons
INTRO (Introduction) Scan button
ACS/AMS buttons

Shuttle Ring

DISPLAY button

POWER button

Sound Buttons
■CX button
ANALOG button
AUDIO MONITOR button

A.(Automatic) PAUSE/A.
(Automatic) SPACE button

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

AV/TIME button

SEARCH/NEXT button

AUTO PGM button

SURROUND button

KEY CONTROL buttons

FILE button

CUSTOM INDEX button

Basic Controls
STOP button
PAUSE button
PLAY 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 or damage the sensor.
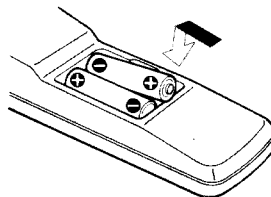
Insert two size AA (R6) batteries.

How to Connect the Television and Audio Equipment

To play LDs or CDVs, hook up a television to the Multi Disc Player. Before connecting or disconnecting any of the below cables, turn off all equipment.

To achieve full stereo sound from your Multi Disc Player, hook up a stereo speaker system following the diagram below. Take out the supplied red and white audio connecting cable and use this to connect the Multi Disc Player to your amplifier or receiver.

Television and Audio Equipment Hook-Up

Take out the supplied yellow video connecting cable, and the red and white audio cable. Use these cables to connect the player to the television. Once you have hooked up the television, set the input selector on the TV to "Video".
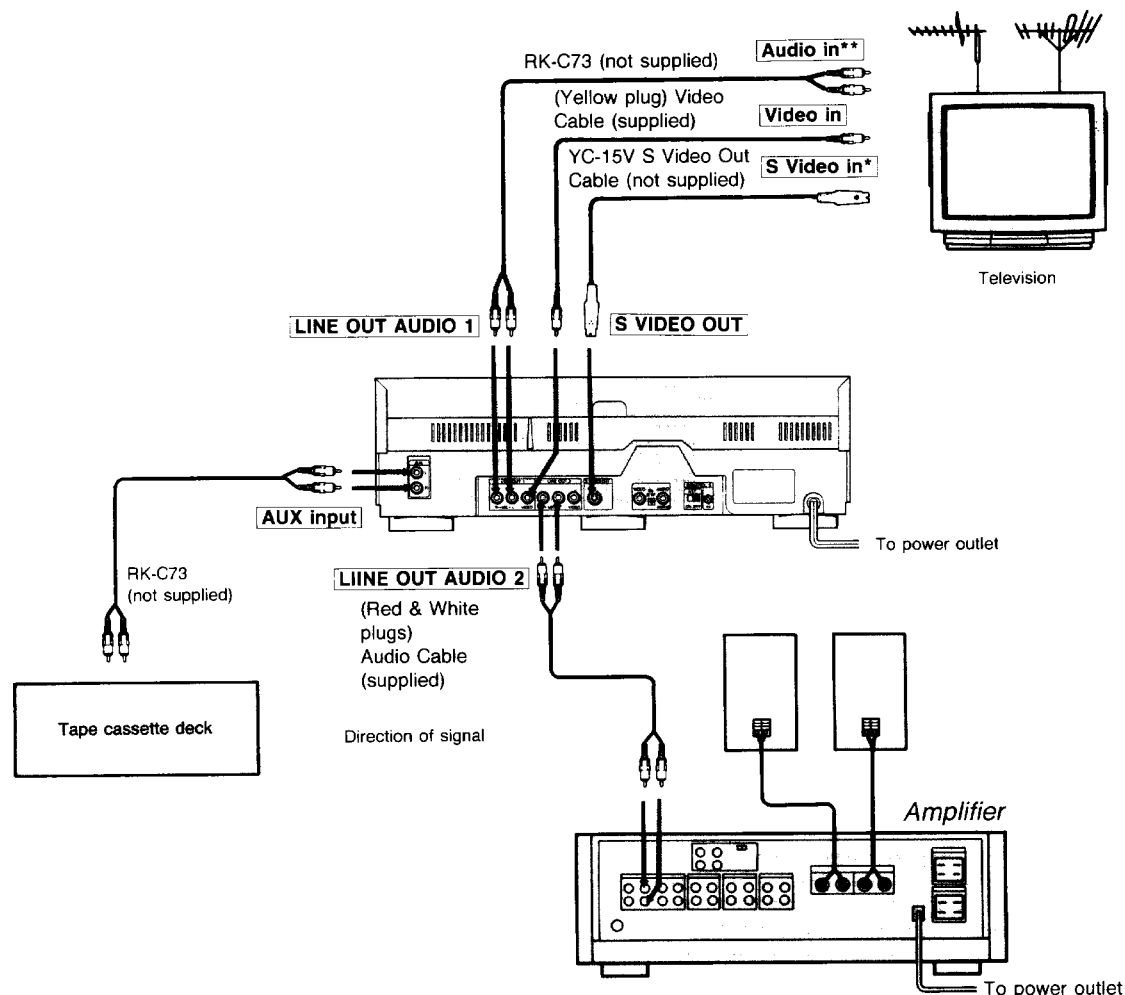
Connecting Notes:

- Connection methods may differ; when in doubt about a connection consult the TV or VCR manufacturer's manual.
- If noise emits from the video or audio input, try moving the equipment farther apart.
- Firmly insert plugs into the jacks. A loose connection may cause noise.
- To prevent interference with TV broadcast reception, turn off all equipment connected but not currently in use.

* *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 the TV only has a monaural phono jack for audio input, use a VMC-720M/730M Connecting Cable (not supplied).*
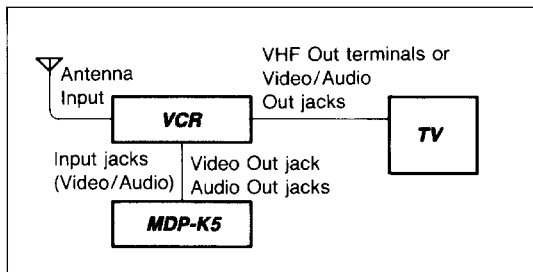
When Your TV Does Not Have Audio/Video Inputs

For connection, use the supplied RFU adaptor RFU-90UC.

LINE OUT AUDIO 1
(Red & White plugs)
Audio Cable (supplied)

RFU-90UC

Channel conversion
switch*
Set the channel selector
to an unused channel
(channel 3 or 4).

To power outlet

Amplifier

Television

VHF

ANT (Antenna)
IN

ANT
(Antenna)
OUT
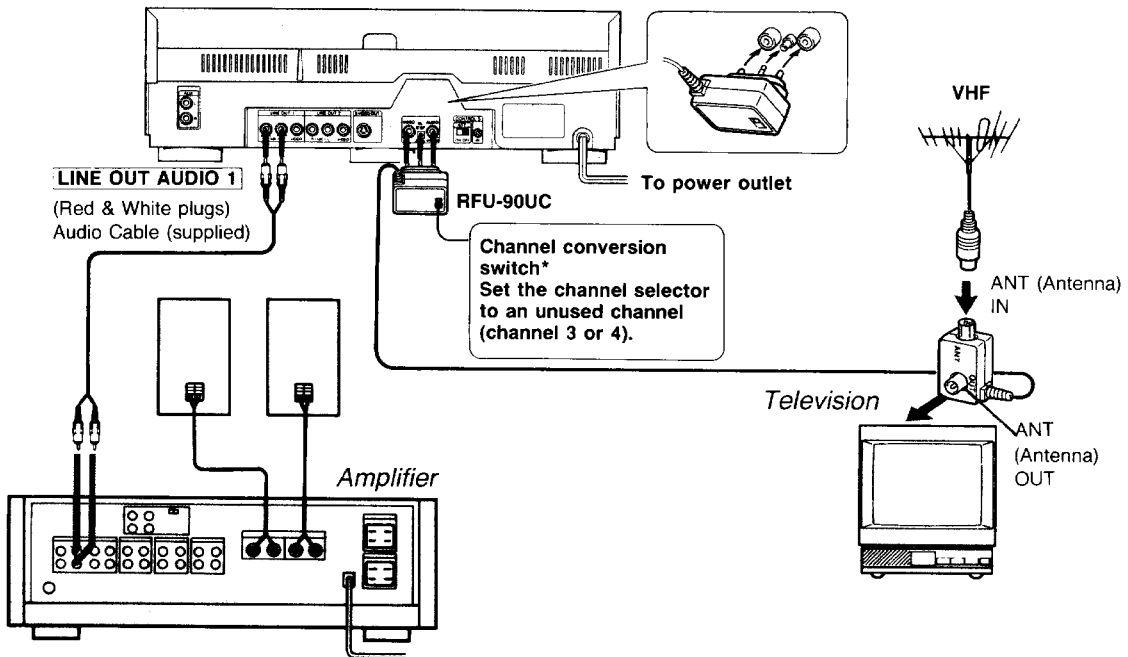
* After connecting the cable, set the channel conversion switch at the rear to an unused channel, 3CH or 4CH. To receive the playback picture of the Laser disc, you must set the switch to unused position.

