

Handheld Cassette Recorder with Pop-Up Microphone

Thank you for purchasing your Handheld Cassette Recorder from **RadioShack**. Please read this user's guide before installing, setting up, and using your new Recorder.

Check package contents

- Handheld Cassette Recorder
- User's Guide
- Quick Start

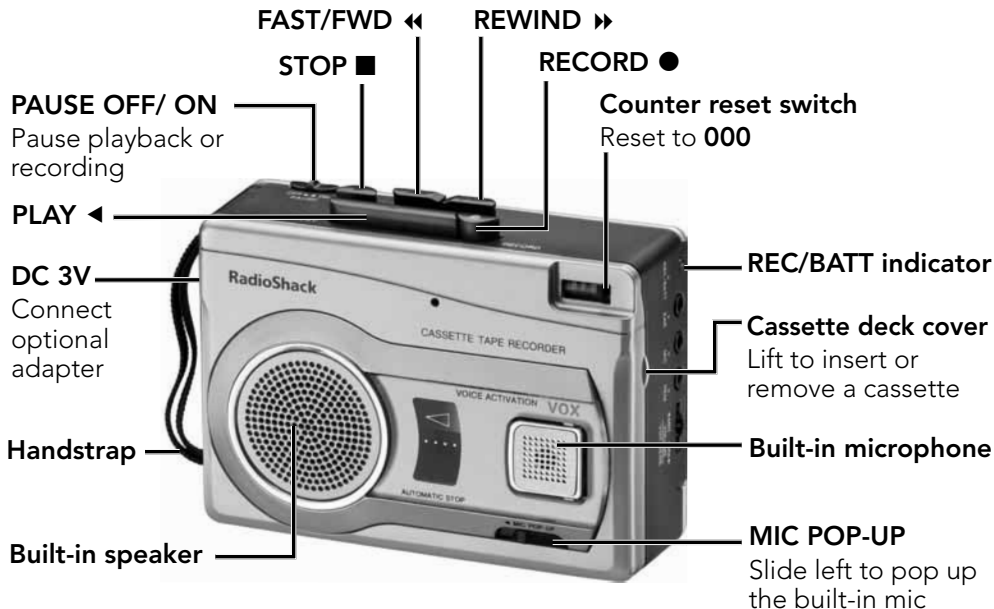


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Overview of Controls



TAPE SPEED

Select playback and search speed.

VOX/TONE

- Adjust to **LOW/HIGH** for bass/ treble tones.
- Turn **VOX** voice-activation recording **ON/OFF**.

MIC SENSITIVITY

Adjust microphone sensitivity. See page 11.

Battery cover

EAR 3.5mm Mono earphone jack.

MIC 3.5mm jack for an optional external microphone connection. See page 13.

REM 2.5mm jack for an optional microphone remote control connection. See page 13.

VOLUME/VOX SENS

- Adjust tape playback volume.
- Adjust volume sensitivity for VOX recording. See page 12.



Features

- VOX Voice-Activation recording mode to save tape
- Adjustable playback speed control
- Pop-Up Microphone with adjustable VOX sensitivity

Set up

① Remove the protective sleeve

Before you use the recorder, open the cassette compartment door and remove the protective sleeve from the record playback head.

② Choose a power supply

Choose from one of 3 ways to power the recorder. See **“Power Options”** on page 7.

③ Insert a blank tape, play and record

To learn about the VOX feature and how to make a recording, see **“Recording”** and **“Playing a Cassette”** on pages 11-16.



Power Options

You can operate your recorder from any of these power sources:

- two AA batteries (not supplied)
- standard household AC power, using an optional AC adapter
- a 12-volt vehicle battery, using an optional DC adapter

 **Caution:**

- *You must use a Class 2 power source that supplies 3V DC and delivers at least 300 mA. Its center tip must be set to positive, and its plug must fit the recorder's **DC 3V** jack. Using an adapter that does not meet these specifications could damage the recorder or the adapter.*
- *Be sure you connect the adapter to the recorder before you plug it into the AC outlet/ cigarette-lighter socket.*
- *Always unplug the adapter from the power source before disconnecting it from the recorder.*

Installing Batteries

You can power the recorder with two alkaline AA batteries.

