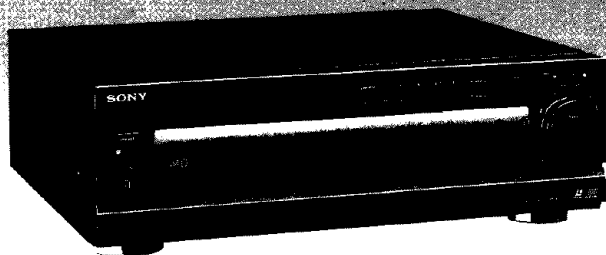


SONY

MDP-605



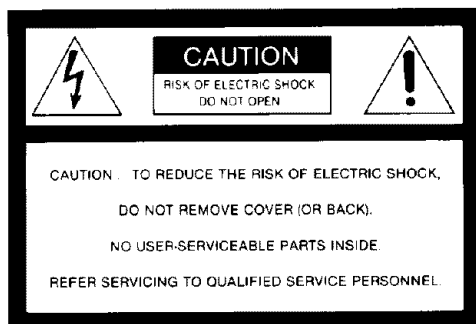
Owner's Record

The model number is located at the rear. The serial number is located on the top panel. 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-605 Serial No. _____

WARNING

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



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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

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 videodisc player is harmful to the eyes, do not attempt to disassemble the cabinet. Refer servicing to qualified personnel only.

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.

NOTICE FOR THE CUSTOMERS IN CANADA

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

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LD

CD

LD/CD/CDV

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Precautions

On safety

- Operate the unit only on 120 V AC, 60 Hz.
- Should any solid object or liquid enter the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not to be used for an extended period of time.
To disconnect a cord, pull it out by the plug. Never pull the cord itself.
- One blade of the plug is wider than the other for the purpose of safety and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.

On installation

- Avoid placing the player in a location subject to:
 - high humidity
 - high temperature
 - excessive dust
 - mechanical vibration
 - direct sunlight
- Allow adequate air circulation to prevent internal heat buildup. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.


On moisture condensation

- Do not operate the unit right after having transported it from a cold location to a warm location or in a room where the temperature rises suddenly, because moisture may condense in the operating section of the unit. Wait for about an hour before turning the power on in the new location or keep the rise in room temperature gradual. If the unit is operated with moisture condensation, the unit and the disc may be damaged. Therefore remove the disc immediately when there is a possibility of moisture condensation and no picture is obtained. To evaporate the moisture rapidly, leave the player turned on without a disc loaded.

On operation

- Remove the disc from the tray after playing it, if the unit will not be used for any length of time. Do not transport the set with a disc in place.
- When the disc tray is in the open position, do not press down on it strongly, or place heavy objects on it.

On disc tray

- If the disc tray does not close properly and slides out again, reinsert the disc.
- Be careful not to pinch your fingers between the tray and the unit.
- Always keep the tray closed when not using the unit to keep dust or dirt from entering the optical system of the unit.
- If the unit does not operate, press the  OPEN/CLOSE button and reinsert the disc.
- Insert only one disc at a time.
- Make sure the disc is placed properly in the tray. Incorrect positioning may result in permanent damage to the disc.

On cleaning

Clean the cabinet, panel and controls with a dry soft cloth, or a soft cloth lightly moistened with a mild detergent solution. Do not use any type of solvent, such as alcohol or benzene, which may damage the finish.

On repacking

Do not throw away the carton and the packing material. They make an ideal container to transport the unit in.

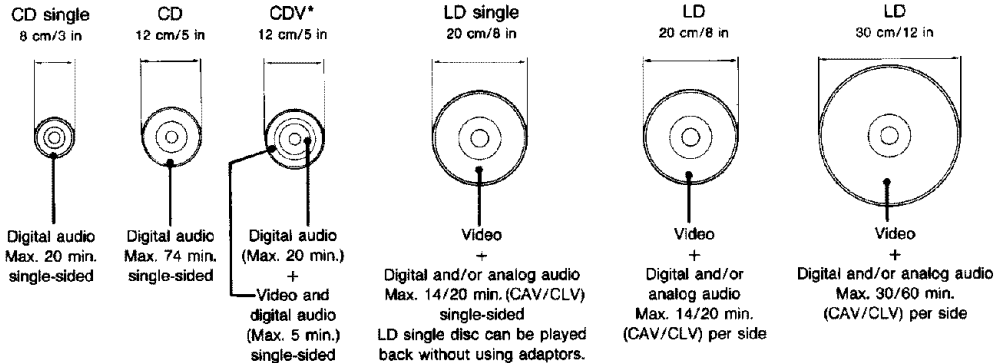
If you have any question or problem concerning your unit, please contact your nearest Sony dealer.

For the customers in the USA

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

Features

This CD/CDV/LD Player can play all six types of optical discs currently available for home entertainment use:



The following functions are available with this unit.

For the CDV disc, CD functions can be used on the audio portion and LD functions can be used on the video portion.

LD/CD/CDV

- **Program play**
Play back chapters or tracks in any desired order.
- **Shuffle play**
Play all selections on a disc in a random order.
- **Auto disc protection**
Prevents damage to the disc during stop.
- **AV calendar display**
Shows the number of tracks (up to 20) on a disc and the total playing time at a glance. (Display window of the unit can show max. 16 chapter/track numbers.)
- **Auto program**
Play back chapters or tracks within a designated time.
- **Shuttle ring**
Easily search for desired scene by forward and reverse speed scan on a disc with this ring

LD/CDV (Video Portion)

- **Automatic playback on both sides (LD only)**
Both A and B sides on a disc are played back automatically without replacing.
- **Variable speed playback (LD CAV only)**
11 speed settings for normal and reverse playback, step (frame-by-frame) playback and high-quality freeze-frame.
- **Clear scan**
Fast scan without picture distortion even on CLV discs.
- **PICTURE ENHANCE control**
To adjust the picture to the disc in 5 steps from SHARP to SOFT.

CDV

- **Video portion**
All LD (CLV) functions are available.
- **Audio portion**
All CD functions are available.

This unit plays back discs with any of the following logos on the label.

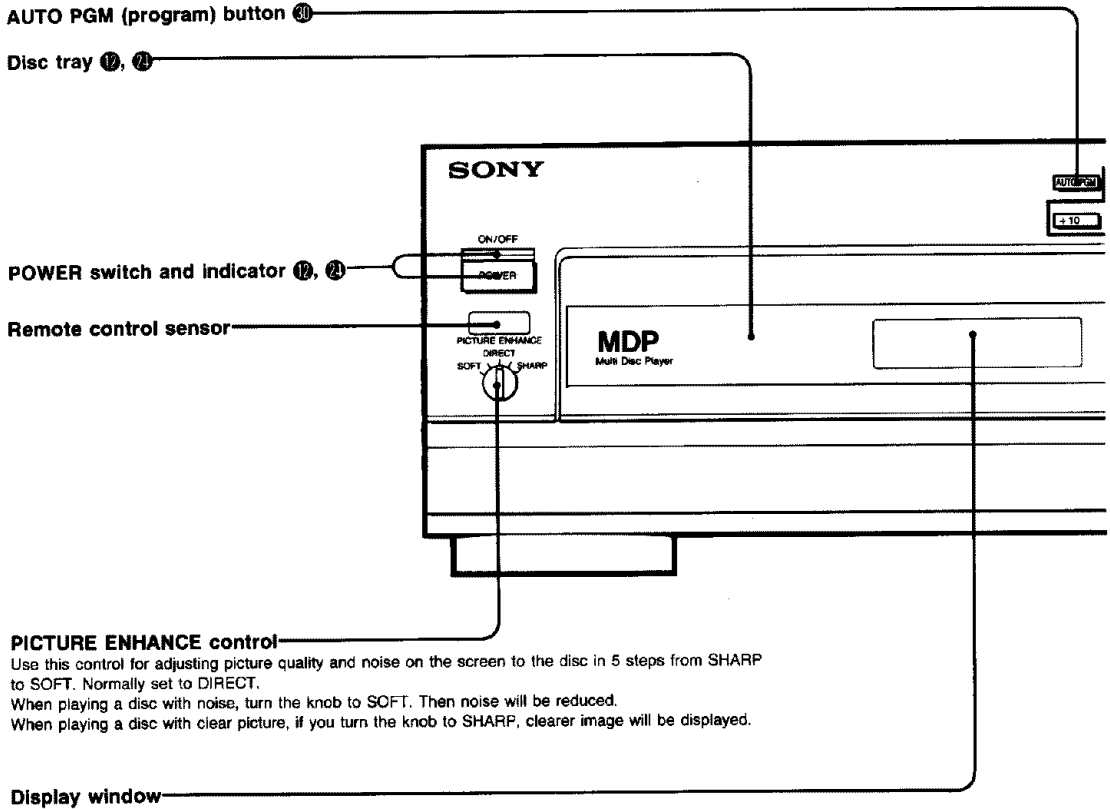


- It cannot play back CED or VHD discs or discs with PAL, SECAM, or video signals other than the NTSC standard.

* The Compact Disc Video (CDV) format divides a CD into two sections. One is 20 minutes of digital audio playable on any CD player. The other, 5 minutes of video and digital audio, requires a CDV player.

Location and Function of Controls

Front panel



PICTURE ENHANCE control
Use this control for adjusting picture quality and noise on the screen to the disc in 5 steps from SHARP to SOFT. Normally set to DIRECT.
When playing a disc with noise, turn the knob to SOFT. Then noise will be reduced.
When playing a disc with clear picture, if you turn the knob to SHARP, clearer image will be displayed.

Accessories

The shipping box should contain the following accessories.

