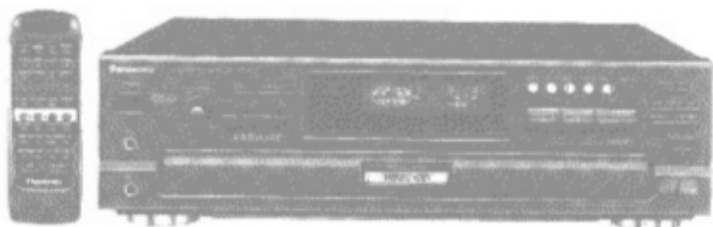


# Video CD changer SL-VM525

Operating instructions



COMPACT  
disc  
DIGITAL VIDEO

COMPACT  
disc  
DIGITAL AUDIO  
GRAPHICS



# Panasonic®

Before connecting, operating or adjusting this product, please read these instructions completely. Please save this manual.

RQT4213-P

# Dear Customer

Thank you for purchasing this product.  
For optimum performance and safety, please read these instructions carefully.

The model number and serial number of this product can be found on either the back or the bottom of the unit. Please note them in the space provided below and keep for future reference.

MODEL NUMBER SL-VM525  
SERIAL NUMBER \_\_\_\_\_

User memo:

DATE OF PURCHASE \_\_\_\_\_  
DEALER NAME \_\_\_\_\_  
DEALER ADDRESS \_\_\_\_\_  
TELEPHONE NUMBER \_\_\_\_\_

**CAUTION:**  
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE SCREWS. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

 The lightning flash with arrowhead symbol, within an equilateral triangle, 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.

 The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

# Safety Precautions

Before using this unit please read these operating instructions carefully. Take special care to follow the warnings indicated on the unit itself as well as the safety suggestions listed below. Afterwards keep them handy for future reference.

## Safety

- 1. Power Source** -- The unit should be connected to power supply only of the type described in the operating instructions or as marked on the unit.
- 2. Polarization** -- If the unit is equipped with a polarized AC power plug (a plug having one blade wider than the other), that plug will fit into the AC outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- 3. Power Cord Protection** -- AC power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Never take hold of the plug or cord if your hand is wet, and always grasp the plug body when connecting or disconnecting it.
- 4. Nonuse Periods** -- When the unit is not used, turn the power off. When left unused for a long period of time, the unit should be unplugged from the household AC outlet.

## Installation

### Environment

- 1. Water and Moisture** -- Do not use this unit near water—for example, near a bathtub, washbowl, swimming pool, or the like. Damp basements should also be avoided.
- 2. Condensation** -- Moisture may form on the lens in the following conditions...
  - immediately after a heater has been turned on.
  - in a steamy or very humid room.
  - when the unit is suddenly moved from a cold environment to a warm one.If moisture forms inside this unit, it may not operate properly. To correct this problem, turn on the power and wait about one hour for the moisture to evaporate.
- 3. Heat** -- The unit should be situated away from heat sources such as radiators and the like. It also should not be placed in temperatures less than 5° C (41° F) or greater than 35° C (95° F).

### Placement

- 1. Ventilation** -- The unit should be situated so that its location or position does not interfere with its proper ventilation. Allow 10 cm (4") clearance from the rear of the unit.
- 2. Foreign Material** -- Care should be taken so that objects do not fall into and liquids are not spilled into the unit. Do not subject this unit to excessive smoke, dust, mechanical vibration, or shock.
- 3. Magnetism** -- The unit should be situated away from equipment or devices that generate strong magnetic fields.
- 4. Stacking** -- Do not place heavy objects, other than system components, on top of the unit.
- 5. Surface** -- Place the unit on a flat, level surface.

- 6. Carts and Stands** -- The unit should be used only with a cart or stand that is recommended by the manufacturer. The unit and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the unit and cart combination to overturn.



- 7. Wall or Ceiling Mounting** -- The unit should not be mounted to a wall or ceiling, unless specified in this operating instructions.

## Maintenance

Clean the cabinet, panel and controls with a soft cloth lightly moistened with mild detergent solution.

Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

## Service

- 1. Damage Requiring Service** -- The unit should be serviced by qualified service personnel when:
  - (a) The AC power supply cord or the plug has been damaged;
  - (b) Objects have fallen or liquid has been spilled into the unit; or
  - (c) The unit has been exposed to rain; or
  - (d) The unit does not appear to operate normally or exhibits a marked change in performance; or
  - (e) The unit has been dropped, or the enclosure damaged.
- 2. Servicing** -- The user should not attempt to service the unit beyond that described in the operating instructions. All other servicing should be referred to an authorized service personnel. Contact your dealer or call 1-800-645-8401 for authorized factory service.

### CAUTION!




THIS PRODUCT UTILIZES A LASER.  
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE. DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

### WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT EXPOSE THIS APPLIANCE TO RAIN, SPLASHING, DRIPPING OR MOISTURE.



## CDs you can use



You can playback the following CDs on this video CD changer.

Video CD	
Video CDs must bear the below mark	
	
Types of CDs	Indication used in these instructions
<b>Version 1.1</b> Operated in the same way as audio CDs, these CDs allow playback of video pictures as well as sound, but they are not equipped with PBC.	
<b>Version 2.0</b> Equipped with PBC, these CDs allow playback of menus on the TV screen as well as high resolution still pictures.	

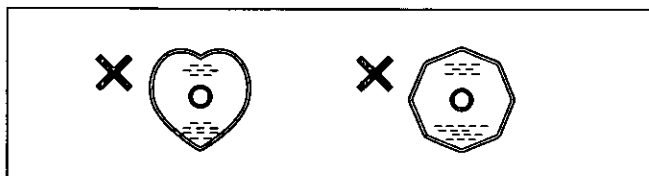
### PBC (Playback control)

PBC is a signal recorded on version 2.0 CDs that enables you to control playback. It makes video enjoyment more interesting by allowing you to interact with the system via menus, search functions or other typically computer-like operations.

Audio CD	
Audio CDs must bear the below mark	
	
	Indication used in these instructions
	

CD graphics	
CD graphics must bear the below mark	
	
	Indication used in these instructions
	
These CDs contain recorded music, still pictures and lyrics. Because of this, they are often used in karaoke studios and clubs. They can reproduce up to 16 colors at any one time.	

Do not use irregular shape CDs (heat-shape, octagonal, etc.). CDs of the sort can damage the unit.



## Concerning CDs

### Handling precautions

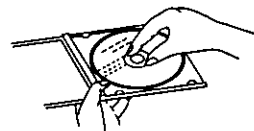
Handle CDs as shown below.

#### How to remove CDs



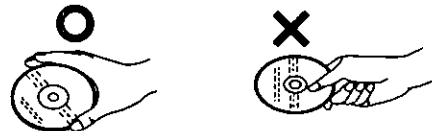
Press on center piece and lift from both sides.

#### How to return CDs to their case



Face label upwards and press downward from above.

#### How to hold CDs



Do not touch the recorded surface

#### How to clean CDs



Wipe from inside outward.

- If you are taking the CD from a cold to a warm environment, moisture may form on the CD. Wipe this off with a soft, dry, lint-free cloth before using the CD.
- Do not write on the label side with a ball-point pen or other writing instrument.
- Do not use record cleaning sprays, benzene, thinner, static electricity prevention liquids or any other solvent.
- Do not use CDs with poorly attached labels or stickers. Adhesive protruding from peeled off stickers can cause the changer to malfunction.
- Do not use scratch-proof protectors or covers other than those specified for use with this system.

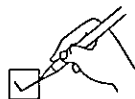
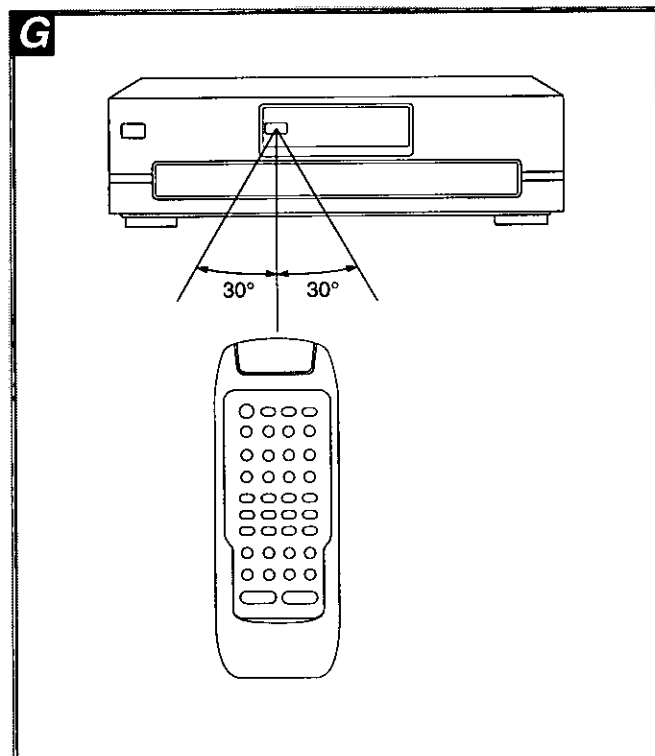
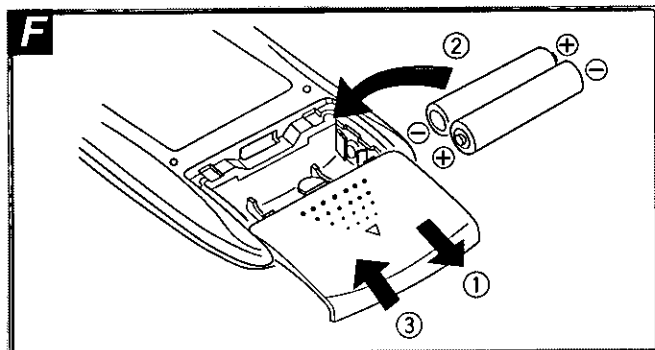
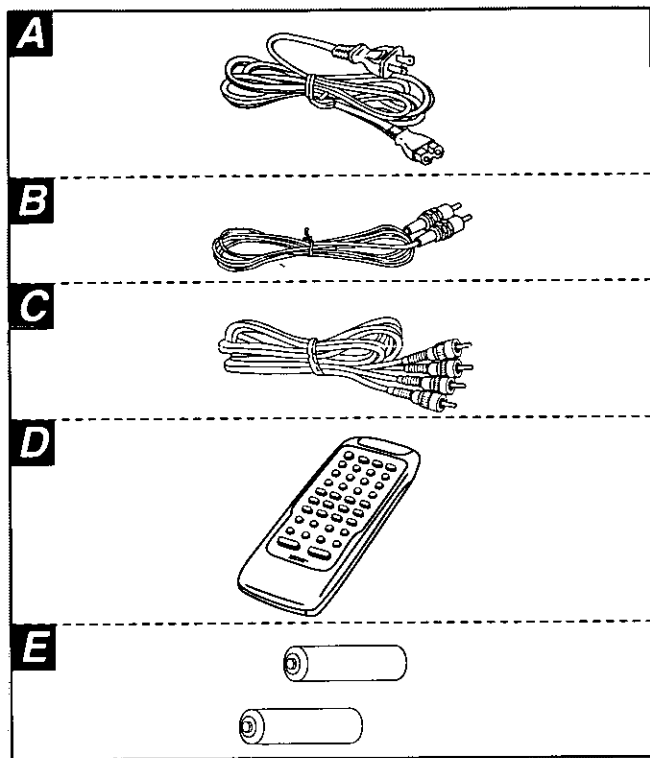
### Storage precautions

Be sure to store CDs in their cases to protect them from dust, scratches, and warping.

