USER'S MANUAL

SEGA ◯ ™

CONTENTS

Note: The SEGA-CD is for home use only, and not for commercial use. The SEGA-CD is for use in North America (NTSC standard) only.

GAME PLAY ASSISTANCE AND INFORMATION

For expert game play assistance or information on other great Sega products, call the Sega experts at: **1-415-591-PLAY**

IF YOU NEED HELP

If you have problems operating your SEGA-CD, first check the Troubleshooting section on page 20. If the problem persists, or if you can't resolve it, call the Sega Consumer Service Department at **1-800-USA-SEGA**

EPILEPSY WARNING

WARNING: READ BEFORE USING YOUR SEGA VIDEO GAME SYSTEM.

A very small percentage of individuals may experience epileptic seizures when exposed to certain light patterns or flashing lights. Exposure to certain patterns or backgrounds on a television screen or while playing video games may induce an epileptic seizure in these individuals. Certain conditions may induce undetected epileptic symptoms even in persons who have no history of prior seizures or epilepsy. If you, or anyone in your family, has an epileptic condition, consult your physician prior to playing. If you experience any of the following symptoms while playing a video game — dizziness, altered vision, eye or muscle twitches, loss of awareness, disorientation, any involuntary movement, or convulsions —IMMEDIATELY discontinue use and consult your physician before resuming play.

WARNING TO OWNERS OF PROJECTION TELEVISIONS

Still pictures or images may cause permanent picture-tube damage or mark the phosphor of the CRT. Avoid repeated or extended use of CD-based video displays on large-screen projection televisions. Consult your owner's manual before playing video games on your projection television.

INTRODUCTION

The SEGA-CD is a complete system that lets you enjoy outstanding audio, video and games on compact disc. It connects to your Sega Genesis™ to play sharp, clean sound and brilliant graphics with up to 64 colors from a palette of 512 colors on your TV. You can even enjoy rich stereo sound by adding headphones, a portable cassette player or stereo speakers.

Take advantage of the SEGA-CD's wide range of features. For example, you can choose which tracks you'll play. Set repeat marks to replay favorite sections again and again. Shuffle the tracks, program their order and set pauses so you get exactly what you want.

The SEGA-CD lets you save CD games from any software with a Save feature. Later, you can pick up your current game right where you left off. The best part of your SEGA-CD is that you can still play all your Sega Genesis cartridges while building an exciting library of all-new multimedia CD games!

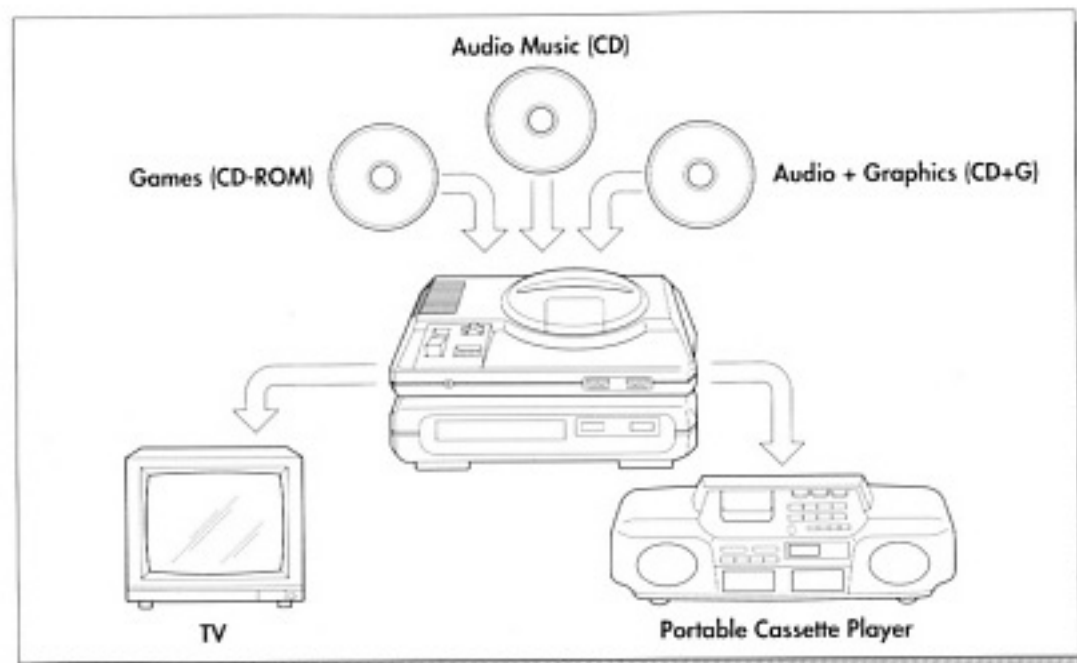Hooking up your SEGA-CD takes only a few minutes. Then use your Genesis control pad to operate the system, and get ready for hours and hours of fantastic compact disc entertainment.

The SEGA-CD is compatible with these disc types:

Audio Music (CD)

Audio + Graphics (CD+G)

Games (CD-Rom)

Audio Music (CD)

Games (CD-ROM)

Audio + Graphics (CD+G)
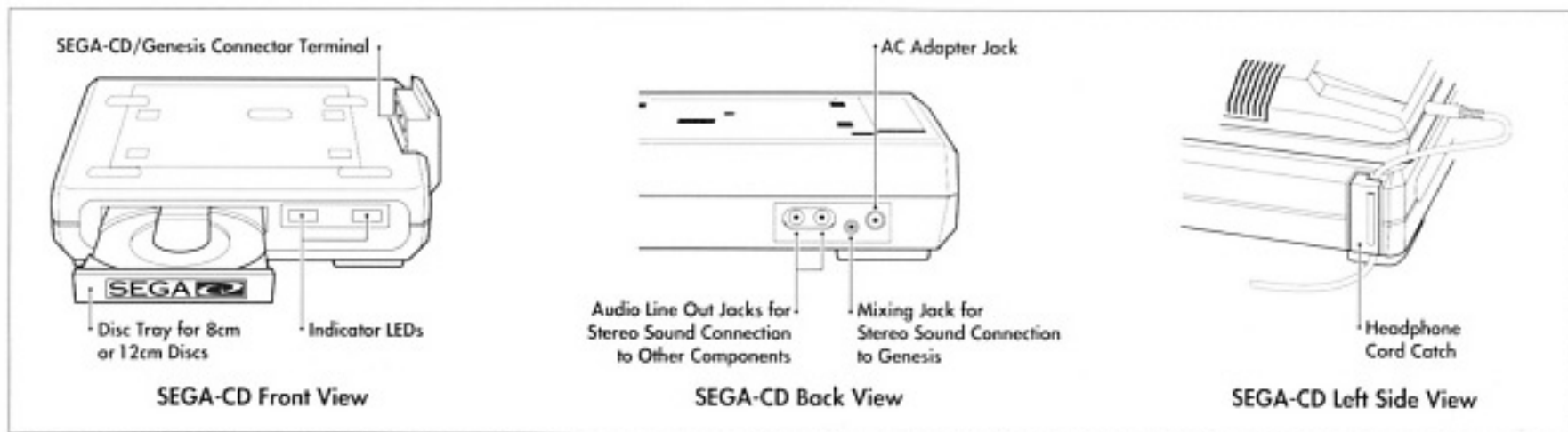
TV

Portable Cassette Player

UNPACKING YOUR SEGA-CD

Use the checklist to make sure you've received all the components of your SEGA-CD system. If anything is missing, please call the Sega Consumer Service Department at **1-800-USA-SEGA**.

