



Dual-Tray CD Player/Recorder

Thank you for purchasing the RCA Dual-Tray CD Player/Recorder. Your CD recorder is easy to operate and provides many options for its use as listed below.

Features

Dual Tray — lets you record from CD to CD-R/RW to create your own music mixes.

4X High Speed Dubbing — quickly copies a disc.

Digital and Analog Inputs — allow recording from both digital and analog audio sources.

Sequence Programming — lets you program up to 32 selections to play in any order you choose.

Intro Check — helps you locate a desired track by playing the first 10 seconds of each track on the current CD.

Remote Control — lets you control the CD recorder from a distance.

Repeat Play — lets you automatically repeat a single track, two CDs, or a series of programmed tracks.

Shuffle Play — randomly selects tracks on loaded CDs and plays them.

This CD player is made and tested to meet exacting safety standards. It meets FCC requirements and complies with safety performance standards of the U.S. Department of Health and Human Services.

Warnings:

- This CD player 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 use of controls, adjustments, or procedures other than those specified herein might result in hazardous radiation exposure.



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 noncommercial (personal) use.

The FCC Wants You To Know

This system complies with the limits for a Class B digital device as specified in Part 15 of FCC Rules. These limits provide reasonable protection against TV or radio interference in a residential area. However, your system might cause TV or radio interference even when it is operating properly.

To eliminate interference, try one or more of the following corrective measures.

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

Consult your local RadioShack store if the problem still exists.

Important Safety Instructions

Careful attention is devoted to quality standards in the manufacture of your CD

recorder, and safety is a major factor in its design. However, safety is also your responsibility.

This section lists important information that will help you properly use and enjoy your CD recorder and accessories. Read all the included safety and operating instructions before using your CD recorder. Follow them closely, and retain them for future reference.

Heed Warnings — Follow all warnings on the product and in the operating instructions.

Cleaning — Unplug this product from the wall outlet before cleaning. Use only a damp cloth for cleaning. Do not use liquid or aerosol cleaners.

Water and Moisture — Do not use this product near water (for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement; or near a swimming pool).

Accessories — Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the product. Follow the manufacturer's instructions for mounting, and use a recommended mounting accessory.



Cart — Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

Ventilation — Slots and openings in the cabinet provide ventilation, ensure reliable operation, and protect from overheating. Do not block or cover these openings, and do not place the product on a bed, sofa, rug, or other similar surface. Do not place the product in a built-in bookcase or rack unless it provides proper ventilation as specified by the manufacturer.

Power Sources — Operate this product using only the power source indicated on its marking label. If you are not sure of your home's power type, consult your product dealer or local power company.

Polarization — This product is equipped with a polarized AC line plug (a plug having one blade wider than the other). This plug will fit in the power outlet only one way. This is a safety feature. If you cannot insert the plug fully into the outlet, try reversing the plug. If the plug still doesn't fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug. If you need an extension, use a polarized cord.

Power-Cord Protection — Route power-supply cords so they are not likely to be walked on or pinched by items placed on or against them, paying particular attention to

cords at plugs, convenience receptacles, and the point where they exit from the product.

Non use Periods — Unplug the CD recorder's power cord when you will not use it for extended periods.

Lightning — For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges.

Overloading — Do not overload wall outlets, extension cords, or convenience receptacles, as this can result in a risk of fire or electric shock.

Objects and Liquids — Never push objects of any kind into this product through openings, as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

Servicing — Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Damage Requiring Service — Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged.

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- If liquid has been spilled or objects have fallen into the product.
 - If the product has been exposed to rain or water.
 - If the product does not operate normally by following the operating instructions, adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
 - If the product has been dropped or damaged in any way.
 - When the product exhibits a distinct change in performance.

Replacement Parts — When replacement parts are required, be sure the service technician uses replacement parts specified by the manufacturer or having the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

Safety Check — Upon completion of service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

Heat — The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

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Before Use

- The nominal temperature should be between 41°F and 95°F (5°C and 35°C). The CD-RW recorder is more sensitive to extremes of temperature than ordinary CD players.
- Relative humidity should be 30 to 90% non-condensing.

Compact Discs

Depending on the quality of the disc and/or the condition of the recording, some CD-R and CD-RW discs may not be playable.

About CD-R and CD-RW Discs

Caution: Please use CD-R and CD-RW discs bearing the “DIGITAL AUDIO” mark. You cannot use CD-R and CD-RW discs designed for computing systems with this CD recorder for recording, though you can use them for play.

In this manual, although we refer to “CD-R” and “CD-RW” discs, we always mean “CD-R Digital Audio” and “CD-RW Digital Audio,” even when this is not explicitly stated.

You can record CD-R discs only once. Once you used them for recording, you cannot erase or re-record. However, if space is available on the disc and if the disc is not finalized, you can record additional

material. The packaging of CD-R discs includes this logo below.



By contrast, you can use a CD-RW disc in much the same way as a CD-R disc, but you can erase the last track or all the tracks, and you can use the space on the disc for other recordings. The packaging of CD-RW discs includes a logo similar to the following:



However, you should note that an audio CD created using a CD-RW disc may not play back satisfactorily on every audio CD-player. By contrast, you may be able to play CD-R satisfactorily on the majority of audio CD players.

CDs that can be played on this CD recorder have this mark on them.



Finalizing

Although audio data may be written on a CD-R or CD-RW disc, a standard CD player will not be able to play back the audio until a final table of contents (TOC) has been written at the start of the disc.

The process of writing this table of contents is known as “finalizing.” Once this has been done, no further data can be written to the CD-R disc.

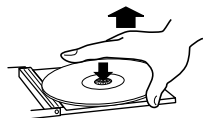
A CD-RW disc that has been finalized can be “unfinalized.” This allows further tracks to be recorded to the disc, provided that there is space on the disc.

Recordable Discs

In this manual, we use the term “recordable” disc to describe a CD-R or CD-RW disc that has not been finalized, and has enough space to record.

Handling Discs

- Always place the disc on the disc tray with the label side uppermost. (Compact discs can be played or recorded only on one side.)
- To remove a disc from its storage case, press down on the center of the case and lift the disc out, holding it carefully by the edges.

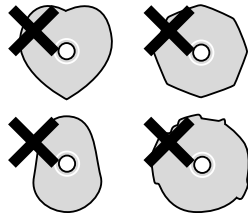


- Never touch the recording (non-label) side of a disc on which you will be recording. Recording on a disc requires a cleaner surface than playing back, and fingerprints, dust, grease, and so on, can cause errors in the recording process.
- Should the disc become dirty, wipe the surface with a soft, dry cloth.