#### Do not place or store CDs in the following places

- Locations exposed to direct sunlight
- Humid or dusty locations
- Locations directly exposed to a heat vent or heating appliance
- In the glove compartment or on the rear deck of an automobile

## Supplied accessories



Please check and identify the supplied accessories.

- |          |                          |  |      |
|----------|--------------------------|--|------|
| <b>A</b> | <input type="checkbox"/> | AC power supply cord (SJA172).....             | 1pc  |
| <b>B</b> | <input type="checkbox"/> | Video connection cable (RJL1P007B20) .....     | 1pc  |
| <b>C</b> | <input type="checkbox"/> | Stereo connection cable (RJL2P001B15).....     | 1pc  |
| <b>D</b> | <input type="checkbox"/> | Remote control transmitter (RAK-SL224WH) ..... | 1pc  |
| <b>E</b> | <input type="checkbox"/> | Batteries .....                                | 2pcs |

Use numbers indicated in parentheses when asking for replacement parts.

## Preparing the remote control

### Battery installation

Check the (+) and (-) sides.

### Use of batteries

- Do not mix old and new batteries, or batteries of different types (carbon and alkaline, etc.).
- Never subject batteries to excessive heat or flame; do not attempt to disassemble them; and be sure they are not short-circuited.
- If the remote control is not to be used for a long period of time, remove the batteries and store them in a cool, dark place.
- Do not attempt to recharge alkaline or carbon batteries.
- Do not use rechargeable type batteries.

### When you need to replace these batteries

Use two R03/LR03, AAA, UM-4 or equivalent batteries.

### Correct method of use

Use the remote control within 60 degrees and within 7 meters facing toward the unit.

### Operation notes

- Aim the remote control's transmission window toward the unit's sensor. Avoid any obstacles.
- Be sure the transmission window and the unit's sensor are free from dust. Excessive dust might affect performance.
- Do not expose the remote control signal sensor to direct sunlight or to the bright light of an inverter fluorescent light.

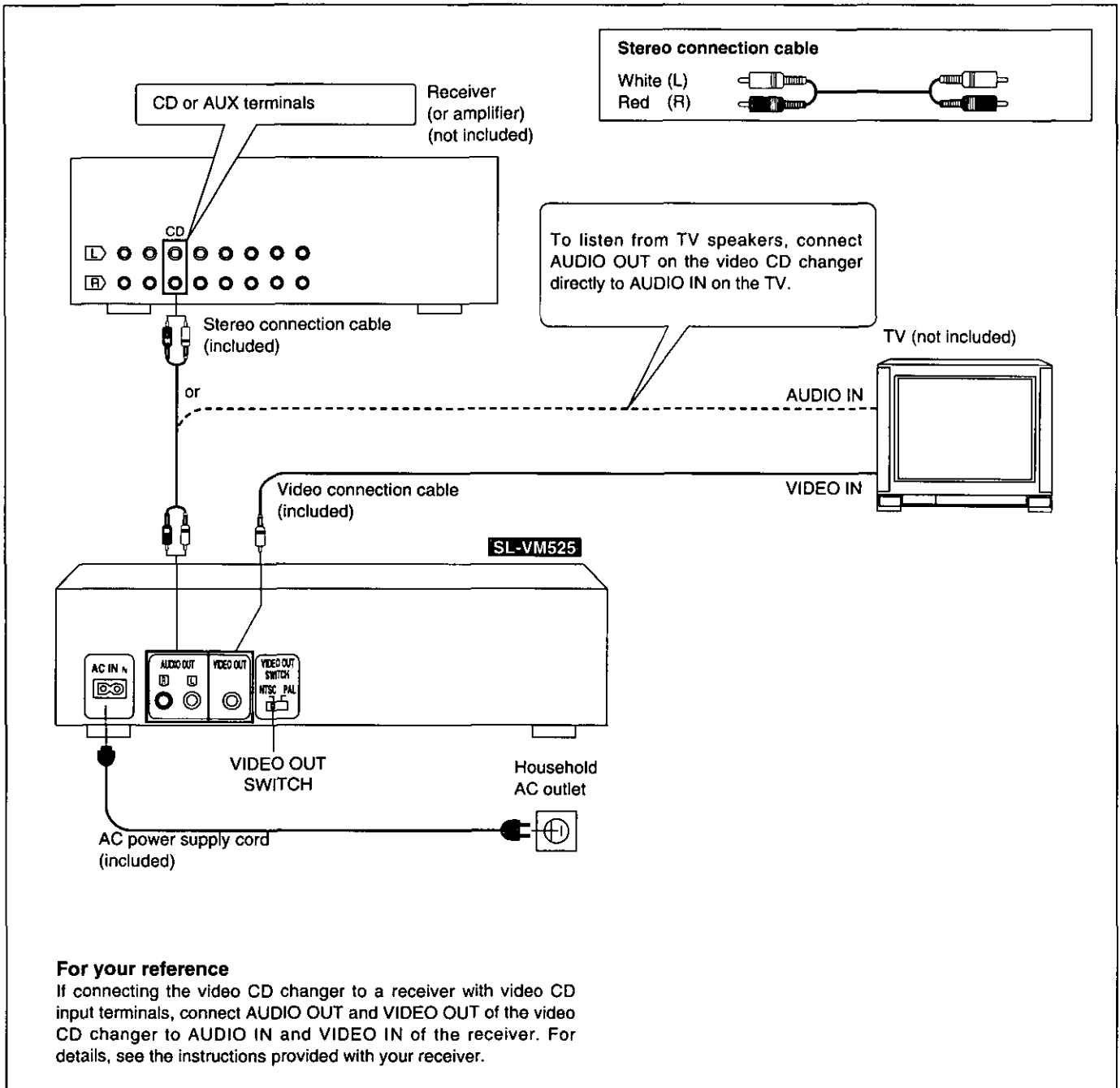
### To prevent damage

- Never place heavy items on top of the unit.
- Do not disassemble or reconstruct the unit.
- Do not spill water or other liquids into the unit.

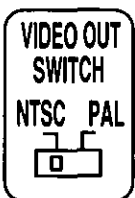
## Connections

Before connecting the changer to your audio system, make sure that the power of the changer and all other system components is turned off.

- Although the figure below shows the AC power supply cord being connected to a household AC outlet, if the receiver (or amplifier) is equipped with an AC outlet, connect the cord to that outlet.



### VIDEO OUT SWITCH settings

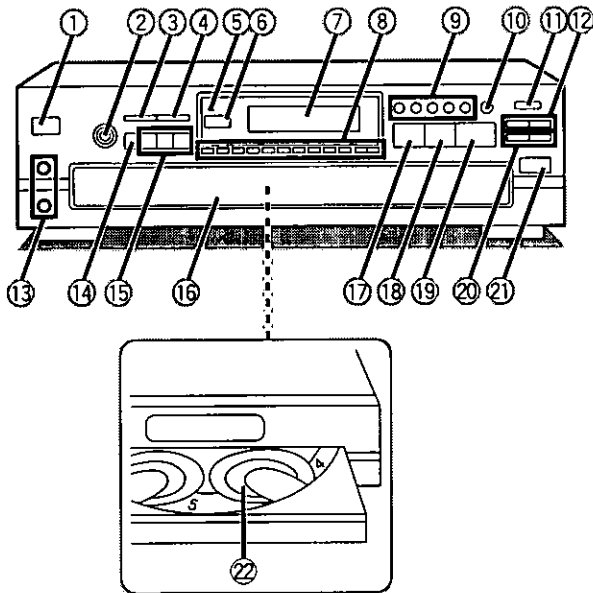


This switch is factory-set to "NTSC".  
Before turning your video CD player ON, set the VIDEO OUT SWITCH to the type of television set you have.

NTSC: When connecting to a NTSC system TV  
PAL: When connecting to a PAL system TV

NTSC recorded CDs can also be played back at the correct vertical and horizontal in this position.