Television/VCR Hook-Up

Antenna
Input

VCR

VHF Out terminals or
Video/Audio
Out jacks

TV

Input jacks
(Video/Audio)

Video Out jack
Audio Out jacks

MDP-K5

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

To enjoy stereo sound
The audio signal of the disc is reproduced in monaural when connected to the TV via the RFU-90UC. To enjoy the disc in stereo, connect the player to an audio system.

Why is it necessary to select 3 or 4?
The Multi disc player sends its output to the TV as a VHF broadcast signal. Selecting an unused channel avoids interfering with regular broadcasts.
When watching regular TV programs, turn the player off or press the TV/DISC 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.

To Play a Karaoke

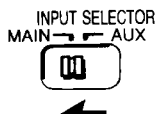## To Enjoy Karaoke

1 Turn on the TV and stereo system

TV. Select the channel used for videodisc playback (channel 3 or 4) or the video input. (See p.⑫, ⑬)

Stereo system. Turn on the amplifier or receiver and select CD or AUX for audio output.
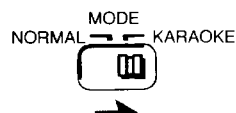
2 Turn on the player
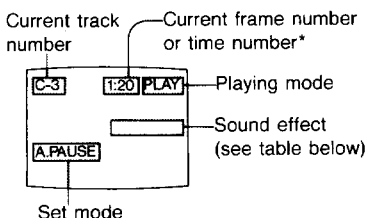
POWER
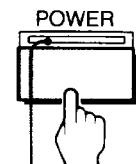
Lights up.

3 Set the INPUT SELECTOR to MAIN

INPUT SELECTOR
MAIN → ← AUX

Select AUX when playing from a tape deck or other auxiliary device.

4 Set the MODE selector to KARAOKE

MODE
NORMAL → ← KARAOKE

Display information

The following information is displayed by pressing the DISPLAY on the remote commander.

Current track number ——— Current frame number or time number*

| C-3 | 1:20 | PLAY | ——— Playing mode

——— Sound effect (see table below)

| A.PAUSE |

Set mode

* Disc without time data to the second will be indicated as "0:22".

Sound effects

| Display		Action
KARAOKE	BAR	Press SURROUND button
	ENKA	
	POPS	
	SURROUND OFF	
MIC KEY 0		Press MIC KEY CONTROL button
KEY +1		Press KEY CONTROL button
KARAOKE PON		Press KARAOKE PON button
OTASUKE		Press OTASUKE VOCAL button
VOCAL		Press ASSISTANT VOCAL button

11 Adjust the microphone echo

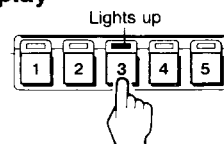Adjust the strength of the echo with the digital echo control. This cannot be used while using MIC KEY CONTROL.

DIGITAL ECHO

MIN ··· MAX
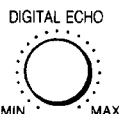
10 Adjust the microphone volume

Adjust the volume for each respective microphone.

1 ——[MIC]—— 2

MIN ··· MAX   MIN ··· MAX
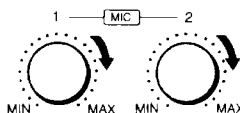
9 Choose selections to play

Lights up

| 1 | 2 | 3 | 4 | 5 |

The disc tray will close automatically and start playing.