RMT-S605A Remote Commander

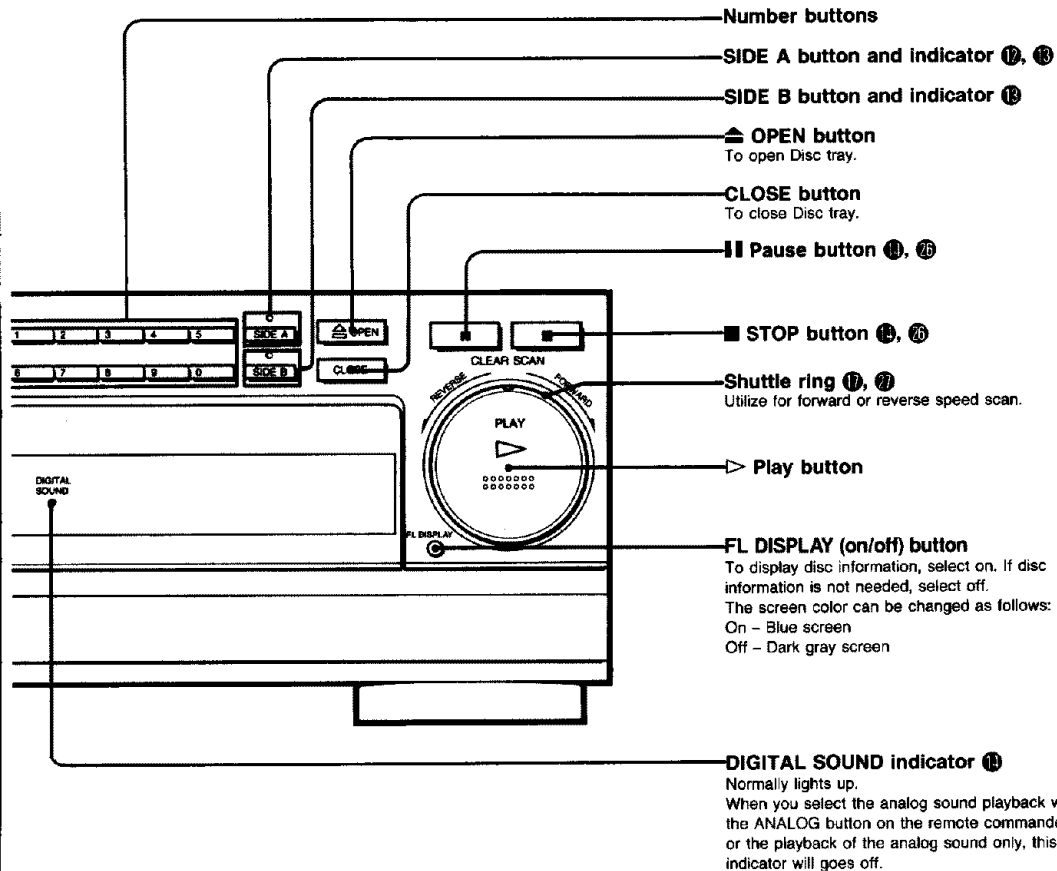


Two size AA (R6) batteries



Video connecting cord
(phono 1 ↔ phono 1)





What is this indication?



When the player is turned off during operation (e.g. playback), this indication blinks.
For protection of disc, if the player is turned off during operation, power will automatically cut off after few seconds to stop rotation of the disc completely.

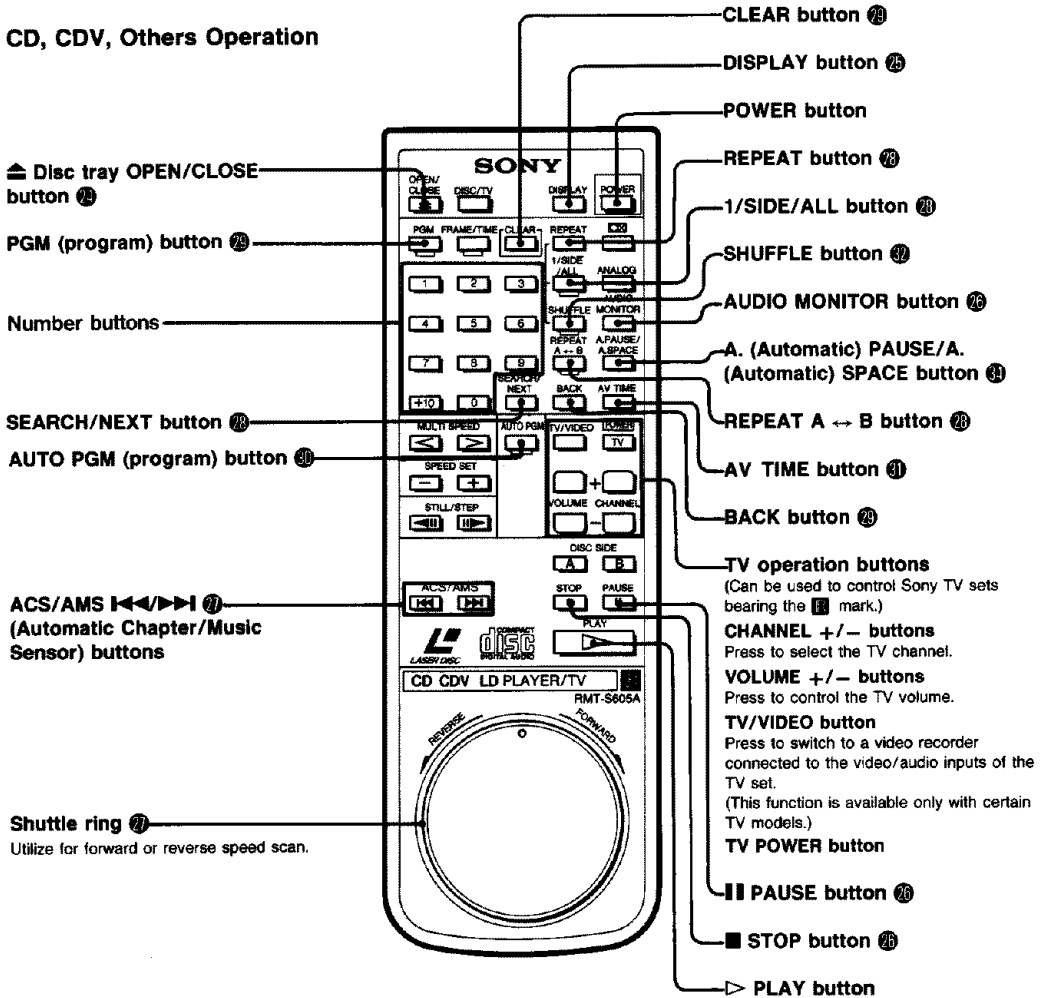
Audio connecting cord
(phono 2 ↔ phono 2)



RFU adaptor RFU-90UC (1)



CD, CDV, Others Operation



Battery life

Under normal operations, the batteries will last for approximately six months. If the operating 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 period of time, remove the batteries to avoid possible damage from battery leakage.

Remote Commander Precautions

Do not let sunlight or light from a powerful artificial light source fall directly on the Remote Commander sensor on the front panel as it may interfere with operation or damage the sensor.

Connections

Video and audio connection cord plug colors are indicated as yellow, white, and red. Make sure that the jacks of the equipment are properly connected to its corresponding colors.

To Connect to Audio System and to TV with Video Inputs

CONTROL S IN jack (mini type)

IN: Connect to the CONTROL S output jack of a TV. This unit can be remotely controlled by pointing the Remote Commander at the TV.

Use the optional RK-G69 connecting cord for the above connections.

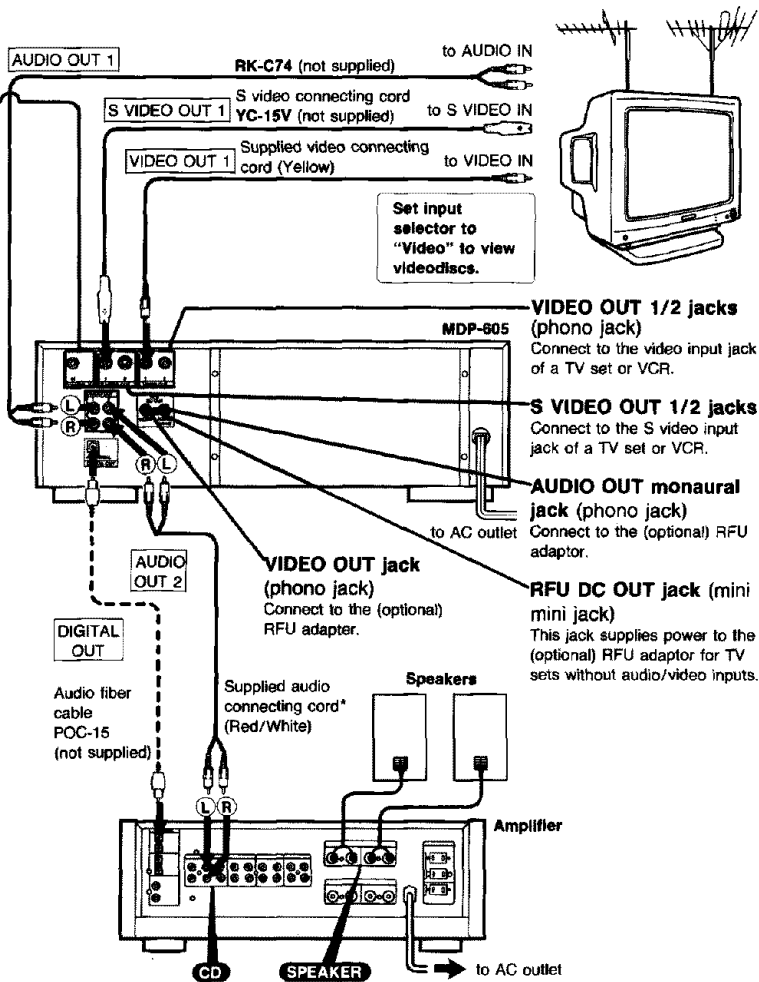
AUDIO OUT 1/2 jacks (phono jacks)

Connect to the audio input jacks of a TV set or the CD input jacks of an amplifier. The output signal will be the same – that is, digital or analog – depending on the signal recorded on the disc.

DIGITAL OUT connector (OPTICAL)

This jack permits optical fiber connection to an amplifier or D/A converter unit with optical input. For connection, use the optional audio fiber cable POC-15.

Discs that are not digitally recorded will not be output.



* You can connect the player's audio output to the TV instead of an audio system. If the TV set has only a monaural phono jack for audio, use the VMC-720M/730M connecting cord (not supplied).

Precautions on connecting

- Make sure that all equipment is turned off before connecting or disconnecting any cables.
- Firmly insert the plugs into the jacks. A loose connection can lead to noise.
- When unplugging a cable, grasp the plug. Never pull the cable itself.
- To prevent interference, turn off all equipment connected, but not currently in use.
- If noise is emitted from the audio or video input, try moving the equipment further apart.

• Connection methods differ. When in doubt, consult the manufacturer's manual.

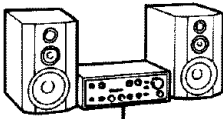
Connection of optical fiber cable

Remove protective cover. Plug connector in firmly.

