



Cat. No. 13-1291  
**OWNER'S MANUAL**

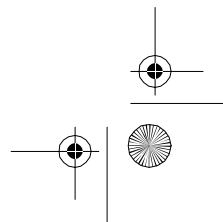
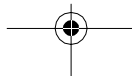
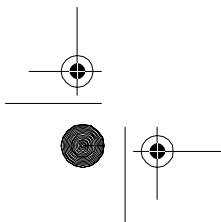
Please read before using this equipment.

# System 744

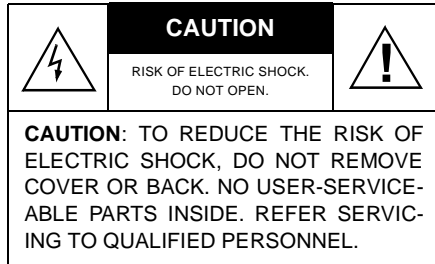
## Mini Stereo Component System



# OPTIMUS®



**Warning:** To prevent fire or shock hazard, do not expose this product to rain or moisture.



This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.



This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this product.

**Note:** Most material on compact discs and prerecorded tapes is copyrighted. Unauthorized duplication of copyrighted material is a violation of the copyright laws of most countries and such duplication may result in fines and/or imprisonment. Note, however, that in the United States, it is not a violation of U.S. copyright laws for a consumer to use an audio recording device to duplicate musical recordings for non-commercial (personal) use.

**Warning:** This CD changer employs a laser light beam. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.

## THE FCC WANTS YOU TO KNOW

This equipment complies with the limits for a Class B digital device as specified in Part 15 of *FCC Rules*. These limits provide reasonable protection against radio and TV interference in a residential area. However, your equipment might cause TV or radio interference even when it is operating properly. To eliminate interference, you can try one or more of the following corrective measures:

- Reorient or relocate the receiving antenna
- Increase the distance between the equipment and the radio or TV
- Use outlets on different electrical circuits for the equipment and the radio or TV

Consult your local RadioShack store if the problem still exists.

You must use shielded interface cables with this stereo system.

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## FEATURES

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Your Optimus System 744 Mini Stereo Component System offers all of the features you need for excellent stereo sound and entertainment in one attractive package. The system includes a 21-disc CD changer, precision AM/FM stereo tuner, and high-speed dual cassette decks, as well as several other special features. The supplied remote control lets you control the system from across the room. The supplied twin speakers let you immediately begin using your system.

The system's auxiliary input jacks let you connect an auxiliary audio source to the system, such as a TV, VCR, or camcorder, so you can use the system to listen to the audio source.

### CD CHANGER

**21-Disc CD Changer** — lets you load up to 21 5-inch CDs.

**Audible Search** — helps you locate a particular section of a CD by rapidly playing it in either direction.

**Programmable Play** — lets you program and play up to 50 tracks from all loaded CDs in any order.

**Random Play** — lets you set the system to randomly play at least 100 tracks from all loaded CDs.

**Repeat Play** — lets you automatically repeat a single track on a CD, all tracks on a single CD, all tracks on all

loaded CDs, or a programmed sequence.

**Music and Disc Scan** — scans and plays the first 10 seconds of each track (music scan) or the first track (disc scan) on each loaded CD, so you can find a specific track.

**Group Playback** — lets you assign each loaded CD to any of three music groups, and play only those CDs assigned to the selected group.

**CD Case Holder** — holds up to 21 CD jewel cases, to safely store them and help you remember where you loaded CDs in the system.

### DUAL CASSETTE DECK

**Multiple Source Recording** — lets you record onto a cassette tape from the CD changer, radio, or another cassette tape.

**High-Speed Dubbing** — lets you copy at a high speed from one cassette deck to the other.

**Consecutive Play** — plays one side each of two tapes, one after the other.

**Automatic Level Control (ALC)** — automatically adjusts the recording level.

**Soft Cassette Tape Eject** — slowly opens the cassette compartment door when you press the eject button, so the tape does not pop out.



## STEREO TUNER

**Digital Synthesized Tuning** — eliminates tuning drift by locking the tuner on the selected frequency.

**Preset Tuning Memories** — let you store and easily recall up to 24 of your favorite AM and FM radio stations.

## OTHER SPECIAL FEATURES

**Remote Control** — lets you control most of the system's functions from a distance.

**Two Backlit Displays** — clearly display your system's indicators for easy viewing in almost any lighting condition.

**Four Preset Graphic Equalizer Settings** — provide you with common sound settings for enhancing pop, jazz, or classical music at the press of a button. Or, you can select a flat setting for natural, unaltered music reproduction.

**Rear Speaker Jacks** — let you connect optional rear stereo speakers, to provide a simulated surround sound effect.

**Auxiliary Input Jacks** — let you connect an additional audio source, such as a TV, VCR, or turntable, to your system.

### Notes:

- The remote control requires two AAA batteries (not supplied) for power.
- You must remove all CDs from the CD changer before you move the system.

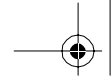
We recommend you record the serial number of your system here. The number is on the back of the system.

Serial Number: \_\_\_\_\_

CDs that can be played on this changer have this mark on them:



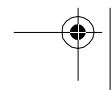
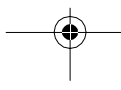
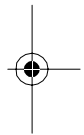
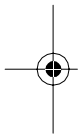
**Important:** Before you operate the CD changer, you must remove the CD protection lock on the bottom of the system. See "Removing the CD Protection Lock" on Page 9.



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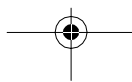
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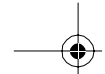





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## PREPARATION



### Cautions:

- Do not connect the system to AC power until you complete the speaker and antenna connections.
- Be sure to follow all the instructions in the enclosed "Safety Instructions" sheet.

**Note:** If you want to connect front speakers other than the supplied ones, use speakers with an impedance of 8 ohms.

(illus)

## CONNECTING SPEAKERS

### Cautions:

- Never operate the system without first connecting speakers.
- To avoid damaging your system and speakers, never let the speaker wire's bare ends touch each other.

1. Flip open the pair of terminal tabs marked **FRONT SPEAKERS R** (+ and -) on the back of the system, then insert the right front speaker's red wire into the red (+) terminal and its black wire into the black (-) terminal. Then push the tabs in the opposite direction to lock them.
2. Repeat Step 1 to connect the left front speaker's wires to the terminals marked **FRONT SPEAKERS L** (+ and -).

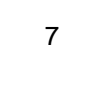
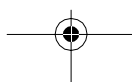
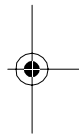
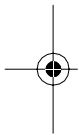
**Note:** You can operate the system without connecting optional rear speakers.

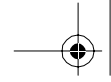
### Connecting the Front Speakers

For the maximum bass response and best overall performance, connect the supplied front speakers to the **FRONT SPEAKERS** terminals on the back of the system so their polarities match (black to negative, and red to positive).

### Connecting Rear Speakers

For wider stereo response and a simulated surround effect, you can connect optional rear stereo speakers to the **REAR SPEAKERS** terminals on the back of the system. Be sure to connect them according to the proper polarity (black to negative, and red to positive).