If howling occurs

Correct by doing the following:
- Move the microphone away from the speakers
- Lower the MIC or DIGITAL ECHO volumes
- Lower the volume of the speakers

When listening through headphones

Once the headphones are connected, the volume must be adjusted with the LEVEL knob next to the PHONES jack.
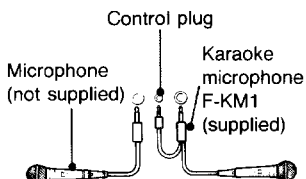
If the output is distorted

The output may sound distorted when listening through your TV speakers. Correct this by setting the ATTENUATOR switch on the rear panel to ON. (This will lower the volume which should now be adjusted with the volume control on the TV.)

If the picture on the TV flickers

The picture appearing on the TV screen may flicker when listening through your TV speakers and the MIC volume is set too high. Correct this by setting the ATTENUATOR switch on the rear panel to ON, or lower the MIC volume.

5 Connecting the wired microphone

Connect the microphone to the MIC 1 or MIC 2 jacks. The Karaoke microphone allows you to repeat singing and change the key to a song. If two control microphones are used, insert the control plug of either MIC 1 or MIC 2 to the MIC CONTROL jack. (The above controls are only available on the microphone connected to the control jack.)
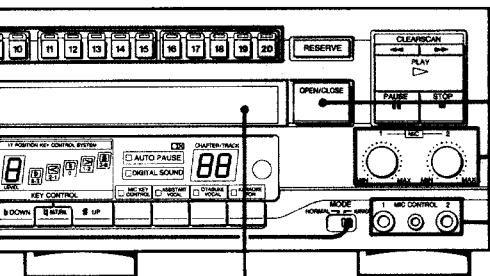
Control plug

Microphone (not supplied)

Karaoke microphone F-KM1 (supplied)

ONTA DIRECT
Press this button when inserting a multiplex disc (CD, etc.) whose disc type cannot be detected automatically or externally inputting multiplex sounds.

Disc type indicator
The type of disc inserted is automatically detected and displayed by one of the following indicators.

HI-FI KARAOKE	MULTI AUDIO disc with digital audio tracks.
STEREO	Regular stereo recorded disc.
NORMAL KARAOKE	Multiplex disc with only analog audio tracks.

6 Adjust the VOCAL BALANCE selector to MIN

VOCAL BALANCE

MIN   MAX

This control allows you to listen to the vocals of a selection. This feature is only available on discs having the MULTI AUDIO logo or that are recorded in Multiplex.
The volume of the vocal section can be raise by turning the knob toward MAX.

To use the VOCAL BALANCE for multiplex recorded CDs or AUX input sources
Press the ONTA DIRECT button. A light above the button will glow to indicate that you can adjust the level of the vocals with the VOCAL BALANCE control. This feature cannot be used when using ASSISTANT VOCAL, OTASUKE VOCAL, and KARAOKE PON.

7 Open the disc tray

flashes

8 Place the disc on the tray

Carefully center a single disc on the tray. The disc will not play if it is not seated properly.

CD/CDV   LD
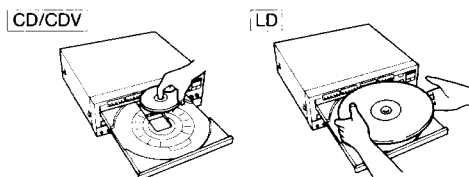
Always insert one disc at a time. Inserting more than may damage the player.

Single stops in Karaoke mode
The player will automatically pause after playing the current selection. (If another selection has been reserved, that selection will be played without pausing.) To play the next selection, press the PLAY or PAUSE button, or make a direct selection with the Direct select buttons.

To cancel
Press the A.PAUSE/A.SPACE button on the remote commander. The AUTO PAUSE indicator on the player will go out and selections will be played continuously without interruption.
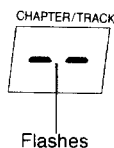
Useful Features for Enjoying Karaoke

These features are available only in the KARAOKE mode.