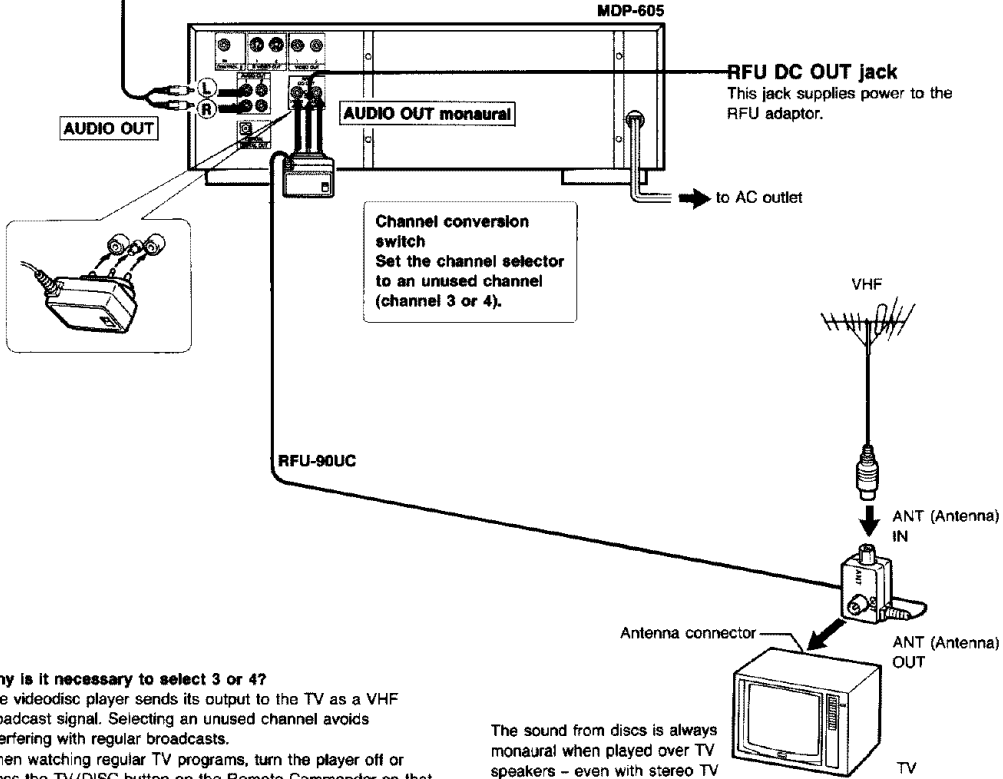


To Connect to TV Without Audio/Video Inputs

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



When the AUDIO OUT jack and the audio amplifier is connected, audio can be enjoyed in stereo.



Why is it necessary to select 3 or 4?

The videodisc 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.

The sound from discs is always monaural when played over TV speakers - even with stereo TV sets.

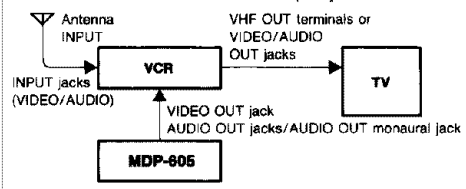
To obtain a better picture

Always switch off the player when watching a TV program.

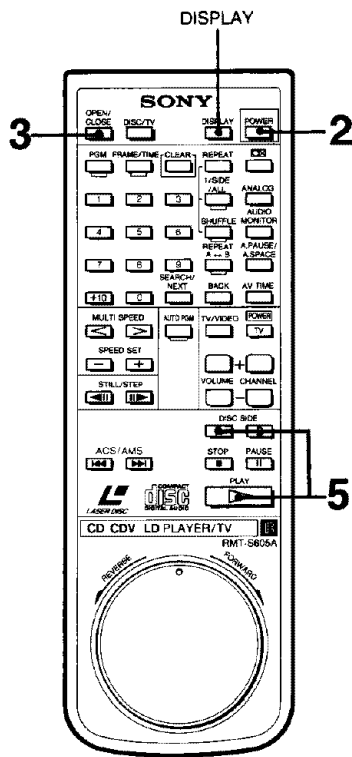
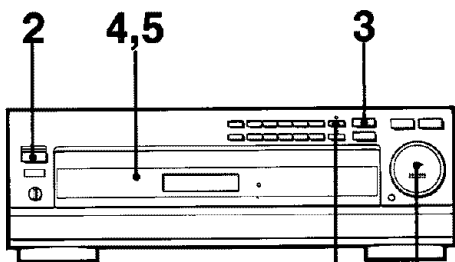
During FM or AM reception

Turn off the power of the player to prevent the possibility of noise interference.

To connect to the external video/audio inputs jacks of VCR.



To Play an LD



Notes on disc tray

Insert only one disc at a time. Incorrect placement of two or more discs may lead to malfunction.

Identical buttons on the main unit can also be used.

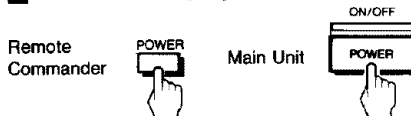
1 Turn on the TV and stereo system.

TV: Select the channel used for videodisc playback or the video input (channel 3 or 4). (See p. 10, 11)

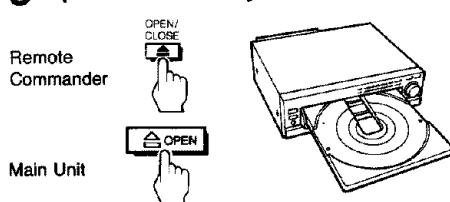
Stereo system:

Turn on the amplifier or receiver and select the proper audio input [CD] or [AUX].

2 Turn on the player.

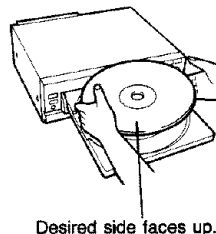


3 Open the disc tray.



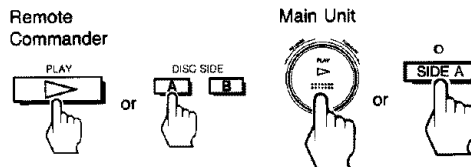
4 Place the disc on the tray.

Place the disc on the center of the tray. If the disc is not placed correctly, playback may not start.



This player determines the sides on the disc, A or B, in the disc tray. The upper side is always A regardless of label A or B on the surfaces.

5 Start playback.



Or push the disc tray compartment, then playback will also begin.

After inserting a disc, playback cannot be started by pressing CLOSE button on the main unit or OPEN/CLOSE button on the Remote Commander.

To pause at the beginning of a disc

Press the **||** button instead of conducting step 5. The tray closes, and the player pauses at the beginning of the disc side A.

To pause the first track of the side B, press the **SIDE B** button on the main unit or the **DISC SIDE B** button on the Remote Commander, then press **||** button.

AV calendar

When playing an LD containing TOC (Table of Contents) data, the AV calendar shows information on the total number of selections. As selections are played, its corresponding numbers on the display disappear.

To play the side B first

Press the **DISC SIDE B** button on the Remote Commander or the **SIDE B** button on the main unit instead of step 5.

After playback on side A is over

It plays the side B automatically after ending to play the side A. If the side B does not record anything, it will stop.

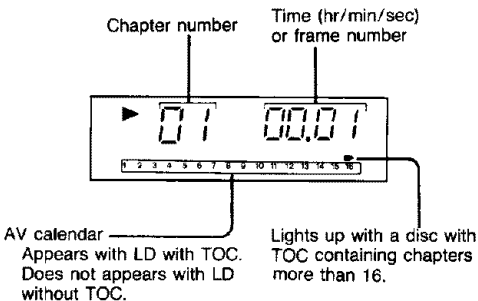
Using an optional timer

Set the timer after pressing **STOP** button on the unit to change the **STOP** indication from blinking to lighting on the screen. To start playback with an optional timer automatically, leave the **POWER** switch of the disc player in the depressed position. When the preset time arrives, the timer will supply power to the main unit and playback will begin at that point.

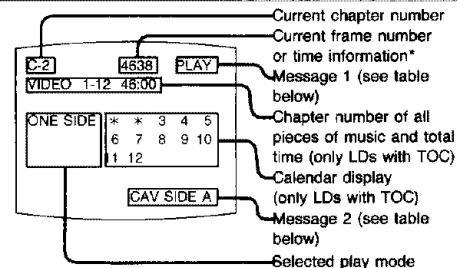
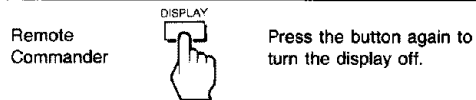
To turn the disc sides

In playing the side A: Press the **DISC SIDE B** button on the Remote Commander or the **SIDE B** button on the main unit.

In playing the side B: Press the **DISC SIDE A** button on the Remote Commander or the **SIDE A** button on the main unit.

Display on playback message**Screen Messages**

Information on the operating condition of the unit and chapter or track numbers can be superimposed on the TV or monitor screen. While no image is displayed, such as during search, information for LD is shown on a blue background.

To show the on-screen display

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

Message 1

(Examples)

Display	Explanation
OPEN	Disc table open
CLOSE	Disc table closed
PLAY	Playback
STOP	Stop
PAUSE	Pause
⏩ / ⏪	Forward/reverse speed scan
SEARCH	Search
▶ x1/2	1/2 speed display in forward direction

Message 2

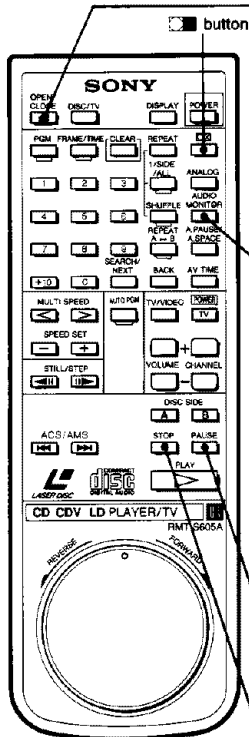
(Examples)

Display	Explanation
SIDE A CAV	Standard-play disc side A
SIDE B CAV	Standard-play disc side B
SIDE A CLV	Long-play disc side A
SIDE B CLV	Long-play disc side B
1/L	Main soundtrack/left channel
2/R	Second soundtrack/right channel
⏮ DIGITAL	Digital sound
⏮ ANALOG	Analog sound

Note

This player determines the side on the disc, A or B, in the disc tray. The upper side is always A regardless of label A or B on the surfaces.

To Play an LD



Identical buttons on the main unit can also be used.

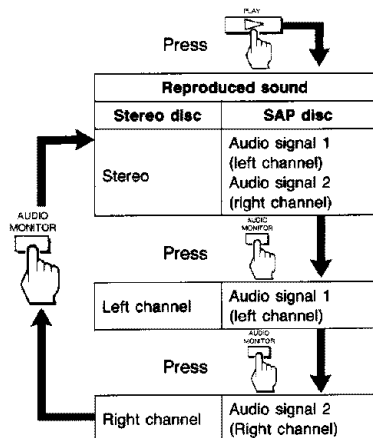
To stop playback and remove disc



Remove the disc and press the OPEN/CLOSE button (or CLOSE button on the unit) to close the empty tray.