Unpacking Checklist

- SEGA-CD console
- Steel joining plate and screw
- Small connector plate
- AC adapter
- Sound mixing cable
- *SEGA-CD Instruction Manual* (this book)

- Sega Classics™ Arcade Collection
- Audio Music CD Sampler
- Audio + Graphics CD+G Sampler
- Sherlock Holmes, Consulting Detective
- Consumer Reply card

Before hooking up your SEGA-CD, look at the console to become familiar with its parts.

SEGA-CD/Genesis Connector Terminal

AC Adapter Jack

Disc Tray for 8cm or 12cm Discs   Indicator LEDs

Audio Line Out Jacks for Stereo Sound Connection to Other Components   Mixing Jack for Stereo Sound Connection to Genesis

Headphone Cord Catch

SEGA-CD Front View   **SEGA-CD Back View**   **SEGA-CD Left Side View**

Please read the setup instructions in this manual thoroughly before installing your system. Then read the operating instructions for information on using all of the features of the SEGA-CD. **Fill out and return the Consumer Reply card that came with your system to ensure warranty coverage.** Then keep this manual on hand for reference on SEGA-CD operation and troubleshooting.

CONNECTING YOUR SYSTEM

Make sure your Genesis system is set up and operating properly before connecting your SEGA-CD. (Please see your *Sega Genesis Instruction Manual* for details.) Then follow these steps to connect your SEGA-CD to your Genesis:
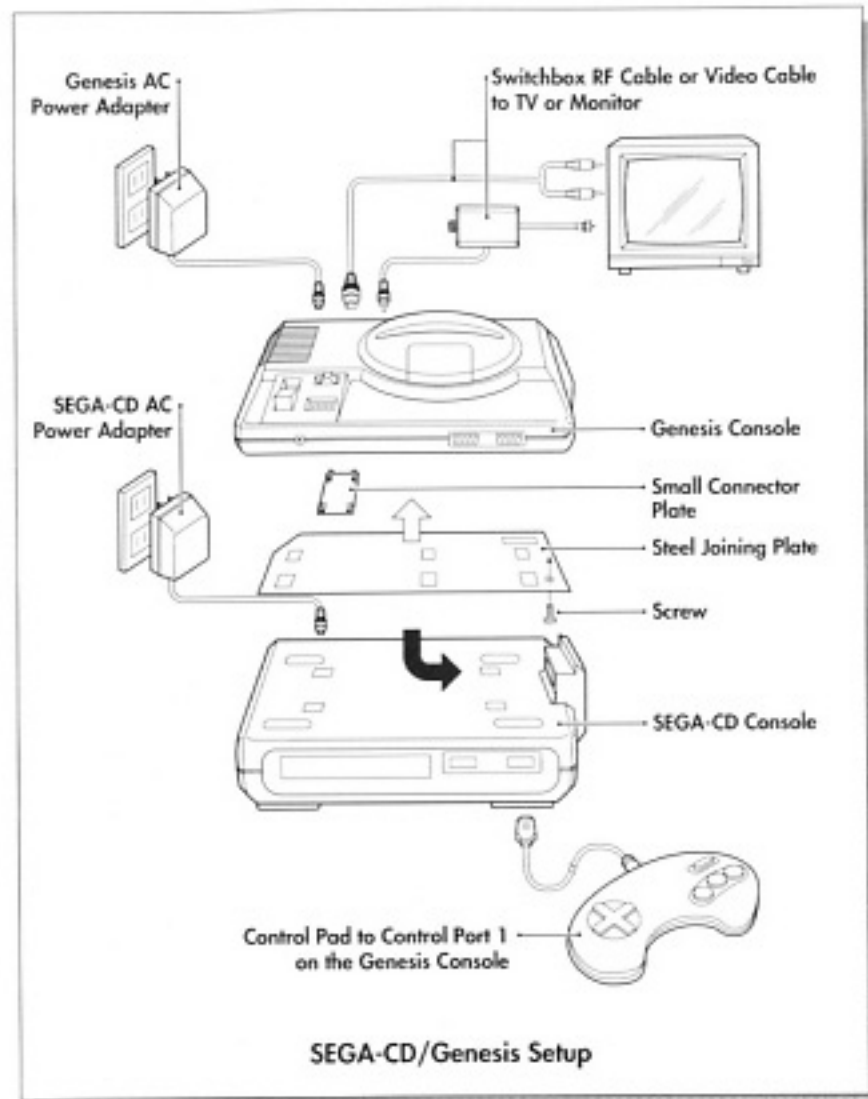
1. Unplug the Genesis from its AC adapter.

2. Locate the expansion slot panel on the right side of the Genesis. Remove the panel by pressing in on the bottom and taking the panel off of the console. Remove the red plastic cover from the expansion slot connector (ignore the labeled message "Do Not Remove").
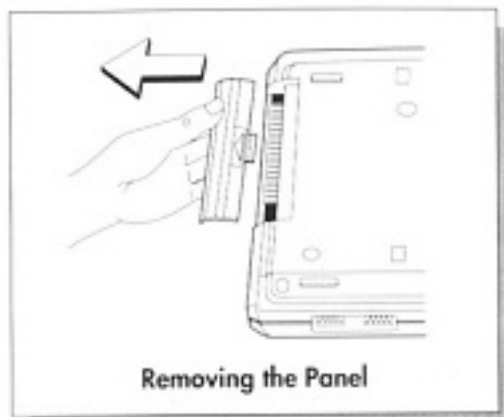
   Note: Store the black panel and red cover in your Genesis packing box for safekeeping.

3. Attach the small connector plate to the bottom of the Genesis. The plate hooks into position over the vents.

Removing the Panel

Attaching the Small Connector Plate

Genesis AC Power Adapter

Switchbox RF Cable or Video Cable to TV or Monitor

SEGA-CD AC Power Adapter

Genesis Console

Small Connector Plate

Steel Joining Plate

Screw

SEGA-CD Console

Control Pad to Control Port 1 on the Genesis Console

SEGA-CD/Genesis Setup
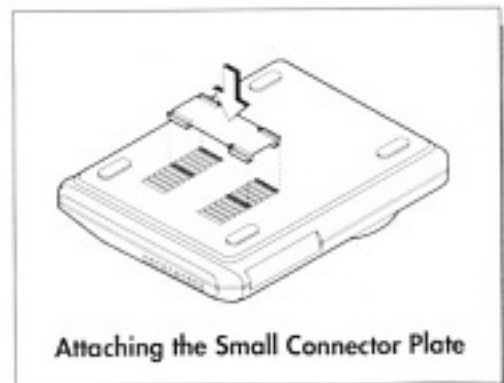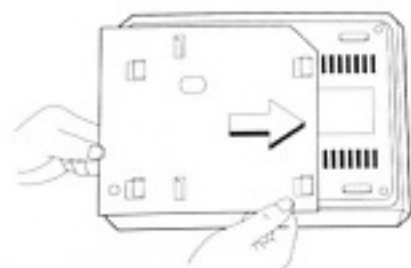
Positioning the Joining Plate

4. Position the steel joining plate on the bottom of the Genesis (and over the small connector plate). Use a medium-size Phillips-head screwdriver to attach it in place with the screw. The joining plate anchors the Genesis neatly to the SEGA-CD and assists the connectors to fit properly into the connector terminal.
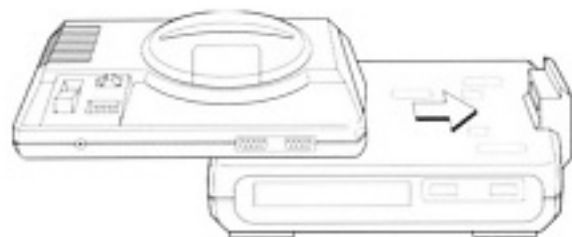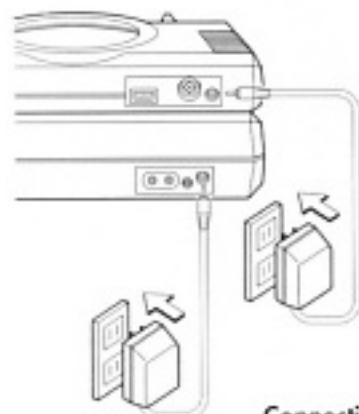
   Note: It is vital to install the steel joining plate, which provides an RF shield between the Genesis and the SEGA-CD.