How to Reserve the Next Selection (Single Selection Reserve)

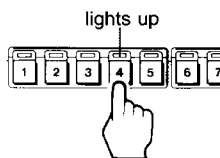*Lets you reserve the next selection while one is currently in play.*

1 Press the RESERVE button.

CHAPTER/TRACK

RESERVE

Flashes

The words "RESERVE – –" will appear on the TV screen.

2 Press the number of the selection you want to reserve.

lights up

CHAPTER/TRACK

1 2 3 4 5 6 7

The display will change from "– –" to the number of the selection reserved.

• When the selection playing finishes, the reserved selection will start playing from the beginning.
• If you reserved the wrong selection, press the RESERVE button and enter the correct number.

SONY
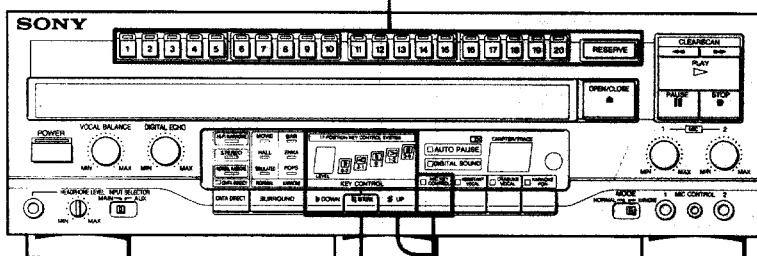
How to Control the Singing Tone (Key Control)

To change the playback tone to a lower tone, press the ♭ DOWN button. To change playback tone to a higher tone, press the ♯ UP button.
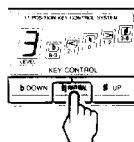
Level set   Indicates selected level

The key level will also appear on the TV screen, and disappear after three seconds.
• Find the key that suits your singing. The lower and higher tones can be applied through eight steps. (total:17 steps)
• To return to the original tone, press the ♮ NORMAL button.
• The tone will return to the original level after the current selection is played unless it is played repeatedly.

How to Change Your Own Voice (Microphone Key Control)

This feature lets you control the key of your own voice. (Digital echo cannot be used with this feature.)
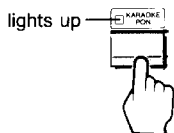Press the MIC KEY CONTROL button.

lights up — MIC KEY CONTROL

• When this indicator is lit, the KEY CONTROL buttons and indicators will control the MIC key.
• Lower the tone of your voice with the ♭ DOWN button, raise it with the ♯ UP button.
  The level set will be displayed in the same way as the KEY CONTROL level is displayed.
• The tone will return to the original level after the current selection is played unless it is played repeatedly.

**How to Enjoy Karaoke with Regular Discs (Karaoke PON)**

Lets you enjoy Karaoke fun with regular non-Karaoke discs having vocals in them. (LD, CD)

lights up ———☐ KARAOKE PON

Notes on the usage of KARAOKE PON
- Always use this feature on stereo recorded discs. On monoraul discs, the level of the vocal and instrumental portions will both be lowered.
- The vocal portion of the disc may not erase completely for stereo discs with the following characteristics: tracks containing only a few instruments, duet selections, selections with strong echo and chorus emphasis, and selections where the singer's voice deviates from the center.
- Playback using the KARAOKE PON button will be in monoraul.
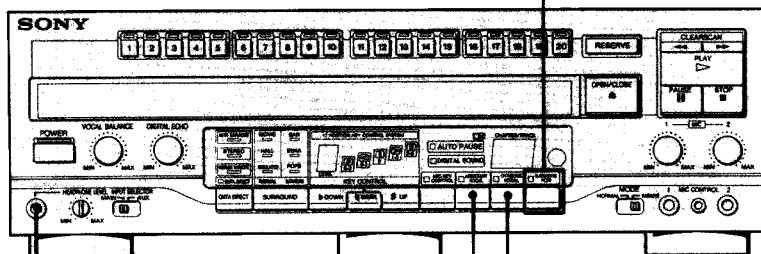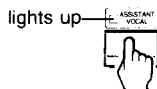
The vocal portions may not erase completely on certain discs.

SONY

This feature lets you listen to the singer's voice through the headphones while the audience hears only your voice from the speakers.