**Note:** Use only 8-watt speakers with an impedance of 8 ohms. A selection of speakers is available at your local RadioShack store.

## CHOOSING A LOCATION FOR YOUR SPEAKERS

(show both front and stereo wide speakers installed)

For the best sound quality, place the front speakers on each side of the system, at equal distances from the system.

To increase the bass, place the front speakers on the floor in the corners of your room or against the wall. Avoid placing the speakers on thick carpet. To decrease the bass, move the front speakers slightly away from the corners, pull them out from the wall, or raise them 6 to 18 inches (15 to 45 cm) off the floor.

If you connected rear speakers to the system, place them behind or to the sides of your listening area.

## CONNECTING THE ANTENNAS

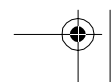
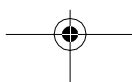
You can use the supplied indoor AM loop antenna and FM antenna for adequate reception in most areas. For the best reception, you can connect an outdoor antenna. Your local RadioShack store sells a complete line of outdoor AM and FM antennas and accessories.

**Warning:** Use extreme caution when you install or remove an outdoor AM or FM antenna. If the antenna starts to fall, let it go! It could contact overhead power lines. If the antenna touches the power line, contact with the antenna, mast, cable, or guy wires can cause electrocution and death. Call the power company to remove the antenna. DO NOT attempt to do so yourself.

### Connecting the AM Loop Antenna

1. Assemble the supplied AM loop antenna.

(show loop part of antenna being inserted into base)







2. Uncoil the loop antenna's braided wire.
3. Flip open the pair of terminal tabs marked **AM LOOP** on the back of the system, then insert the loop antenna's bare wires into the terminals. Then push the tabs in the opposite direction to lock them.

(illus)

Extend and position the antenna's wire for the best reception.

(illus)

## REMOVING THE CD PROTECTION LOCK

The system has a CD protection lock under the system's base. Installed at the factory, the CD protection lock secures the system's CD changer to protect it from damage during shipping. To use the CD changer, you must remove the CD protection lock.

### Notes:

- To avoid noise or interference, do not place the loop antenna near a power source or speaker cord.
- For the best reception, install the loop antenna away from any wall.

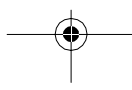
### Connecting the FM Antenna

To connect the supplied FM antenna, flip open the pair of terminal tabs marked **FM 300W** on the back of the system, and insert the antenna's bare wires into the terminals. Then push the tabs in the opposite direction to lock them.

(one combined illus for all following steps)

**Caution:** Be sure the power cord is unplugged from the AC outlet before you begin.

To remove the CD protection lock, turn it in the direction of the arrow until it stops, then pull it out to remove it. **Note:** Save the CD protection lock so you can use it to secure the system if you move it.



## CONNECTING AN ADDITIONAL AUDIO SOURCE

If you have a VCR or other equipment, such as a camcorder or a TV that has line-level audio outputs, you can play the sound through your system. Use a cable with two phono jacks to connect the source's left and right audio output jacks to the **VCR/AUX L** and **R** jacks on the back of the system.

(illus)

## CONNECTING POWER

To connect power, after all other connections are made, plug your system's power cord into a standard AC outlet. The **STANDBY** indicator (above the **BAND** button at the top of the system) lights.

**Caution:** Your system's power cord has a polarized plug (one blade is wider than the other). If you have difficulty inserting the plug into the outlet, do not force it. Turn the plug over and try again.

## RESETTING THE CD CHANGER

If the CD changer does not work properly, you might need to reset it by unplugging the system's power cord from the AC outlet. Wait at least 10 seconds, then plug the power cord back in.

**Note:** If you unplug the system, it saves all tuner memory settings for about a week.

## INSTALLING BATTERIES IN THE REMOTE CONTROL

The remote control requires two AAA batteries (not supplied) for power. For the best performance and longest life, we recommend alkaline batteries, such as RadioShack Cat. No. 23-555.

**Caution:** Always use fresh batteries of the required size and type.

(illus)

1. Remove the battery compartment cover by sliding it in the direction of the arrow.



2. Insert the batteries into the compartment as indicated by the polarity symbols (+ and -) marked inside.

(illus)

3. Replace the cover.

**Caution:** Always dispose of old batteries promptly and properly; do not bury or burn them.

**Notes:**

- If you will not be using the remote control for a month or more, remove the batteries.
- If the remote control does not work or has poor range, replace both batteries.

**Note:** Connecting headphones automatically disconnects the system's speakers.

### Listening Safely

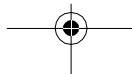
To protect your hearing, follow these guidelines when you use headphones.

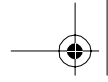
- Set the volume to the lowest setting before you begin listening. After you begin listening, adjust the volume to a comfortable level.
- Do not listen at extremely high volume levels. Extended high-volume listening can lead to permanent hearing loss.
- Once you set the volume, do not increase it. Over time, your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.

## CONNECTING HEADPHONES

To listen without disturbing others, you can connect a pair of stereo headphones with a 1/4-inch plug (not supplied) to the system. Your local RadioShack store has a wide selection of headphones.

To connect headphones, insert the headphones' 1/4-inch plug into the **PHONES** jack on the front of the system.





## BASIC OPERATION

### SYSTEM DISPLAYS

The system (upper) display shows information about many of the system's functions. The CD (lower) display shows information about the system's CD functions.

(illus - show displays at initial turn on)

does not have **MUTE**, **PROG.**, **REPEAT**, and **CLEAR** — only the remote control has these buttons.

**Caution:** Exposing the remote control or the remote sensor to direct sunlight or strong lights, such as a spotlight, will reduce its operating distance and can make it inoperative.

### USING THE SYSTEM

**Important:** To prevent hearing damage, set the volume to its lowest level before playing the radio, a CD, a cassette tape, or an additional audio source.

1. To turn on the system, press **POWER**. The **STANDBY** indicator turns off, and the system's last selected settings appear.

(illus - call out **STANDBY** indicator)

### USING THE REMOTE CONTROL

To use the remote control, point it directly at the infrared sensor (marked **REMOTE SENSOR**) on the right side of the system display, then firmly press the desired button.

(illus)

2. Press one of the **INPUT SELECTOR** buttons (**TUNER**, **TAPE**, **CD**, or **VCR/AUX**) to choose what you want to listen to.

(illus)

Many of the system's buttons also have a corresponding button on the remote control, and you can press either the system or remote control button to control the function. The system

**Notes:**

- When you turn on the system, it automatically selects the same function that was selected when you turned it off.
  - If you choose another function (for example, **TAPE**) while playing a CD, the system automatically stops playing the CD and selects that function.
3. Start the selected audio source, if necessary.
  4. If you connected rear stereo speakers to the **REAR SPEAKERS** jacks on the back of the system, press **SURROUND** on the front of the system until it clicks in to turn on the rear speakers. Press in **SURROUND** until it clicks out to resume normal sound.
  5. Repeatedly press **VOLUME CONTROL ▲ UP** or **DOWN ▼** on the system (or **VOLUME ▲ UP** or **DOWN ▼** on the remote control) to adjust the sound to a comfortable listening level.

