



Cat. No. 19-345

## Simplex Repeater Controller

Your RadioShack Simplex Repeater Controller extends the range of your Business Band or Amateur Radio system. It easily connects to many 2-way radio transceivers and automatically records what the transceiver receives (up to 30 seconds), then keys the transceiver and retransmits the recorded transmission. It is simple, compact, and easy to carry and use.

You can use the repeater to extend the range of many RadioShack and other handheld Amateur Radio and Business Band transceivers that have external microphone/speaker jacks. It is also compatible with Icom, Yaesu, Alinco, Standard, and other transceivers.

The repeater has these features:

**Receive Signal Indicator** — lights to show that the connected transceiver is receiving a transmission and the repeater is recording.

**Low Power Circuitry** — automatically enters a very low power mode between transmissions.

## POWER SOURCES

You can power the repeater using any of these power sources:

- four AAA batteries (not supplied)
- standard AC power (using an optional AC adapter)
- vehicle battery power (using an optional DC adapter)

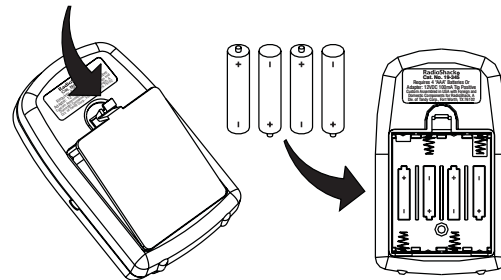
## Installing Batteries

You can use four AAA batteries to power the repeater. For the longest battery life, we recommend alkaline batteries, such as Cat. No. 23-555.

### Cautions:

- Use only 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.

Follow these steps to install the batteries.



1. Press down on the tab and lift off the battery compartment cover.
2. Put four fresh AAA batteries in the compartment, matching the polarity symbols (+ and -) marked inside.
3. Replace the cover.

When the repeater stops operating properly, replace the batteries.

**Cautions:**

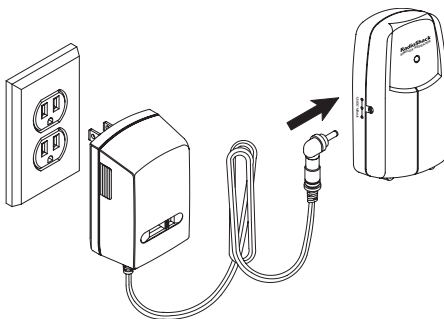
- Always remove old or weak batteries. Batteries can leak chemicals that can destroy electronic parts.
- Dispose of old batteries promptly and properly. Do not burn or bury them.

**Using AC Power**

To power the repeater with AC power, you need an AC adapter such as Cat. No. 273-1662.

**Cautions:**

- You must use an AC adapter that supplies at least 12 volts and delivers at least 100 mA. Its center tip must be set to positive and its plug must fit the repeater's **12VDC 100mA** jack. The recommended adapter meets these specifications. Using an adapter that does not meet these specifications could damage the repeater or the adapter.
- Always plug the adapter into the repeater before you plug it into an AC outlet, and unplug the adapter from the AC outlet before you unplug it from the repeater.



1. Set the adapter's voltage switch to 12 volts.
2. Attach the adapter's 3.4 mm outer diameter/1.3 mm inner diameter adaptaplug to the adapter, with TIP set to +.

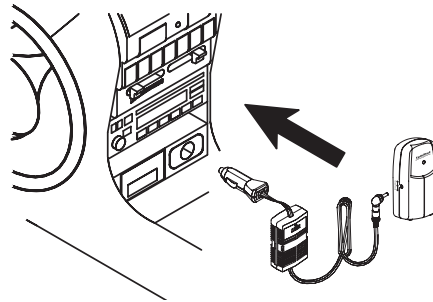
3. Insert the adaptaplug into the repeater's **12VDC 100mA** jack.
4. Plug the adapter into a standard AC outlet.

**Using Vehicle Battery Power**

To power the repeater from your vehicle's cigarette-lighter socket, you need a DC adapter such as RadioShack Cat. No. 270-1562.