- Never use such chemicals as record sprays, antistatic sprays or fluid, benzene or thinner to clean the discs. Such chemicals will do irreparable damage to the disc’s plastic surface.
- Discs should be returned to their cases after use to avoid dust and scratches that could cause the laser pickup to “skip.”
- Do not expose discs to direct sunlight or high humidity and temperature for extended periods. Long exposure to high temperatures will warp the disc.
- CD-R and CD-RW discs are more sensitive to the effects of heat and ultraviolet rays than ordinary CDs. It is important that they are not stored in a location where direct sunlight will fall on them, and which is away from sources of heat such as radiators or heat-generating electrical devices.
- Printable CD-R and CD-RW discs are not recommended, as the label side might be sticky and damage the CD recorder.

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- Do not stick papers or protective sheets on the discs and do not use any protective coating spray.
 - Use a soft oil-based felt-tipped pen to write the information on the label side. Never use a ball-point or hard-tipped pen, as this may cause damage to the recorded side.
 - Never use a stabilizer. Using commercially available CD stabilizers with this CD recorder will damage its mechanisms and cause them to malfunction.
 - Do not use irregular shape CDs (octagonal, heart-shape, etc.). CDs of this sort can damage the CD recorder.



- If you are in any doubt as to the care and handling of a CD-R/CD-RW disc, read the precautions supplied with the disc, or contact the disc manufacturer directly.

Condensation

When the CD recorder (or a disc) is moved from a cold to a warm place, or used after a sudden temperature change, there is a danger of condensation; vapor in the air could condense on the internal mechanism, making correct operation impossible.

To prevent this, or if this occurs, leave the CD recorder for one or two hours with the power turned on. Then the CD recorder will stabilize at the temperature of its surroundings.

Connections and Setup

Note: Turn off the power of all the equipment before making connections and read the instructions of each component you intend to use with the CD recorder.

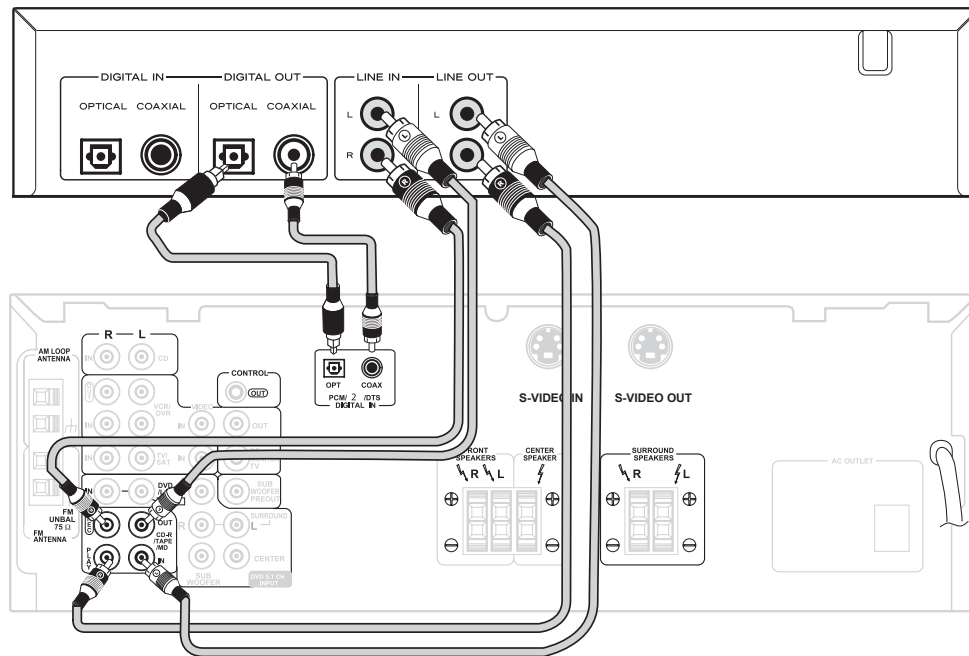
LINE IN/OUT Jacks

Connect the **LINE IN/OUT** jacks to your analog source (receiver) using the supplied RCA stereo patch cable. An additional patch cable is available at your local RadioShack store or at RadioShack.com.

Insert **LINE IN** to your receiver's line out jack (**REC**). Connect the **LINE OUT** jack to your receiver's line in jack (**PLAY**).

Notes:

- Make sure the white plugs are connected to the white jacks **L** (Left) and the red plugs are to the red jacks **R** (Right).
- Be sure to insert each plug securely. To prevent hum and noise, do not bundle the connection cables with the power cord or speaker cable.



DIGITAL IN/OUT Terminals

Connect the component which has a digital input or output terminal using a digital coaxial cable or an optical cable (neither supplied and available at your local RadioShack store).

Insert **DIGITAL IN** to your component's output jack (**DIGITAL OUT**). Connect **DIGITAL OUT** to your component's input jack (**DIGITAL IN**).

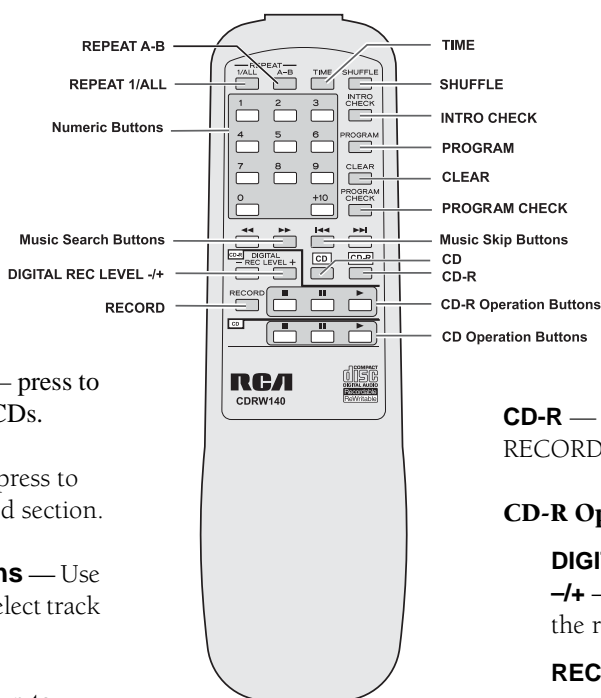
Notes:

- When using **DIGITAL OPTICAL IN/OUT** terminals, remove the caps from the terminals. When you do not use them, leave the caps in place.
- Connect either **DIGITAL COAXIAL IN** or **DIGITAL OPTICAL IN**. It is possible to connect them to other equipment at the same time; however, the CD recorder can receive signals from only one input at a time.