(illus)

6. To turn off the system, press **POWER**. The **STANDBY** indicator turns on and the system turns off.

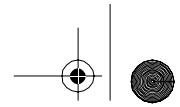
**Note:** If you do not plan to use the system for a long time, disconnect it from the AC outlet. The system draws a small amount of power even when it is not turned on.

## USING MUTE

To turn off the sound temporarily, press **MUTE** on the remote control. **MUTE** appears on the system display, and all information on the system display flashes.

(illus)

To resume listening, press **MUTE** again. **MUTE** disappears from the system display.



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## USING THE PRESET GRAPHIC EQUALIZER

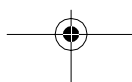
The system has preset graphic equalizer settings to let you vary the balance of sound produced over these three frequencies:

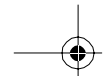
- 100 Hz
- 1 kHz
- 10 kHz

These settings are designed to give you the best sound for jazz, pop, and classical music. The **FLAT** setting provides an unaltered tone for all types of music.

Each time you turn it on, the system automatically uses the last selected graphic equalizer setting. To change the setting, press one of the **GRAPHIC EQUALIZER** buttons (**CLASSIC**, **JAZZ**, **POPS**, or **FLAT**) on the system. The indicator for that setting lights.

(illus)





## USING THE TUNER

1. If necessary, press **POWER**.
2. Press **TUNER**. The currently selected band (**AM**, **FM1**, or **FM2**), frequency number, and **MHz** or **kHz** appears on the system display.

(illus)

3. Tune to AM or FM radio stations using manual, automatic, or pre-set tuning.

### Notes:

- You can use the remote control to tune preset stations. However, you cannot use the remote control to directly enter a radio station's frequency number.
- When you turn on the system, it tunes to the station that was playing when you last turned off the system.
- If **AUTO** appears on the system display and you receive an FM broadcast in stereo, **STEREO** also appears.
- If FM stereo reception is noisy and **AUTO** appears on the system display, press **FM MODE** on the system. **AUTO** disappears. The sound is no longer in stereo, but

the reception should improve. To return to stereo, press **FM MODE**. **AUTO** appears on the display.

## MANUAL TUNING

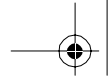
Follow these steps to tune to both strong and weak stations.

1. Repeatedly press **BAND** to select the desired band (**AM** appears for AM, **FM1** or **FM2** appears for FM).

(illus)

2. If **AUTO TUNING** appears on the system display, press **AUTO/MANU** on the system. **AUTO TUNING** disappears.

(illus)



3. Repeatedly press **TUNING DOWN ▼** or **UP ▲** on the system to tune down or up the selected band. To quickly tune down or up the band, press and hold down the button.

The system automatically tunes to the next strong station.

## PRESET TUNING

You can store and easily recall up to 24 of your favorite AM and FM radio stations (8 AM and 16 FM) in the system's memory.

(illus)

### Storing Preset Stations

1. Tune to the band and station you want to store.
2. Press **MEMO** on the system. **MEMORY** appears on the display.

## AUTOMATIC TUNING

Follow these steps to tune to the next higher or lower station with a strong signal.

**Note:** The tuner stops only on strong stations using automatic tuning. To tune both strong and weak stations, use manual tuning.

1. Repeatedly press **BAND** to select the desired band (**AM**, **FM1**, or **FM2**).
2. Press **AUTO/MANU** on the system. **AUTO TUNING** appears on the display.

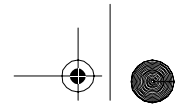
(illus)

3. Within 5 seconds, press the number button (1–8) for the memory location where you want to store the station. **MEMORY** disappears, and **PRESET** and the selected memory location number appear on the display. The system stores the station in that memory location.

**Note:** If **MEMORY** disappears before you press the desired memory number, press **MEMO** on the system again, then repeat this step.

3. Press **TUNING DOWN ▼** or **TUNING UP ▲** on the system to tune down or up the selected band.





- 
4. Repeat Steps 1–3 to store up to eight stations each in **AM**, **FM1**, and **FM2**.

**Notes:**

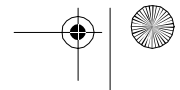
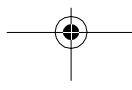
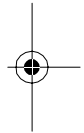
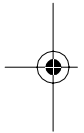
- You cannot clear a station from memory, but you can store a new one in its place.
- When power is disconnected or interrupted for more than a week, the system loses all of its memory settings.

## Recalling a Preset Station

1. Repeatedly press **BAND** on the system to select the desired band.
2. Press the number button (1–8) for the desired memory location.

(illus)

The band, the frequency number and **MHz** or **kHz**, **PRESET**, and the memory location number appear on the display.





## USING THE CD CHANGER

The system lets you load up to 21 CDs at once and gives you many options to control the way it plays them.

### Cautions:

- To help prevent dust from entering the system, always keep the CD changer's door closed except when loading or unloading CDs.
- Make sure to remove the caution tag from the CD changer's door and the CD protection lock from the system before you try to load and play CDs. See "Removing the CD Protection Lock" on Page 8.
- Do not load anything other than 5-inch CDs into the CD changer. Do not load single 3-inch CDs or 3-inch CDs with any type of adapter device. This could damage the CD changer.

2. Press **DOOR OPEN ▲**. The CD changer's door opens.

(illus)

3. Before you load a CD, assign a disc number (1–21) to it by repeatedly pressing **DISC SELECTOR ▼** or **▲** on the system until the desired disc number appears (under **DISC**) on the CD display.

(illus)

## LOADING CDS

**Note:** If you want to assign CDs to groups, see "Selecting and Playing a CD" on Page 20 and "Group File Play" on Page 27 for more information.

1. Press **POWER** to turn the system on, then press **CD** to select the CD function.

4. Remove the CD you want to load from its jewel case. Then place the case into the appropriate numbered slot in the supplied CD box holder. This helps you quickly find which CD you assigned to which disc number.

(illus)



5. Press **EJECT/LOAD** on the front of the system behind the CD changer's door. **OPEN** appears on the CD display, and the selected disc tray slides out.

(illus)

6. To load a CD, gently place it onto the disc tray, label side up.

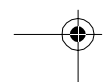
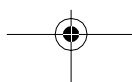
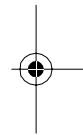
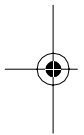
(illus)

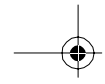
**Warnings:**

- To avoid personal injury, do not allow young children to operate the system unattended.
- To avoid personal injury and damage to the CD changer and CD when loading a CD, insert your fingers and the CD inside the CD changer only as far as necessary to load and unload it.

**Cautions:**

- Do not stop a disc tray by hand while it is moving. This will damage the CD changer.
  - Never try to load or unload a CD while a disc tray is moving. This could damage the CD changer and the CD.
  - Do not load more than one CD into the same disc tray. This could damage the CD changer and the CD.
  - When you load a CD into a disc tray, be sure it fits completely inside the tray before you press **EJECT/LOAD**. Otherwise, the CD could jam, resulting in damage to the CD changer and the CD.
  - Do not force a CD into a disc tray. This could damage the CD changer and the CD.
  - Do not apply excessive force to the CD changer's door when it is open. This could damage the CD changer.
7. Press **EJECT/LOAD**. **CLOSE** appears on the CD display, and the disc tray slides inside the CD changer.
  8. Repeat Steps 3–7 to load more CDs (up to 21).