To play a stereo LD or a second audio program (SAP) LD

Press the playback () button, then press the AUDIO MONITOR button repeatedly to select the sound in the following information.



To switch between digital and analog sound on an LD

If the LD contains a digital stereo sound signal, the player automatically sends that to the output jacks. Pressing the ANALOG button on the Remote Commander switches to the analog audio signal and turns the DIGITAL SOUND indicator off.

Press the ANALOG button again to return to digital sound output.

With certain discs, there may be a difference in sound level between the digital and the analog sound.

Discs with Label

Discs bearing the label are recorded with the noise reduction system, which gives lower noise levels and higher dynamic range. Press button on the Remote Commander, and the indication is displayed for 3 seconds at the right bottom on the screen.

Some discs do not include the code necessary to automatically activate the player's noise reduction system. In this case, press the button on the Remote Commander to manually activate the system.

To temporarily interrupt playback



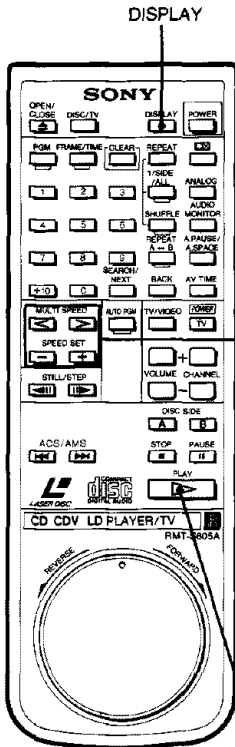
When playing CAV discs, the sound is cut off and a still picture is shown. When playing other discs, the unit enters the pause mode (blue or dark gray screen). To resume playback from the same point, press the or button.

To stop playback



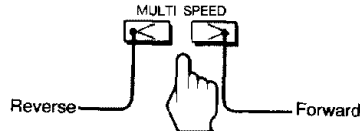
Press the button to restart playback from the beginning of the disc.

To Change Playback Speed and Direction – Speed Play (CAV standard-play)



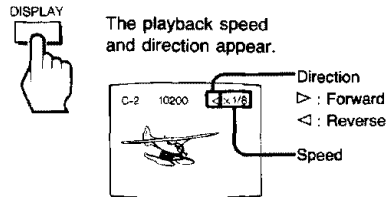
Speed and Direction

- To select the playback direction.

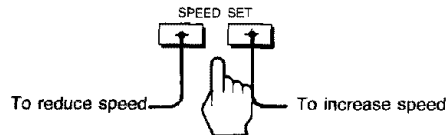


The direction can be changed regardless of playback speed.

- To display the speed and direction

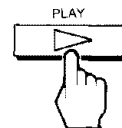


- To select the playback speed.



Speed Indication	Speed (approx.)	Speed Indication	Speed (approx.)
Faster	x10 10 times normal speed	x1/4	1/4 normal speed
		x1/8	1/8 normal speed
		x1/16	1/16 normal speed
x5	5 times normal speed	x1/30	1/30 normal speed
		x1/90	1/90 normal speed
x3	3 times normal speed	Slower	-
x2	2 times normal speed		
x1	Normal speed		
x1/2	1/2 normal speed		

To resume normal playback



• Sound during speed play

Audio output occurs only during $\times 1$ (normal) speed play in the forward direction. There is no sound for other speed and direction combinations.

• Extended-play discs (CLV) (See p. 2)

Speed play, freeze frame and step playback are not possible with CLV discs.

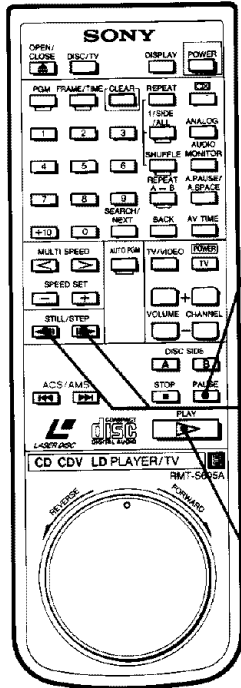
Disc with automatic picture stop code

When a automatic picture stop code is encountered during speed playback (at $\times 1, 1/2, 1/4, 1/8, 1/16, 1/30, 1/90$), the unit automatically stops at that frame.

To resume normal playback, press \triangleright button, or to continue the speed playback, press \langle / \rangle buttons.

To Play an LD

To Play Frame by Frame – Freeze-frame, STEP playback (CAV standard play)



To view a still picture: – Freeze-frame



The screen stops at the current frame.

To view a frame one by one: – STEP playback

1.

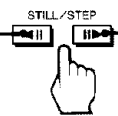


Press once for freeze-frame.

2.



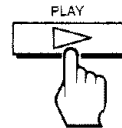
Each press shifts one frame backward.



Each press shifts one frame forward.

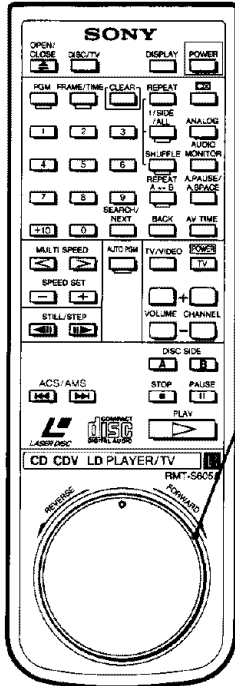
Hold the button down for continuous step playback. You can also use the STILL/STEP button during playback.

To resume normal playback



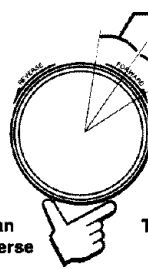
- During freeze-frame or step playback operation There is no sound.
- Extended-play (CLV) disc Speed play, freeze frame and step playback are not possible with CLV discs. When the PAUSE button is pressed, the screen becomes blue.

To Search for a Particular Scene – Dual Speed Clear Scan



To forward or reverse speed clear scan

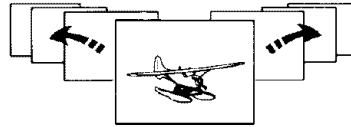
The playback speed can be changed depending on the degree of the shuttle ring.



To scan
in reverse

To scan forward

Identical speeds are available
for reverse speed scan.



Scanning continues until the shuttle ring is released.

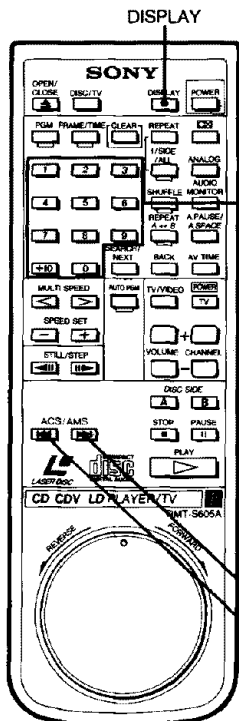
While scanning in either direction

- There is no sound.
- Scanning speed varies as the laser beam moves away from the center of the CLV disc. In addition, the image during scanning with a CLV disc will skip, though the image itself is stable by the clear scan function.
- A certain amount of noise is inevitable with all scanning operations.

To Play an LD

Searching by Chapter/Track Number – Chapter/Track Search

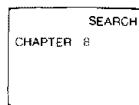
Chapters are contained in a disc. LDs are divided into sections called chapters. Such discs usually have a list of chapters on the jacket or label.



Direct chapter or track search

Example: Locate the beginning of chapter 8.

Press the "8" button.



Searching for chapter 8



Finds Chapter 8, and playback starts.

- If you have pressed the wrong number, simply press the correct one.
- Search can be conducted while in freeze-frame, speed play, and pause condition as well as normal playback. When the desired chapter appears after search, playback will continue in the same mode.

To check the current chapter and frame/time numbers

These numbers appear in the display window on the player. Or to display them on the screen, press the DISPLAY button on the Remote Commander.

To enter a number greater than 10

Use the +10 and 0 buttons.

Examples: 10: $+10 \rightarrow 0$
 14: $+10 \rightarrow 4$
 20: $+10 \rightarrow +10 \rightarrow 0$

If the +10 button is pressed by mistake

Press the +10 button repeatedly until -- or 1 - is displayed.

Notes

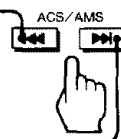
- The chapter search feature will not function if the disc does not include chapter numbers. In this case, the screen message will give only frame or time numbers.
- As for a disc with TOC (see p. 18), if a chapter number not included in the disc is entered, the entry will be ignored.
- As for a disc without TOC, if a chapter number not included in side A is entered, the player will display the last picture of side A and then the whole side B and will stop. If a chapter number not included in side B is entered, the player will display the last picture of side B and will stop.

Skip chapter search

Press the \lll button once to return to the beginning of the current chapter.

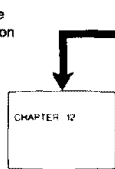
Press the \lll button twice - before the picture reappears - to return to the beginning of the previous chapter.

Press the \ggg button to advance to the beginning of the next chapter.

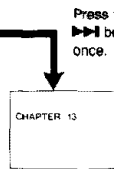


Example: Current chapter = 12

Press the \lll button once.



Press the \ggg button once.



Beginning of chapter 12

Beginning of chapter 13



Searching by Frame Number/Time – Frame/Time Search

Frame search – For CAV (standard-play) discs only

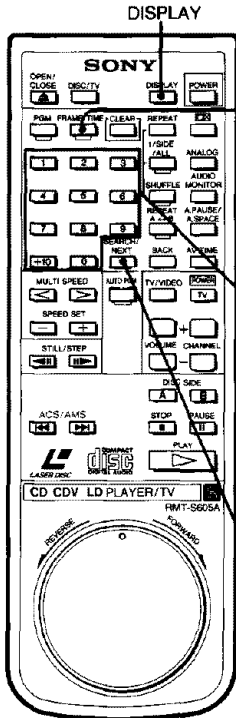
Enter the frame number to search for a particular scene.

- Each picture on a standard-play disc is called as a frame.

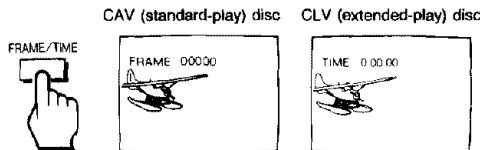
Time search – For CLV (extended-play) discs only

Enter the time to search for a particular scene.

- Extended-play discs keep track of positions as elapsed time from the beginning of the disc.



1 Press the FRAME/TIME button.



2 Enter the desired frame or time numerals.

- CAV (standard-play) disc

Example: Locate frame number 12340.

Press the number buttons in the following order.