AC Power Cord

Plug the AC power cord into an AC wall socket.

A Quick Look At The Remote Control



REPEAT 1/ALL — press to repeat a track or CDs.

REPEAT A-B — press to repeat a designated section.

Numeric Buttons — Use these buttons to select track numbers.

◀ ▶ — hold down to search for a part of a track.

TIME — press to change the time display.

SHUFFLE — press for shuffle playback.

INTRO CHECK — press for intro check function. The beginning of each track is played for 10 seconds.

PROGRAM, CLEAR, PROGRAM CHECK — press to create a programmed sequence.

◀▶ — press to skip tracks forward or backward.

CD — press to select the PLAYBACK tray.

CD-R — press to select the RECORD/PLAYBACK tray.

CD-R Operation buttons

DIGITAL REC LEVEL +/- — press to adjust the recording level.

RECORD — press to enter record pause mode.

▶ — press to start playback, recording, finalizing, and erasing.

|| — press to pause playback or recording.

■ — press to stop playback or recording.

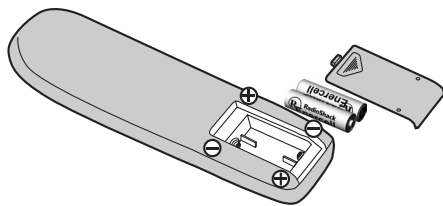
CD Operation buttons

▶ — press to start playback.

|| — press to pause playback.

■ — press to stop playback.

Installing Batteries



Your CD recorder's remote control requires two AA batteries (not supplied) for power. We recommend alkaline batteries, available at your local RadioShack store, for the best performance and longest life.

Cautions:

- Always use fresh batteries of the required size and recommended type.
 - Do not mix old and new batteries, different types of batteries (standard, alkaline, or rechargeable), or rechargeable batteries of different capacities.
1. Press down on the battery compartment cover and slide it off in the direction of the arrow.
 2. Insert the batteries into the battery compartment as indicated by the polarity symbols (+ and -) marked inside.
 3. Replace the cover.

When the remote control operates erratically or does not work, replace the batteries.

Cautions:

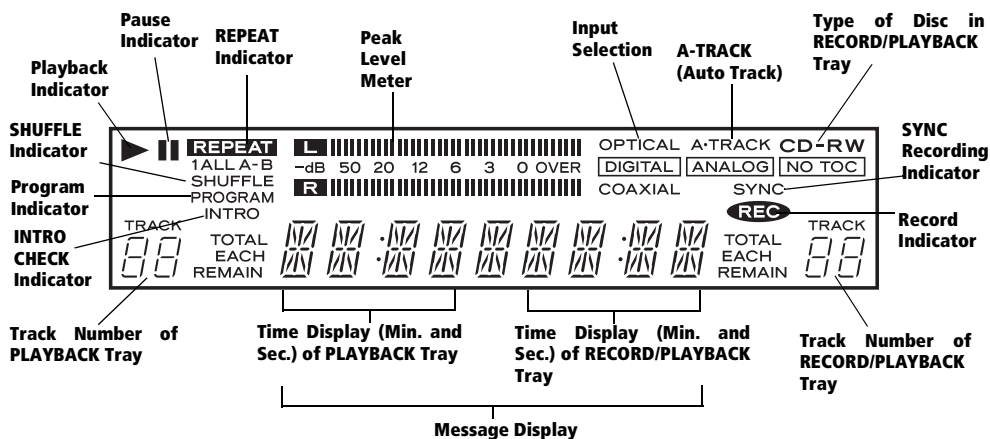
- Never leave dead or weak batteries in the remote control. Batteries can leak chemicals that can corrode the remote.

- If you do not plan to use the remote control for a month or more, remove the batteries.

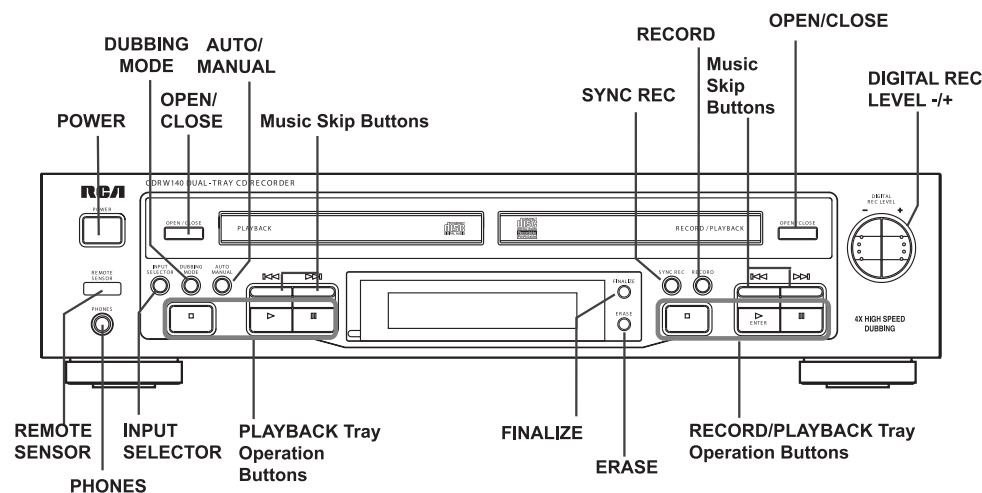
Using the Remote

For the best results, point the remote control toward REMOTE SENSOR on the front of the CD recorder.

A Quick Look At The Display



A Quick Look at the CD Recorder's Controls



POWER — press to turn the CD recorder on and off. (The equipment draws nominal non-operating power from the AC outlet with its **POWER** switch in the off position).

DUBBING MODE — press to select the dubbing speed **DUBB 4X**, **DUBB 2X**, or **DUBB 1X**.

OPEN/CLOSE (for **PLAYBACK** and **RECORD/PLAYBACK** trays) — press to open and close the disc trays.

AUTO/MANUAL — press (button on the left of the CD recorder) to select the track number increment level, or to select the synchronized recording starting level.

⏮ ⏭ — (for PLAYBACK and RECORD/PLAYBACK trays) — press to skip tracks. Hold down to search for a part of a track.

SYNC REC — press for synchronized recording.

RECORD — press to enter record pause mode.

DIGITAL REC LEVEL -/+ — press to adjust the recording level.

RECORD/PLAYBACK Tray Operation Buttons

▷/ENTER — press to start playback, recording, finalizing, and erasing.

|| — press to pause playback or recording.

□ — press to stop playback or recording.

ERASE — press to erase or unfinalize a CD-RW disc.