1 Connect the headphones and adjust the PHONE volume
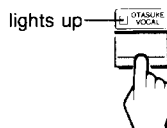
Headphones

2 Press the ASSISTANT VOCAL button

lights up ——☐ ASSISTANT VOCAL

The VOCAL BALANCE cannot be used at the same time to adjust the volume of the original vocals.

This feature is inactive while you're singing from the microphone, but when you're not and you should, it helps out by outputting the original singer's voice.
This feature is also good for singing duets by yourself. You sing the part of the male, (or female), and the other half comes in for you.

lights up ——☐ OTASUKE VOCAL

The VOCAL BALANCE cannot be used at the same time to adjust the volume of the original vocals.

Useful Features for Enjoying Karaoke (continued)

How to Use the Surround Effect
Choose from three acoustic effects for enhanced listening quality.

The surround mode changes with each press of the SURROUND button. Three modes are available especially for KARAOKE entertainment.

Here is what each surround mode offers:

KARAOKE BAR: Creates the effect of singing in a bar. Gives your song a rich carrying tone.

KARAOKE ENKA: Suitable for singing traditional Japanese songs by placing a strong emphasis on the dynamic mid to low ranges.

KARAOKE POPS: Great for singing pop music. Lets you sing casually with emphasis on the dynamic mid range.

SURROUND

The indicator will glow for the mode selected.
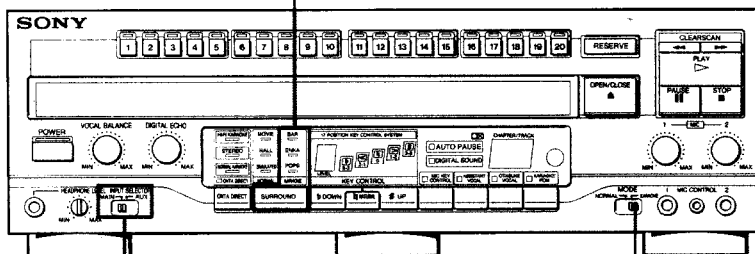
When playing Karaoke music, use the sound modes especially for the Karaoke mode.

How to Enjoy Karaoke With Auxiliary Equipment (AUX audio input)

Other auxiliary equipment such as tape decks can also be used to playback Karaoke music.
You can still use the Key Control and Karaoke Pon features as you would with discs.

1 **Connect the cassette deck to the AUX INPUT jacks on the rear panel.**

AUX
L
R
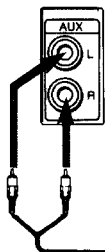
Cassette deck or similar auxiliary device
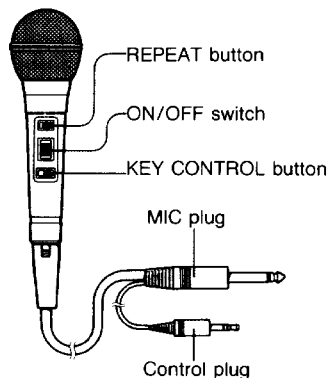
2 **Set the INPUT SELECTOR to AUX**

INPUT SELECTOR
MAIN ⇁ ⇀ AUX

To resume playing discs, select MAIN.

—REPEAT button

—ON/OFF switch

—KEY CONTROL button

MIC plug

Control plug

Repeat
The person holding the microphone can go back to the beginning of a selection, or anywhere where else, by pressing this button. Hold the REPEAT button down and release at the desired point.

Key control
The singer can control his/her singing key from the microphone. (Same as KEY CONTROL operations on the player.)

To MIC 1 OR MIC 2 jacks

To MIC CONTROL jack
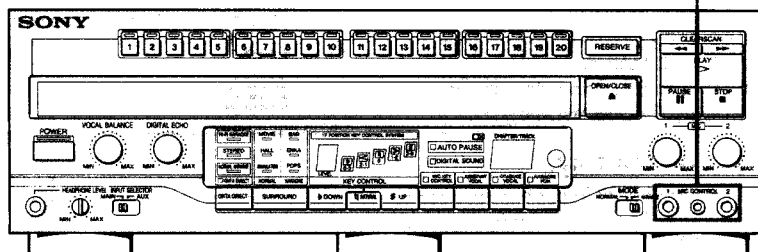
To Play a Laser Disc

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 either the Remote Commander or player.