1 → **2** → **3** → **4** → **0**

- CLV (extended-play) disc

Example: Locate the 12 min 05 sec point.

Press the number buttons in the following order.

1 → **2** → **0** → **5**

If you make a mistake

Press the FRAME/TIME button once more to return the display indication to zero, and then enter the correct numbers as follows.

For CAV – five digits

For CLV with seconds – four digits

For CLV without seconds – two digits

3 Press the SEARCH/NEXT button.



Playback starts at the specified number in step 2.

Search can be conducted while in freeze-frame, speed play, and pause condition as well as normal playback. When the desired frame or time appears after search, playback will continue in the same mode.

To cancel frame/time search

Before pressing the SEARCH/NEXT button, press the CLEAR button.

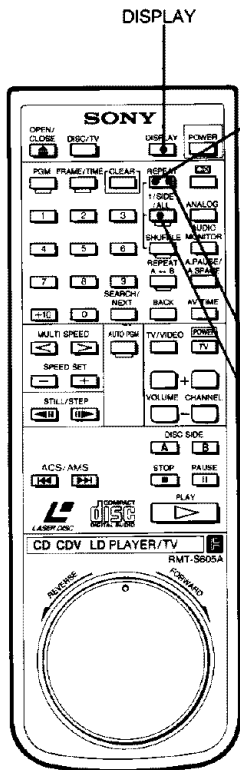
To check the current frame/time numbers

These numbers appear in the display window on the player. Or to display them on the screen, press the DISPLAY button on the Remote Commander.

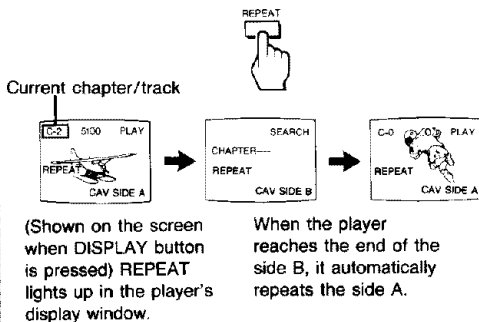
Notes

- If a frame/time number not contained on a disc is entered, the playback stops.
- If the disc does not include seconds-unit time data, enter the time in minutes only.

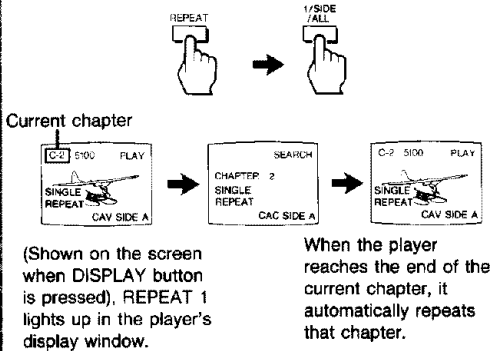
To Play Repeatedly – Repeat Playback



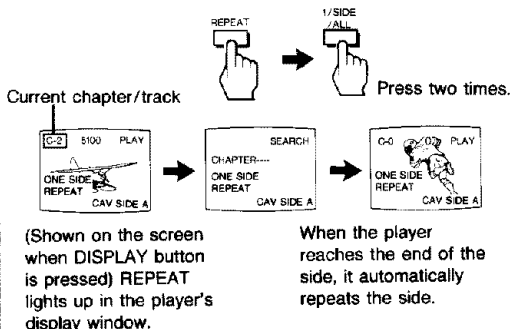
To repeat the entire both sides of the disc



To repeat the current chapter

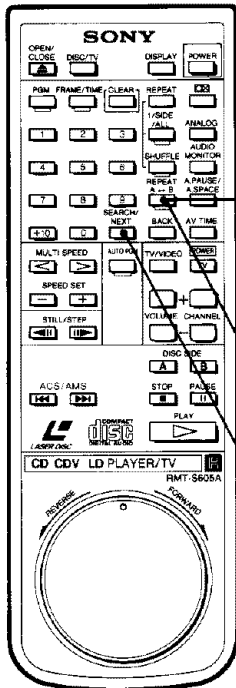


To repeat the entire side of the disc



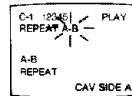
To check the current status

Press the DISPLAY button on the Remote Commander to display the message on the screen.



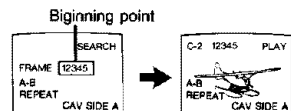
To repeat a specific section of a disc -A ↔ B Repeat

1 At the beginning of desired section



(Shown on the screen when DISPLAY button is pressed)
A ↔ B lights up in the player's display window.

2 At the end of desired section



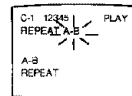
Unit returns to the beginning of specified section and repeats playback.

To cancel A ↔ B repeat and Memory search
Press the CLEAR button.

To cancel repeat functions other than A ↔ B
Press the REPEAT button again to cancel the REPEAT indication in the display window.

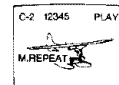
To return to a specific point - Memory search

1 At the beginning of a desired point



(Shown on the screen when DISPLAY button is pressed)
A-B blinks in the player's display window.

2 To return to the desired point



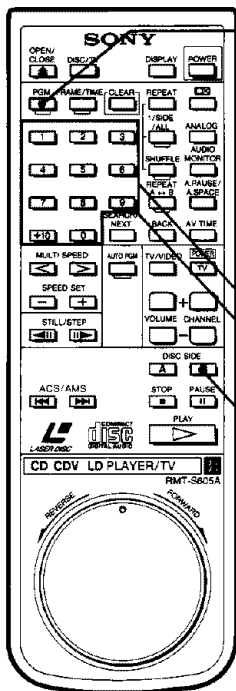
Unit returns to the beginning of specified section and repeats playback.

Note
A ↔ B Repeat and Memory Search do not function on LDs that do not contain time data to second.

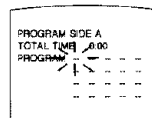
To Play an LD

To Play Only Certain Chapters – Program Playback

Example: Play LD chapters the side A 1,2,3 the side B 12,14 the side A 7 – in that order.

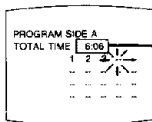


1 Press the PGM button.



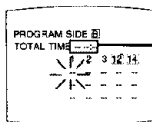
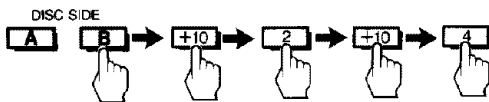
PGM indication lights in the player's display window.

2 Press the Number button 1,2,3.



For LDs containing TOC (Table of Contents) data, the total playback time of programmed chapters is shown.

3 Press the DISC SIDE B, then input 12,14 to press the Number button.



The total playback time shows only the side A program. It will be disappeared when it changes to the side B. Only the information of side A is displayed in the display window on the player, when programming a chapter with the number up to 19, total playback time will be displayed.

To enter chapter numbers over 10

Use the +10 and 0 buttons.

Examples: To enter 10: $+10 \rightarrow 0$
 To enter 14: $+10 \rightarrow 4$
 To enter 20: $+10 \rightarrow +10 \rightarrow 0$

If the +10 button is pressed by mistake

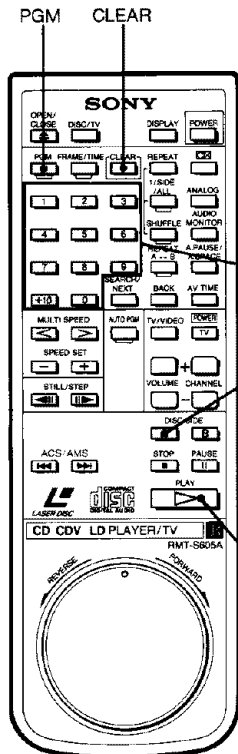
Press the +10 button repeatedly until -- or 1 - is displayed.

To set a pause between programs

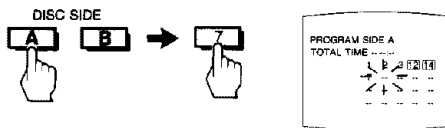
Press \parallel button at the desired point between programs in step 2, 3 or 4.

When the player reached the pause point in playback, it goes into pause mode.

To play again, press \triangleright button.



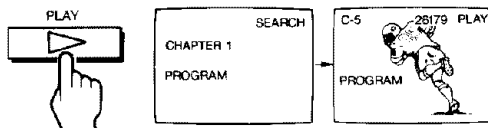
4 Press the DISC SIDE A, then input 7 to press the Number button.



If you make a mistake

To start over	To change a number
Press the CLEAR and PGM button and enter the correct number.	Press the SEARCH/NEXT (to advance) or BACK (to back up) button until the incorrect number on the screen flashes.
	Then enter a new number.

5 To play an LD



Searching for the first programmed chapter

Playback starts from the beginning of chapter 5.

After playing all programmed chapters side A1,2,3, side B12,14, side A7 in order, playback stops.

To release or cancel program playback

Press the CLEAR button or the 1/SIDE/ALL button. The unit resumes normal playback.

To repeat program playback

Press the REPEAT button, then the REPEAT is displayed.

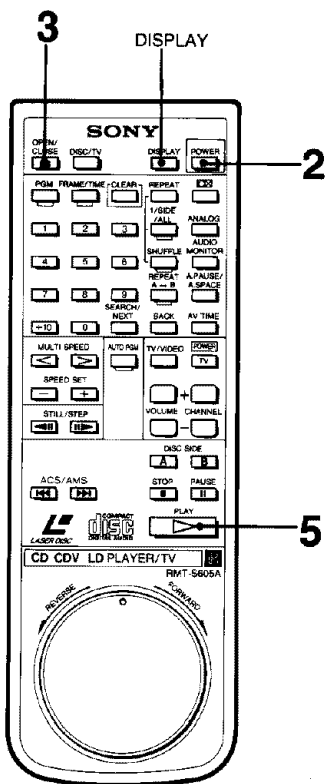
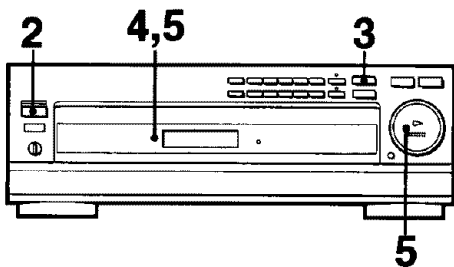
To move to a preceding or following programmed chapter
Press the ◀◀ or ▶▶ button.

To check the program contents during program playback
When nothing is displayed on the screen, press the PGM button. The program is displayed for about 3 seconds. The currently playing program number will flash.