FINALIZE — press to finalize a CD-R/CD-RW disc.

PLAYBACK Tray Operation Buttons

▷ — press to start playback.

|| — press to pause playback.

□ — Press to stop playback.

INPUT SELECTOR — press to select the source you want to record from.

PHONES — insert your 1/4-inch headphones plug into the **PHONES** jack on the front of the CD recorder.

Note: To further reduce the headphone volume level, use a headphone with an adjustable output level.

REMOTE SENSOR — Sensor for the remote control. Use the remote control within the effective range (15ft/5m) and point at the sensor.

Operation

Playing CDs

You can use the RECORD/PLAYBACK tray to play back CD, CD-R, and CD-RW discs. You can use the PLAYBACK tray to play back CD and finalized CD-R/CD-RW discs. You cannot play CD-R/CD-RW discs that haven't been finalized on the PLAYBACK tray.

1. Press **POWER** on the CD recorder. **READING** flashes for a while. When no disc is set, **no DISC** or **DISC no** appears.
2. Press **OPEN/CLOSE** for the PLAYBACK tray or the RECORD/PLAYBACK tray.
3. Carefully place the disc, label side up, into the recessed CD holder.
4. Press **OPEN/CLOSE** for the PLAYBACK tray or the RECORD/PLAYBACK tray to close the disc tray. When a disc is loaded into the CD recorder, **READING** flashes for a while as it determines the contents of the disc. When the CD recorder reads the TOC (Table of Contents), the display shows the total number of tracks, total play time, and the type of disc (the RECORD/PLAYBACK tray only).

- When a blank disc is set on the RECORD/PLAYBACK tray, **BLANK** appears.
- When a disc is set on the RECORD/PLAYBACK tray, the display shows one of the following:

CD — a commercial pre-recorded CD.

CD-R — finalized CD-R.

CD-R, NO TOC — a CD-R which has yet to be finalized.

CD-RW, NO TOC — a CD-RW which has yet to be finalized.

CD-RW — a finalized CD-RW.

BLANK — No disc or unreadable disc.

5. Press \triangleright for the PLAYBACK tray or \triangleright /**ENTER** for the RECORD/PLAYBACK tray to start playback.
6. Press **||** to temporarily stop playback. To resume playback, press **||**, \triangleright or \triangleright /**ENTER**.
7. Press \square to stop playback.

If you set CDs on both the PLAYBACK tray and the RECORD/PLAYBACK tray, the CD recorder automatically plays the other CD when the current CD finishes. The CD recorder stops playing at the end of the second CD.

Selecting a Track

Press **⏮** or **⏭** repeatedly until you find the desired track.

- When you press **⏮** once during playback, the CD recorder plays the current track from the beginning. To return to the beginning of the previous track, press **⏮** twice.
- In the stop or pause mode, the CD recorder enters pause mode at the beginning of the selected track. Press \triangleright to start playback.

- During program playback, press **⏮** once to return to the beginning of the current track. To return to the beginning of the previous track in the program, press **⏮** twice. To playback the next track in the program, press **⏭**. You cannot use the numeric buttons on the remote control.
- When using the remote control, select the tray by pressing **CD** or **CD-R** before pressing **⏮** or **⏭**.

Searching For a Part of a Track

During playback, hold down **⏮** or **⏭** on the CD recorder and release it when you find the section you want to listen to.

When using the remote control, select the tray by pressing **CD** or **CD-R** and then press and hold **⏮** or **⏭**.

Directly Selecting a Track

Press **CD** or **CD-R** to select the tray and then press the numeric buttons on the remote control to select the track. Playback starts from the selected track.

To play tracks 1 through 9, simply press the appropriate button (1 through 9).

To play a track that has a higher number than 9, press **+10** appropriate number of times to set the “tens” digit of the track number, followed by a single button to set the digit for less than 10.

Notes:

- If you press the numeric button in the pause mode, the CD recorder enters pause mode at the beginning of the selected track.
- Direct playback is not possible during shuffle playback and program playback.

Repeat Play

Your CD recorder can repeat a single track, tracks on both CDs of the PLAYBACK tray and the RECORD/PLAYBACK tray, a programmed sequence, or a designated section.

Repeating One Track

Press **REPEAT 1/ALL**. **REPEAT 1** appears during playback. The CD recorder plays back the track repeatedly. If you select another track in **REPEAT 1** mode, the CD recorder repeatedly plays back the track you just selected. You can also select a track in the stop mode. Press **REPEAT 1/ALL** and then select the track number using the numeric buttons.

Repeating All of the Tracks

Press **REPEAT 1/ALL** twice. **REPEAT ALL** appears. The CD recorder repeatedly plays all the tracks on the disc. During program playback, the CD recorder repeatedly plays back programmed tracks.

When you set discs in both the **PLAYBACK** tray and the **RECORD/PLAYBACK** tray, the CD recorder repeats all the tracks of each disc alternately for five cycles and then stops.

Repeating a Designated Section (A-B Repeat)

Notes:

- You cannot repeat a designated section on CD-R/CD-RW discs if they have not been finalized.
 - A section should be designated within a track. If the track ends or if a different track is selected before point B is selected, the CD recorder cancels the A-B repeat mode.
1. During play, press **REPEAT A-B** at the point where you want to start the repeat. **REPEAT A-** appears.
 2. Press **REPEAT A-B** again at the point where you want to finish the repeat. The CD recorder automatically repeats the selected part.

You can use **◀◀** or **▶▶** to move through the CD during A-B repeat.
 3. To cancel A-B repeat mode, press **REPEAT A-B**, **□**, or **OPEN/CLOSE**.

Shuffle Play

To set the CD recorder to select and play all tracks in random order from the loaded CDs, during play, press **SHUFFLE** on the remote control. **SHUFFLE** lights. The CD recorder starts random play when the

current track finishes. In the stop mode, press **SHUFFLE** then **▶**.

If you press **▶▶** during shuffle play, the CD recorder randomly selects the next track. If you press **◀◀**, the CD recorder plays the current track from the beginning.

To cancel shuffle play at any time, press **SHUFFLE** once so **SHUFFLE** disappears.

Note: Shuffle play can be used for both the **PLAYBACK** tray and **RECORD PLAYBACK** tray simultaneously.

Intro Check

Intro check automatically plays the first 10 seconds of each track on the CD or the programmed sequence. Press **INTRO CHECK** on the remote control, then **▶**. **INTRO** lights. If you press **INTRO CHECK** during play, the CD recorder starts intro check from the next track.

Note: If you press **INTRO CHECK** within 10 seconds from the beginning of a track, intro check starts from that track.