1 Set the MODE selector to NORMAL.

MODE
NORMAL ⇄ KARAOKE
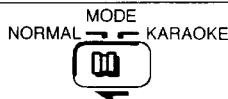
2 Turn on the TV and stereo system.
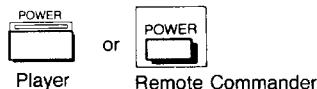**TV.** Set the input selector on the TV to "Video".
TV without audio/video inputs
Select channel 3 or 4 (selected on page 13).
Stereo system. Turn on the amplifier or receiver and select CD or AUX for audio output.

3 Turn on the multi disc player.
**Press the POWER button** on the player or Remote Commander.

POWER

or

POWER

Player   Remote Commander

4 Open the disc tray.
Press the OPEN/CLOSE button.
The indicator on the OPEN/CLOSE button of the player will flash and the disc tray will open.

OPEN/
CLOSE

5 Place the 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 it may damage the unit and/or the disc.
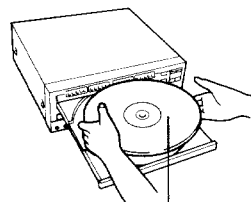
6 Start playback.
Press PLAY (▶).
The indicator on the PLAY button of the player will flash.

PLAY

Play side faces up.

To Advance or Go Back
Rotate the Shuttle Ring or press ACS/AMS (◄◄ or ►►).
The same operation can be done at the player with the ◄◄/►► CLEAR SCAN buttons.

ACS/AMS

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

PAUSE

To Stop Playback
Press STOP (■).
To play again from the beginning, press PLAY (▶).

STOP

To Stop Play and Remove the Disc
Press OPEN/CLOSE. The indicator on the OPEN/CLOSE button of the player will flash and moments later the disc tray will come out. Remove the disc and close the empty tray.

OPEN/
CLOSE

To Have the Player Pause Before Starting

Press the PAUSE (II) button on the player or the Remote Commander immediately after doing step 6 on page 20.

The tray closes and the player waits at the start of the disc until you press PLAY (▶) or PAUSE (II).

PAUSE

To Activate Play with an Optional Timer

Set the timer with the AC power cord connected to the player. When the timer supplies power at the preset time, the player starts playing the disc. If there is no disc in the player, the player goes off automatically.

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

Press PLAY (▶), then press the AUDIO MONITOR button.

This function alternates the sound output on a disc that has been recorded on two sound tracks, such as bilingual discs.

PLAY   AUDIO MONITOR
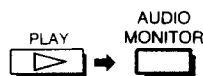
To Watch Regular TV Programs on a TV without Audio/Video Inputs

Turn the player off or press the DISC/TV button on the Remote Commander. Then select the desired channel on the TV. If the TV picture or sound quality is not satisfactory, refer to the TV instruction manual and adjust the channels.

The procedure below indicates how the output and the display changes with each press.
The active track will appear on the TV screen for three seconds and then disappear.

Procedure	TV Display	Output Sound	
		Stereo Disc	**SAP Disc**
1 **Press PLAY (▶).**	1/L 2/R	Stereo (Both channels)	Sound track 1 (left channel) Sound track 2 (right channel)
2 **Press AUDIO MONITOR.**	1/L	Left channel	Sound track 1 (left channel)
3 **Press AUDIO MONITOR again.** Press AUDIO MONITOR again to return to stereo status.	2/R	Right channel	Sound track 2 (right channel)

To Switch from Digital to Analog Sound

Press the ANALOG button 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 Commander, you can switch to analog sound. With certain discs there may be a difference in volume.

ANALOG

Discs with a ▢■ (CX) Label

Discs bearing the ▢■ (CX) label are recorded with the ▢■ Noise Reduction system, which gives lower noise levels and higher dynamic range. The player is designed to automatically recognize such ▢■ discs. However, some ▢■ discs do not include the coding necessary to automatically activate the player's ▢■ noise reduction system. Press the ▢■ button on the Remote Commander to manually activate the system.
(Note, the display on the TV screen only appears for three seconds.)
"CX ON" will appear on the TV screen for three seconds and then disappear.