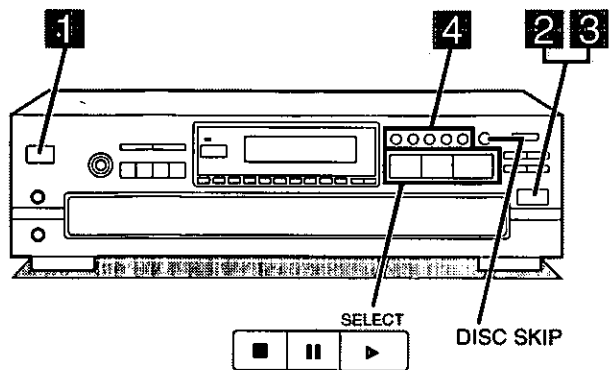
## Front panel controls



- ① **Power "STANDBY  $\odot$ /ON" switch (POWER, STANDBY  $\odot$ /ON)**  
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ② **Microphone volume controls (MIC VOLUME)**
- ③ **Echo button (ECHO)**
- ④ **Program button (PROGRAM)**
- ⑤ **"STANDBY" indicator (STANDBY)**  
When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.
- ⑥ **Remote control signal sensor (SENSOR)**
- ⑦ **Display**
- ⑧ **Numeric buttons (1-10, 0, > 10/-/-)**
- ⑨ **Disc buttons (DISC 1-5)**
- ⑩ **Disc skip button (DISC SKIP)**
- ⑪ **Return button (↻ RETURN)**
- ⑫ **Search buttons (◀◀ SEARCH ▶▶)**
- ⑬ **Microphone jacks (MIC 1, MIC 2)**
- ⑭ **Voice mode button (KARAOKE/DUAL)**
- ⑮ **Key control buttons (KEY CONTROL b - b - #)**
- ⑯ **Loading drawer**
- ⑰ **Stop button (■)**
- ⑱ **Pause button (⏸)**
- ⑲ **Play button (▶ SELECT)**
- ⑳ **Skip buttons (◀◀ PREV NEXT ▶▶)**
- ㉑ **Loading drawer open/close button (▲ OPEN/CLOSE)**
- ㉒ **Disc trays (1-5)**

### Caution

Do not touch the loading drawer and carousel while they are in motion, and do not attempt to rotate the carousel by hand; doing so could result in incorrect operation of the unit and/or damage to the CDs.



## Menu play (PBC)

You can use menus displayed on the TV screen to control playback when running interactive software.  
(PBC: See page 4.)

### VIDEO CD 2.0

Before doing anything

- Turn ON the TV and set the TV/VIDEO selector on the TV to "VIDEO" position.
- Turn ON the receiver or amplifier and select the proper source.

**1** Press **POWER** to switch on the power.

**2** Press **▲ OPEN/CLOSE** to open the loading drawer, and load the CD(s) on the disc tray(s).

CDs can be loaded two at a time by pressing DISC SKIP to rotate the carousel.

#### Note

- Set CD with the label facing upward.
- Do not load 8 cm and 12 cm CDs on the same disc tray.
- Do not use cleaning discs or warped CDs. All of these could damage your video CD changer.
- Do not use CDs with poorly attached labels or stickers. Adhesive protruding from peeled off stickers can cause the video CD changer to malfunction.
- Do not use irregular shape CDs (heart-shape, octagonal, etc.).
- Do not put anything other than CDs in the video CD changer.

**3** Press **▲ OPEN/CLOSE** again to close the loading drawer.

After closing the loading drawer, disc tray indicators sometimes light up even if there is no CD in the tray. This will depend on the disc tray position. The indicator will go out when an empty tray comes to the play position.

#### Note

Do not attempt to close the drawer by hand.

**4** Press the desired disc button (1-5).

**For example:**

To select disc 1, press DISC 1.

Menu play starts.

The illumination of a disc button indicates that there is a CD in the corresponding tray. During play, the illuminated color will change to green.

When the menu appears on the TV screen, press the buttons as indicated on next page (example only), to interact with the system.

**To stop play** **A**

Press **■**.

**To temporarily stop play**

Press **||**.

Press **▶** SELECT to resume play.

**1** POWER

**2** Indicates that the loading drawer is open.

Numbers of the trays in which CDs are loaded.

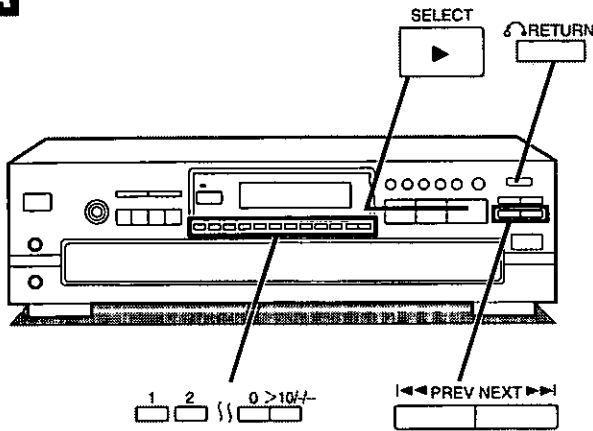
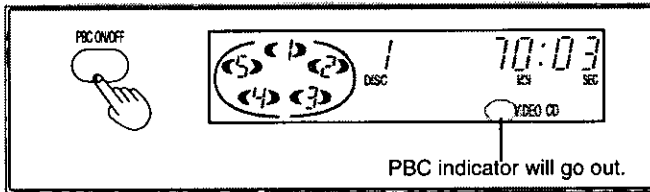
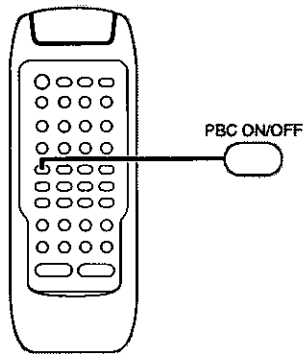
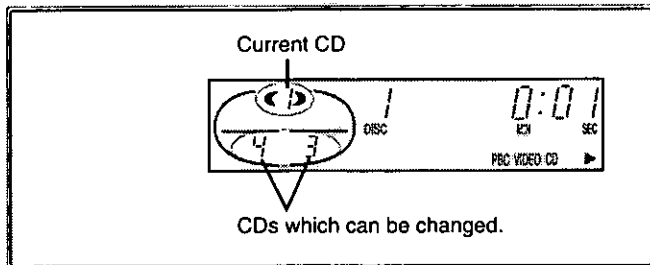
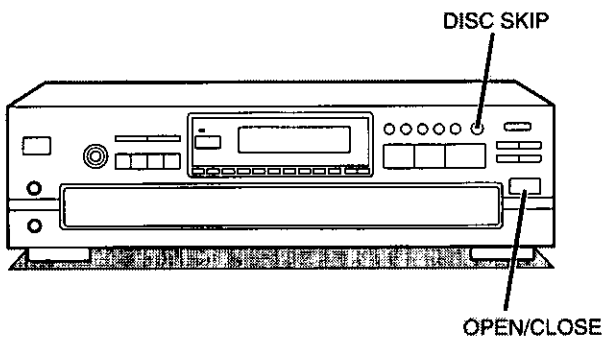
Disc tray Carousel Disc number

**3** Current play position (The numeral illuminates with a red color.)

**4** Disc number in play

**A** Current CD Total playing time



**A****B****C****Menu play (PBC)****How to work with menus**

Menus will vary according to CD. Press the buttons in response to what appears on the TV screen and in accordance with the CD's instructions.

**Buttons and function**

(Example)

What you want to do	Button
To select a menu item	<p>1 2 } } 0 &gt;10/-</p> <p>To select an item 1-10 Press the appropriate (1-10) button</p> <p>To select an item over 10 (Example: Item 20)</p> <p>&gt;10/- → 2 → 0</p>
To playback the selected item	<p>SELECT</p> <p>▶</p>
To move to the next item	<p>NEXT ▶▶</p> <p>▶▶</p>
To go back to the previous item	<p>◀◀ PREV</p> <p>◀◀</p>
To return to the previous menu	<p>◀ RETURN</p> <p>◀</p>

**To quite menu play**

(Only available from the remote control.)

[While the video CD changer is stopped]

**Press PBC ON/OFF.**

"PBC" indicator on display will go out and "PBC OFF" will appear on the TV screen.

When menu play is OFF, playback functions in the same way as when playing back tracks on a 1.1 version video CD. As a result, some moving or still pictures are not played.

**To exchange CDs during play**

While playing a CD, it is possible to change the other CDs without interrupting play.

- 1 Press ▲ OPEN/CLOSE to open the loading drawer.
- 2 Press DISC SKIP to rotate the disc trays and exchange the CDs.

The carousel will move one disc tray. Pressing again moves the carousel in the opposite direction two disc trays.

- 3 Press ▲ OPEN/CLOSE to close the loading drawer.

**Note**

If you play a CD with the loading drawer open only the currently selected CD can be played.

**For your reference**

Basic operations are displayed on the TV screen. (See page 20.)

## Sequential play

All of the CDs will be played, beginning from track 1 on the selected CD.

VIDEO CD 1.1 CD-G AUDIO CD

Before doing anything

- For video CDs (ver.1.1)  
Turn ON the TV and set the TV/VIDEO selector on the TV to "VIDEO" position.
- Turn ON the receiver or amplifier and select the proper source.

**1** Press POWER to switch on the power.

**2** Press ▲ OPEN/CLOSE to open the loading drawer, and load the CD(s) on the disc tray(s).

**3** Press ▲ OPEN/CLOSE again to close the loading drawer.

**4** Press the desired disc button (1-5).  
Play will begin from the selected CD.

The video CD changer plays all the tracks on all the CDs in order and stops automatically when the last track on the last CD finishes playing. The first CD will then be at the playing position.

### To stop play

Press ■.

### To temporarily stop play

Press ||.

Press ► SELECT to resume play.

### For your reference (ver. 1.1)

Basic operations are displayed on the TV screen.

The on-screen text can be turned off. (See page 20.)

### To directly access a desired track

Press the numeric button(s) to select the track.

Play will begin from the selected track.

• To select a track between 1 and 10:

Press the corresponding number on the numeric button.

• To select a two-digit track number over 10:

First press >10/---, and then press the numbers for the two digits.

For example:

To select track number 20, press >10/---, then 2, and then 0.