1. Slide off the battery cover in the direction of the arrow.
2. Insert batteries into the compartment as indicated by the polarity symbols (+ and -) marked inside. Replace the cover.

Battery Notes

- If the **REC/BATT** indicator does not light, or lights dimly when you press ◀, ◀◀, or ▶▶, replace the batteries.
- Dispose of batteries promptly and properly. Do not burn or bury them.
- Use only fresh batteries of the required size and type.
- Do not mix old and new batteries, different types of batteries (alkaline, or rechargeable), or rechargeable batteries of different capacities.
- If you do not plan to use the recorder for more than 2 weeks, remove the battery. Batteries can leak chemicals that can damage electronic parts.



Using an Optional Adapter

You can power the recorder using an AC adapter or your vehicle's 12V cigarette-lighter socket using a DC adapter (neither included). The adapter you choose should supply 3V, deliver at least 300 mA, and have a positive center tip. These are available at your local **RadioShack** store.

 **Note:** *Using an adapter automatically disconnects installed batteries.*

Using an AC adapter

1. Insert the barrel plug into the recorder's **DC 3V** jack.
2. Plug the adapter into a standard AC outlet.

Using a DC adapter with a vehicle battery

1. Set the adapter's voltage switch to 3 volts.
2. Insert the plug into the recorder's **DC 3V** jack.
3. Plug the other end of the adapter into the vehicle's cigarette lighter socket.





Note: If the recorder does not operate properly when connected to a cigarette-lighter socket, unplug the adapter and clean any ashes or dirt from the socket.

Connecting Earphones

Insert 1/8-in (3.5mm) earphones (not supplied) into the **EAR** jack to listen privately or to monitor your recording. You can also connect an external speaker (not supplied) to this jack.

Listening Safely

Do not wear headphones, earphones, or earbuds while operating a motor vehicle or riding a bicycle. This can create a traffic hazard and could be illegal in some areas. To protect your hearing, follow these guidelines:

- Do not listen at extremely high volume levels. Extended high volume listening can lead to permanent hearing loss.
- Set the volume to its lowest level, then turn on your audio device and adjust the volume to a comfortable listening level.
- Avoid increasing the volume. Your ears will adapt to the volume level, so a level that does not cause discomfort might still damage your hearing.

Recording

Using the Pop-Up Microphone

Pop up the built-in microphone to direct it to the sound source, or you can connect an external microphone (see “**Using an External Microphone**” on page 13).

1. Slide **MIC POP-UP** in the direction of the arrow.
2. Slide **MIC SENSITIVITY** to one of 3 settings:
 - Set to **MEDIUM** under normal recording conditions.
 - Slide to **HIGH** if you are recording a quiet talker or another weak sound source.
 - Slide to **LOW** for a strong sound source.
3. To return the microphone to its original position, gently press it down.



VOX Recording

VOX (voice activation) helps save tape and playback time. When you select VOX recording, the recorder automatically begins recording when it receives a sound signal from a voice or other sound, and automatically stops when the sound stops.

For best recording quality, place the recorder about 1 foot from the sound source. The microphone is sensitive enough to pick up sound several feet away.

1. Load a tape into the recorder, as described in “**Playing a Cassette**” on page 15.
2. Set **VOX/TONE** to **ON**.
3. Set **VOLUME/VOX SENS** to the desired setting (**0-10**) to control how loud a sound is required to activate recording. At **10**, a soft sound turns on the recorder. At settings closer to **0**, it takes a louder sound to start recording. Experiment to find the best setting for your recording environment.
4. Press **RECORD**. **RECORD** and ◀ lock down. Recording starts when the microphone detects a sound, and stops whenever the sound signal ceases. The **REC/BATT** indicator flashes to show that recording is in progress. If the audio input is too strong, the indicator lights steadily.
5. To pause or stop recording, see “**Manual Recording**” on page 13.