Understanding Displays and Messages When Playing LDs

You can determine player operating status or disc information by displaying the information on the TV screen, or pressing the DISPLAY button on the Remote Commander.
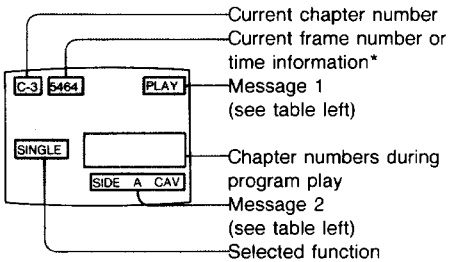
To View On-Screen Information

Press DISPLAY on the Remote Commander.
To turn off the display, press DISPLAY again.

DISPLAY

Reading the On-Screen Messages

The illustration to the right is an example of what appears on screen while the player is operating. The below table is a key to the messages that appear on the right.

Current chapter number
Current frame number or time information*
Message 1 (see table left)

Chapter numbers during program play
Message 2 (see table left)
Selected function

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

* Discs not indicating time data to the second indicate instead as two-digit numbers such as, "0:22".
** Some discs do not contain Side A or B identification coding. In that case, disc side indications may not be accurate.

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

To find a scene, play the disc back or forward at varying speeds.* The sound is automatically muted during speed play. 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 to select the direction.

> To reverse <
> To advance >
The direction can be changed at any speed by using the MULTI SPEED buttons.

MULTI SPEED

[◁] [▷]

2   Press SPEED SET to select the speed.

> To reduce speed −
> To increase speed +

(You can press SPEED SET first, or do either step without the other.)

SPEED SET

[−] [+]

3   Press DISPLAY.

> The play speed and direction appear on screen.

DISPLAY

[ ]

C-2   10200   ◁×1/8
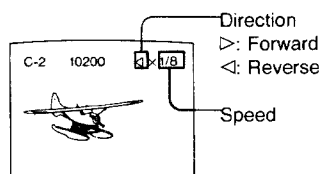
Direction
▷: Forward
◁: Reverse

Speed

4   Press PLAY.

> Normal playback resumes.

PLAY

[▷]

Discs with Automatic Picture Stop Code

When an automatic picture stop code (found on educational discs) is encountered during 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 screen goes blank and the message "SIDE A (or B) CLV" appears.

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

Rotate the Shuttle Ring in the forward or reverse direction. (To do this at the player, use the ◀◀/▶▶ CLEAR SCAN buttons.)

> The play speed changes according to the degree you rotate the Shuttle Ring. The illustration to the right indicates the approximate speeds.

Scan at 10 times normal speed
Scan at 30 times normal speed
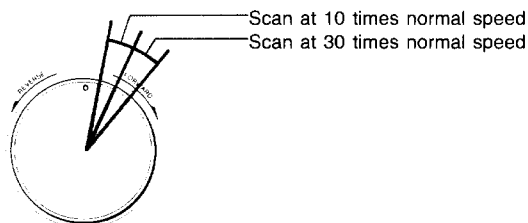
To Resume Normal Play

Release the Shuttle Ring.

* 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.

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 or front panel.

To Locate a Particular Chapter
Press one of the number keys on the Remote or front panel corresponding to the chapter you want to play.
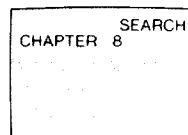If you make mistake, simply press the correct one.

For example, to locate chapter 8 press "8" on the Remote.
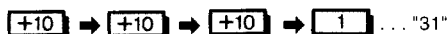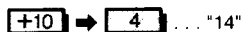
The player starts searching for Chapter 8.

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

To Enter a Number Greater Than 10*
Press +10 and one of the number keys.
Do this to make a numerical sum. For example, to enter 14, press +10 and 4; to enter 31, press +10, +10, +10 and 1. (On the player, you can use 20 direct select buttons.)

If you make a mistake while entering a number, press CLEAR then enter the correct number.

To Check the Current Chapter Number
Press DISPLAY on the Remote to display the current chapter number (upper left-hand corner) on the screen. You can also look at the CHAPTER/TRACK on the front panel display for the current chapter number.

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.

Hold down the ACS/AMS button for continuous skip search.

To Resume Normal Play
Press PLAY (►).

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