### To exchange CDs during play

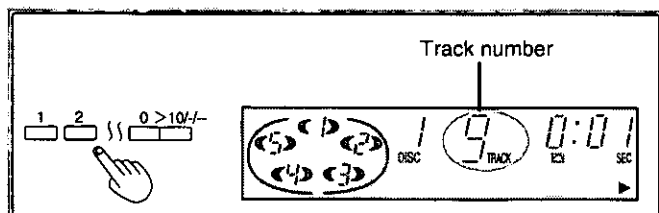
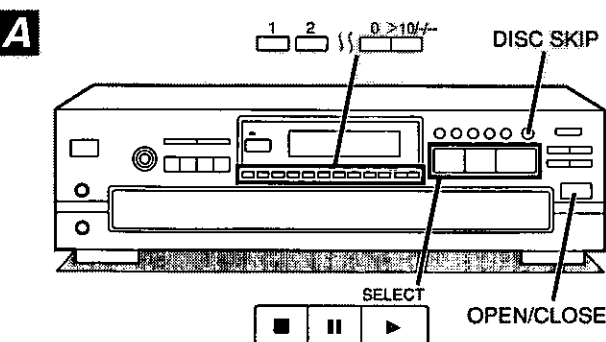
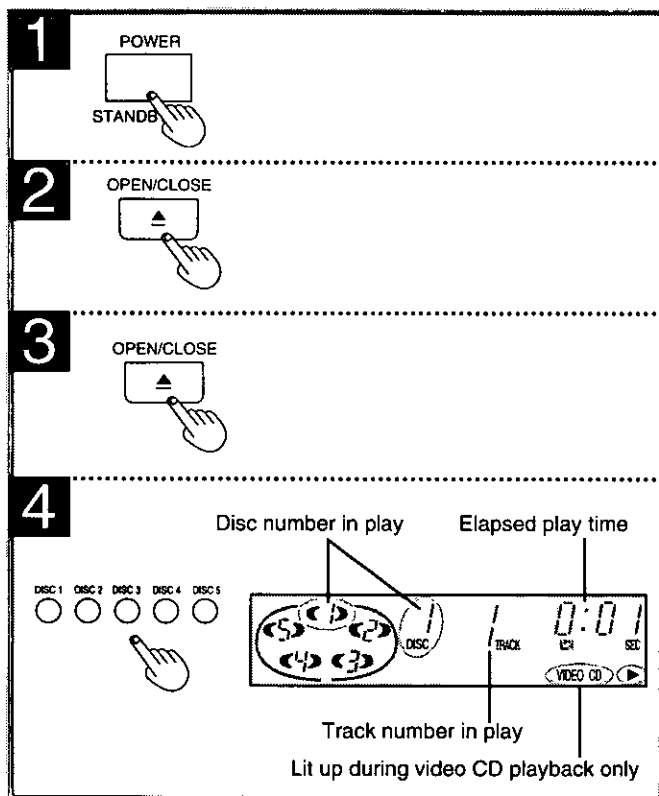
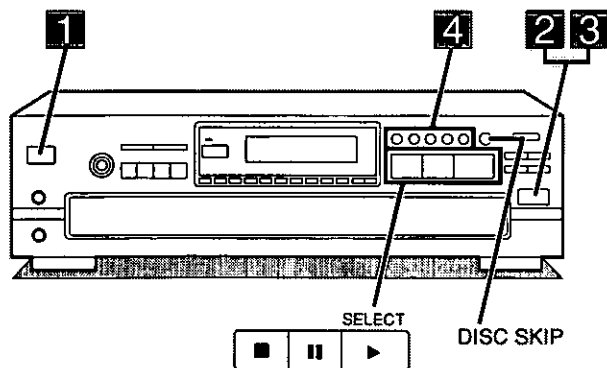
(See page 9.)

## VIDEO CD 2.0

Sequential play is possible as described above only if you cancel the menu play mode.

### To quit menu play

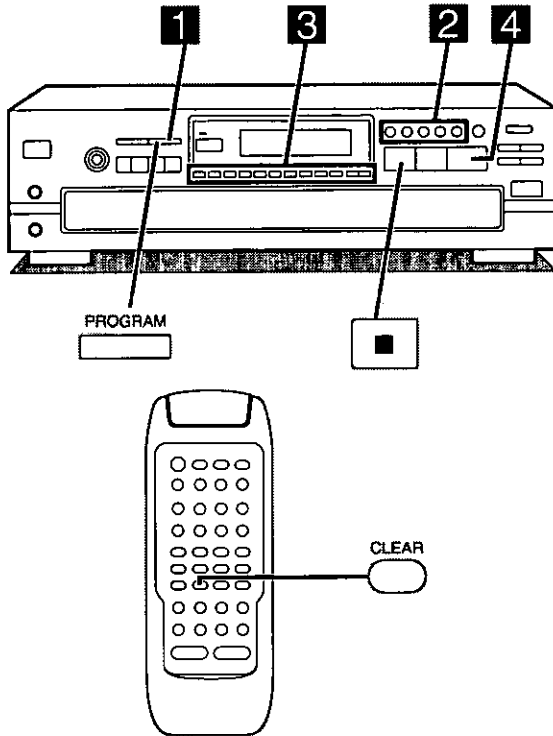
(See page 9.)



## Program play

You can program up to 32 selections from the five CDs in any order as you desire.

VIDEO CD 1.1 CD-G AUDIO CD



**1** [In the stop mode]  
Press **PROGRAM**.

**2** Press the desired disc button (1-5).

The "AL" indication shows that all tracks on the CD are selected.

To program by means of disc numbers only, repeat the above operation. (The count will increase by one for each operation.)

**3** Press the numeric button(s) to specify the track number.

For example:

To select track number 20, press >10/---, then 2, and then 0.

**Repeat steps 2 and 3 until you have completed the desired entry.**

If you attempt a 33rd selection, the "-F" (full) indication will be displayed.

If you enter non-existing CD(s) or track(s) soon after the loading drawer is closed or when it is open, the corresponding indicator illuminates and the entry is included in the count. In the play mode, the video CD changer will cancel the non-existing entry.

**4** Press **▶ SELECT** to start play.

To enter additional selections during play, repeat steps 2 and 3.

### Note

Tracks are deleted from the program as they are played.

### To cancel the program mode

[In the stop mode]

Press **PROGRAM** again.

The video CD changer will return to sequential play mode.

### To clear a single item of the programmed contents

[In the stop mode]

Press **CLEAR** on the remote control.

Each time you press CLEAR, you will cancel the last entry in the order you have entered.

### To clear the entire programmed contents **A**

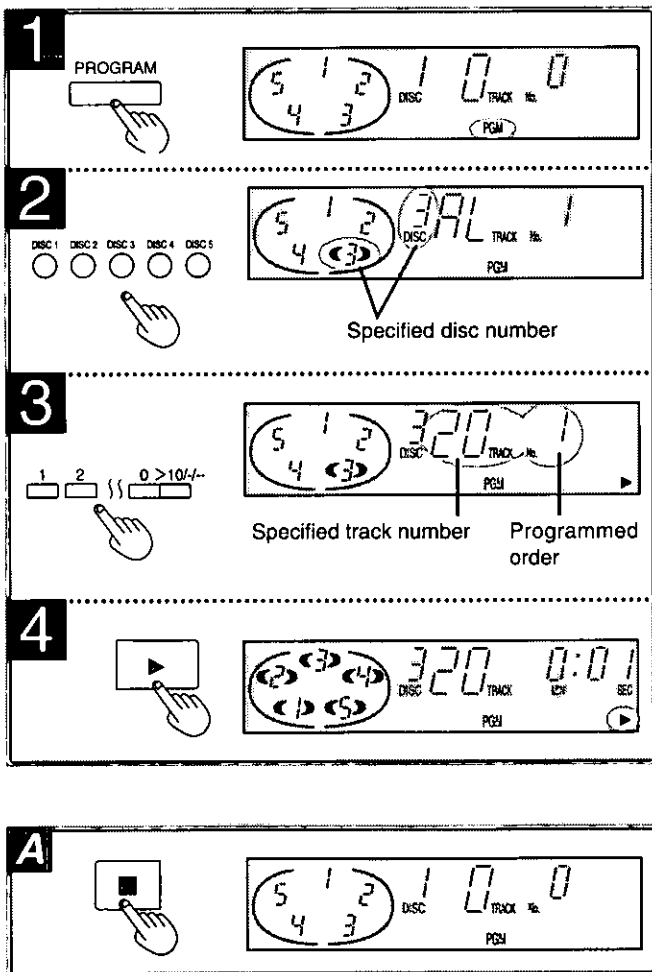
[In the stop mode]

Press **■**.

The display will appear as shown left.

## VIDEO CD 2.0

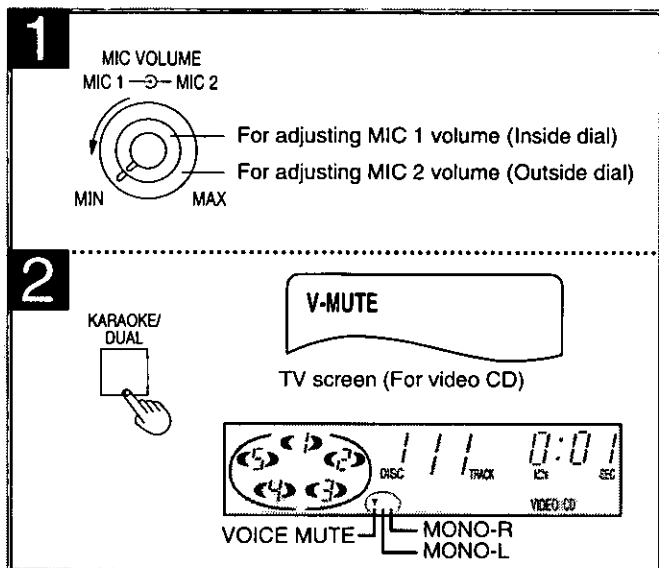
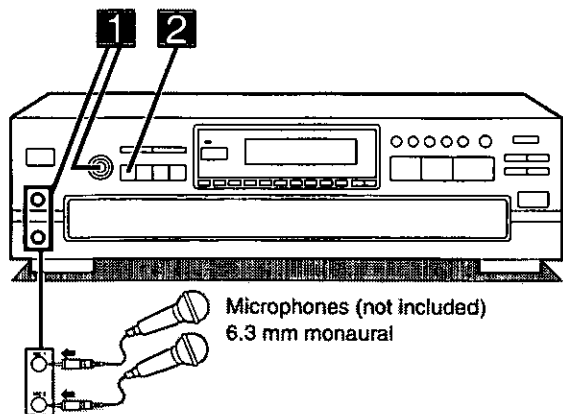
With version 2.0 video CDs, the menu function is automatically turned OFF and tracks are played back. Track means a sectioned-off piece of picture or audio recording on the CD. The number allotted to each track will be shown on the display while that track is playing.



## Singing along with karaoke

This unit lets you enjoy the karaoke fun provided with audio and video CDs, and CD graphics.

VIDEO CD 2.0 VIDEO CD 1.1 CD-G AUDIO CD



**1** First, lower volume with **MIC VOLUME**.  
Then, connect the microphone.

When you want to do a duet, connect two microphones.

**2** Press **KARAOKE/DUAL** to select the voice mode.

Each time the button is pressed, the display will change in the following order.