Cautions

- When the shuttle ring is kept turned to the forward direction during program playback and the playback comes to the end of the current selection, the next programmed chapter will be played back. When the shuttle ring is kept turned to the reverse direction, the unit will not go back to previous chapters. If you want to move a preceding programmed chapter, keep ◀◀ button pressed until the desired programmed number comes up.
- If not-existing chapter numbers on a disc are entered, skipping the chapters and tracks entered, the next program will be performed.
- Programmed contents are stored until the disc is removed or the power is switched off.

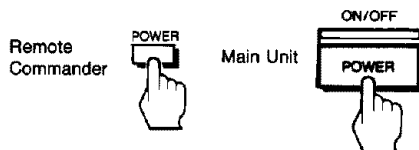
To Play a CD



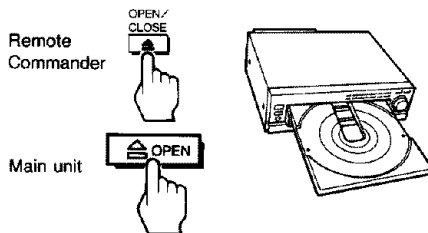
1 Turn on the stereo system.

Turn on the amplifier or receiver and select [CD] or the connected audio input.

2 Turn on the player.

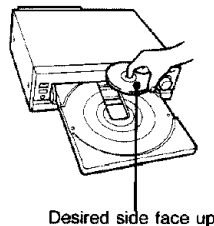


3 Open the disc tray.

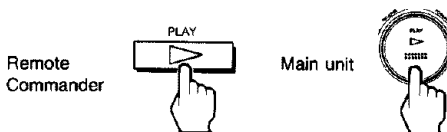


4 Place the disc on the tray.

Place the disc on the center of the tray. If the disc is not placed correctly, playback may not start.



5 Start playback.



Or push the disc tray compartment, then playback will also begin. Playback does not start with OPEN/CLOSE button.

Notes on disc tray

Do not insert a hand or finger in the player while it is operating. The player will stop automatically. If an object is inserted while in play, serious injury may result. Be sure to place the unit out of the reach of especially babies. Insert only one disc at a time. Incorrect placement of two or more discs may lead to malfunction.

Identical buttons on the main unit can also be used.

To pause at the beginning of a disc

Press the **||** button on the player or the Remote Commander. The tray closes, and the player pauses at the beginning of the disc.

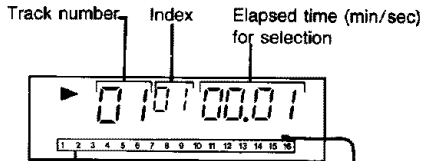
AV calendar

When playing a CD, the AV calendar shows information on the total number of selections. As selections are played, the corresponding numbers on the display disappear.

Using an optional timer

Set the timer after the STOP indication has changed from blinking to lighting in the screen.

To start playback with an optional timer automatically, leave the POWER switch of the disc player in the depressed position. When the preset time arrives, the timer will supply power to the main unit and playback will begin at that point.

Playback display

AV calendar

This mark lights up when a disc with more over 16 track is set.

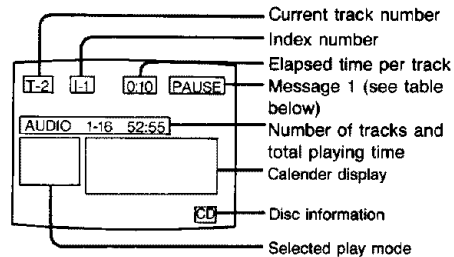
Screen Messages

Information on the operating condition of the unit and chapter or track numbers can be superimposed on the TV or monitor screen. While no image is displayed, such as during search, information for CD is shown on a green background.

To call up the on-screen display

Remote Commander

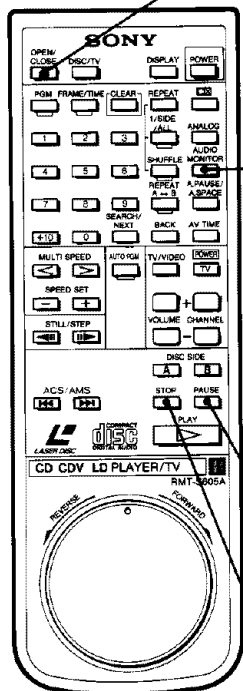
Press the button again to turn the display off.

**Message**

(Examples)

Display	Explanation
OPEN	Disc tray open
CLOSE	Disc tray closed
PLAY	Playback
STOP	Stop
PAUSE	Pause
⏪ / ⏩	Manual search (Forward/reverse speed scan)
SEARCH	Search

To Play a CD



To stop playback and remove disc

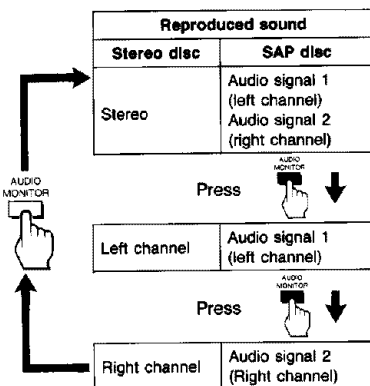


Remove the disc and press the button again to close the tray.

To play a stereo CD or a second audio program (SAP) CD

After playback has started

Each time the AUDIO MONITOR button is pressed, the mode changes to give you the following order.



To temporarily interrupt playback



To resume play from the same point, press the or button.

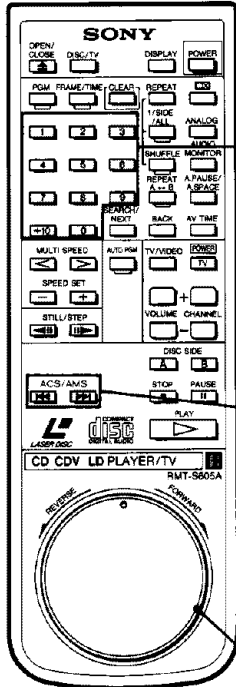
To stop playback



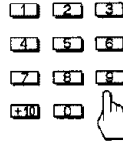
To restart playback from the beginning of the disc, press the button.

Identical buttons on the main unit can also be used.

To Search for a Particular Selection – Search



To search by track number



Enter the track number.

To play a single track once

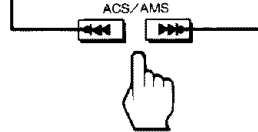
1. Press the 1/SIDE/ALL button on the remote commander to display the 1 display.
2. Then select the track with the number buttons. When the track has been played, the unit enters the stop mode. To release the setting, press the 1/SIDE/ALL button again.

If you press the wrong numbers, simply press the correct ones.

To skip selections

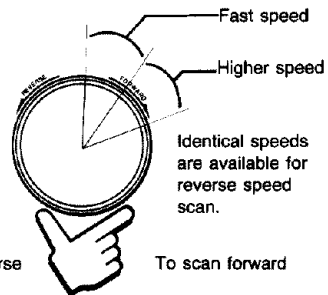
Press once to return to the beginning of the current selection. Press again to return to the previous selection.

Press to advance to the next selection.



To search for a particular point – Dual Speed Scan

The playback speed can be changed depending on the degree of the shuttle ring.



To scan in reverse

To scan forward

Scanning continues until the shuttle ring is released.

To enter track numbers over 10

Use the +10 and 0 buttons.

Examples: To enter 10: +10 → 0

To enter 14: +10 → 4

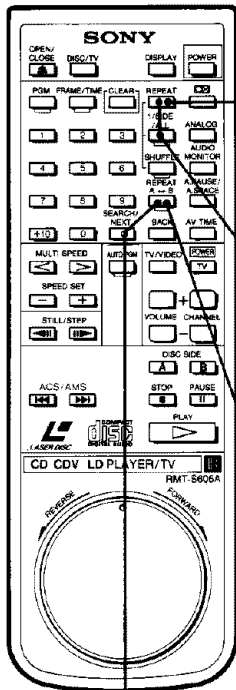
To enter 20: +10 → +10 → 0

If the +10 button is pressed by mistake

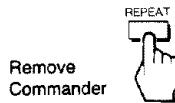
Press the +10 button repeatedly until -- or 1 - is displayed.

To Play a CD

To Play Repeatedly – Repeat Playback



To repeat all selections – All Repeat

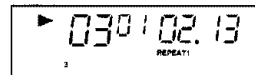
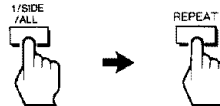


The entire disc is continuously repeated.

To cancel All Repeat

Press the REPEAT button that was used to activate repeat either from the remote commander – again.

To repeat the current selection – 1 (Single) Repeat



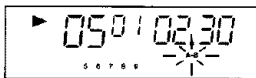
Current selection (track) is continuously repeated. Deactivate REPEAT display to playback a selection only once.

To cancel 1 (single) Repeat

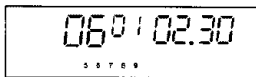
Press the REPEAT button, then press the CLEAR button.

To return to the desired section – Memory search

1 At the beginning of desired point



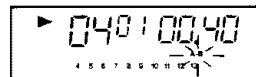
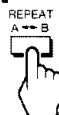
2 To return to the desired point



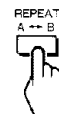
To cancel Memory search, press the CLEAR button.

To repeat a specific section of a disc – A ↔ B Repeat

1 At the beginning of desired section



2 At the end of desired section



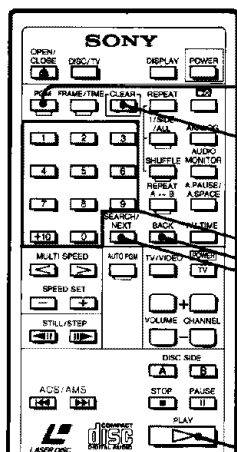
Flashing of A ↔ B indicator stops and the specified section is continuously repeated.



To cancel A ↔ B Repeat, press the CLEAR button.

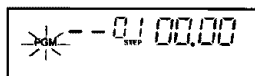
To Play Only Certain Selections – Program Playback

You can program up to 20 tracks playback in a specified order.



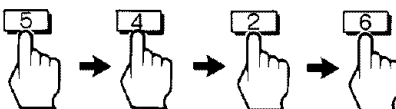
Example Play CD chapters 5, 4, 2, 6 – in that order.

1 Press the PGM button.



PGM indication lights in the player's display window.

2 Press the Number buttons 5 4 2 6.



If you make a mistake

To start over	To change a number
<p>Press the CLEAR and PGM button and enter the correct number.</p>	<p>Press the SEARCH/NEXT (to advance) or BACK (to back up) buttons until the incorrect number on the screen flashes. Enter a new number.</p>

To enter track numbers over 10

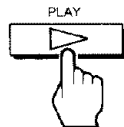
Use the +10 and 0 buttons.