5. Slide the Genesis sideways, from left to right, into place on top of the SEGA-CD. Make sure the connector in the Genesis expansion slot fits snugly into the connector terminal on the SEGA-CD.

Sliding the Genesis onto the SEGA-CD

Connecting the AC Adapters

6. Make sure the Genesis power switch is turned off. Then plug in its AC adapter.

   Note: Always lift the Genesis and the SEGA-CD together by holding onto the sides of the SEGA-CD.

7. Plug the SEGA-CD's AC adapter cable into its jack on the back of the SEGA-CD console. Then plug the adapter directly into an electrical outlet. (Do not use an extension cord.)

   Note: Do not switch the AC adapters. Use the Genesis AC adapter **only** with the Genesis, and the SEGA-CD AC adapter **only** with the SEGA-CD.

THE SEGA-CD/STEREO SOUND CONNECTION

Attaching the SEGA-CD to a stereo system will dramatically increase the sound quality of audio discs and CD-ROM games. It will also enhance the sound performance of Genesis cartridge games. This section shows you how to add stereo sound to enrich your enjoyment of your SEGA-CD system.

Stereo Headphones · Volume Control Switch
· Stereo Headphone Jack

Connecting Headphones
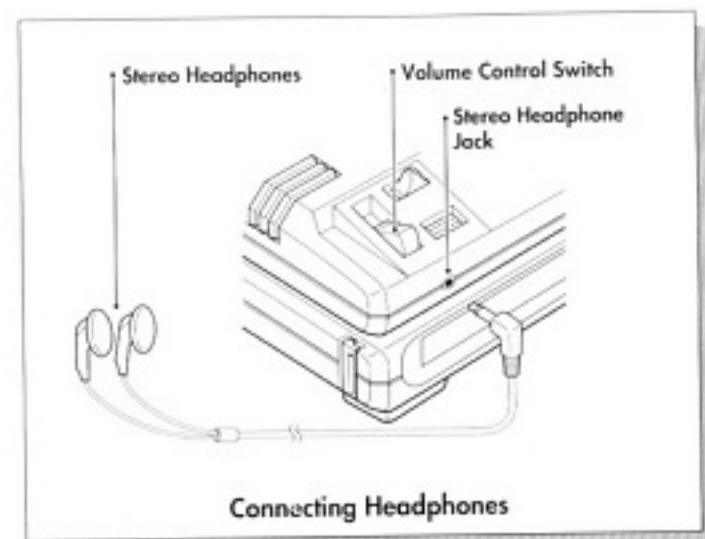
HEADPHONES AND MINI SPEAKERS

· Mini Speakers · Volume Control Switch
· Stereo Headphone Jack

Connecting Mini Speakers
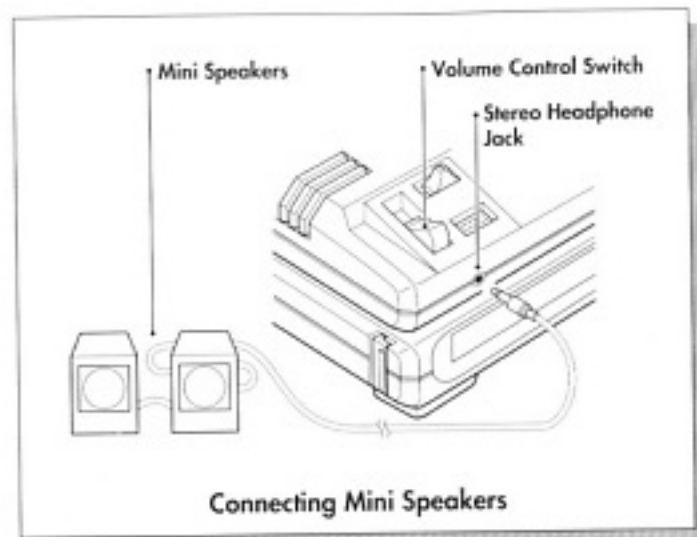
1. Plug stereo headphones or mini speakers with internal amplifiers into the Stereo Headphone jack on the front of the Genesis.

   - When using headphones, adjust the volume with the volume control switch on the top of the Genesis. Normal volume is about 7 or 8. Be sure to use only stereo headphones. Using an earphone (monaural) or any similar device may damage it.

   - When using mini-speakers, please see their instruction manual for details on their operation. The volume control switch on top of the Genesis may control their volume.

SECURING THE HEADPHONE OR MINI SPEAKERS CABLE

Securing the cable from the headphones or mini speakers keeps it out of the way when opening and closing the SEGA-CD's disc tray. Follow these steps:

1. Slide open the SEGA-CD's headphone cord catch by pushing it toward the back of the console.

2. Place the cable into the catch opening, pushing it back between the catch and the side of the console.

3. Slide the catch closed by pushing it toward the front of the console.

Headphone Cord Catch

Headphone or Mini Speaker Cable
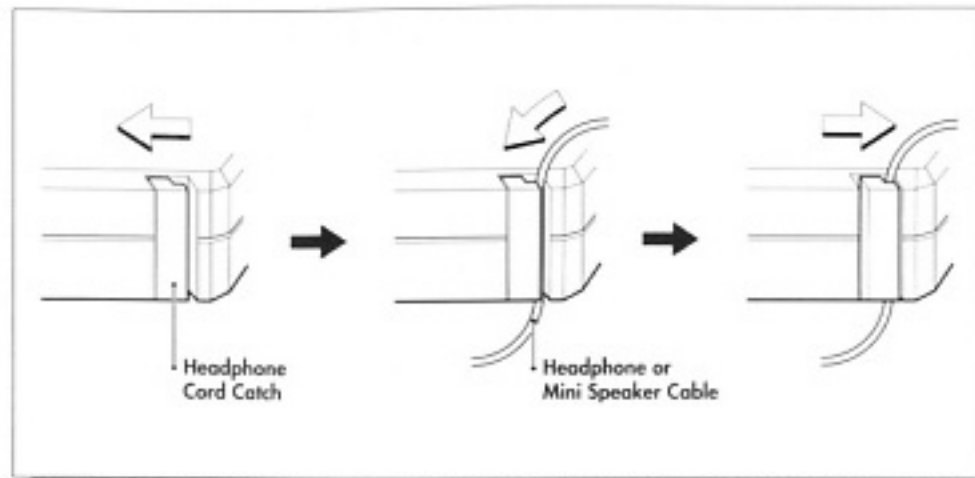
HOME STEREO SYSTEMS AND PORTABLE CASSETTE PLAYERS

1. Connect the left and right plugs on one end of a standard 2-pin "RCA" cable to the two Audio "Line Out" jacks on the back of the SEGA-CD.