- TV screen (For video CD)

V-MUTE → MONO L → MONO R → L R

- Display of SL-VM525

VOICE MUTE → MONO-L → MONO-R → (OFF:L R)

### Voice mode selection

If you want to play with the karaoke function, check first whether or not your CD is formatted for karaoke and then select the voice mode as indicated below.

○: Appropriate

●: For practice, etc.

	TV screen	V-MUTE	MONO L	MONO R	L R
Karaoke CD	Stereo	-	-	-	○
	Sound multiplex	-	○ (Background music)	● (Voice)	● (Background music + Voice)
Non-karaoke CDs	/	○	-	-	● (For singing along)

### Note

A bar is indicated in the above table when the voice mode is least effective. It is better to avoid using the mode in such cases.

### V-MUTE (VOICE MUTE):

The voice portion of the track is blocked out but not the background music.

### Note

You need a CD recorded in stereo sound if you want to use the voice mute function. Voice and/or static may be reproduced with the following types of CDs.

- CDs recorded in monaural
- Classical music, or works performed by a limited number of instruments
- Chorus works or duets

### MONO L:

The left side channel is produced from both speakers (sound from the right side channel will be canceled out).

### MONO R:

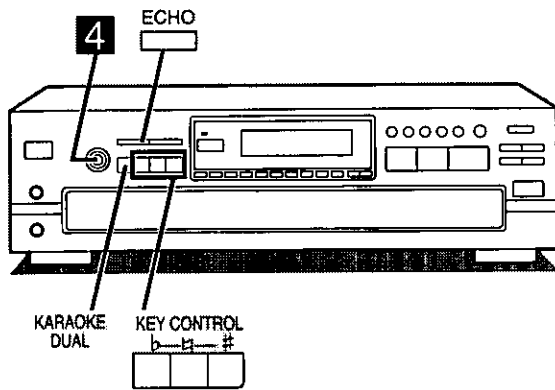
The right side channel is produced from both speakers (sound from the left side channel will be canceled out).

### L R:

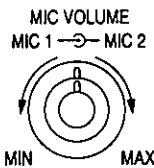
Left and right side channels are produced from their respective speakers.

This is the setting when power is turned on.

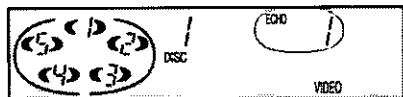
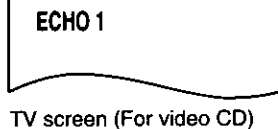
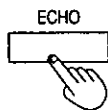
(Continued on next page)



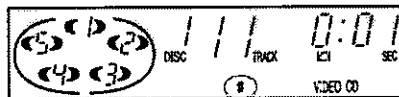
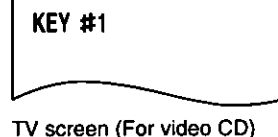
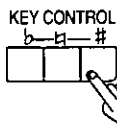
4



A



B



3

**Start your CD.**

- Menu play...See page 8.
- Sequential play...See page 10.
- Program play...See page 11.
- Random play...See page 20.

4

**Adjust volume with MIC VOLUME and sing along.**

**When finished with the karaoke mode**

To return to the normal voice mode, select the L/R mode with the KARAOKE/DUAL button. (See step 2.)

**Note**

- If strange noises (squealing or howling) are emitted during use, keep the microphone away from the speakers, or turn down the microphone volume.
- When the unit is turned off, the voice mode reverts back to the LR mode.

**For microphone echo**

**Press ECHO.**

Every time you press the button, the echo effect changes as follows.

ECHO 1 → ECHO 2 → ECHO 3 → (OFF)

**Note**

When the unit is turned off, the echo is canceled automatically.

**To change background music key**

[During playback or when on pause]

**Press b or #.**

b : Lowers the key one half note each time the button is pressed.

# : Raises the key one half note each time the button is pressed.

You can switch key in 6 steps: either 3 up or 3 down. For video CDs, this change will be displayed on the TV screen while you make them. For CD graphics and audio CDs, the change will be indicated by the presence of the b or # shown on the display of this unit.

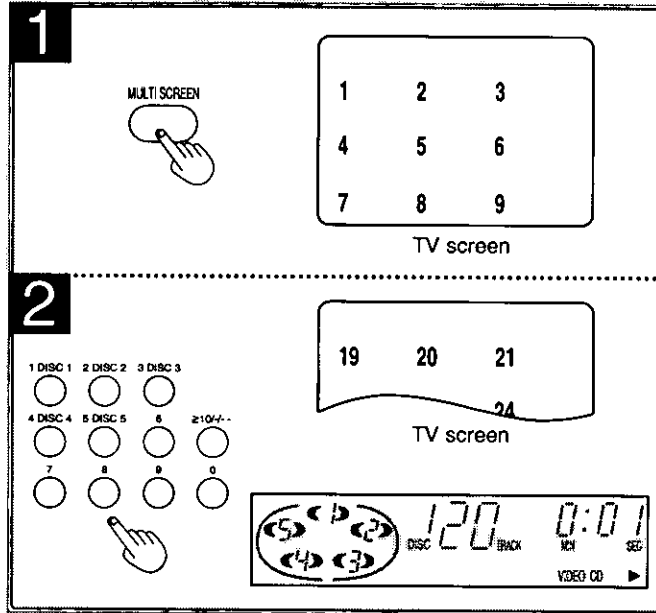
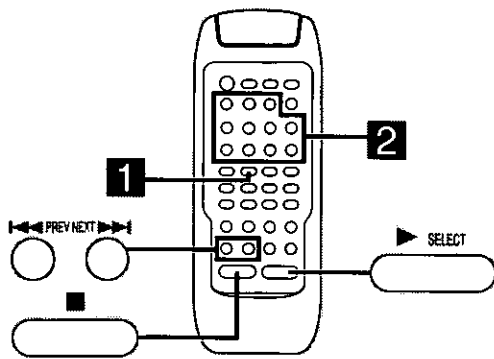
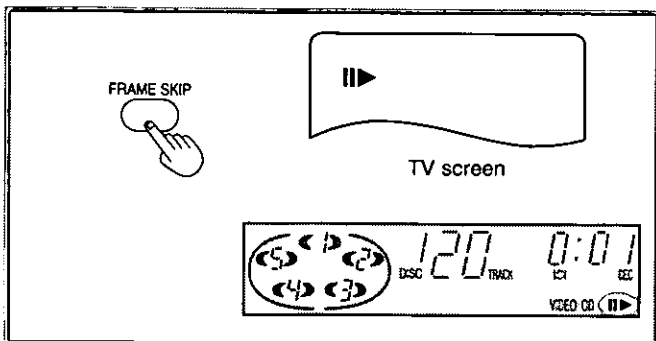
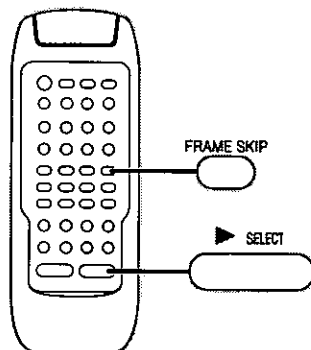
To return to the original key, press □ .

**For your reference**

To lower a key which you had raised, press the b button, whereas to raise a key which you had lowered, press the # button.

**Note**

- Key control does not work while playback is stopped as well as sometimes when still pictures are displayed on the screen.
- Key control is defaulted when you switch tracks.

**A****B****Multi screen function****(Only available from the remote control.)**

This function divides the screen up into several parts so as to display the picture from each of the tracks. You can select the track you want from the various pictures on the screen.

**VIDEO CD 2.0** **VIDEO CD 1.1**

If, after making your CD selection, the display reads 00:00, then before connecting with the following steps play the CD for a few seconds to allow this unit to read the CD's data.

**1** [While playback is stopped]**Press MULTI SCREEN.**

Track 1 will first be played back for a few seconds, then will be displayed as a still picture. The same will then happen for the following tracks. Up to 9 tracks will be displayed on the screen at a time.

To display subsequent tracks: Press ►►.

To display previous tracks: Press ◀◀.

With version 2.0 video CDs, playback control is turned off and all tracks on the CD are played back as described until the last track.

To cancel the multi screen mode, press ■.

**2** **Select a track number with the numeric buttons.**

That track will start playing. The number of the selected track is displayed on the unit's display.

**For your reference**

If you press the ► SELECT button as a track is being displayed as in Step 1, that track will start playing.

**Frame skip and slow motion playback****(Only available from the remote control.)**

With this function, you can advance a video CD motion picture one frame at a time. Slow motion playback is also possible.

**VIDEO CD 2.0** **VIDEO CD 1.1****For frame skip**

[While a video CD motion picture is in play]

**Press FRAME SKIP.**

The instant you press the button, the video will pause on the currently displayed frame. Every time thereafter that you press the button, the picture will advance one frame.

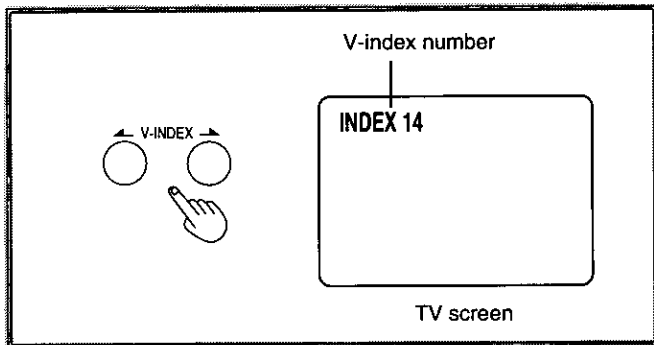
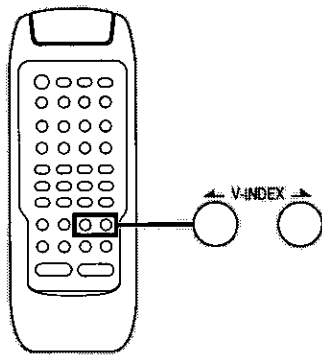
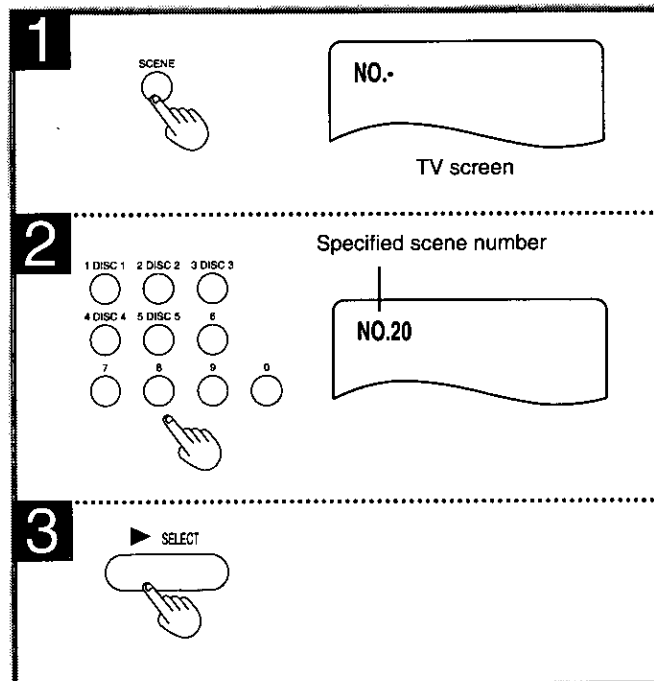
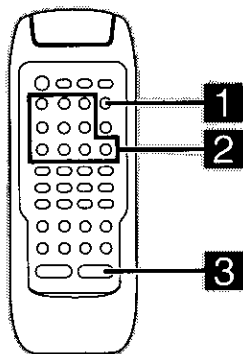
**For slow motion playback**

[While a video CD motion picture is in play]

**Hold down FRAME SKIP.**

The picture is played back in slow motion when the button is held down. When you release the button, the video will pause on the currently displayed frame.