To cancel intro check and resume normal play, press **INTRO CHECK** again.

When all the tracks of both discs have been checked, intro check stops.

Programming a Sequence of Tracks

You can program up to 32 selections from 2 discs to play in any order you choose.

Note: Shuffle playback does not work during program playback.

1. Using your remote control, press **PROGRAM** in the stop mode. **STEP 01** appears and **PROGRAM** and the track number **1** flashes.
2. Press **CD** or **CD-R** to select the tray, and press numeric buttons, or **◀◀** or **▶▶** to select a track. If you make a mistake, press the numeric buttons again.
3. Press **PROGRAM** to store the track into memory. The next program number **STEP 02** appears.
4. Repeat Steps 2 and 3 to program more tracks, up to 32 selections. When you select tracks from the same disc successively, you do not have to press **CD** or **CD-R**.

Notes:

- If you enter a track number higher than the highest track on a CD, the CD recorder ignores the entry.
- If you try to store more than 32 selections, the CD recorder displays **PGM FULL**.
- If you press **PROGRAM** without selecting a track number, the CD recorder programs the first track.
- To cancel the program mode, press **■** and **CLEAR**.

5. When you finish the selection of track numbers, press **■**. The track number programmed to **ST: 01** appears.
6. Press **▶** to play the sequence. After the CD recorder plays all programmed tracks, it stops and **ST: 01** appears. The CD recorder keeps the sequence in memory even after programmed playback has finished or stopped by pressing **■**.

Notes:

- During program playback, press **◀◀** once to return to the beginning of the current track. To return to the beginning of the previous track in the program, press **◀◀** twice. To playback the next track in the program, press **▶▶**.
- If a program is stored, both **▶** for the PLAYBACK tray and **▶/ENTER** for the RECORD/PLAYBACK tray work to play the programmed tracks.

Checking/Changing the Programmed Sequence

In the stop mode, press **PROGRAM CHECK**. The CD recorder displays the programmed sequence's first selection. Each time you press **PROGRAM CHECK**, the CD recorder displays the next programmed selection.

To change a selection, repeatedly press **PROGRAM CHECK** in the stop mode until the CD recorder displays the track number you want to change. Enter the desired track number, then press **PROGRAM**.

Adding to the Programmed Sequence

You can add tracks at the end of a programmed sequence, up to a maximum of 32 tracks.

1. Press **PROGRAM** in the stop mode.
2. Enter the desired track number, then press **PROGRAM**. The CD recorder adds the selection to the end of the programmed sequence.
3. Press ■ after adding all the additional tracks.

Erasing a Track

To erase the programmed sequence from memory, in the stop mode, repeatedly press **PROGRAM CHECK** until the program number to be deleted appears. Press **CLEAR** to delete the track.

Clearing Programmed Tracks

To clear all tracks, press ■ and **CLEAR** (or press **CLEAR** in the stop mode).

The program also clears when you press **OPEN/CLOSE**.

Repeating Programmed Tracks

Press **REPEAT 1/ALL** twice and select **REPEAT ALL**. The CD recorder plays the programmed tracks five times then stops.

Before Recording

Before you start recording, make sure that you understand the following points:

- The CD recorder requires Digital Audio CD-R or CD-RW media for recording. Computer CD-R or CD-RW discs do not work with this CD recorder.
- Once you have recorded on a CD-R disc, you cannot erase the data from it.
- You can add tracks to an unfinalized recordable disc. Once finalized, a CD-R disc is “fixed” and behaves in the same way as a CD. You can, however, erase, refresh, and re-record finalized CD-RW discs.
- Due to the system restriction of CDs, a track cannot be less than four seconds in length, and there can be a maximum of 99 tracks on an audio CD.
- If you press ■ or || within four seconds from the beginning of a track, the CD recorder continues to record no signal and stops when the track's length reaches four seconds.
- When the recording is finished, **PMA WRITE** and **COMPLETE** appear for a few seconds, and the CD recorder then stops. Do not apply shock or vibration to the CD recorder during recording.
- If the disc reaches the end during recording, the CD recorder starts a fade-out over a few seconds. When the fade-out has finished, the CD recorder finalizes the disc automatically and stops.
- If the tracks reach 99 during recording, the CD recorder stops recording.

- The recording time of a track may slightly differ from the original one.

Serial Copy Management System

This CD recorder is in compliance with the *Serial Copy Management System* (SCMS) standard. This standard has been elaborated to restrict digital-to-digital copying to only the first generation. The basic rules governing this system are as follows:

Rule 1: A digital recording is possible from a digital source such as a CD, DAT, or MD onto a recordable CD-R, CD-RW, MD, or DAT through a digital input connection; however, further digital-to-digital recording is prohibited for the second and later generations.

Rule 2: When an analog source such as an analog disc or FM broadcast is digitally recorded by using a CD-R, CD-RW, MD, or DAT, this recorded source can be digitally recorded on another CD-R, CD-RW, MD, or DAT; however, further digital copying is prohibited.

Dubbing

1. Set the disc to be dubbed in the PLAYBACK tray, and a CD-R/RW recordable disc in the RECORD/PLAYBACK tray. When a blank disc is set in the RECORD/PLAYBACK tray, **BLANK** appears.
2. Set the recording level. (See “Setting the Recording Level” on Page 24.)

3. Repeatedly press **DUBBING MODE** to set the dubbing speed.

DUBB 4X: high speed dubbing (four times as fast as the normal playback speed).

DUBB 2X: high speed dubbing (twice as fast as the normal playback speed).

DUBB 1X: normal speed dubbing.

When you set the dubbing speed, the CD recorder enters the pause mode until you are ready to begin dubbing.

Notes:

- If a recordable disc is not set in the RECORD/PLAYBACK tray, **CAN'T REC** appears. Replace the disc with a recordable one.
 - The CD recorder automatically changes the dubbing speed from **4X** to **2X** if it finds a problem such as a scratched disc.
 - The slower the speed is, the more tolerant the CD recorder is of errors on the CD-R/RW disc. If you are in doubt about the quality of the CD-R/RW discs, select **DUBB 1X**.
 - If you intend to monitor the sound during high speed dubbing, turn the volume of your amplifier down enough to prevent possible damage to your system from the high-pitched sound.
 - Analog output can be monitored at all three dubbing speeds but digital output can only be monitored at **1X**.
4. Press **▶/ENTER** for the RECORD/PLAYBACK tray to start dubbing. There is a slight delay before the CD recorder begins dubbing.