   Note: You can buy standard 2-pin "RCA" cables at electronics stores such as Radio Shack.

2. **Connect the left and right plugs on the other** end of the cable to the left and right Audio "Line In" jacks on your stereo receiver or cassette player.

3. Connect one end of the sound mixing cable that came with your SEGA-CD to the Mixing jack on the back of the SEGA-CD.

Mixing Cable from SEGA-CD to Genesis

Standard 2-Pin RCA Cable from SEGA-CD to Receiver

(R) (L)
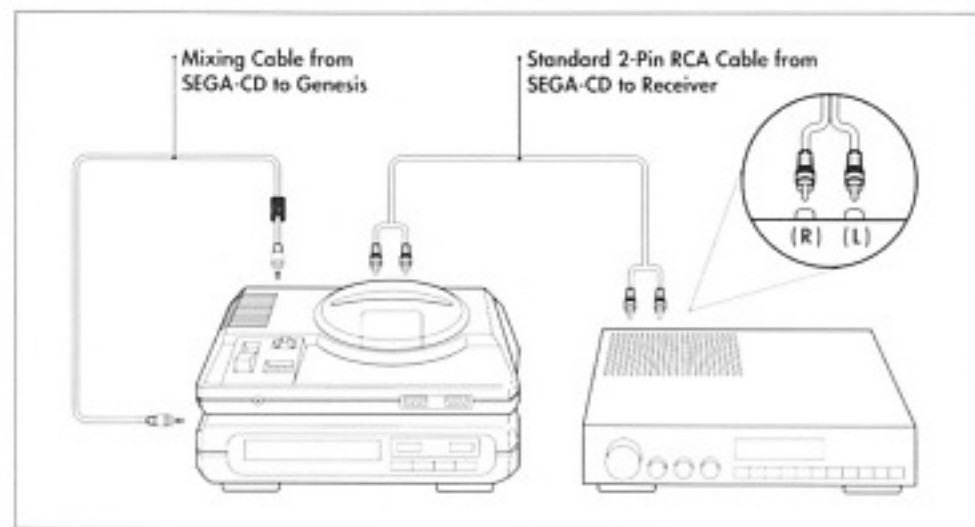
4. Connect the other end of the sound mixing cable to the Stereo Headphone jack on the front of the Genesis. Place the cable through the cable catch (as shown on this page). Adjust the volume with the volume control switch on the top of the Genesis. Normal volume is about 7 or 8.

CONNECTING
A STEREO TV

Mixing Cable from SEGA-CD to Genesis

SEGA Audio/Video Cable from Genesis to TV

Standard 2-Pin RCA Cable from SEGA-CD to Receiver

(R)
(L)
Video

1. Connect the single-plug end of the Sega audio/video cable to the Audio/Video jack on the back of your Genesis.

   Note: You can order the Sega audio/video cable by calling **1-800-USA-SEGA.**

2. Only connect the yellow (video) plug on the two-plug end of the SEGA Audio/Video Cable to the Video Input jack on your stereo TV. **Let the white (audio) plug hang loose.**

3. Connect the left and right plugs on one end of a standard 2-pin "RCA" cable to the two Audio "Line Out" jacks on the back of the SEGA-CD.
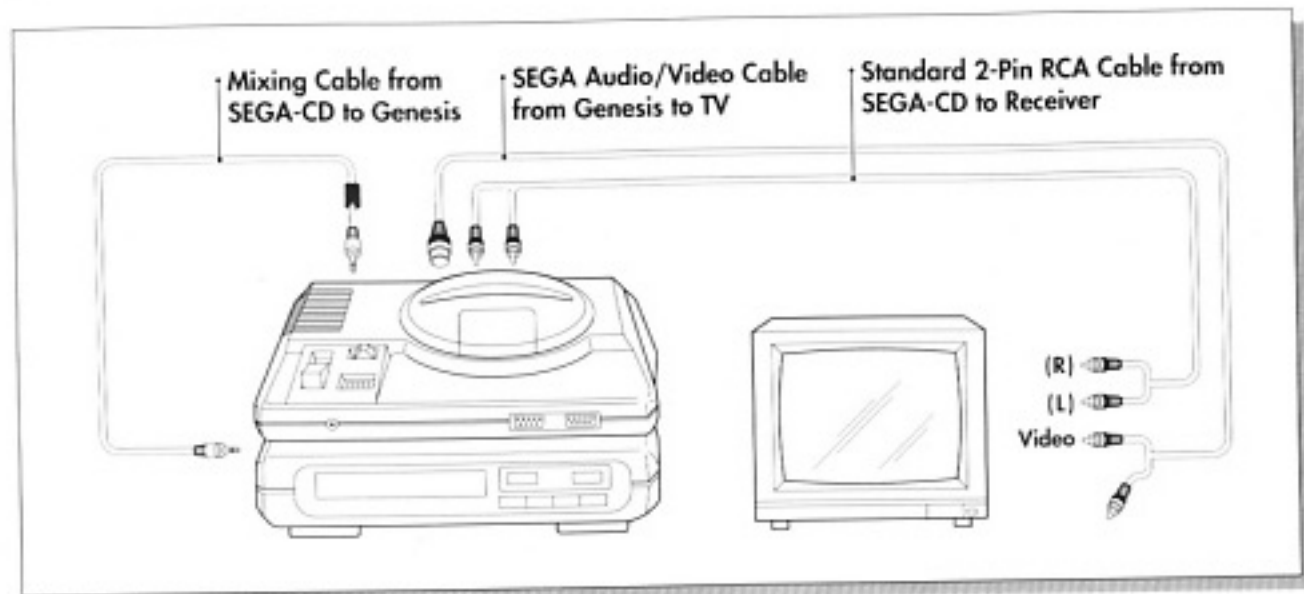
   Note: You can buy standard 2-pin "RCA" cables at electronics stores such as Radio Shack.

4. **Connect the left and right plugs on the other** end of the cable to the left and right Audio "Line In" jacks on your stereo TV.

5. Connect one end of the sound mixing cable that came with your SEGA-CD to the Mixing jack on the back of the SEGA-CD.

6. Connect the other end of the sound mixing cable to the Stereo Headphone jack on the front of the Genesis. Place the cable through the cable catch (see page 7).