**To cancel frame skip****Press ► SELECT.**

**A****B****V-index search function****(Only available from the remote control.)**

With this function, you can search through V-index numbers on the video CD until you find the part you want.

VIDEO CD 2.0 VIDEO CD 1.1

**Note**

This function works with only CDs on which V-index numbers have been recorded.

[In the play or pause mode]

**Press** ← or →.

← : You can search backward.

The unit returns to the previous index number.

→ : You can search forward.

The changer will playback from the desired point.

**In the menu play mode**

You can search forward or backward only within the selected item.

**In the sequential/program/random play mode**

You can search forward or backward only within the current track.

**Scene playback****(Only available from the remote control.)**

On video CDs with PBC, menus, motion pictures and still shots are divided into scenes. These scenes are numbered with what we call scene numbers. With scene playback, you can watch a particular scene by simply specifying its number.

VIDEO CD 2.0

**1** [While menu play is stopped or on pause]

**Press SCENE.**

**2** **Press the numeric button(s) to specify the scene number.**

**For example:**

To select scene number 20, press 2, and then 0.

**3** **Press ► SELECT.**

Playback of the selected scene starts.

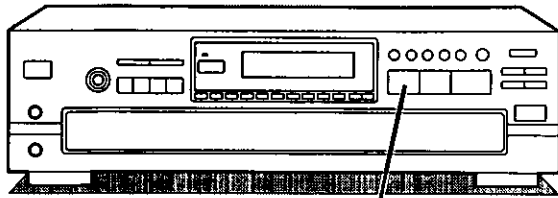
When the scene is over, the menu will reappear on the screen.

**Note**

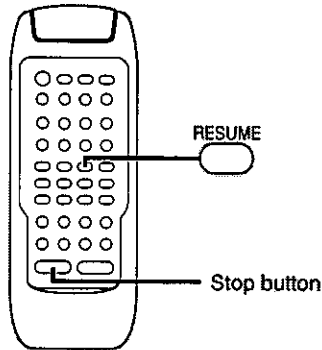
You cannot playback anything when specifying

- Scene numbers not on the CD
- Scene numbers of scenes not permitted for viewing

## Resume function



Stop button



RESUME

Stop button

RESUME



(Only available from the remote control.)

This function lets you resume playback of a video CD you stopped, from a point near to where the video was stopped.

VIDEO CD 2.0 VIDEO CD 1.1

[When playback has been stopped with the stop button]

Press **RESUME** on the remote control.

**In the menu playback mode (ver. 2.0)**

Playback starts from the scene you were viewing. (See "Scene playback" on page 15.)

**In the sequential play mode**

Playback starts from a point near to where the video was stopped.

### Note

If RESUME is pressed when stopped during program play mode, playback will begin from program No.1.

This function is not available during random play.

### Note (ver.2.0)

Before pressing the RESUME button, do not turn off (on) the menu playback mode. This will disable the resume function.

CD-G AUDIO CD

The resume function can be used with audio CDs in the same way that it is used with video CDs. Playback in this case is resumed from the beginning of the track.

## For your reference

The resume function can be used after turning off power as explained below.

1. Stop playback with the stop button.
2. Turn off power to the unit.
3. Reactivate power to the unit.
4. Press RESUME.

### Note

- The resume function still works even after the power supply cord has been unplugged for as long as 1 week but not more.
- If you play back version 2.0 video CDs with playback control off, the resume function cannot be used as in other cases, after power is reactivated.



## Repeat function

(Only available from the remote control.)

Play will continue endlessly in accordance with the specific play mode selected.

VIDEO CD 1.1 CD-G AUDIO CD

[Before or during play]

Press **REPEAT**.

### In the sequential play mode

All tracks of all CDs will be played repeatedly.

### In the program play mode

- If you turn ON the repeat function before starting playback  
The video CD changer plays only the programmed selections in the programmed sequence repeatedly.
- If you turn ON the repeat function during playback  
The current track and all following programmed tracks will be repeated.
- If you turn OFF repeat function during playback  
Tracks will be played back once each in the programmed order. Each track will be deleted from the program as it is played, and playback will stop at the end of the program.

### In the random play mode

When the video CD changer has played all the tracks on all the loaded CDs, it will select a new random sequence and play continuously. The sequence differs each time.

### To cancel the repeat mode

Press **REPEAT** again.

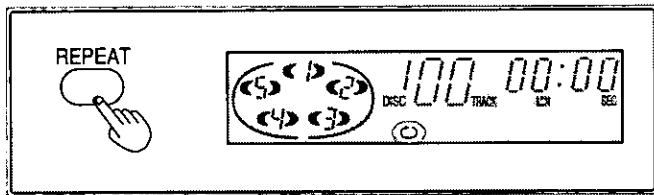
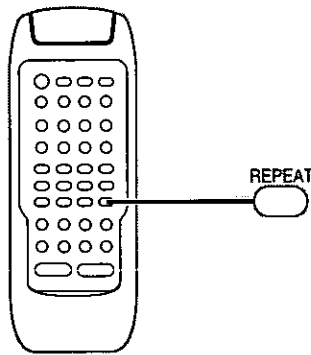
The "⌂" indicator will go out.

### To repeat one specific track or selected tracks

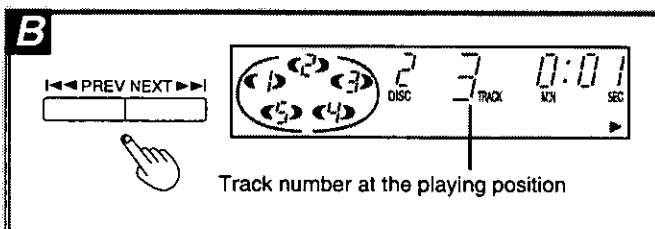
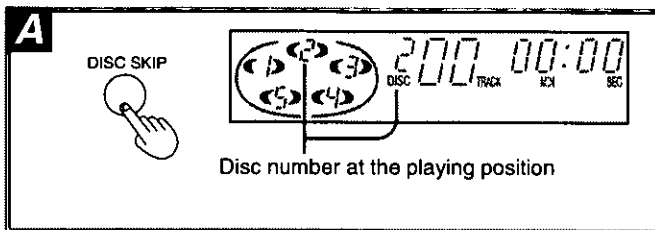
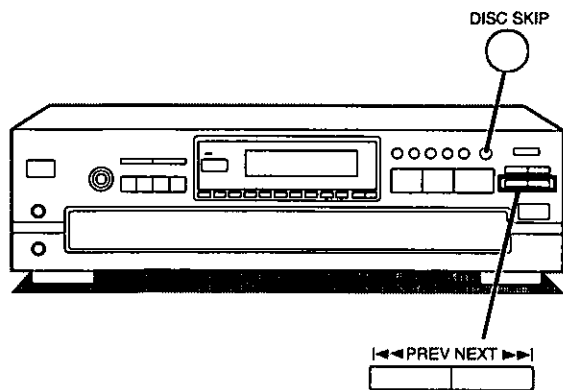
1. Selected the desired track(s) using the program play procedure on page 11.
2. Press the **REPEAT** button. The "⌂" indicator will light up.
3. Press the **▶ SELECT** button. Playback will start.

## VIDEO CD 2.0

The repeat function can also be used as described above by canceling the menu play mode.



## Skip function



### To skip CDs **A**

Use this function to skip CDs when selecting a CD to which you wish to listen, and unloading the CDs. You can use this function in the stop, menu play, and sequential play modes.

VIDEO CD 2.0 VIDEO CD 1.1 CD-G AUDIO CD

Press DISC SKIP to rotate the disc tray.

#### In the stop mode

Pressing DISC SKIP changes the disc tray to the next one.

#### In the menu/sequential play mode

Pressing DISC SKIP changes the CD and the video CD changer plays the track on next CD.

If a CD is not on the selected disc tray, the video CD changer plays the CD at the next number.

### To skip tracks **B**

Use this function to skip tracks when selecting a track which you wish to play.

VIDEO CD 1.1 CD-G AUDIO CD

Press PREV (◀◀) or NEXT (▶▶).

◀◀ : You can skip backward.

▶▶ : You can skip forward.

#### In the sequential play mode

You can skip only within the current CD.

◀◀ : You can skip to the beginning of the track being played. If you press this button again quickly, you can skip to the beginning of the previous track.

Remember that in a backward skip, the current track is included in the count.

▶▶ : You can skip as many tracks as the number of times you press the button.

#### In the program play mode

You can skip to programmed tracks in the forward direction only. Skipped tracks will be deleted from the program as you skip them.

◀◀ : You can skip to the beginning of the track being played.

▶▶ : You can skip as many tracks as the number of times you press the button.

#### In the random play mode

◀◀ : You can skip to the beginning of the current track.

▶▶ : You can skip to the beginning of the next track in random order.