9. Press **DISC CHECK** on the front of the system. The system selects each CD tray in the CD changer and checks it for a CD. If there is a CD in the tray, **oo** appears on the CD display next to the disc number. If there is no CD in the tray, **--** appears on the CD display next to the disc number instead.

(illus)

**Note:** During disc check, the system checks only for the presence of a CD in each tray in the CD changer (not if the CD is defective or loaded incorrectly).

10. Gently push the CD changer's door up until it clicks to close it.

4. Gently remove the CD from the disc tray, then press **EJECT/LOAD**. The disc tray slides back inside the CD changer.
5. Gently push the CD changer's door up to close it.

## SELECTING AND PLAYING A CD

1. If necessary, press **POWER** to turn on the system.
2. To select the CD you want to play, repeatedly press **DISC SELECTOR** **▼** or **▲** until the disc number appears on the CD display.

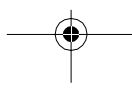
(illus)

## REMOVING CDS

1. Press **DOOR OPEN ▲**. The CD changer's door opens.
2. With play stopped, repeatedly press **DISC SELECTOR ▼** or **▲** until the disc number for the CD you want to remove appears (under **DISC**) on the CD display.
3. Press **EJECT/LOAD** on the inside of the CD door. The selected disc tray slides out.

3. Select the CD play mode.

**NORMAL PLAY MODE** — In this mode, the CD changer plays all tracks of all loaded CDs. The system selects this mode automatically unless you change it. To select this mode from another mode, repeatedly press **PLAY MODE** on the system or **P. MODE** on the remote control until **ALL DISC** appears on the CD display.



**SINGLE DISC PLAY MODE** — In this mode, the CD changer plays all tracks of a single loaded CD, and **1 DISC** appears on the CD display. Playback begins with the first track of the selected CD and continues to the end of the last track on the CD. Select the single play mode by repeatedly pressing **PLAY MODE** on the system or **P. MODE** on the remote control until **1 DISC** appears on the CD display.

**GROUP FILE PLAY MODE** — In this mode, the CD changer plays all tracks of all CDs in a group file you select (see “Group File Play” on Page 27). Select group file play mode by repeatedly pressing **PLAY MODE** on the system or **P. MODE** on the remote control until **A B C** and **ALL DISC** appear on the display.

4. Press **PLAY/PAUSE** on the system or **▶||** on the remote control. After a few seconds, **▶** appears on the CD display, and the selected CD begins to play from Track 1.

While a CD plays, the system displays the following:

- **DISC** and the current disc number
- **▶**
- The current track number
- Elapsed time for the current track (in minutes and seconds)

- One of the following:
  - **A B C** and **ALL DISC** if the CD changer is set to play all CDs you entered in a group file.
  - **1 DISC** (if the CD changer is set to play the current CD)
  - **ALL DISC** (if the CD changer is set to play all loaded CDs)

**Notes:**

- If you select a disc number that does not have a CD assigned to it then press **PLAY/PAUSE** or **▶||**, **noDISC** appears on the CD display for a few seconds. Then the CD changer automatically plays the next higher loaded CD (if any).
  - A sudden shock or jolt while a CD is playing might suddenly change the CD's rotation speed or make the CD changer skip the current track. This might momentarily mute or distort the sound. This is not a malfunction.
  - To temporarily stop play, press **PLAY/PAUSE** on the front of the system or **▶||** on the remote control. **▶** disappears and **||** appears on the CD display. To resume play, press **PLAY/PAUSE** or **▶||** again.
5. To stop play, press **STOP ■** on the system or **■** on the remote control.

## Displaying Information About CDs

The elapsed time of the current track (in minutes and seconds) automatically appears on the CD display as a CD plays. To display additional information about the current CD, repeatedly press **TIME MODE** on the system or **TIME** on the remote control. As you press **TIME MODE** or **TIME**, information appears in the following order:

- Elapsed time of the entire CD (in minutes and seconds)
- Remaining time for the current track (in minutes and seconds)
- Remaining time for the entire CD (in minutes and seconds)

**Note:** The elapsed time since the first track started and the elapsed time since the CD started might not be the same. This is normal.

## Skip Play

To skip backward or forward to a track (while a CD is playing or paused), repeatedly press **SKIP/SEARCH** **⏮** **⏪** or **⏩** **⏭** on the system or **⏮** or **⏭** on the remote control until the desired track number appears. The CD changer skips to the selected track, then plays it.

To skip to a track on another CD (while a CD is playing or paused), repeatedly press **DISC SELECTOR** **▼** or

**▲** to select the CD's number, then repeatedly press **SKIP/SEARCH** **⏮** **⏪** or **⏩** **⏭** on the system or **⏮** or **⏭** on the remote control until the desired track number appears. The CD changer skips to the selected track on the selected CD, then plays it.

**Note:** If you use skip play while a CD is paused, the CD remains paused when the CD changer skips to the selected track.

## Audible Search

To search for a particular section of a track (while a CD is playing or paused), press and hold down **SKIP/SEARCH** **⏮** **⏪** or **⏩** **⏭** on the system. The CD changer rapidly plays the CD either backward or forward (like reviewing or cueing a cassette tape) and automatically reduces the CD's volume if the CD was playing. When you hear the desired section, release **SKIP/SEARCH** **⏮** **⏪** or **⏩** **⏭** on the system to resume normal play.

### Notes:

- You cannot use **⏮** or **⏭** on the remote control to do audible search.
- If you use audible search while a CD is paused, it remains paused when you release **SKIP/SEARCH** **⏮** **⏪** or **⏩** **⏭** on the system.



- If you reach the beginning of the current CD while pressing and holding down **SKIP/SEARCH** **⏮** **⏪** on the system, the CD changer plays from Track 1 of the current CD after you release the button.

(illus)

### Random Play

During random play, the CD changer randomly selects and plays all tracks.

#### Notes:

- The CD changer can randomly select and play at least 100 tracks during random play.
- You can select random play in any CD play mode.

Follow these steps to play random tracks.

1. Select the CD play mode you want to use.
2. Press **RANDOM PLAY** on the system or **RANDOM** on the remote control. **RANDOM** appears on the CD display, and the CD changer automatically plays tracks from the selected CD(s) in random order.

(illus)

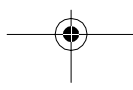
3. To skip to another track during random play, press **SKIP/SEARCH** **⏮** **⏪** or **⏩** **⏭** on the system or **⏮** or **⏩** on the remote control once.

4. To cancel random play, press **RANDOM PLAY** or **RANDOM** again. **RANDOM** disappears from the CD display, and the CD changer continues to play CDs in the normal play mode.