-
5. When the playback of the disc in the PLAYBACK tray ends, the CD recorder stops recording, finalizes the disc, and stops. **PMA WRITE, COMPLETE, FINALIZE, COMPLETE** appears. It takes about 1 minute to finalize the disc.

Notes:

- If the CD-R/RW disc set in the RECORD/PLAYBACK tray does not have enough space to dub the entire disc set in the PLAYBACK tray, **NO SPACE:D2** briefly appears and then **DUBB 1/2/4X** appears. It is possible to dub a part of the disc. Press **▶/ENTER** when **DUBB 1/2/4X** appears to select the track to start dubbing, then press **▶/ENTER**.
- When the disc reaches the end during recording, the CD recorder starts a fade-out over a few seconds. When the fade-out has finished, the CD recorder finalizes the disc automatically and stops.
- Press **■** of the PLAYBACK tray or the RECORD/PLAYBACK tray to stop dubbing.
- Track numbers are automatically incremented. During dubbing, you cannot add track numbers manually.
- During dubbing, only **■** of the PLAYBACK tray and the RECORD/PLAYBACK tray work. When dubbing is stopped by pressing **■**, the CD recorder will not finalize the disc.
- If you set a CD-RW in the PLAYBACK tray, the CD recorder automatically disables 4X speed dubbing.

- During 2X or 4X dubbing, you cannot monitor the dubbing through the digital outputs (optical and coaxial).
- To dub only one track, program the track, then dub it. See “Dubbing a Programmed Sequence”.
- If you attempt to dub a disc that contains an SCMS copy protection signal, **SCMS** appears. If you press **▶/ENTER, ANALOG MODE** appears then the CD recorder records the entire disc at 1X speed in analog mode. When the recording finishes, the CD recorder automatically finalizes the disc.

Dubbing a Programmed Sequence

1. Program a sequence of tracks on the CD in the PLAYBACK tray.
2. Press **DUBBING MODE** to select a dubbing speed.
3. Press **▶/ENTER**.
4. At the end of dubbing, **PMA WRITE** then **COMPLETE** appears. The CD recorder does not automatically finalize the disc.
5. Repeat Steps 1–4 above if you want to dub another sequence.

Notes:

- You can use Program Dubbing in all three dubbing speeds (1X, 2X, and 4X).

- After dubbing, if a program is stored, both ► of the **PLAYBACK** tray and ►/**ENTER** of the **RECORD/PLAYBACK** tray allow you to play the programmed tracks.

Dubbing a CD from a Selected Track to the Last Track

Instead of dubbing the entire source disc from the beginning to the end, you can dub tracks from a selected track to the last track.

You can select from the first track to the last track so the CD recorder dubs all the disc yet it does not finalize the disc in the **RECORD/PLAYBACK** tray at the end of the dubbing.

1. In the stop mode after installing discs, select the track you want to start from.
2. Press **DUBBING MODE** to select a dubbing speed then press ►/**ENTER**.
3. At the end of the dubbing, **PMA WRITE** then **COMPLETE** appears.
4. Repeat Steps 1–3 above if you want to dub additional tracks.

Basic Recording

This section describes the basics of recording from external sources.

1. Set a recordable CD-R/RW disc in the **RECORD/PLAYBACK** tray. When a blank disc is set in the **RECORD/PLAYBACK** tray, **BLANK** appears.

2. Select the source to be recorded. Every time you press **INPUT SELECTOR**, the input changes as follows:

DIGITAL OPTICAL (**OPTICAL** and **DIGITAL** light at the right of the peak level meter): use to record from a source connected to the **DIGITAL IN (OPTICAL)** terminal.

DIGITAL COAXIAL (**DIGITAL** and **COAXIAL** light at the right of the peak level meter): To record a source connected to the **DIGITAL IN (COAXIAL)** terminal.

ANALOG (**ANALOG** lights at the right of the peak level meter): use to record from a source connected to **LINE IN** jacks.

Note: If you select a digital input which is not connected to the CD recorder, **D-UNLOCK** briefly appears.

3. Adjust the recording level. See “Setting the Recording Level” on Page 24.
4. Select the mode of track number assignment by pressing **AUTO/MANUAL**. See “Assigning Track Numbers to Recordings” on Page 25.
5. Press **RECORD. BUSY** then **READY** appears. The CD recorder enters record pause mode. **||** and **REC** flashes.
6. Press ►/**ENTER** of the **RECORD/PLAYBACK** tray to start recording. Play the source to be recorded.

If the CD recorder detects copy-prohibit signals during recording, **CAN' T COPY** appears and recording stops.

7. Press **||** to temporarily pause recording. To restart recording, press ►/**ENTER**.

Note: Every time recording is paused or stopped, a new track number is always assigned.

8. Press ■ to stop recording.

Manually Assigning Track Numbers

It is possible to assign track numbers while recording. While recording, press **RECORD**. The current track number is incremented by one.

Setting the Recording Level

Play the source to be recorded, and press **DIGITAL REC LEVEL** – or + to adjust the recording level (± 6 dB). The loudest sound should not exceed the 0 dB of the peak level meter.

Unlike analog equipment, digital audio units produce extremely unpleasant sounds when distorted, and there is no “headroom” after the 0 mark. When you record digitally from a commercially-produced CD, set the digital volume to 0 dB. This will maintain all the dynamic range of the source CD without clipping. Only boost the signal if the source is exceptionally quiet.

Notes:

- Recording level is set to 0 dB when the power is turned on.
- You can only change the recording level when the CD recorder is in the stop mode or when the CD recorder plays the **PLAYBACK** tray.

Finalizing

As explained earlier, in order for a disc to become a standard CD, it must have a Table of Contents (TOC) written to it. This process is known as finalizing. Once finalized, CD-R discs are truly final. You cannot record any more tracks on them. By contrast, you can “unfinalize” CD-RW discs and record more tracks on them.

1. Load an unfinalized (recordable) disc in the **RECORD/PLAYBACK** tray. **NO TOC** appears if the disc is unfinalized.
2. Press **FINALIZE** in the stop mode. To cancel the finalizing process, press ■.
3. Press ►/**ENTER** to start finalizing. **FINALIZE** scrolls on the display.

When the operation is finished, the display returns to the track/time display. **NO TOC** disappears.

Notes:

- During finalizing, never turn the power off or unplug the power cord.
- Although finalized CD-R discs may be replayed on ordinary CD players, finalized CD-RW discs may not play on ordinary CD players.

Erasing or Unfinalizing a CD-RW

If a CD-RW is finalized, you can unfinalize it or erase all tracks on it. If a CD-RW is not finalized, you can erase the last track on it or erase all tracks on it. Remember that it is not possible to perform any erase procedures on a CD-R disc.