You can also skip tracks, as described above, when the video CD changer is in the stop mode (except during random play and menu play) or pause mode.

#### Note

Depending on the video CD software you play back, the video CD changer may not skip to the point you expect if the ◀◀ PREV and NEXT ▶▶ skip buttons are tapped lightly. If this happens, hold the buttons down until the track No. you want is displayed.

VIDEO CD 2.0

The buttons you use in menu play and how you use them will differ from CD to CD. Do as explained in the instructions that came with your CD or shown on the TV screen.

## Search function

You can search rapidly forward or backward on the CD for specific sections.

VIDEO CD 2.0 VIDEO CD 1.1 CD-G AUDIO CD

[In the play mode]

Press and hold ◀◀ or ▶▶ .

◀◀ : You can search backward.

▶▶ : You can search forward.

Release the button when you reach the desired point.  
The player will return to the play mode.

**In the sequential play**

You can search forward and backward within the CD.

**In the menu play mode (ver. 2.0)**

You can fast-forward and rewind while viewing an item selected from a menu.

The search function is available only for videos. It is not possible to search through still pictures.

**In the program/random play**

You can search forward or backward only within the current track.

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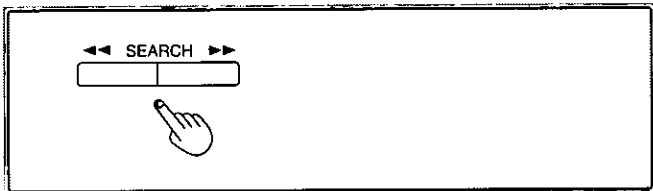
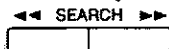
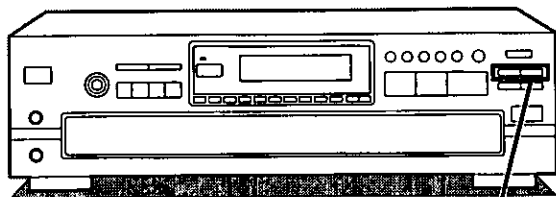
### For your reference

While the changer is on pause, you can run a high-speed search using these buttons. While searching forward or backward, the elapsed playback time is shown on the changer's display, but the picture is placed on pause.

Playback is resumed when you release the button.

#### Note

During CD graphics playback, the picture is partially scrambled if you run a scan. The normal picture returns when you resume playback.



## Random play **A**

(Only available from the remote control.)

Each track to be played back is selected randomly from all of the tracks on all of the CDs, excluding the tracks that have already been played.

VIDEO CD 1.1 CD-G AUDIO CD

[In the stop or play mode]

Press **RANDOM**.

The video CD changer will stop automatically when all the tracks on all CDs have been played once.

**To cancel the random play mode**

Press **RANDOM** again.

The "RND" indicator will go out.

The CDs will be played from that point until the end and then stop automatically.

## VIDEO CD 2.0

- If the menu function is ON, during playback, the video CD changer does not switch to the random play mode even when the **RANDOM** button is pressed.
- If the menu function is ON and playback is OFF, the menu function is turned OFF automatically and the video CD changer switches to the random play mode when the **RANDOM** button is pressed. In this case, the video CD changer selects and plays back individual tracks.

## On-screen display

You can check the operating conditions of the video CD changer on a TV screen.

This function turns ON when you load the video CD.

VIDEO CD 2.0 VIDEO CD 1.1

**When OSD ON **B****

Any time operating conditions are changed from the video CD changer or the remote control, the changed condition is displayed on the TV screen. (The display will go out in a few seconds.)

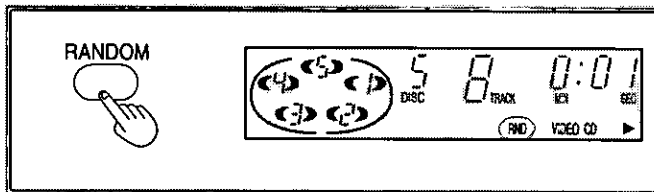
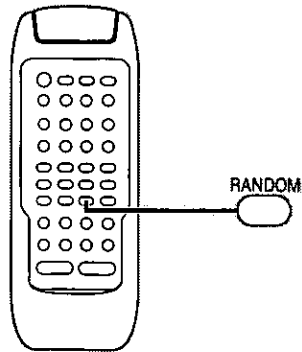
(Only available from the remote control.)

**To turn OFF the on-screen display**

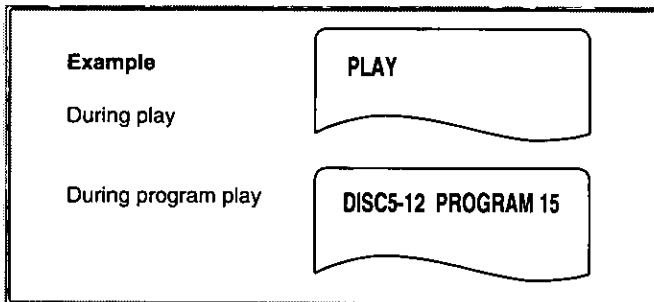
Press the **OSD** button until "OSD OFF" is selected. **C**

Press **OSD** once again to turn ON the on-screen display.

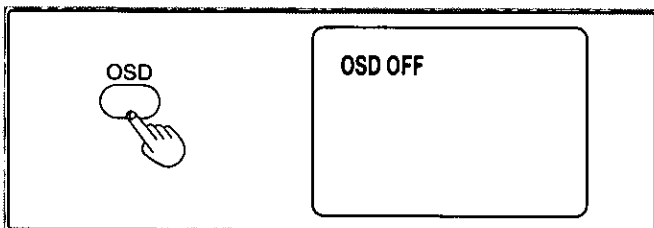
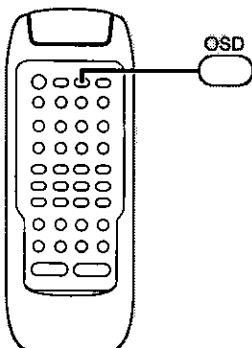
**A**

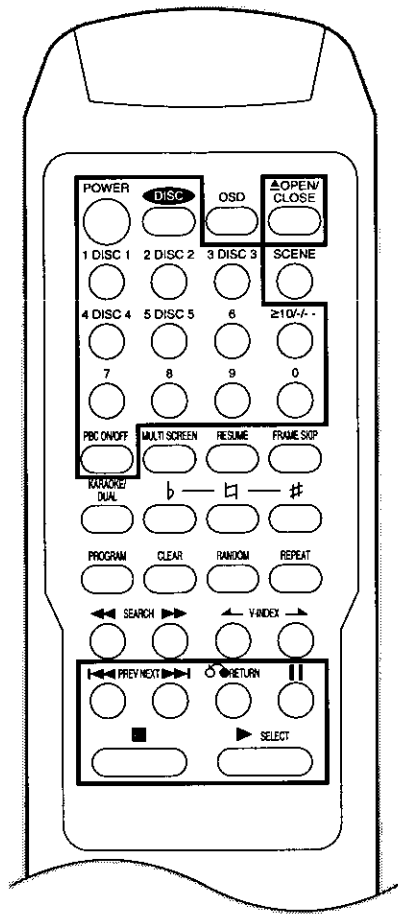
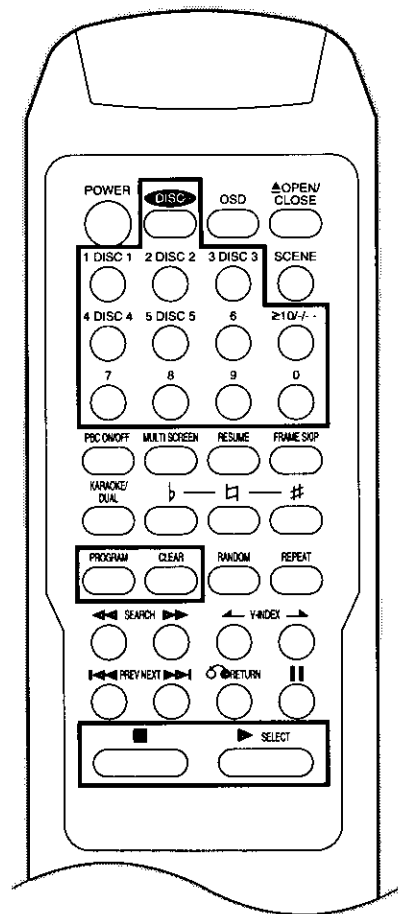


**B**



**C**



**A****B**

## Quick reference table for remote control operation

Reference pages are given on the far right of the table.

### Basic operation

Operation	Button(s)	
To turn the changer on/off	<b>POWER</b>	8
To open/close the loading drawer	<b>▲ OPEN/CLOSE</b>	8
To start play	<b>▶ SELECT</b>	8
To select the desired CD	<b>DISC, 1-5</b> (Example: Disc 3)...DISC → 3	8
To select the desired track	<b>1-9, 0, ≥10/--</b> (Example : Track 9) ... 9 (Example : Track 10) ... ≥10/-- → 1 → 0	10
To stop play temporarily	<b>⏸</b>	8
To stop play	<b>■</b>	8
How to work with menus <b>VIDEO CD 2.0</b>		
To select a menu item	<b>1-9, 0, ≥10/--</b> (Example : Item 9)...9 (Example : Item 10)...≥10/-- → 1 → 0	9
To start selected item	<b>▶ SELECT</b>	9
To move to the next item	<b>NEXT ▶▶</b>	9
Go back to the previous item	<b>◀◀ PREV</b>	9
Return to the previous menu	<b>↶ RETURN</b>	9
To turn on/off the menu playback function	<b>PBC ON/OFF</b>	9

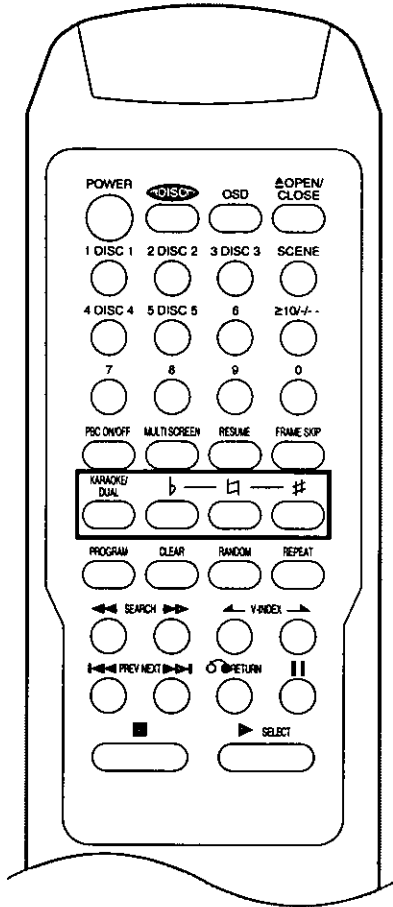
#### Note

Operation will vary according to software. Read the instructions provided with your software carefully so as to run the software correctly.