• Adjust the volume with the volume control switch on the top of the Genesis. Normal volume is about 7 or 8.
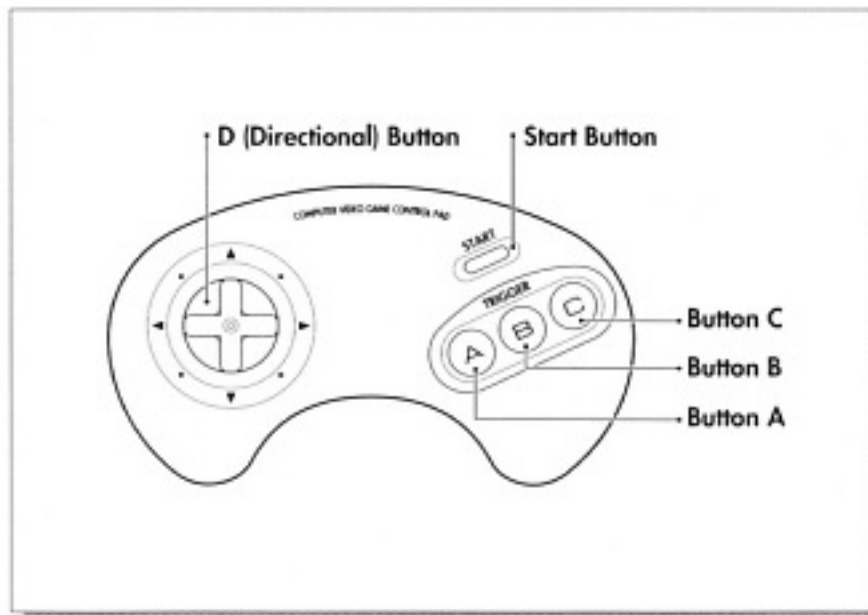
OPERATING THE SEGA-CD

With your SEGA-CD connected, you can start up the system. First, please review this checklist:

Startup Checklist

1. Are the SEGA-CD and the Genesis connected correctly to each other?
2. Is the Genesis connected correctly to the TV or monitor?
3. Are any additional stereo-sound components connected correctly to the system?
4. Are both the SEGA-CD and the Genesis connected to power by their correct AC adapters?
5. Is control pad 1 plugged into the Genesis?
6. Is the Genesis cartridge slot empty? **(If a cartridge is inserted in the slot at startup, the Genesis will default to cartridge play.)**

If you answered "Yes" to all six questions, you're ready to start.

D (Directional) Button · Start Button · Button C · Button B · Button A

USING THE CONTROL PAD

You operate the SEGA-CD with Genesis control pad 1 (plugged into control port 1 on the Genesis console). This section lists the functions of each control pad button.

D-Button
• Moves the hand cursor on the control panel.

Start Button
• Goes from the SEGA-CD logo to the Control Panel.
• When an audio CD or audio plus graphics disc (CD+G) is inserted but not playing, moves the hand cursor to the PLAY button from any other button on the Control Panel.
• When an audio CD or CD+G is playing, moves the hand cursor to the PAUSE button from any other button.
• Closes the Program menu and moves the hand cursor to either the PLAY or the PAUSE button.

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- Closes the Set Program menu and moves the hand cursor to the PLAY or PAUSE button.

- When a CD-ROM game disc is inserted and the SEGA-CD logo is on screen, starts the game.

- When a CD-ROM game disc is inserted and the Control Panel is on screen, moves the hand cursor to the CD-ROM button.

Button A
- When any disc is inserted and the SEGA-CD logo is on screen, goes to the Control Panel.

- Executes a Control Panel option selected with the hand cursor.

Button B
- When any disc is inserted and the SEGA-CD logo is on screen, goes to the Control Panel.

- Executes a Control Panel option selected with the hand cursor.

- When the CD+G button is highlighted, hides the Control Panel or restores it to the screen.

Button C
- When any disc is inserted and the SEGA-CD logo is on screen, goes to the Control Panel.

- Executes a Control Panel option selected with the hand cursor.

Reset Button (on Genesis Console)
- Opens the disc tray and returns the screen to the SEGA-CD logo. The message "Put a disk on the CD Tray and press the START BUTTON" appears on screen.

- If the disc tray is already open, closes the tray, then reopens it and returns the screen to the SEGA-CD logo.

OPERATING WITHOUT VIDEO (QUICK BUTTONS)

You don't have to turn on your TV to use the SEGA-CD, if it is connected to another stereo sound system. Instead, just turn on your Genesis, and use these button controls:

Start + Button A	Open or close the disc tray.
Start + Button C	Play or pause the CD.
Start + D-Button	Auto-search (**left** tracks backward; **right** tracks forward).
Start + Button B	Stop.

Note: These button controls also work when playing a CD+G with the Control Panel hidden.

READING THE INDICATOR LEDs

READY   ACCESS

Access (red) is lit when the SEGA-CD is playing a disc.

Ready (green) is lit when the SEGA-CD is powered on.
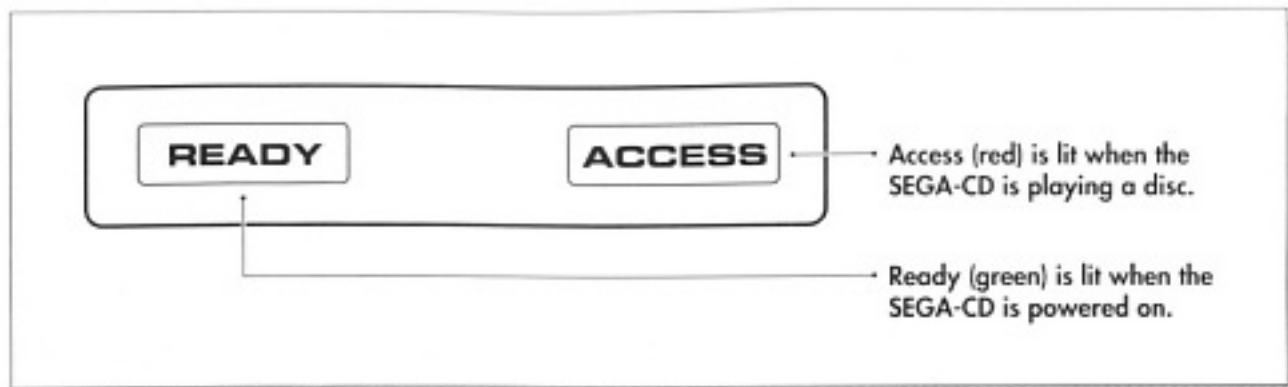
CD ACCESS	Both LEDs are lit when the system is powered on and playing a disc.
CD IN	The Ready LED is lit and the Access LED is dark when a disc is in the drive but not playing.
CD OUT	The Access LED blinks when the SEGA-CD is looking for a disc.
STAND-BY MODE	The Ready LED blinks when the SEGA-CD is powered on and idle.

STARTING UP FOR THE FIRST TIME

1. Turn on the TV, and then turn on the Genesis. The SEGA-CD logo appears.


Hand Cursor

2. Press the **Start** button or **Button A, B** or **C** on the control pad. The SEGA-CD Control Panel appears. The hand cursor on screen is pointing to the EJECT button.

3. Press **Start** or **Button A**, **B** or **C** again to open the disc tray. The EJECT button changes to the CLOSE button. (See illustration A)

4. Place a disc in the tray, label side up. (See illustration B)

5. Press **Button A**, **B** or **C** to close the tray. The CLOSE button changes back to the EJECT button.

A

B
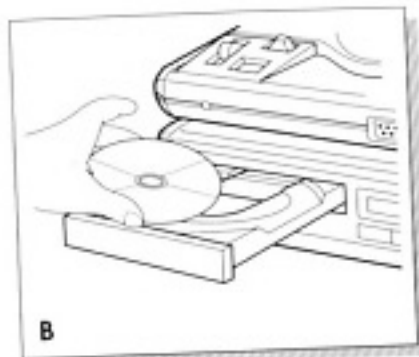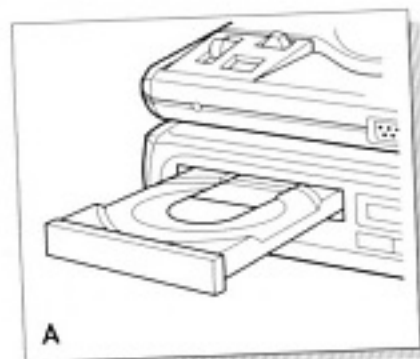
Important: Always open and close the disc tray with the button controls. Never try to open or close it manually. Doing so could cause the tray to malfunction and damage your SEGA-CD system.