To cancel random play and stop playing CDs, press **STOP** **■** on the system or **■** on the remote control. **RANDOM** disappears from the CD display, and the CD changer stops.

### Repeat Play

You can repeat a selected track, all tracks of a selected CD, a programmed sequence (see “Programmed Play” on Page 25), all tracks on all loaded CDs, or all tracks in a group file (see “Group File Play” on Page 27).



To select a repeat option, repeatedly press **REPEAT** on the remote control. Depending on the mode the system is set to, the system displays the following options each time you press **REPEAT**:

**Normal play mode:**

- **REPEAT 1** (track)
- **REPEAT ALL DISC**
- **ALL DISC** — Cancel repeat option and resume normal play mode.

**Single disc play mode:**

- **REPEAT 1** (track)
- **REPEAT 1 DISC**
- **1 DISC** — Cancel repeat option and resume single disc play mode.

**Group file play mode:**

- **REPEAT 1** (track)
- **REPEAT ALL DISC**
- **ALL DISC** — Cancel repeat option and resume group file play mode.

**Program mode:**

- **REPEAT 1** (track)
- **REPEAT ALL PROGRAM**
- **PROGRAM** — Cancel repeat and resume program mode play.

To repeat a single track in a programmed sequence, when **PROGRAM** appears on the CD display, repeatedly press **REPEAT** on the remote control until **REPEAT 1** also appears on the CD display.

To repeat the entire programmed sequence, when **PROGRAM** appears on the CD display, repeatedly press **REPEAT** until **REPEAT ALL** also appears on the CD display.

To cancel repeat play at any time, repeatedly press **REPEAT** on the remote control until **REPEAT** disappears from the CD display.

## Random Repeat Play

You can set the system to randomly repeat play of up to 200 tracks or more by doing either of the following:

- During random play, press **REPEAT** on the remote control.
- Select a repeat play option (see “Repeat Play” on Page 23), then press **RANDOM PLAY** on the system or **RANDOM** on the remote control.

## Music Scan

Press **MUSIC SCAN** on the system or **M. SCAN** on the remote control to play the first 10 seconds of each track. The track number flashes. Press **MUSIC SCAN** or **M. SCAN** again to stop music scan.





(Illus - show MUSIC SCAN key)

**Notes:**

- The play mode must be set to ALL DISC or 1 DISC to use music scan. See "Selecting and Playing a CD" on Page 20.
- If you press **MUSIC SCAN** or **M.SCAN** during normal play, music scan starts with the next track on the CD.

**Disc Scan**

Press **DISC SCAN** on the system to play the first 10 seconds of the first track on each loaded CD. The disc number flashes. Press **DISC SCAN** again to stop disc scan.

(illus)

**Notes:**

- The play mode must be set to ALL DISC or 1 DISC to use disc scan. See "Selecting and Playing a CD" on Page 20.
- If you press **DISC SCAN** during normal play, disc scan starts from the first track on the next CD.

**PROGRAMMED PLAY**

You can program up to 50 selections from all loaded CDs to play in any order you choose.

**Note:** You can store a selection more than once in a programmed sequence.

**Programming and Playing a Sequence**

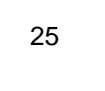
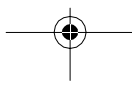
1. With play stopped, press **PROG.** on the remote control. **DISC 0** and **PROGRAM** and **0P-01** appear on the CD display.

(illus)

2. Use the number keys on the remote control to enter the disc number for the CD that has the tracks you want to program. Then, within 4 seconds, press **DISC** on the remote control.

**Note:** If the disc number you entered disappears before you press **DISC**, repeat this step.

3. Within 4 seconds, enter the first track number you want to program. Then, within 4 seconds, press **TRACK** on the remote control.



(illus)

The CD display shows the disc number you entered in Step 2 and the track number (next to **P**) you entered in this step. The CD changer programs your selection.

**Note:** If the track number you entered disappears before you press **TRACK**, repeat Steps 2–3.

4. Repeat Steps 2–3 to program more selections.

**Note:** You must re-enter the disc number in Step 2 even if you program more than one track from the same disc.

5. To play the programmed sequence, press **PLAY/PAUSE** on the front of the system or **▶||** on the remote control. After a few seconds, **▶** appears on the CD display, and the first programmed track on the first programmed CD begins to play.

To play the previous track or the next track in the programmed sequence, press **SKIP/SEARCH** **◀◀** **◀◀** or **▶▶** **▶▶** on the system or **◀◀** or **▶▶** on the remote control.

You can use audible search during programmed play by pressing and holding down **SKIP/SEARCH** **◀◀** **◀◀** or **▶▶** **▶▶** on the system. You cannot use **◀◀** or **▶▶** on the remote control to do audible search.

**Note:** When the CD changer reaches the beginning of a track during audible search, it pauses there.

6. After the CD changer plays the last track in the programmed sequence, it stops automatically. You can also press **STOP** **■** on the system or **■** on the remote control to stop the programmed sequence.

**Caution:** Do not press **STOP** **■** on the system or **■** on the remote control more than once. Doing that clears the programmed sequence.

**Notes:**

- If you programmed a non-existent track (for example, Track 10 when that CD has only nine tracks), the CD changer skips the track and plays the next programmed track.
- The programmed sequence stays in memory after playback is over. See “Clearing the Programmed Sequence” on Page 27 for how to clear the programmed sequence.

## Reviewing the Programmed Sequence

To review the programmed sequence, press **DISC CHECK** on the front of the system next to the CD display.

(illus)

The display shows the following programming information for each selection in the sequence.



- **DISC** and the selected CD's disc number
- The track number (under **PROGRAM**)
- **P-** and the selection number. This number shows the order in which the selection plays within the sequence.

(illus)

## Clearing the Programmed Sequence

The CD changer saves a programmed sequence as long as power is supplied to the CD changer.

To clear all of a programmed sequence, either:

- Press **STOP**  on the system or  on the remote control twice.

- Turn off the system or unplug the power cord from the AC outlet.

To clear part of a programmed sequence, repeatedly press **CLEAR** on the remote control. The system clears the displayed track from the programmed sequence each time you press **CLEAR**.

## GROUP FILE PLAY


You can assign each loaded CD to one of three preset groups, then select and play only those CDs that contain the type of music you want to hear.

For example, if you have 7 classical CDs, 5 pop CDs, and 9 jazz CDs, you can group the classical CDs in group A, the pop CDs in group B, and the jazz CDs in group C. Then you can select and play only the CDs in a specific group.

## Assigning CDs to Groups

You can assign CDs to a group while you load them or after.

### While Loading CDs:

1. If necessary, press **CD** to select the CD function.
2. Press **DOOR OPEN** . The CD changer's door opens.
3. Repeatedly press **PLAY MODE** on the system or **P. MODE** on the remote control until **A B C** appears on the display.

4. Repeatedly press **DISC SELECTOR** ▼ or ▲ on the system to enter the disc number for a CD you want to assign to a group.
5. Press **EJECT/LOAD** on the inside of the CD door. **OPEN** appears on the CD display, and the selected disc tray slides out.