### Program play

Operation	Button(s)	
To start program play	① <b>PROGRAM</b> ② <b>DISC, 1-5</b> Select the CD. ③ <b>1-9, 0, ≥10/--</b> Select the track number. Repeat ②, ③ until you have completed the desired entry. ④ <b>▶ SELECT</b>	11
To clear a single item of the entered contents	(In the stop mode) <b>CLEAR</b> Tracks are cleared from the most recent entry back.	11
To clear all entered contents	(In the stop mode) <b>■</b>	11
To cancel the program mode	<b>PROGRAM</b>	11

Reference pages are given on the far right of the table.



**Karaoke function**

Operation	Button(s)	
To set the voice mode	KARAOKE/DUAL	12
To regulate the (musical) key	b - ♪ - #	13

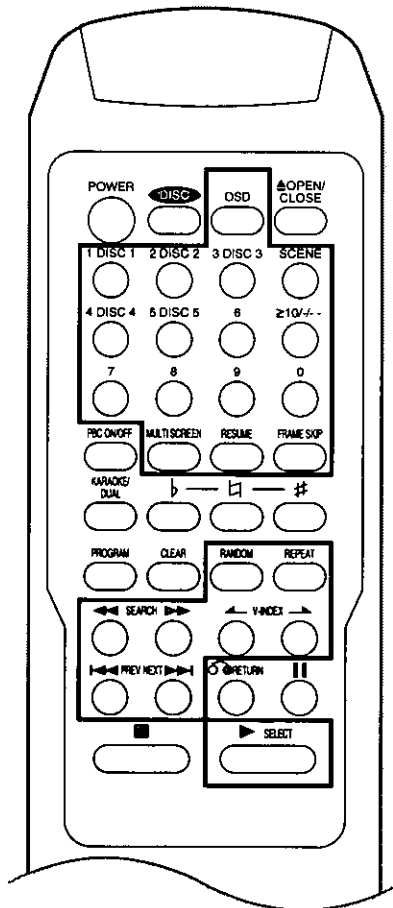
**Other functions**

Operation	Button(s)	
To resume playback	RESUME	16
To skip tracks	◀◀ PREV, NEXT ▶▶	18
To search for a desired place	◀◀ SEARCH ▶▶	19
To repeat play	REPEAT	17
To start random play	RANDOM	20
To turn off/on the OSD function	OSD	20

**Buttons used only during video playback**

To select a track in the multi screen mode	(In the stop mode) ① MULTI SCREEN ② 1-9, 0, ≥10/-/- Select the desired track.	14
To use the frame skip function	FRAME SKIP	14
To search through V-indexes	← V-INDEX →	15
To playback particular scenes from PBC equipped video CDs	① SCENE ② 1-9, 0 Select the scene number. ③ ▶ SELECT	15

VIDEO CD 2.0



## Troubleshooting guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.

If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer your questions to your dealer or call 1-800-645-8401 and ask for technical support for this unit.

Reference pages indicated in black circles. (For example: ③)

Problem	Probable cause(s)	Suggested remedy
Changer will not play.	A CD(s) or other foreign object(s) has fallen inside the changer.	<ul style="list-style-type: none"> <li>Open the loading drawer, and remove the object. ③</li> </ul>
	The unit was subjected to a sharp temperature fluctuation such as when moved from a cold to a warm place.	<ul style="list-style-type: none"> <li>Condensation may have formed on the lens. Wait about 1 hour and try using the unit again.</li> </ul>
The CD in the changer does not play.	The CD is upside down.	<ul style="list-style-type: none"> <li>Make sure the label is facing upward. ③</li> </ul>
	The CD is dirty.	<ul style="list-style-type: none"> <li>Wipe the CD with a soft cloth. ④</li> </ul>
	The CD is scratched.	<ul style="list-style-type: none"> <li>Replace the CD with a new one.</li> </ul>
	The CD is warped.	
	The CD is not within specified standards.	
Play stops before changing to the next CD.	The loading drawer is open.	<ul style="list-style-type: none"> <li>Press the OPEN/CLOSE button to close the loading drawer.</li> </ul>
A certain music passage can't be played correctly.	The CD is dirty.	<ul style="list-style-type: none"> <li>Wipe the CD with a soft cloth. ④</li> </ul>
	The CD is scratched.	<ul style="list-style-type: none"> <li>Replace the CD with a new one.</li> </ul>
There is noise from the tuner or disturbance on the TV screen.	Caused by high-frequency signals from this changer.	<ul style="list-style-type: none"> <li>Use the changer further away from the tuner or TV.</li> <li>If the tuner or TV's antenna is an indoor type, use an outdoor one.</li> </ul>
When program play is started, an error message (-E) appears on the display.	Play was started without a track being programmed.	<ul style="list-style-type: none"> <li>Program a track. ⑩</li> </ul>
An error message (-E) appears on the display, and the changer stops operating.	The mechanism of the changer has been improperly adjusted.	<ul style="list-style-type: none"> <li>Turn the unit off and then back on again. However, if the loading drawer is fully open, take out the compact disc(s) at the front position and then turn the unit off and then back on again.</li> </ul>
The loading drawer stops in the middle of opening.		
An error message (F-26) appears on the display and the changer stops operating.	The servo LSI has malfunctioned.	<ul style="list-style-type: none"> <li>Unplug the changer from its outlet, plug it back in and turn the changer ON again.</li> </ul>
Remote control does not operate correctly.	The batteries have run out.	<ul style="list-style-type: none"> <li>Replace batteries with new ones. ⑤</li> </ul>
	There is an obstruction between the remote control and the changer.	<ul style="list-style-type: none"> <li>Remove the obstruction.</li> </ul>
	The batteries are inserted incorrectly. [The (+) and (-) polarities are reversed.]	<ul style="list-style-type: none"> <li>Reinsert batteries so that the polarities are correct. ⑤</li> </ul>
The vertical/horizontal of the picture do not match the TV screen.	You are trying to use a video recorded on PAL on a NTSC TV.	<ul style="list-style-type: none"> <li>If your TV has a PAL/NTSC selector switch, set it and the VIDEO OUT SWITCH on the rear of this unit to "PAL".</li> <li>If the TV does not have a selector switch, the video cannot be played back at the original vertical horizontal or picture quality. ⑥</li> </ul>
The video does not play back smoothly.		
The video is not in color or colors seem unnatural.		
No picture on the TV screen while playing a video CD.	The video connection cable is not connected.	<ul style="list-style-type: none"> <li>Connect the video connection cable. ⑥</li> </ul>
	The TV/VIDEO selector on the TV is not set to "VIDEO" position.	<ul style="list-style-type: none"> <li>Set it to the "VIDEO" position.</li> </ul>

## Technical specifications

### Audio

No. of channels	2 (left and right, stereo)
Frequency response	20–20,000 Hz, $\pm 1$ dB
Output voltage	2 V (at 0 dB)
Dynamic range	92 dB
S/N	100 dB
Total harmonic distortion	0.007 % (1 kHz, 0 dB)
Wow and flutter	Below measurable limit
DA converter	MASH (1 bit)
Output impedance	1 k $\Omega$
Load impedance	More than 10 k $\Omega$

### Video

Output voltage	1.0 V <sub>p-p</sub> , 75 $\Omega$
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### Pick up

Wavelength	780 nm
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### General

Power supply	AC 60 Hz, 120 V
Power consumption	14 W
Dimensions (W×H×D)	430×125×385 mm (16-15/16"×4-15/16"×15-11/16")
Weight	4.7 kg (10.4 lb.)

#### Note:

Specifications are subject to change without notice.  
Weight and dimensions are approximate.

MASH is a trademark of NTT.

## Product service

Do not attempt to remove the cover(s) or repair the unit yourself.  
Refer servicing to qualified personnel only.

## Product information

For product service, product information or assistance in product operation, contact your dealer or call 1-800-645-8401 for authorized factory service.

## Maintenance

To clean this unit, use a soft, dry cloth.

For very dirty surfaces, dip a soft cloth in a weak soap-and-water solution and wring well. After cleaning, wipe with a soft, dry cloth.

Never use alcohol, paint thinner, benzene, or a chemically treated cloth to clean this unit.

Such chemicals may damage the unit's finish.

## Cautions concerning the moving of this unit

### CAUTION

Before moving the changer to another location, be sure to carry out the "Preparations for moving the unit" described below.

Failure to do so will expose the CDs and the changer to the risk of severe damage.

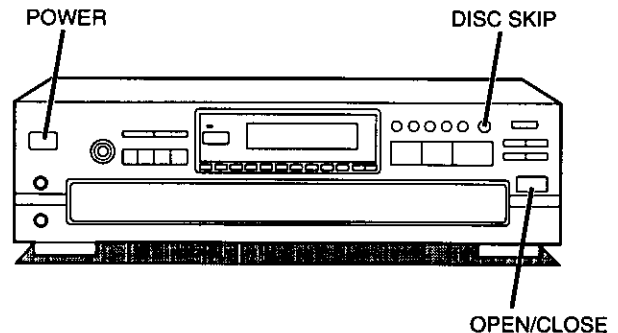
### Preparations for moving the unit

All of the CDs must be removed so that the trays are completely empty.

Use the following procedure.

- 1 Press **POWER** to switch off the unit.
- 2 Press **POWER** to switch on the unit.  
If there is a disc in the play section, it will be returned to the disc tray at this time.
- 3 Press **OPEN/CLOSE** to open the loading drawer.
- 4 Press **DISC SKIP** to rotate the disc trays and remove the CDs from all disc trays.
- 5 Press **OPEN/CLOSE** to close the loading drawer.
- 6 Press **POWER** to switch off the unit.

If you have pressed a wrong button by mistake, return to step ①.



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