Examples: To enter 10: $+10 \rightarrow 0$
 To enter 14: $+10 \rightarrow 4$
 To enter 20: $+10 \rightarrow +10 \rightarrow 0$

If the +10 button is pressed by mistake

Press +10 button repeatedly until -- or 1- is displayed.

3 Press the ▷ button.



After searching and playing all programmed selections 5, 4, 2, 6, in order, playback stops.

Notes

- You can program playback up to 29 tracks even when the disc tray is open. For a disc with 30 tracks or more, program after closing the disc tray.
- When the shuttle ring is kept turned to the forward direction during program playback and the playback comes to the end of the current selection, the next programmed track will be played back. When the shuttle ring is kept turned to the reverse direction, the unit will not go back to previous tracks.
- If not existing track numbers on a disc are entered, the program may not be conducted.

To set a pause between programs

Press **II** button at the desired point between programs in step 2. P appears in the screen.

The player goes into pause mode at the point after playing a program.

To start playing next program, press **▷** button.

To release or cancel program playback

Press the CLEAR button or the 1/SIDE/ALL button. The unit resumes normal playback.

To check track and time information on the screen

Turn on the power of the TV or monitor. Time and track for the CD/CDV will be turned on the screen.

To repeat program playback

Use the REPEAT button to turn the REPEAT display on.

When the total playback time exceeded 99 minutes, --, -- is displayed.

During program playback

The numbers on the AV calendar display disappear as selections are played. The contents of a program are stored until the disc is removed or the player is turned off.

To move to a preceding programmed track

Press the **◀◀** button.

To move to a following programmed track

Press **▶▶** button.

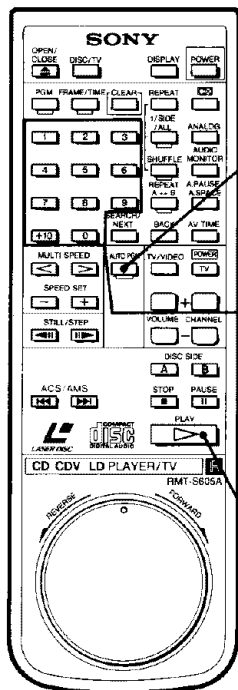
Program playing time

The total playing time of the program is displayed only when tracks with numbers less than 20 are programmed.

To Play Only Certain Selections Within a Designated Time – Auto Program Playback

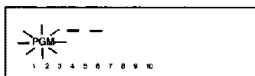
You can designate a length of time and make 2 different programs of your selections fitting within that period. Selections can be entered in the desired order. When there is only minimal time left within the designated length of time a selection with the closest playing time will be entered.

This section explains how to conduct Auto Program Playback on a CD, but the function can also be used for LDs with TOC, and CDVs.



1 Press the AUTO PGM button.

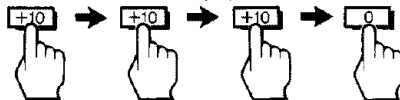
AUTO PGM



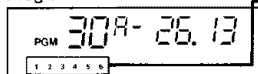
PGM blinks in the player display window.

2 Designate the time length for a single side or double sides (LD only) of your tape.

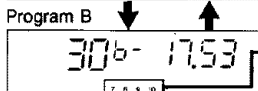
Example: For 30 minutes of playback



Program A



Program A
(corresponding to Side A of tape)
Program A and B appears alternately.



Program B
(corresponding to Side B of tape)

If you press the wrong number, simply press the correct one.

To change the programmed chapter (track).
Press PGM button after step 2, then press the desired chapter (track) number.

AV calendar on the screen

The AV calendar shows information on the contents of two different programs: program A and program B, separated with a pause.

Auto Program contents

Program contents are stored until the disc is removed or the power is turned off.

If your disc contains tracks or chapters with numbered beyond 20.

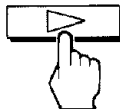
Selection with numbers over 20 may not be programmed with the Auto Program function.

Notes

- Auto Program will not be run if your selection is larger than the designated playing time.
- Auto Program cannot be set on side B of LD.

3 Press the > button.

PLAY

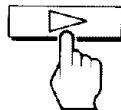


The selections for Program A will be played and then the unit will pause.

The number of the selection that finishes its play disappears from the AV calendar display.

4 Press the > button to play back Program B.

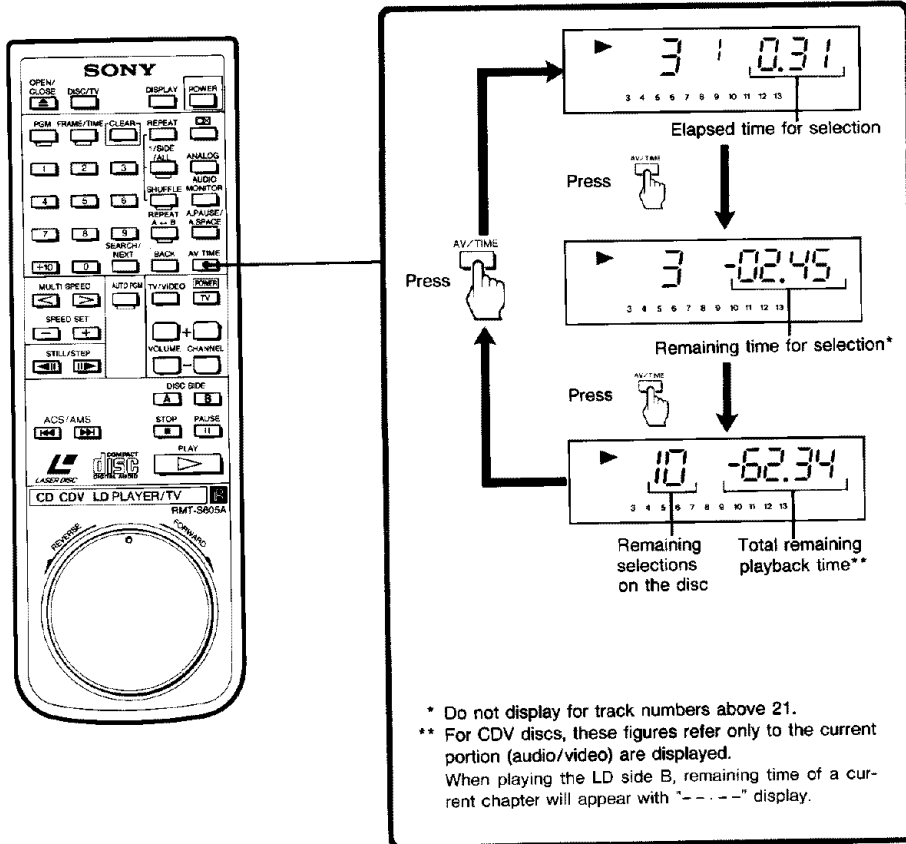
PLAY



To resume normal playback

Press the CLEAR button or the 1/SIDE/ALL button.

To Change Time Display – Time Counter



Display on TV screen

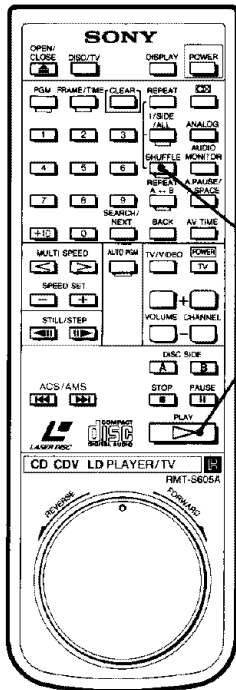
If the TV set or monitor connected to the player is on and the DISPLAY button is pressed, the track number, time, and other information recorded on the CD/CDV will appear on a green/blue background on the monitor.

Note on LD discs

The time display function is available only with LDs containing TOC data.

First, the elapsed time or the number of frames is displayed. Pressing the AV TIME button then changes the time display as shown above.

Playing in a Random Order – Shuffle Playback/Delete Shuffle Playback

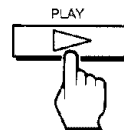


To play all tracks or chapters on a disc

1 Press the SHUFFLE button.



2 Press the ▷ button.



All selections on the disc are played once in a random order. After all selections have been played, the unit enters the stop mode.

To cancel shuffle playback

Press the CLEAR button or the 1/SIDE/ALL button. Normal playback resumes from the next selection.

When a LD without TOC data, the indication "NO TOC" appears on the TV screen, and shuffle playback cannot be conducted.

Note

Shuffle playback cannot be performed on side B.

To skip to the next selection during shuffle playback

Press the ▷ button. Returning to a previous selection with the ◀ button is not possible.

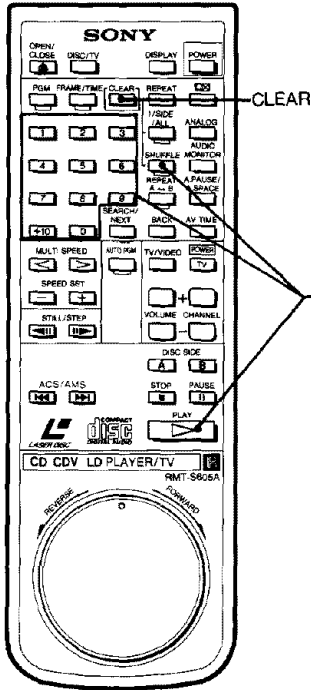
Shuffle playback with CDV discs

Selections from the audio portion and video portion are played in random order.

SHUFFLE button timing

To ensure correct operation, do not press the SHUFFLE button immediately after the disc tray has closed. Instead, press the SHUFFLE button only after the ▷ (play) indication in the display has stopped flashing.

The selections on the disc can be played back in a random order.

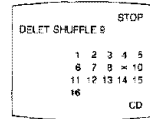


To play only certain selections - Delete Shuffle

1 Press the SHUFFLE button.



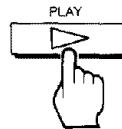
2 Enter the chapter number or track number of the selection you do not wish to play.



If you make a mistake

To start over	To change a number
Press the CLEAR button and then press the SHUFFLE button again and enter the correct number.	Press the incorrect number again, resume the delete chapter (track) number.

3 Press the ▷ button.



The player automatically selects a random program without the deleted selections.

To resume normal playback

Press the CLEAR button or the 1/SIDE/ALL button.

Delete shuffle

This function lets you exclude specific chapters or tracks from shuffle playback. When the function is used, DELETE SHUFFLE appears on the screen.

To repeat shuffle or delete shuffle playback

Press the REPEAT button on the Remote Commander to activate the REPEAT indication on the display window. When the unit is turned off or the disc is removed, shuffle functions are cancelled.