(illus)

6. Load the CD into the disc tray,
7. Press **PERSONAL FILE A, B, or C** on the system for the group letter you want to assign to the CD. **F-** and the group letter you selected (**A, b, or C**) briefly appears on the CD display, and the disc tray slides inside the CD changer. The CD is now assigned to the group letter you pressed.
8. Repeat Steps 4–7 to load and group other CDs into the desired groups.

#### After Loading CDs:

1. If necessary, press **CD** to select the CD function.
2. Repeatedly press **PLAY MODE** on the system or **P. MODE** on the

remote control until **A|B C** appears on the display.

3. Use the number keys on the remote control to enter the disc number for a CD you want to assign to a group.
4. Within 3 seconds, press **PERSONAL FILE A, B, or C** on the system for the group letter you want to assign to the CD. **F-** and the group letter you selected (**A, b, or C**) briefly appears on the CD display. The CD is now assigned to the group letter you pressed.

**Note:** If the disc number you entered changes to the disc number displayed before you pressed a **PERSONAL FILE** button, repeat Step 3.

5. Repeat Steps 3–4 to assign other CDs into groups.

## Reviewing a Group Program

When you finish entering CDs into groups, you can review the CDs you have grouped. To review a group, press **PERSONAL FILE A, B, or C** on the system or repeatedly press **A/B/C** on the remote control until the letter for the group you want to review is highlighted. Then press **DISC CHECK** on the front of the system. As the system checks each disc number, it displays **oo** if the CD is a member of that group or **--** if the CD is not a member of the group.

(illus)

### Playing a Group

1. Repeatedly press **PLAY MODE** on the system or **P. MODE** on the remote control until **A B C** appears on the display.
2. Press **PERSONAL FILE A, B, or C** on the system or repeatedly press **A/B/C** on the remote control until the group letter for the group you want to play is highlighted.
3. Press **PLAY/PAUSE** on the front of the system or **▶||** on the remote control. After a few seconds, **▶** appears on the CD display, and the first CD in the group you selected begins to play from Track 1. The system plays all loaded CDs in the group, then stops.
4. To stop play before all CDs play, press **STOP ■** on the system or **■** on the remote control.

### Clearing a CD from a Group

Follow these steps to clear one or more CDs from a group.

1. Press **DOOR OPEN ▲**. The CD changer's door opens.
2. Repeatedly press **DISC SELECTOR ▼** or **▲** until the disc number for the CD you want to remove from the group appears on the CD display.
3. Press **EJECT/LOAD** on the inside of the CD door. The selected disc tray slides out.
4. Press **EJECT/LOAD** again. **CLOSE** appears on the CD display, and the disc tray slides inside the CD changer. The CD you selected is removed from the group.

### Clearing an Entire Group

The CD changer saves a group as long as power is supplied to the CD changer. To clear a group, press **PERSONAL FILE A, B, or C** on the system or repeatedly press **A/B/C** on the remote control until the group letter for the group you want to clear is highlighted, then press **CLEAR** on the remote control.

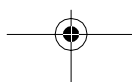


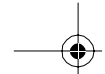
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## CD CARE TIPS

Even though a CD is very durable, you should handle it with care.

- Keep the CD inside the CD changer or in its protective case or sleeve when you are not playing it.
- Handle a CD by its edges to avoid fingerprints that can prevent the CD changer's laser beam from accurately reading the CD. Your local RadioShack store sells a suitable CD cleaner kit.
- Do not write on either side of the CD, particularly the non-label side. (Signals are read from the non-label side).
- Keep the CD dry. A water drop can act as a lens and affect the laser beam's focus.
- Never use chemicals such as record cleaning sprays, anti-static sprays or fluids, benzene or thinner to clean CDs. These chemicals will permanently damage the plastic surface of the CD.
- If a CD skips when you try to play it, the CD might be scratched. Your local RadioShack store sells a Scratch 'n Fix kit (Cat. No. 42-127) that might stop the skip. Also see "Troubleshooting" on Page 37.





## USING THE CASSETTE DECK



The system has two cassette decks. You can play tapes in TAPE 1, and you can use TAPE 2 (RECORD/PLAY) to play or record tapes.

(illus)

**Note:** To control a tape, use the control buttons under the deck where you loaded it.

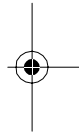
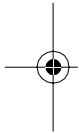
3. Press **STOP/EJECT**. The cassette compartment door opens.

### LOADING AND PLAYING A CASSETTE TAPE

(illus)

**Note:** Before playing or recording any cassette tape, take up any slack in the tape by turning the cassette's hub with a pencil. If you do not remove excess slack, the tape could become tangled in the record/playback mechanism.

4. Insert the cassette tape into the door's guides with its open edge facing down, the side you want to play facing you, and its full reel to the left.



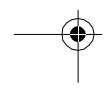
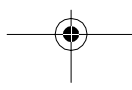
(illus show tape with pencil thru hub)

(illus)

Follow these steps to load and play a cassette tape in either deck.

1. If necessary, press **POWER** to turn on the system.
2. Press **TAPE** to select the tape function. **TAPE** appears on the system display.
5. Gently close the cassette compartment door.
6. Press **PLAY**. The tape plays until it reaches the end of the side, then it automatically stops.

(illus)



**Notes:**

- To temporarily stop playback, press **PAUSE**. Press **PAUSE** again to continue playback.

(illus)

- To fast-forward or rewind the tape, press **STOP/EJECT** to stop the tape, then press **FAST-F** or **REWIND**. Press **STOP/EJECT** when the tape reaches the desired location.

(illus)

**Caution:** To avoid damaging the tape, do not go directly from rewind to fast-forward or from fast-forward to rewind without first pressing **STOP/EJECT**.

7. Adjust **VOLUME CONTROL ▲ UP** or **DOWN ▼** on the system or **VOLUME ▲ UP** or **DOWN ▼** on the remote control to a comfortable listening level, and select the desired **GRAPHIC EQUALIZER** setting (**CLASSIC**, **JAZZ**, **POPS**, or **FLAT**) on the system.
8. To stop the tape at any time during playback, press **STOP/EJECT**. Press **STOP/EJECT** again to open the cassette compartment and remove the tape.

## USING CONSECUTIVE PLAY

You can set the tape player to play one side of a tape in TAPE 1, then automatically play one side of a tape in TAPE 2.

1. If necessary, press **POWER** to turn on the system.
2. Press **TAPE** to select the tape function. **TAPE** appears on the display.
3. Press **STOP/EJECT** on both TAPE 1 and TAPE 2. The cassette compartment doors open.
4. Load the tape you want to hear first into TAPE 1, then load the other tape into TAPE 2 with their open edges facing down, the sides you want to hear facing you, and their full reels to the left.
5. Gently close the cassette compartment doors.
6. Press **PLAY** on TAPE 1. The tape in TAPE 1 plays.
7. While the tape in TAPE 1 is playing, press **PAUSE** and then **PLAY** on TAPE 2.

(illus - show buttons)



When the tape in TAPE 1 finishes playing, the tape in TAPE 2 automatically begins playback. The system automatically stops the tape in TAPE 2 when it reaches the end.