 **Caution:** *Never try to force down **RECORD** if you have removed the erase protection tab (see “**Preventing Accidental Erasure**” on page 14) as it can damage the record/play mechanism.*

Manual Recording

To control when recording begins and ends, manually, set **VOX/ TONE** to **OFF**, then press **RECORD** to begin recording. Use **□** and the pause control to stop and pause your recording.

Using an External Microphone

1. Connect an external microphone (not supplied) with a 1/8-inch (3.5mm) plug to the recorder's **MIC** jack as an alternative to using the built-in microphone. This automatically overrides the built-in microphone.
2. Set **VOX/TONE** to **ON** for **VOX** recording, or to **OFF** for manual recording.
3. If the microphone has an **ON/OFF** remote control switch, connect the microphone to the **REM** and **MIC** jacks. Then you can start and stop recording with the switch on the microphone.

Recording from External Sources

You can record directly from a tuner, radio, or a TV that has a 1/8-inch (3.5mm) jack.

1. Use a dubbing patch cord (not supplied) to connect the recorder's **MIC** jack to the headphone output jack of an external component.
2. Set **VOX/TONE** to **OFF**, then proceed with manual recording.

Erasing

Erasing a Recording

To record over a cassette tape, you can either:

- Record as usual. The cassette deck records over the previous recording.
- Quickly erase both sides of a cassette tape using a bulk tape eraser, available at your local **RadioShack** store.

Preventing Accidental Erasure

To prevent accidental erasure of a tape recording, use a screwdriver to remove one or both of the cassette tape's erase-protection tabs. This prevents **RECORD** from being pressed.

If you later decide to record on a tape side after you have removed its erase-protection tab, place a piece of strong plastic tape over the erase-protection hole. Be sure you cover only the hole originally covered by the erase-protection tab.


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

Playing a Cassette

For best performance, use only regular length (60 or 90 minute) cassette tapes. We do not recommend metal tapes or long-playing cassette tapes, such as C-120s, because they are extremely thin and can tangle easily.

1. Open the cassette deck cover.
2. Use a pencil to turn the cassette's hub and take up any slack in the tape before loading.
3. Load the cassette with the side you want to play facing the compartment's window, then close the door.
4. Set **TAPE SPEED** to **SLOW**, **NORMAL**, or **FAST**. Use the tape speed which best suits you to find a passage or make a transcription.
5. Turn **VOLUME/VOX SENS** counter-clockwise to its lowest setting.
6. Press ◀ to start tape playback.
7. Adjust **VOLUME/VOX SENS** to a comfortable listening level.
8. Set **VOX/TONE** to **HIGH** to emphasize treble sounds, or to **LOW** to reduce them.
9. To pause playback, slide **PAUSE** to **ON**. Slide **PAUSE** to **OFF** to resume playing.
10. To fast forward or rewind the tape, press ◀/▶. The button locks down and the tape continues moving until you press ■. Make sure you press ■ to release ◀/▶ and stop the tape. This prevents damage to the tape after it has fully wound.

11. The recorder automatically stops at the end of the tape during playback or recording. Or, press ■ to stop the tape instantly.

 **Note:** The **TAPE SPEED** setting also affects the fast forward/ rewind speed, but will not affect recording.

Using the Counter

You can use the tape counter to indicate the tape's position. Before playing a tape, press the tape counter reset button to set the counter to **000**.

When the recorder plays, the numbers advance to show the amount of tape that has moved past the tape heads since the tape began moving. When the tape rewinds, the numbers decrease.

Care and Maintenance


Modifying or tampering with the recorder's internal components can cause a malfunction and invalidate its warranty. If your recorder is not performing as it should, take it to your local **RadioShack** store for assistance.

- Keep the recorder dry. If it gets wet, wipe it dry immediately.
- Use and store the recorder only in normal temperature environments.
- Handle the recorder gently and carefully. Don't drop it.
- Keep the recorder away from dust and dirt. Wipe the recorder with a damp cloth occasionally to keep it looking new.