-
1. Insert a recorded CD-RW in the RECORD/PLAYBACK tray. If the disc is finalized, only **CD-RW** appears at the upper right on the display. If the disc is not finalized **CD-RW** and **NO TOC** appear.
 2. If the disc is finalized, press **ERASE** once to select **UNFINALIZE** or twice to select **ERASE ALL** in the stop mode. If the disc is not finalized, press **ERASE** once to select **ERASE #** (# means the last track number) or twice to select **ERASE ALL**.

To cancel the erasing or unfinalizing process, press ■.

3. Press ►/ENTER.

Note: You cannot cancel this operation once you press ►/ENTER. If you are going to erase tracks, make sure that they are recordings that you really want to erase.

Advanced Recording

Assigning Track Numbers to Recordings

You can set the CD recorder to automatically or manually assign track numbers to recordings by pressing **AUTO/MANUAL**. As you press **AUTO/MANUAL**, the CD recorder displays **INCLVL -60**, **INCLVL -50**, **INCLVL -40**, and **MANUAL**. If you want the CD recorder to automatically assign track numbers to recording, select **INCLVL -60**, **INCLVL -50**, or **INCLVL -40**. **-60**, **-50**, and **-40** indicate the recording level at which the CD recorder automatically increments a track number.

When the auto track feature is on, **A-TRACK** appears. If you want to assign track numbers manually, select **MANUAL**.

During dubbing, the auto track feature is always **ON**. When the CD recorder detects an increment signal, the CD recorder automatically increments a track number. You cannot manually add track numbers.

When you record digitally from an external source with the auto track feature set to **ON**, the CD recorder automatically inserts a track division in the recorded material when an increment signal is detected. If the source does not contain increment signals, auto track does not work at all. In such a case, add track numbers by pressing **RECORD** during recording. When the CD recorder is in manual track division mode (**A-TRACK** is off), the track number on the disc you are recording is only increased when you press **RECORD** during recording.

When you record analogically from an external source with the auto track feature set to **ON**, the CD recorder automatically inserts a track division in the recorded material when sound level once drops below the increment level (-60, -50, or -40 dB) for more than 3 seconds and then the sound restarts.

You can add track numbers by pressing **RECORD** during recording from an external source. When the CD recorder is in manual track division mode (**A-TRACK** is off), the track number on the disc you are recording is only increased when you press **RECORD** during recording.

Setting the Track Number Increment Level and the Synchronized Recording Starting Level

By pressing **AUTO/MANUAL**, you can set the track number increment level so the CD recorder automatically increments track numbers when you make a recording or you can set the record starting level when you make a synchronized recording. As you press **AUTO/MANUAL**, the CD recorder displays **INCLVL-60**, **INCLVL-50**, **INCLVL-40**, and **MANUAL**. -60, -50 and -40 mean the signal levels in decibels. The default setting is **INCLVL-60** when the CD recorder is turned on.

Track Number Increment Level

- A lower setting (-60 dB) indicates that a very silent passage with little or no background hiss will trigger the track number increment.
- A higher setting (-40 dB) indicates that a fairly silent passage with some background hiss will trigger the track number increment.
- **MANUAL** setting indicates the auto track increment feature does not work.

Synchronized Recording Starting Level

- A lower setting (-60 dB) indicates that a relatively quiet input signal will trigger the recording.

- A higher setting (-40 dB) indicates that a relatively loud input signal will trigger the recording.
- **MANUAL** setting indicates the synchronized recording feature does not work.

Synchronized Recording

Synchronized recording means that recording begins automatically when the CD recorder detects a signal above the selected level, and stops when the signal ends.

(If your digital external source is compatible with the CD SYNC feature, the track information and recording cues automatically operate. If your digital external source is not compatible with the CD SYNC signal, the digital synchronized recording does not work. You can still make a synchronized recording in analog mode.)

1. Set a recordable CD-R/RW disc in the **RECORD/PLAYBACK** tray.
2. Select the input (**DIGITAL OPTICAL**, **DIGITAL COAXIAL**, or **ANALOG**).
3. Press **AUTO/MANUAL** to select the level at which the synchronized recording starts. See “Setting the Track Number Increment Level and the Synchronized Recording Starting Level”.
4. Press **SYNC REC** to select **SYNC-1** or **SYNC-ALL**.

*To record only one track, select **SYNC-1**.*

*To record all the tracks, select **SYNC-ALL**.*

Note: You cannot select **SYNC-1** for analog recording.

5. After **READY** appears, press **►/ENTER** of the RECORD/PLAYBACK tray.
|| disappears, and **REC** lights steadily.
6. Start playing the source. The CD recorder starts synchronized recording.

During digital recording, if the input signal stops for 5 seconds, recording stops. During analog recording, if the input signal stops for 20 seconds, recording stops.

Mixing Recording

You can mix the sound of an analog external input and a CD placed in the PLAYBACK tray on a CD-R/RW disc. For example, if you have a microphone and its amplifier, you can add narration to your CD. Or you can mix the sound of your musical instruments to your CD.

1. Connect the external analog source and load the discs.
2. Record the external analog source and then press **►** of the PLAYBACK tray.

Time Display

Press **TIME** to switch the mode of the time display. Each time you press **TIME**, the mode changes as follows:

In the Play/Pause Mode

- Elapsed time of the track being played.

- Total elapsed play time of tracks.
- Remaining time of the track being played.
- Total remaining play time of tracks.
- The total play time and the number of tracks.

In the Stop Mode

- The total play time and the number of tracks for both trays.
- Remaining recording time of the disc in the record tray.

In the Recording Mode

- Elapsed recording time of the track being recorded.
- Remaining recording time of disc.

Messages

BLANK — A blank CD-R/CD-RW disc is set on the tray.

CLOSE — Close the disc tray.

COMPLETE — Dubbing, recording, finalizing, or erasure has been completed.

DUBB 1X — Normal speed dubbing from the PLAYBACK tray to the RECORD/PLAYBACK tray.

DUBB 2X — 2X speed dubbing from the PLAYBACK tray to the RECORD/PLAYBACK tray.

DUBB 4X — 4X speed dubbing from the PLAYBACK tray to the RECORD/PLAYBACK tray.

ERASE ** — Erase the last track of the CD-RW disc.

ERASE ALL — Erase all the track of the CD-RW disc.

FINALIZE — Finalize the disc.

INCLVL** — Increment level

MANUAL — Auto track division is off.

NO DISC — No disc is set on the tray.

OPEN — Open the tray.