## RECORDING

You can use the system to record onto a cassette tape from:

- Another cassette tape
- The CD changer
- The tuner
- Another audio source

**Caution:** Do not force down **RECORD**. This can damage the recording mechanism.

### Notes:

- Be sure the cassette's erase-protection tab is in place. See "Preventing Accidental Erasure" on Page 36.
- The recording level is preset. Adjusting **VOLUME CONTROL ▲ UP** or **DOWN ▼** on the system or **VOLUME ▲ UP** or **DOWN ▼** on the remote control does not adjust the recording level.
- To prepare a blank tape for recording, completely rewind the tape, then press **PLAY**, wait about 8 seconds for the tape to play past the tape leader, then press **STOP/EJECT**.

- Pressing a **GRAPHIC EQUALIZER** button (**CLASSIC**, **JAZZ**, **POPS**, or **FLAT**) on the system while recording might cause a pop to be recorded onto the tape.

## Dubbing (Copying) Cassette Tapes

You can use the cassette deck to copy a tape from TAPE 1 to TAPE 2. You can select between normal and high-speed dubbing, and you can monitor the tape as you dub it.

1. Press **TAPE** to select the tape function. **TAPE** appears on the system display.
2. Press **STOP/EJECT** on both TAPE 1 and TAPE 2. The cassette compartment doors open.
3. Load the tape you want to copy into TAPE 1.
4. Load a blank tape, or one you want to record over, into TAPE 2.
5. Gently close the cassette compartment doors.
6. Set the dubbing speed:
  - To record in half the normal recording time, press **HI-SPEED DUBBING** on the system until it clicks and stays in.

(illus - show button)

**Note:** If you set the system to dub at high speed, the sound you hear will be distorted during dubbing. This is normal.

- To record at normal speed for better quality sound, press **HI-SPEED DUBBING** until it clicks and pops out.

**Caution:** Do not change the dubbing speed while dubbing. Doing so might damage the tape or cause a distorted recording.

7. Press **PAUSE** and then **RECORD** on TAPE 2. **PAUSE**, **RECORD**, and **PLAY** lock down on TAPE 2.

(illus)

8. Press **PLAY** on TAPE 1. **PAUSE** on TAPE 2 automatically releases and recording starts.

To temporarily stop recording, press **PAUSE** on TAPE 2. To resume recording, press **PAUSE** again.

9. To completely stop recording before it automatically stops, press **STOP/EJECT** on TAPE 2.

## Copying CDs to a Cassette Tape

1. Press **CD**. **CD** appears on the system display.
2. Select the mode you want to use (see "Selecting and Playing a CD" on Page 20).
3. If you want to record a program of CD selections, follow the steps in "Programmed Play" on Page 25 or "Group File Play" on Page 27 to program the sequence.
4. Press **STOP/EJECT** on TAPE 2. The cassette compartment door opens.
5. Load a blank tape, or one you want to record over, into TAPE 2. Then gently close the cassette compartment door.
6. Press **RECORD** on TAPE 2. **SYNCHRO** appears on the CD display, **RECORD** and **PLAY** lock down on TAPE 2, and the tape records from the CD.

(illus)

To temporarily stop recording, press **PAUSE** on TAPE 2. To resume recording, press **PAUSE** again.

7. To completely stop recording before it automatically stops, press **STOP/EJECT** on TAPE 2.

## Recording from the Tuner or Another Sound Source

**Caution:** Do not press any buttons on the remote control while recording. Doing so might cause a distorted recording.

Follow these steps to record from the tuner or from an external audio source connected to the system, such as a turntable, VCR, or other audio equipment.

1. Load a blank tape, or one you want to record over, into TAPE 2.
2. Press the source selection button (**TUNER** or **VCR/AUX**) for the desired audio source.

(illus)

3. Press **RECORD** on TAPE 2, then start the selected audio source (if necessary). The tape records until it reaches the end of the tape, then it automatically stops.

To temporarily stop recording, press **PAUSE** on TAPE 2. To resume recording, press **PAUSE** again.

4. To completely stop recording before it automatically stops, stop the selected audio source (if necessary), then press **STOP/EJECT** on TAPE 2. Press **STOP/EJECT** again to open the cassette compartment and remove the cassette tape.

## TAPE TIPS

### Recommended Tapes

Tape quality greatly affects the quality of the recording. We recommend extended-range or low noise Type I regular length (60-minute or 90-minute) normal-bias cassette tapes. We do not recommend long-play cassette tapes such as C-120s because they are thin and can easily tangle.

### Storing Your Tapes

Follow these suggestions for storing your cassette tapes.

- Keep them away from excessive dust and dirt.
- Do not expose them to moisture or high humidity.
- Keep them away from strong magnetic fields that can be generated by other electronic devices (transformers, motors, and so on).
- Your local RadioShack store offers a complete selection of tape storage options.



## Erasing a Cassette Tape

To record over a cassette tape, select an audio source with no audio playing, then simply record as usual. The cassette deck records over the previous recording. To erase the entire cassette tape, let the tape record to the end.

You can quickly erase both sides of a cassette tape using a bulk tape eraser, available at your local RadioShack store.

## Preventing Accidental Erasure

Cassette tapes have two erase-protection tabs — one for each side. When a tab is in place, you can record on that side. To protect a recording from being accidentally recorded over, use a screwdriver to remove one or both of the cassette tape's erase-protection tabs. This prevents **RECORD** from being pressed.

(illus - show 'Side A Tab')

If you later decide to record on a tape side after you have removed the erase-protection tab for that side, place a piece of strong plastic tape over that side's erase-protection hole. Be sure you cover only the hole origi-

nally covered by the erase-protection tab.

(illus - show tape being placed over open hole)

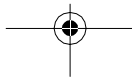
**Caution:** Removing the erase-protection tabs does not prevent a bulk eraser from erasing a cassette tape.

## Restoring Tape Tension and Sound Quality

After you play a cassette tape several times, the tape might become tightly wound on the reels. This can cause playback sound quality to deteriorate.

To restore the sound quality, fast-forward the tape from the beginning to the end of one side, then completely rewind it. Then loosen the tape reels by gently tapping each side of the cassette's outer shell on a flat surface.

**Caution:** Be careful not to damage the cassette when tapping it. Do not touch the exposed tape or allow any sharp objects near the cassette.



## TROUBLESHOOTING

If your system is not working as it should, these suggestions might help you eliminate the problem. If the system still does not operate normally, take it to your local RadioShack store for assistance.