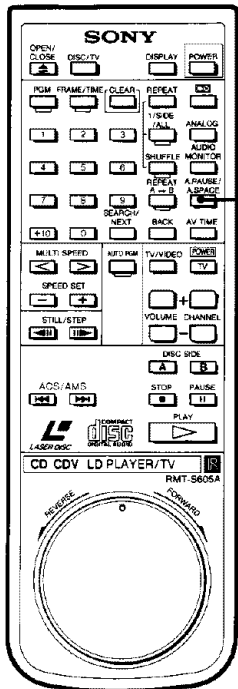
Note

A chapter (track) with the number over 20 cannot be deleted.

**To Pause After a Each Selection – Auto Pause
To Insert a Blank Space Between Selections – Auto Space**

Auto Pause – After a selection is played, the player enters the pause mode.

Auto Space – A blank interval of 3 seconds is inserted between the playback of each selection.



Auto Pause

Press the A.PAUSE/A.SPACE button once.



To start playback of the next selection
Press the ▷ button.

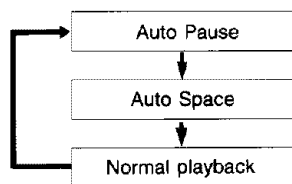
Auto Space

Press the A.PAUSE/A.SPACE button twice.



To resume normal playback

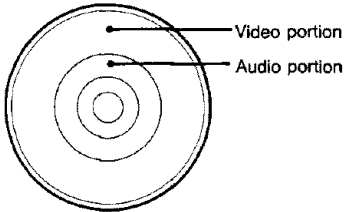
Each time the A.PAUSE/A.SPACE button is pressed, the mode changes to give you in the following order.



Auto Pause and Auto Space function use the same button.

If you playback in auto program, program, shuffle or delete shuffle mode, auto space may insert a space more than 3 seconds.

To Play a CDV



The Compact Disc Video (CDV) format divides a CD into two sections. One section consists of 20 minutes of digital audio playable on any CD player. The other section which consists of 5 minutes of video and digital audio, requires a CDV player. Please note the following when playing a CDV.

- To display the remaining time, simply press the AV TIME button.
- CDVs are divided into track numbers which are assigned to each selection for the audio and video portion. The track of the video portion corresponds to the chapter of the LD.

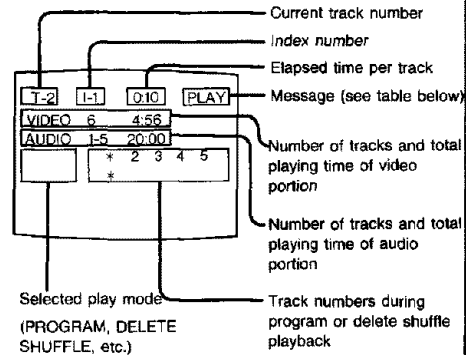
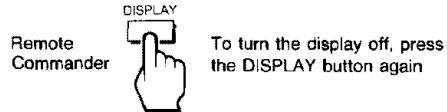
To play

Press the PLAY button. Playback will begin from the video portion. After the completion of the video portion, the audio portion will be played back. To play back from the audio portion, search by entering the desired track number (see p. 7).

Screen Messages

Information on the operating condition of the unit and chapter or track numbers can be superimposed on the screen. During audio portion playback, information for CDV is shown on a blue background.

To call up the on-screen display



Message

(Examples)

Display	Explanation
OPEN	Disc table open
CLOSE	Disc table closed
PLAY	Playback
STOP	Stop
PAUSE	Pause
↔ / ↔	Manual search (Forward/reverse speed scan)
SEARCH	Search

Specifications

Type
Signal readout
Signal format

CD/CDV/LD Player
Optical (Laser beam reflection)
EIA standard, NTSC color
system

Playing time

		(minutes)	
LD	CAV	30 cm (12 in) double-sided	60
		20 cm (8 in) double-sided	28
		20 cm (8 in) single-sided	14
	CLV	30 cm (12 in) double-sided	120
		20 cm (8 in) double-sided	40
		20 cm (8 in) single-sided	20
CD	12 cm (5 in) single-sided	74	
	8 cm (3 in) single-sided	20	
CDV	Audio portion	20	
	Video portion	5	

Audio output
Audio digital output (optical)
RFU DC output
CONTROL S IN

Monaural (only for RFU adaptor)
MIX output: 77.5 mVrms (1 kHz, -20 dB)
-18 dBm, wavelength 660 nm
Mini mini jack DC 5 V
Mini jack (1)

Power requirements

Power requirements
Power consumption
Weight
Dimensions

120 V AC, 60 Hz
52 W
13.1 kg
Approx. 430 × 141 × 446 mm (w/h/d)

Operating temperature

Ambient humidity
* Measured according to EIAJ (Electronic Industries Association of Japan) standards.

+5°C to +35°C
5 to 90%

Remote Commander

Principle of operation
Power requirements
Dimensions
Weight

Infrared pulse
3 V DC (2 size AA batteries)
Approx. 62 × 44.5 × 185 mm (w/h/d)
(2⁷/₁₆ × 1¹³/₁₆ × 7³/₈ inches)
Approx. 170 g (including batteries)

Digital audio specifications

Frequency response
Signal-to-noise ratio
Dynamic range
Total harmonic distortion
Channel separation
Wow and flutter

4 Hz to 20kHz (±0.2 dB)
More than 112 dB (EIAJ)*
More than 100 dB (EIAJ)
0.002% or less (at 1kHz, EIAJ)
More than 100 dB (EIAJ)
Below measurement limit
(±0.001% W.PEAK) (EIAJ)

Video specifications

Horizontal video resolution
Signal-to-noise ratio

425 lines
More than 51 dB

Input/output specifications

Video output 1, 2
Video output
S video output 1, 2
Audio output 1, 2

1.0 Vp-p, 75 ohms, unbalanced
1.0 Vp-p, 75 ohms.
Luminance: 1 Vp-p, 75 ohms, unbalanced, sync negative
Chrominance: 0.286 Vp-p, 75 ohms, unbalanced
Stereo L, R
Analog: 200 mVrms (1 kHz, 40% modulation)
Digital: 200 mVrms (1 kHz, -20 dB)

Supplied accessories

Remote Commander RMT-S605A (1)
Size AA (R6) batteries (2)
RFU adaptor RFU-90 UC (1)
Video connecting cord (phono plug 1 ↔ phono plug 1) (1)
Audio connecting cord (phono plug 2 ↔ phono plug 2) (1)
Operating Instructions

Design and specifications are subject to change without notice.

Notes on Handling Discs

Handle the disc by its edge, and to keep the disc clean, do not touch the rainbow colored surface.

CD

CDV



Correct

LD



Correct

Do not stick paper or tape on the labeled surface.



Wrong

Do not expose the disc to direct sunlight or heat sources such as hot air ducts, or leave it in a car parked in direct sunlight where there can be a considerable rise in the temperature.

Before playing, clean the disc with the cleaning cloth. Wipe the disc from the center out.



Do not use solvents such as benzine, thinner, commercially available cleaners or anti-static spray intended for analog record discs.

After playing, remove the disc and store it in its case.

Do not use the discs with being cracked, severe damaged on the disc repaired with adhesives.

Glossary

The Constant Angular Velocity (CAV) or standard-play disc rotates at a constant 1800 rpm. Each track, or the path traced by the laser for a single rotation of the disc, produces a single frame. Each side of the disc holds up to 54,000 frames, the equivalent of 30 minutes of playback. Each frame has a number that is stored with the data on the disc.

The Constant Linear Velocity (CLV) or extended-play disc doubles the maximum playing time to 60 minutes by varying the rotational speed from a maximum of 1800 rpm to a minimum of 600 rpm as the laser beam moves away from the center of the disc. The disc surface therefore moves past the laser head at a constant rate, and each track is longer than its predecessor.

Some LDs include a high-quality digital audio signal as well as a more conventional analog signal. This unit reproduces both signals with priority placed on the digital audio signal.

Some discs are divided into sections, called chapters. Such discs usually have a list of chapters on the jacket or label. Each chapter is numbered for easy location with the chapter search function, or for use with the repeat and program functions.

The frames on standard-play (CAV) discs are sequentially numbered for rapid access with the frame search function.

Extended-play (CLV) discs calculate position in terms of playing time from the start of the disc. The time search function provides rapid access to desired scenes.

CD and CDV discs assign track numbers to each selection. Rapid access to desired tracks is possible with the track search function. Track numbers are also used with repeat and program functions.

Among various LD software, there are discs with TOC (Table of Contents) signals recorded. When playing back LDs with TOC signals, the additional features given below can be enjoyed.

- Playback time display for one chapter (CAV, CLV)
- Remaining playback time (CAV, CLV)
- Time display for CAV disc
- AV calendar display
- Shuffle, delete shuffle

Troubleshooting **Check the following before requesting service.**

Symptom	Point to check
No power	<ul style="list-style-type: none"> • Power cord properly plugged into AC outlet?
Playback ▷ button does not produce playback.	<ul style="list-style-type: none"> • Unit correctly plugged in? • Disc inserted? • Disc properly seated? • Recorded side facing upward?
▷ indicator lights, but there is no picture or sound.	<ul style="list-style-type: none"> • TV or monitor switched out? • TV properly connected to player? • Input selector of TV, TV tuner, or monitor set to required position? <p>TV without audio/video inputs</p> <ul style="list-style-type: none"> • Channel selectors on RFU adaptor and TV set to the same number? • TV channel properly adjusted? • TV/DISC selector on the remote commander set to DISC? (Is the DISC indicator lit?)
Poor picture or sound quality	<ul style="list-style-type: none"> • TV properly connected? • Any source of noise nearby? • Disc dirty or scratched? • Any condensation on player objective lens? <p>TV without audio/video inputs</p> <ul style="list-style-type: none"> • Channel selectors on RFU adaptor and TV set to the same number?
No sound	<ul style="list-style-type: none"> • TV properly connected to player? • Volume control on TV, monitor, TV tuner or amplifier high enough? • Playback at normal speed? (The videodisc player produces sound only during normal playback and speed play at normal speed in the forward direction.)
No TV programs	<ul style="list-style-type: none"> • TV properly connected RFU adaptor? • TV/DISC selector on the remote commander set to TV? (Is the DISC indication out?)
Remote Commander does not operate.	<ul style="list-style-type: none"> • Player switched on? • Batteries correctly inserted? • Batteries exhausted? • Any obstacles between the Remote Commander and the player sensor? • The remote commander is pointed at the player sensor?
Picture distorted during scan.	<ul style="list-style-type: none"> • Some distortion in the lower part of the picture is normal – even for CAV discs.
Unit does not operate and LD/CD indication in display window flashes.	<ul style="list-style-type: none"> • Turn power off and then on again.
Still of multi speed play cannot be performed.	<ul style="list-style-type: none"> • CLV (extended play) disc is used?