STARTING UP WITH A DISC IN THE DRIVE

If an audio CD or a CD+G is in the drive, the SEGA-CD logo appears when you turn on the Genesis. In a few moments, the Control Panel appears, with the hand cursor on the PLAY button.

If a video game CD-ROM is in the drive and the system detects the game when you turn on the Genesis, the game will start. Before the game starts, you can press **Button A**, **B** or **C** to bring up the Control Panel. Then, you can listen to and work with the game's music in the same way you use an audio CD.

PLAYING COMPACT DISCS

Audio CDs

1. Place an audio CD in the disc tray and close the tray.

2. Press **Start** to move the hand cursor to the PLAY button.

3. Press **Button A**, **B** or **C** to begin playing the CD.

4. Use the Control Panel to select different SEGA-CD features. (For details on the features, see pages 14-19).

5. When the disc finishes playing, the hand cursor automatically returns to the PLAY option.

6. Press **Reset** at any time to stop the disc and open the disc tray. The screen returns to the SEGA-CD logo.

Audio Plus Graphics Discs (CD+Gs)

1. Place a CD+G in the disc tray and close the tray.

2. Move the hand cursor to the CD+G button, and press **Button A**, **B** or **C**. The hand cursor automatically moves to PLAY.

3. Press **Button A** or **C** to begin playing the disc.

   Note: The SEGA-CD displays dazzling graphics with up to 64 colors from a 512-color palette.

4. Press **Button B** to hide the Control Panel. Use the Quick Buttons (see page 10) to operate the SEGA-CD while the Control Panel is hidden. Press **Button B** again when you want to restore the Control Panel. (With every other toggle, a Status line appears on the CD+G screen.)

   Note: Since Button B toggles the Control Panel off and on during CD+G play, it is not used to execute the Control Panel options.

5. To turn off the graphics display while continuing the audio, select the CD+G button again and press **A** or **C**. The button will no longer be highlighted.

6. When the Control Panel is on screen, use it to select different SEGA-CD features. (For details on the features, see pages 14-19).

   Note: When playing a CD+G, the SEARCH option changes to the CD+G CHANNEL option. See page 15 for more information.

7. When the disc finishes playing, press **Button B** to bring up the Control Panel if it's not already on screen.

8. Press **Reset** at any time to stop the disc and open the disc tray. The screen returns to the SEGA-CD logo.

Video Game CD-ROMs

1. Place a CD-ROM game in the disc tray and close the tray.
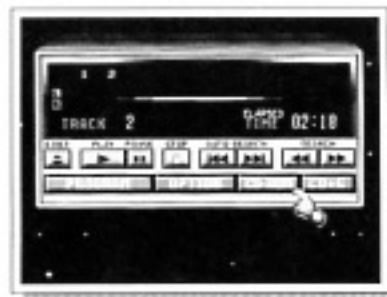
2. Press **Start** to move the hand cursor to the CD-ROM button.

3. Press **Button A**, **B** or **C** to begin the game. (See your game manual for instructions on how to play the game.)

4. Press **Reset** at any time to stop the disc and open the disc tray. The screen returns to the SEGA-CD logo.

You can play cartridge games on your Genesis, even when it's connected to the SEGA-CD. With the power switch OFF, insert the cartridge into the cartridge slot. When you turn the power switch ON, the Genesis defaults to cartridge play.

Note: For best system performance, it's recommended that you keep the SEGA-CD's power adapter plugged in while playing Genesis cartridge games.

Saving Your Games

The OPTION button becomes available on the Control Panel when the drive is empty or a CD-ROM game is in the drive. Use this button to format the SEGA-CD's internal back-up memory, to save games, and to copy games to and from the SEGA-CD's internal memory. If your CD-ROM software has a Save feature (often available in sports games and role-playing games), you can save your current game to the SEGA-CD's internal memory. Later, you can load the saved game and continue playing from where you left off.

See page 19 for details on using the OPTION feature.

Ending a Session

1. Open the disc tray by moving the hand cursor to EJECT and pressing **Button A** or **C**. The EJECT button changes to CLOSE.

2. Remove the disc.

3. Close the tray by pressing **Button A** or **C**.

4. Turn off the Genesis.

   Note: If the power is turned off when the disc tray is open (such as during an electrical failure), turn the Genesis power switch OFF. Make sure the electricity is on, and then turn the Genesis power switch ON. The tray will close automatically.

USING THE SEGA-CD FEATURES

THE CONTROL PANEL
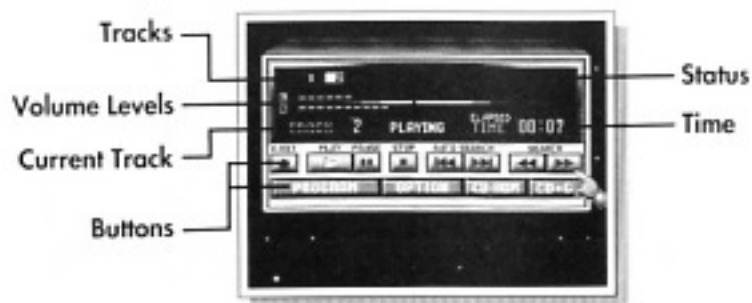
The SEGA-CD Control Panel has all the features you need to thoroughly enjoy your compact discs. This section describes the features.

CONTROL PANEL DISPLAY

The display in the upper half of the Control Panel keeps you informed about disc tracks and status.

Tracks	Shows all the tracks available on your disc. A box highlights the track that's currently playing. This track number is also shown below the Volume Levels.
Volume Levels	Shows the volume variations for both the left and right channels while a disc is playing.
Current Track	Shows the number of the track that is currently playing. This number is also highlighted in the Track display above the Volume Levels.
Status	Shows the current status of the disc, for example, "Playing," or "Programming."

Time
Shows disc time in four different modes:

- Elapsed time for the current track.
- Total elapsed time since the disc started playing.
- Time remaining on the current track.
- Total time remaining on the disc.

See page 18 for details on changing the disc time displayed.

CONTROL PANEL BUTTONS

The buttons in the lower half are options you can use to work with your disc.

- Select a button by moving the hand cursor to it with the **D-Button**.
- Execute the option by pressing **Button A**, **B** or **C**.
- A button highlights (glows yellow) when its option is executed. It dims again when another option is executed, or when its function is over.

EJECT/CLOSE   EJECT opens the disc tray, and the option changes to CLOSE. CLOSE closes the disc tray, and the option changes to EJECT. EJECT can be used while PLAY, PAUSE or STOP is highlighted.

PLAY   Plays the audio tracks of a disc.

PAUSE   Pauses the current track. Use the PLAY button or the PAUSE button again to resume playing.

STOP   Stops the current track.

AUTO SEARCH   Takes you forward (right arrow) or back (left arrow) by one track. After selecting a track, use PLAY to play it. AUTO SEARCH can be used while PLAY, PAUSE, or STOP is highlighted.

SEARCH   Cues forward (right arrow) or cues back (left arrow) through the current track while you hold down the control pad button. SEARCH can be used only while PLAY is highlighted.