Problem	Possible Cause	Suggestion
No power when <b>POWER</b> is pressed on system.	Power problem.	Check the power cord and AC outlet.
No power when <b>POWER</b> is pressed on remote.	Batteries in the remote control are weak.	Replace the batteries with fresh ones.
No sound.	<ul style="list-style-type: none"> <li>• Volume controls set to minimum.</li> <li>• Wrong function selected.</li> <li>• Audio source not started.</li> <li>• <b>MUTE</b> is pressed.</li> <li>• Speakers connected incorrectly.</li> </ul>	<ul style="list-style-type: none"> <li>• Adjust <b>VOLUME CONTROL ▲ UP</b> or <b>DOWN ▼</b> on the system, or <b>VOLUME ▲ UP</b> or <b>DOWN ▼</b> on the remote control.</li> <li>• Select another function.</li> <li>• Start the desired audio source.</li> <li>• Press <b>MUTE</b> on the remote control.</li> <li>• Check speaker connections.</li> </ul>
Sound from one speaker only.	Speakers connected incorrectly.	Check all speaker connections.
No sound from rear stereo speakers.	<ul style="list-style-type: none"> <li>• <b>SURROUND</b> not set to <b>ON</b>.</li> <li>• Speakers connected incorrectly.</li> </ul>	<ul style="list-style-type: none"> <li>• Set <b>SURROUND</b> on system to <b>ON</b>.</li> <li>• Check all speaker connections.</li> </ul>
Remote does not work.	Batteries in the remote are weak.	Replace the batteries with fresh ones.

<b>Problem</b>	<b>Possible Cause</b>	<b>Suggestion</b>
CD changer does not work.	<ul style="list-style-type: none"><li>• CD not selected.</li><li>• CD loaded incorrectly.</li></ul>	<ul style="list-style-type: none"><li>• Press <b>CD</b>.</li><li>• Remove the CD and reload it with the label side up.</li></ul>
CD changer will not load a CD.	CD mechanism is jammed.	Unplug the system from AC power, wait about 5 seconds, then plug the system back into the AC outlet.
Sound from CD skips.	CD is dirty or damaged.	Clean the CD and reload it, or try a new CD.
Multiple CDs loaded, but one CD plays once then stops.	System set to single play mode.	Set play mode to ALL DISC. See "Selecting and Playing a CD" on Page 20.
Poor sound quality during cassette tape playback.	Incorrect tape type.	Use correct bias tape. See "Recommended Tapes" on Page 35.

## CARE AND MAINTENANCE

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Your Optimus System 744 Mini Stereo Component System is an example of superior design and craftsmanship. The following suggestions will help your care for the system so you can enjoy it for years.



Keep the system dry. If it gets wet, wipe it dry immediately. Liquids can contain minerals that can corrode the electronic circuits.



Use only fresh batteries of the required size and type for the remote control. Always remove old or weak batteries. They can leak chemicals that destroy electronic circuits.



Handle the system gently and carefully. Dropping it can damage circuit boards and cases and can cause it to work improperly.



Use and store the system only in normal temperature environments. Temperature extremes can shorten the life of electronic devices, damage batteries, and distort or melt plastic parts.



Keep the system away from dust and dirt, which can cause premature wear of parts.



Wipe the system with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean it.

Modifying or tampering with the system's internal components can cause a malfunction and might invalidate the system's warranty and void your FCC authorization to operate it. If your system is not performing as it should, take it to your local RadioShack store for assistance.



## CLEANING THE TAPE— HANDLING PARTS

Dirt, dust or particles of the tape's coating can accumulate on the tape heads and other parts that the tape touches. This can greatly reduce the cassette player's performance. To prevent noise and poor high-frequency response, clean the cassette player's tape-handling parts after every 20 hours of use. Your local RadioShack store sells a complete line of cleaning kits.

Follow these steps to clean the tape-handling parts on your system's cassette decks.

1. Turn off the system, then unplug the power cord.

**Note:** Unplugging the system clears any programs in the CD changer's memory.

2. Press **STOP/EJECT** on both cassette decks. Both cassette compartment doors open.
3. Press **PLAY** on both cassette decks to expose the tape-handling parts.
4. Use a cotton swab dipped in denatured alcohol or tape head cleaning solution to gently clean the record/play heads, pinch rollers, capstans, tape guides, and erase head.

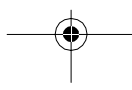
### Tape 1

(illus - split existing illus into 2 parts, and place top illus here)

### Tape 2

(illus - split existing illus into 2 parts, and place bottom illus here)

5. When you finish cleaning, press **STOP/EJECT** on both cassette decks, close both cassette compartment doors, plug in the system, then press **POWER**.





# SPECIFICATIONS

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## AMPLIFIER

Frequency Response ..... 40 Hz–20 kHz  $\pm$  3 dB  
RMS Output Power (1% THD into 8 Ohms at 80 Hz–15 kHz)..... 15 Watts/Channel  
Input Sensitivity/Impedance (at 1 kHz, AUX IN)/  
Output (15 W Volume Max)..... 350 mV/47 kOhm

## TUNER (FM)

Frequency Range .....87.5–108.0 MHz  
Usable Sensitivity .....20 dB  
Signal-to-Noise Ratio.....50 dB

## TUNER (AM)

Frequency Range .....530 –1720 kHz  
Sensitivity .....58 dB  
Signal-to-Noise Ratio.....45 dB

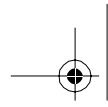
## DUAL CASSETTE DECK

Frequency Response ..... 125 Hz–8 kHz  $\pm$  6 dB  
Track Format ..... 4 Tracks, 2 Channels  
Signal-to-Noise Ratio (Nominal) .....45 dB  
Wow and Flutter ..... 0.35% Max (WRMS)  
Tape Speed ..... 4.8 cm/Sec.  
Normal Tape ..... 125 Hz–8 kHz  $\pm$  6 dB (PLAY)

## CD CHANGER

CD Capacity ..... 21 CDs  
Frequency Response ..... 40 Hz–18 kHz  $\pm$  3 dB  
Signal-to-Noise Ratio.....65 dB  
Wow and Flutter ..... Virtually undetectable  
CD Used .....5-inch (120 mm)  
Sampling Frequency..... 44.1 kHz  
Optical Source ..... Non-Contact 3-Beam Semiconductor Laser  
Number of Channels..... 2, Stereo  
CD Rotation Speed.....500–200 RPM (Constant Linear Model)  
Signal Quantization ..... 16-bit

## INFRARED REMOTE CONTROL



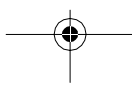
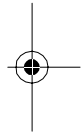
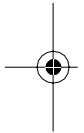
Controls 34 keys  
Power Requirements 3VDC (Two AAA Batteries)



**GENERAL**

Power Requirements 120 V AC, 60 Hz  
Power Consumption 105 watts  
Dimensions (HWD) 15<sup>1</sup>/<sub>4</sub> x 11 x 12<sup>1</sup>/<sub>2</sub>  
Inches (39 x 28 x 32 cm)  
Weight 22 lbs 6.5 oz (10 kg)

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.

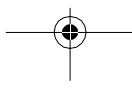
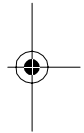


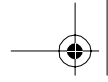


# NOTES

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### RadioShack Limited Warranty

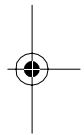
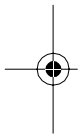
This product is warranted against defects for 90 days from date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. Within this period, we will repair it without charge for parts and labor. Simply **bring your RadioShack sales slip** as proof of purchase date to any RadioShack store. Warranty does not cover transportation costs. Nor does it cover a product subjected to misuse or accidental damage.

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This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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