Restoring Tape Tension and Sound Quality

After you play a cassette tape several times, the tape might become tightly wound on the reels causing sound quality to deteriorate. To restore sound quality:

1. Fast-forward the tape from the beginning to the end of one side, then completely rewind it.
2. Loosen the tape reels by gently tapping each side of the cassette 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.*

Cleaning the Tape-Handling Parts

Dirt, dust, or particles of the tape's coating can accumulate on the tape heads and other parts. This can greatly reduce the performance of the cassette recorder. After every 20 hours of tape recorder operation, use a cassette deck cleaning kit (not supplied) or follow these steps to clean the tape-handling parts.

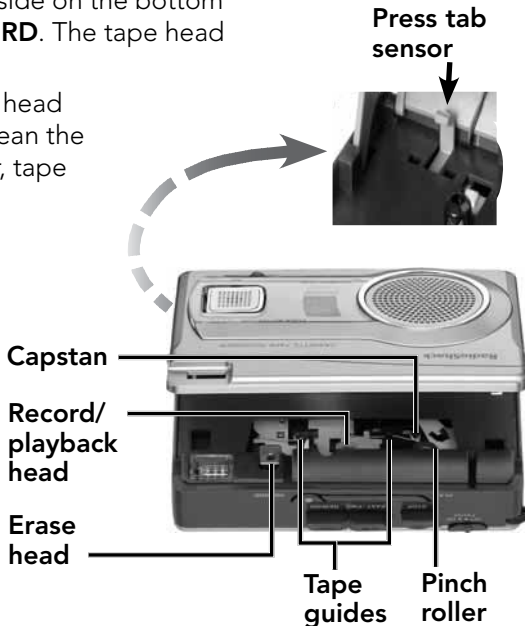
1. Remove the batteries and disconnect any other power source.
2. Open the cassette deck cover.

3. Press the protection tab sensor, inside on the bottom left-hand corner, then press **RECORD**. The tape head assembly comes out.
4. Use a cotton swab dipped in tape head cleaner or denatured alcohol to clean the record/playback head, pinch roller, tape guides, and capstans.
5. Press **■** to move the tape head assembly back, then close the door.



Caution:

- *Never touch the surface of the record/playback head with metallic objects.*
- *Do not use a tape demagnetizer. Doing so can impair operation.*



Additional Information

Specifications

Tape System	2-track, Monophonic
Tape Speed	1 $\frac{7}{8}$ ips. (4.75 cm/sec.)
Wow and Flutter	0.20% (Nominal), 0.35 % (Limit), at JIS WTD mode
Signal-to-Noise Ratio (Rec/Play).....	38dB
Erase System.....	Magnet
Record System	AC Bias

Power Requirement:

Batteries.....	2 × AA
Adapter.....	3V DC vehicle adapter, or 3V, 300mA AC adapter
Dimensions (HWD)	4.8 × 3.37 × 1.59 inches (122 × 85.5 × 40.5mm)
Weight (without batteries)	6.9 oz (197g)

Specifications are subject to change and improvement without notice. Actual product may vary from the images found herein.

Troubleshooting

Poor sound quality/recorder does not work properly

- Incompatible metal type tape used. Use only normal type tapes.
- Tape speed setting on **SLOW/FAST**. Adjust to **NORMAL**.
- Check sound settings. Adjust **VOLUME/VOX SENS** and **VOX/TONE**.
- Recorder set on pause mode. Slide **PAUSE** to **OFF** to resume playing.
- Battery power low. Replace with fresh batteries.
- Tape head and parts maybe dirty. See “**Cleaning the Tape-Handling Parts**” on page 17-18 to clean.
- Car adapter plug dirty. Unplug to clean the ignition socket and adapter plug.

Recording keeps stopping/does not work

- Check **VOX/TONE** setting. Adjust to **OFF** for a normal recording as it happens.
- Recorder set on pause mode. Slide **PAUSE** to **OFF** to resume recording.
- Check the erase protection recording tabs on your tape. If broken, use scotch tape to cover over the tabs.

Limited Warranty

RadioShack warrants this product against defects in materials and workmanship under normal use by the original purchaser for **ninety (90) days** after the date of purchase from a **RadioShack**-owned store or an authorized **RadioShack** franchisee or dealer. **RADIOSHACK** MAKES NO OTHER EXPRESS WARRANTIES.

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