CD+G CHANNEL   When the SEGA-CD is displaying CD+G graphics, the SEARCH option changes to CD+G CHANNEL. Hold down the control pad buttons on the left or right arrows to change the CD+G channel. Some CD+Gs have multiple graphics channels; others may have various language channels for the same graphics.

Note: Use CD+G CHANNEL **only** with discs that contain graphics. Do not use it with any discs that do not have graphics tracks.

PROGRAM   Opens the Program menu, which has options for setting track order, displaying time modes, and many other features. PROGRAM can be used while PLAY, PAUSE or STOP is highlighted. For details, see pages 16-19.

OPTION

Opens the Option menu, which has features for formatting the SEGA-CD's internal memory, and saving and erasing games. OPTION is available when the drive is empty, or when a CD-ROM disc is in the drive. For details on using OPTION, see page 19.

CD-ROM

Starts a CD-ROM game. This option is available only when a CD-ROM disc is in the drive.

CD+G

Starts a graphics display. The CD+G option should be selected only when a CD+G disc is in the drive. When a CD+G disc is playing, the SEARCH option changes to CD+G CHANNEL.

Note: Use the CD+G button **only** with discs that contain graphics.

THE PROGRAM MENU

This section describes the Program menu features.

- Select an option by moving the hand cursor to it with the **D-Button**.
- Execute the option by pressing **Button A**, **B** or **C**.
- An option highlights (glows yellow) when it is executed. It dims again when its function is over.

REPEAT

Repeats the entire disc or your programmed track list. This option can be set while any other option is highlighted. The option continues until you CLEAR it or select the option again and press **Button A**, **B** or **C**.

A-B REPEAT

Repeats a section of a track. When you press **Button A**, **B** or **C**, the option turns green, setting mark A. The second time you press the button, the option turns yellow, setting mark B. While the option is yellow, the track will repeat from A to B. This option can be set while any other option is highlighted. The option continues until you CLEAR it, STOP, or select the option again and press **Button A**, **B** or **C**.

Note: The A-B Repeat option is not usable when you're playing a CD+G.

CLEAR

Clears (dims) the REPEAT, A-B REPEAT, SHUFFLE, INTRO, SPACE and PLAY PROG options and continues normal playing from the current track.

SHUFFLE

Mixes up the tracks in a random order. The option turns yellow, and the shuffled order of tracks appears on the Control Panel display. This option can be set while any other option is highlighted. The shuffled order remains until you select the option again and press **Button A**, **B** or **C**.

INTRO

Plays a set number of seconds from the beginning of each track, starting with the current track and continuing through all following tracks. When you press **Button A**, **B** or **C**, the option turns yellow and the hand cursor moves to a number that appears on the Control Panel display. The number starts at 10. Press the **D-Button** up or down to increase the number (up to 59 seconds) or decrease it (down to 1 second). Press **Button A**, **B** or **C** again to set that number of seconds. To play INTRO, exit from program, choose play, and press **Button A**, **B** or **C**. INTRO can be set while any other option is highlighted. INTRO play continues until it's played through to the end of the disc, or until you CLEAR it or select the option again and press **Button A**, **B** or **C**.

SPACE

Pauses for a set number of seconds before the beginning of each track. When you press **Button A**, **B** or **C**, the option turns yellow and the hand cursor moves to a number that appears on the Control Panel display. The number starts at 10. Press the **D-Button** up or down to increase the number (up to 59 seconds) or decrease it (down to 1 second). Press **Button A**, **B** or **C** again to set that amount of time as a pause between tracks. During pause time, the PAUSE button on the Control Panel also turns yellow. SPACE can be set while any other option is highlighted. The pauses continue until you CLEAR them, or select the SPACE option again and press **Button A**, **B** or **C**.

PLAY PROG.

Plays the program you set with the SET PROGRAM option (described below). PLAY PROG continues until you STOP it, CLEAR it, or select the option again and press **Button A**, **B** or **C**. You cannot use the SET PROG option when the PLAY PROG option is highlighted.

SET PROG.   Lets you set the order of tracks that will be played. When you press **Button A, B** or **C**, the Set Program menu appears.

Here's how to use the menu:

To set the track order:
When the menu first appears, its INSERT option is highlighted. Move the hand cursor in the upper Track Select line to the number of the track you want, and press **Button A, B** or **C**. That track number appears in the box in the lower Tracks Set line, and the box moves to the right. Continue selecting tracks in this way. You can repeat tracks, and set up to 99 tracks in the lower Tracks Set line.

To insert tracks in the Tracks Set line:
With the INSERT option highlighted, move the hand cursor to the box in the lower Tracks Set line. Then press the **D-Button** left or right to move the box over any track number. Next, press the **D-Button** up to move the hand cursor to the upper Track Select line, and press left or right to point to the number of the track you want. Press **Button A, B** or **C** to place that number inside of the box in the lower Tracks Set line.

To delete tracks from the Tracks Set line:
Move the hand cursor to the DELETE option and press **Button A, B** or **C** to highlight it. Then move the hand cursor to a track number in the lower Tracks Set line. Press **Button A, B** or **C** again to delete the track from your program.

To close the Set Program menu:
Move the hand cursor to the EXIT option and press **Button A, B** or **C**. You'll see the Program menu again, with the hand cursor pointing to the PLAY PROG option.

Use the PLAY PROG option to play the tracks in the order you set them. SET PROG can be used when any other option except PLAY PROG is highlighted. The program you set is not affected when you CLEAR or STOP. It remains intact until you change it or open the disc tray.

TIME   Displays four different time modes on the Control Panel in this order:

- Elapsed – Time that has passed since the current track started playing.
- T-Elapsed – Total time that has passed since the disc started playing.
- Remain – Time remaining in the current track.
- T-Remain – Total time remaining on the disc.

When the hand cursor is on the option, the TIME mode changes each time you press **Button A, B** or **C**.

EXIT Closes the Program menu. (You can also press **Start** to close the menu.) You must close the menu in order to use the Control Panel buttons. Closing the menu does not affect the Program menu settings.

THE OPTION MENU

Some games, such as RPGs (role-playing games) let you save your current game so you can continue it later. On CD software, game data cannot be saved on the compact disc, so the SEGA-CD has internal back-up memory for this purpose.

The OPTION feature is available when the drive is empty, or when a CD-ROM is in the drive. Use this feature to format the SEGA-CD's internal memory, and to save and erase games.

1. Move the hand cursor to OPTION and press **Button A, B** or **C**. The Data Storage Information screen appears. This screen gives you information about the SEGA CD's internal memory.

```
DATA STORAGE INFORMATION

THE BUILT-IN MEMORY ▦
FORMAT IS: SEGA_CD.ROM
    SAVED ITEM(S)    FREE MEMORY
         1               124

THE CARTRIDGE MEMORY ▦
     IS NOT PRESENT.



         PRESS ANY BUTTON
```

2. Press **Start** or **Button A, B** or **C** to go on to the Option menu.

3. Press the **D-Button** up or down to choose any option. Then press **Start** or **Button A, B** or **C**.

```
           MENU


FORMAT ▦
FORMAT ▦
ERASE ITEM ▦
ERASE ITEM ▦
COPY ▦ TO ▦
COPY ▦ TO ▦
EXIT ▦
```

4. Follow the instructions on screen to complete the operation.

   Note: The cartridge memory shown on screen refers to an additional memory saving device that will be available later.

Important Information about SEGA-CD Memory

- Memory must be formatted before you can save games to it. Use the first FORMAT option in the Option menu to format the SEGA-CD's internal memory.