**Caution:** You must use a DC adapter that supplies 12 volts and delivers at least 100 mA. Its center tip must be set to positive and its plug must fit the repeater's **12VDC 100mA** jack. The recommended adapter meets these specifications. Using an adapter that does not meet these specifications could damage the repeater or the adapter.

Always plug the adapter into the repeater before you plug it into the cigarette-lighter socket, and unplug the adapter from the socket before you unplug it from the repeater.



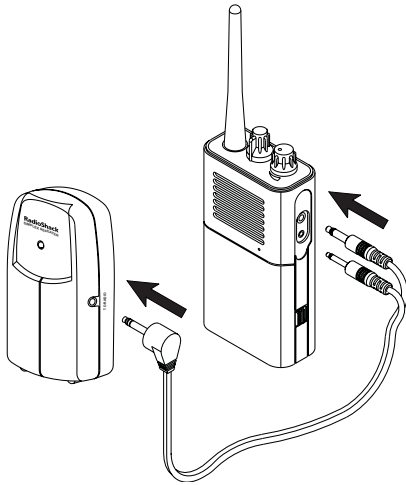
1. Set the adapter's voltage switch to 12 volts.
2. Attach the adapter's 3.4 mm outer diameter/1.3 mm inner diameter adaptaplug to the adapter, with TIP set to +.
3. Insert the adaptaplug into the repeater's **12VDC 100mA** jack.
4. Plug the adapter into the vehicle's cigarette-lighter socket.

## CONNECTING TO THE TRANSCEIVER

For the best performance, place the repeater:

- as high as possible above all obstructions
- in a central area where all users can communicate with each other

**Note:** To avoid accidental transmission, turn off your transceiver before connecting the repeater.



1. Insert the single  $\frac{3}{32}$ -inch (2.5-mm) plug on the supplied "Y" patch cord into the repeater's **TO RADIO** jack.
2. Insert the  $\frac{3}{32}$ -inch (2.5-mm) plug at the other end of the "Y" patch cord into the transceiver's microphone jack. Then insert the  $\frac{1}{8}$ -inch plug on the "Y" patch cord into the transceiver's ear-phone jack.

## OPERATION

To work with the Simplex Repeater Controller, all transceivers you want to communicate with must be on the same frequency and have the same capabilities (e.g., CTCSS or any type of private line encoding or decoding). For the best range, place the repeater radio's antenna as high as possible.

1. Turn on the transceiver you connected to the repeater, set the volume to its lowest level, and adjust the squelch control to its mid-point.
2. Turn on a second transceiver, set the volume to its mid-point, and turn the squelch control clockwise until the hissing sound stops. Hold down PTT (push-to-talk) on this second transceiver without talking into its microphone.
3. Slowly increase the volume on the transceiver you connected to the repeater until the indicator on the repeater lights steadily. Then increase the transceiver's volume slightly.
4. Release PTT on the second transceiver.
5. Adjust the volume level on the transceiver you connected to the repeater to the desired level.
6. Press PTT on the second transceiver and wait 1 second, then speak into the microphone. Release the button when you finish speaking.

The repeater repeats your transmission. All other transceivers that are on the same frequency and within range of the transceiver you connected to the receiver receive your transmission.

## CARE

To enjoy your repeater for a long time:

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

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

## SPECIFICATIONS

Power Supply .....	12 Volts, 100 Milliamps
Current Drain .....	<40 Milliamps
Battery Life .....	About 2 Months
Carrier Detect Activation Time.....	<2 Seconds
Carrier Hang Time .....	1/2 Second
Recording Time .....	30 Seconds
Dimensions (HWD) .....	3 <sup>3</sup> / <sub>4</sub> × 2 <sup>1</sup> / <sub>8</sub> × 1 <sup>1</sup> / <sub>16</sub> Inches (9.5 × 5.3 × 2.7 cm)
Weight (w/o Batteries) .....	1.9 oz (54 gm)

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

### Limited Ninety-Day Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for ninety (90) days 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 the limitations on how long an implied warranty lasts or the exclusion 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.

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