PMA WRITE — Writing the recorded memories on the disc. (PMA: Program Memory Area)

READING — The CD recorder is reading the disc.

REC **DB — Recording level

STEP ** — Program number

SYNC-1 — Record one track synchronously.

SYNC-ALL — Record all the tracks synchronously.

UNFINALIZ — Unfinalize the CD-RW disc.

Note: ** indicates variable.

Error Messages

When an error message appears, press ■ and check the cause.

CAN'T REC — Cannot record, erase, or finalize the disc. Change the disc. If the CD-RW disc is finalized, unfinalize it. See “Erasing or Unfinalizing a CD-RW” on Page 24.

D-UNLOCK — Digital input is selected, but the digital source is not connected or the source's power is off.

DISC FULL — There is no space on the disc, or no tracks are available.

NO CD-DA:D2 — Discs designed for computing systems cannot be used for recording. Use the discs bearing DIGITAL AUDIO mark.

NO SPACE:D2 — The recordable space of the CD-R/CD-RW disc set in the RECORD/PLAYBACK tray is not enough to dub the whole disc in the PLAYBACK tray. Dubbing stops halfway.

PGM FULL — 32 tracks have been programmed. You cannot program any more tracks.

SCMS —
(*Serial Copy Management System*) If you are trying to record digitally from a “second-generation” digital copy, try analog recording.

Troubleshooting

Incorrect operations are often mistaken for trouble and malfunctions. If you think that there is something wrong with this component, check the points below. Sometimes the trouble may lie in another component. Investigate the other components and electrical appliances being used. If the trouble cannot be resolved by following the suggested remedies below, take the CD recorder to your nearest local RadioShack store.

This CD recorder has been manufactured to the specifications of RadioShack and is covered by a limited warranty from RadioShack. If your CD recorder is not operating as it should, take it to your local RadioShack store or call 1-800-THE-SHACK for assistance.

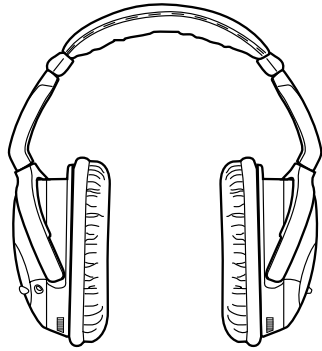
Problem	Solution
No power.	Check the connection to the AC power supply.
No sound from speakers.	Check the connection to the stereo system.
	No disc has been loaded. Load a disc.
The sound is noisy.	The CD recorder is too close to a TV set or similar appliances. Install the CD recorder away from TV's and other electronic devices or turn the devices off.
Remote control does not work.	Check the batteries and replace them if necessary.
	Use the remote control within the range of 15 ft./5m and point at the front panel.
	Clear obstacles between the remote control and the CD recorder.
	If a fluorescent light is near the CD recorder, turn it off.
Does not play.	Load a disc with the label side up.
	If the disc is dirty, clean the surface on the disc.
	A blank disc has been loaded. Load a pre-recorded disc.
Sound skips.	Place the CD recorder in a stable place to avoid vibration and shock.
	If the disc is dirty, clean the surface of the disc.
	Do not use scratched, damaged, or warped discs.
The recording level is too low.	Adjust the recording level.
	Check the connected components. If the CD recorder still does not operate normally, unplug the power cord from the outlet and plug it in again.

Specifications

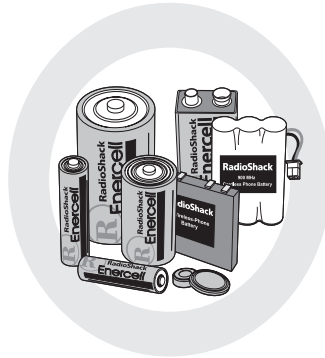
Media Type ...	CD-RW and CD-R for digital audio (record and playback), CD (playback only)
Converter Input Sampling Frequency	32 kHz–48 kHz
Recording Sampling Frequency	44.1 kHz
Frequency Response	20 Hz–20 kHz
.....	(playback: ± 1.5 dB, recording: ± 1.5 dB)
Signal to Noise Ratio	
Playback	More than 92 dB
Recording	More than 86 dB
Dynamic Range	
Playback	More than 92 dB
Recording	More than 86 dB
Total Harmonic Distortion	
Playback	Less than 0.01%
Recording	Less than 0.02%
Wow & Flutter	unmeasurable
Audio Input Sensitivity/Impedance.....	LINE: -6 dBV (0.5 V)/20 kOhm
Output Level/Impedance	LINE: -6 dBV (0.5 V)/1 kOhm
Maximum Output Level	LINE: +6 dBV (2.0V)
Power Supply	120 V AC, 60 Hz
Power Consumption.....	20 W
Dimensions (WHD).....	$17\frac{1}{8} \times 4 \times 12\frac{1}{8}$ Inches
	(435 \times 102 \times 320 mm)
Weight	$11\frac{3}{16}$ lb.
	(5.1 kg)
Supplied Accessories	RCA Patch Cable \times 1
	Remote Control \times 1

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

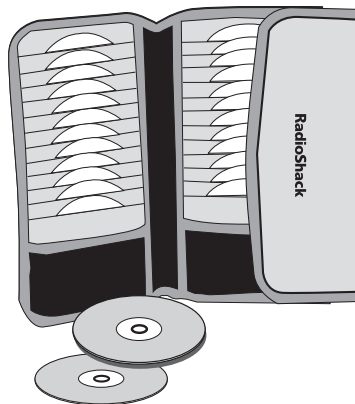
Optional Accessories



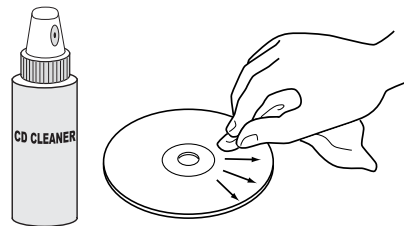
Your local RadioShack has a wide selection of headphones.



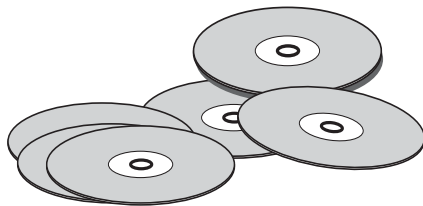
You will need two AA batteries for the remote control.



Protect your CDs by storing them in a RadioShack CD Wallet



RadioShack CD Cleaning Kits can help you care for your CDs.



You can purchase blank CD-R discs at RadioShack.

Limited One-Year Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for one (1) year from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

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

RadioShack Customer Relations, 200 Taylor Street, 6th Floor, Fort Worth, TX 76102

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