- The SEGA-CD can save up to 64 Kbits of memory. When the memory is full, make room by deleting items.

- The SEGA-CD will retain saved games for up to one month without being powered on. After that time, saved data may disappear. If that happens, you'll need to reformat the internal memory. Reformatting will erase any remaining saved games. After reformatting, leave the SEGA-CD powered on for at least six hours before using its internal memory again.

MAINTAINING YOUR SEGA-CD

The SEGA-CD's Location

- Set up the SEGA-CD in a well-ventilated area. Position it on a stable, flat surface that is not prone to vibration.

- Keep your system out of direct sunlight and away from extreme hot or cold temperatures, such as near a heater or in an uninsulated garage.

- Don't let the SEGA-CD get wet. Avoid using it in humid areas. If condensation forms on the console, wipe it dry, and let the system rest for at least an hour before using it.

The Console

- Insert only 8cm or 12cm discs into the disc tray. Do not try to use discs designed for other game units.

- Always use the button controls to open and close the disc tray. Attempting to operate the tray manually may cause it to malfunction.

- Always remove a disc before moving the console.

- Never touch the connectors, or insert foreign objects into the connector terminal.

- Don't spill liquids onto the console or into the disc tray.

- Do not take the console apart or alter it in any way.

- Don't drop the console or pick it up by any connecting cable. Don't twist or pull the cables forcefully. Doing so may damage their connections.

- Clean the console with a soft, slightly damp cloth. Never use strong cleaning solutions or abrasives that could damage the components.

Power Supply

- Use only the AC adapter supplied with your system to connect the SEGA-CD to power.

- Always turn the Genesis power switch off before connecting or disconnecting the SEGA-CD.

TROUBLESHOOTING

Problem	Check the Following Items
Ready LED doesn't come on.	• Are AC adapters connected to both the SEGA-CD and the Genesis?
	• Are both adapters plugged into power outlets? Are the power outlets in working order?
	• Is the SEGA-CD connected correctly to the Genesis? Are all cable connections secure?
No picture on screen.	• Is the TV turned on?
	• Is the channel switch setting (3 or 4) on the back of the Genesis the same as the TV channel being used?
	• Is the Genesis power switch turned on?
	• Is the TV brightness control adjusted properly?
SEGA-CD logo doesn't appear.	• Is a game cartridge inserted in the Genesis cartridge slot?
TV color doesn't look right.	• Are the TV color controls adjusted properly. (The SEGA-CD can display up to 512 colors, with up to 64 colors at a time.
No sound.	• If you've connected the system to stereo sound, are the cable connections correct? (See pages 6-8.)
	• Is the sound mixing cable properly connected between the SEGA-CD and the Genesis?
	• Are the volume controls adjusted properly on your TV or stereo system and on the Genesis?

If a problem continues, follow the instructions in this manual to carefully reconnect your system. If a problem persists, please call the Sega Consumer Service Department at 1-800-USA-SEGA.

SEGA-CD HARDWARE INFORMATION

Physical Characteristics

Model name:	MK-1690
Power usage:	Custom AC adapter (DC9V 1.2A)
Elec. consumption:	Approx. 18W max
Elec. current consumption:	600mA (during CD revolution)
Usage environment:	Temperature: 0°-40° C Humidity : 10%-80% RH
Exterior measurements:	Width: 301mm Depth: 212.5mm Height: 112.5mm

Specifications

CPU:	68000 (12.5MHz)	
Memory:	RAM:	6 Mbit (program, picture data, sound data) 512 Kbit (PCM waveform memory) 128 Kbit (CD-ROM data cache memory) 64 Kbit (backup memory)
	Boot ROM:	1 Mbit CD game BIOS CD player software CDG compatible
Sound circuitry:	PCM sound source:	Stereo 8 channels Sampling wavelength 32KHz max
	D/A converter:	16 bit D/A converter 8x internal over-sampling digital filter PCM and CD sound mixing Mixing with mixing terminal possible

Specifications

Audio characteristics:	Wavelength characteristics: Signal v. noise ratio (S/N): Stereo channel separation:	20Hz-20KHz Over 90dB (1KHz) (Line Out) Over 90dB
Battery back-up secondary duration:	Approx. 1 month	
CD drive unit:	CD diameter: Rotational direction: Access time:	12cm and 8cm Counter-clockwise (against surface read) Average 0.8 sec.
Audio output:	Line Out:	RCA pin jack x2 (L/R)
Audio input:	Mixing:	Stereo jack mixing

Note: Characteristics and specifications may be changed without notice.

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LIMITED WARRANTY

Sega of America, Inc., warrants to the original consumer purchaser that the SEGA-CD and all component parts shall be free from defects in material and workmanship for a period of 90 days from the date of purchase. If a defect covered by this limited warranty occurs during this 90-day limited warranty period, Sega will repair or replace the defective system or component part, at its option, free of charge.

This limited warranty does not apply if the defects have been caused by negligence, accident, unreasonable use, modification, tampering, or any other causes not related to defective materials or workmanship. Additionally, this warranty shall not be valid if the serial number of the SEGA-CD has been altered, defaced or removed in any way.

Please retain your dated sales receipt to easily establish the date of purchase for in-warranty repairs. To receive warranty service, call the Sega Consumer Service Department at: **1-800-USA-SEGA**

PLEASE CALL FIRST FOR REPAIR INFORMATION. The cost of returning the system to Sega's Service Center shall be paid by the purchaser.

DO NOT RETURN YOUR SEGA-CD TO THE RETAIL SELLER.

REPAIRS AFTER EXPIRATION OF LIMITED WARRANTY

If your SEGA-CD requires repairs after termination of the 90-day limited warranty period, you may contact the Sega Consumer Service Department at the number listed above. If the technician is unable to solve the problem by phone, he or she will advise you of the estimated cost of repair. If you elect to have the repair done, you will need to return the defective merchandise, freight prepaid and insured against loss or damage, to Sega's Service Center with an enclosed check or money order payable to Sega of America, Inc., for the amount of the cost estimate provided to you by the technician. If, after inspection, it is determined that your system cannot be repaired, it will be returned to you and your payment will be refunded.

LIMITATIONS ON WARRANTY

Any applicable implied warranties, including warranties of merchantability and fitness for a particular purpose, are hereby limited to 90 days from the date of purchase and are subject to the conditions set forth herein. In no event shall Sega of America, Inc., be liable for consequential or incidental damages resulting from the breach of any express or implied warranties.

The provisions of this limited warranty are valid in the United States only. Some states do not allow limitations on how long an implied warranty lasts, or exclusion of consequential or incidental damages, so the above limitation or exclusion may not apply to you. This limited warranty provides you with specific legal rights. You may have other rights which vary from state to state.

WARNING

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

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

CAUTION!

Please note that changes or modifications not expressly approved by the party responsible for FCC compliance may void the user's authority to operate the equipment. Please check with the manufacturer prior to effecting any changes or modifications to the SEGA-CD System. Please also note that the SEGA-CD System connecting cable which is attached is made of shielded wire. If cable other than that supplied with this SEGA-CD System is used, there is the possibility of violating FCC emission limits. Such change or modification of the SEGA-CD System is prohibited as per the previous warning. Therefore, use the attached shielded cable when setting up and using the SEGA-CD System.

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, D.C., 20402, Stock No. 004-000-00345-4.

NOTES

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SEGA ⊂⊃ ™
HIGH INTENSITY CD-ROM SYSTEM FOR GENESIS