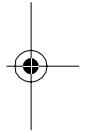


Cat. No. 23-401

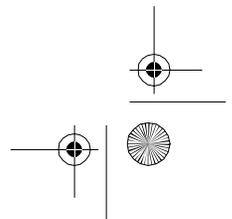
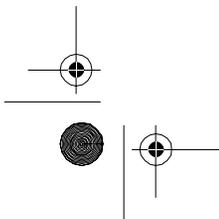
## OWNER'S MANUAL

Please read before using this equipment.

# CELLULAR BATTERY CONDITIONER/CHARGER



# Radio Shack



## FEATURES

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Your Radio Shack Cellular Battery Conditioner/Charger uses advanced technology to charge and condition various rechargeable cellular phone batteries — such as Radio Shack 17-1060/1061/1062, Motorola Micro Tac and 9800 series, and Nokia 101/232.

To prevent your rechargeable battery from losing its ability to fully recharge, you must condition it (by discharging it) about once every 10 times you recharge it. Most battery chargers can only recharge a battery. Your Radio Shack Cellular Battery Conditioner/Charger lets you both discharge and then recharge it, increasing your battery's efficiency and durability.

Its features include:

**Battery Versatility** — lets you recharge Nickel Cadmium (Ni-Cd) and Nickel-Metal Hydride (Ni-MH) rechargeable cellular phone batteries.

**Built-In Discharge** — lets you condition your rechargeable battery for the longest life and best performance.

**Automatic Switching** — automatically switches to the charging mode when discharging is completed.

**Status Lights** — show you the battery conditioning/charging status.

**Two Power Sources** — let you power the conditioner/charger using either standard AC power or your vehicle's battery power.

**Interchangeable Charging Adapters** — let you recharge/condition various types of rechargeable batteries, such as Motorola Micro Tac series, Motorola 9800 series, Nokia 101, Nokia 232, etc.

**Quick/Slow Charge Selector** — lets you charge a battery either in the slow mode for a longer lasting charge, or the quick mode to begin using it more quickly.

**Trickle Charge** — continuously charges the battery with a 20–30 mA trickle current after the batteries are fully charged to ensure they are ready to use at any time.

**Short-Circuit/Overcharge/Deep-Discharge Protection** — protects your battery from being damaged and prolongs its life.

**Battery Condition Function** — refreshes/activates batteries that have not been used for long periods of time.

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# CONTENTS

<b>Preparation.....</b>	<b>4</b>
Connecting a Motorola Micro Tac Battery .....	4
Connecting a Motorola 9800 Series or Nokia 101/232 Battery .....	4
Removing a Battery .....	6
Removing an Adapter .....	6
Connecting Power .....	6
Using Standard AC Power.....	6
Using Your Vehicle's Battery Power .....	7
<b>Operation.....</b>	<b>8</b>
Charging a Rechargeable Battery .....	8
Conditioning a Rechargeable Battery .....	9
Refreshing a Fully Discharged Battery .....	9
<b>Care And Maintenance.....</b>	<b>10</b>
Replacing the DC Cord's Fuse.....	11
<b>Specifications .....</b>	<b>12</b>

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

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK. DO NOT OPEN.	
<b>CAUTION:</b> TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK. NO USER-SERVICE-ABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.		



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



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



## PREPARATION

### CONNECTING A MOTOROLA MICRO TAC SERIES BATTERY

The conditioner/charger is designed to charge a Motorola Micro Tac series battery that you can mount directly onto the conditioner/charger.



Motorola Micro Tac Battery

1. Hold the battery with its charging contacts to the right, then place the battery's bottom slide groove over the conditioner/charger's slide guides.
2. Push the battery toward the left until it clicks into place.

### CONNECTING A MOTOROLA 9800 SERIES OR NOKIA 101/232 BATTERY

To charge a Motorola 9800 series, Nokia 101, or Nokia 232 battery, you need to mount the proper supplied charging adapter along with the battery.

**Note:** The adapters are labelled on the bottom.

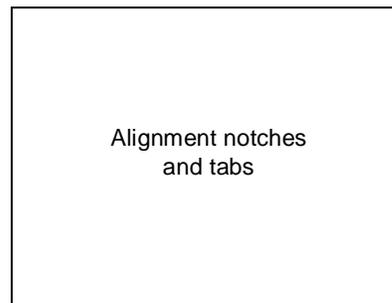


Label on bottom of adapter

Follow these steps to charge a Motorola 9800 series battery using the appropriate charging adapter.

1. Place the charging adapter's bottom slide groove to the right of the charger/conditioner's slide guides.

**Note:** The adapter's notches (on the bottom) and the conditioner/charger's tabs must be aligned.

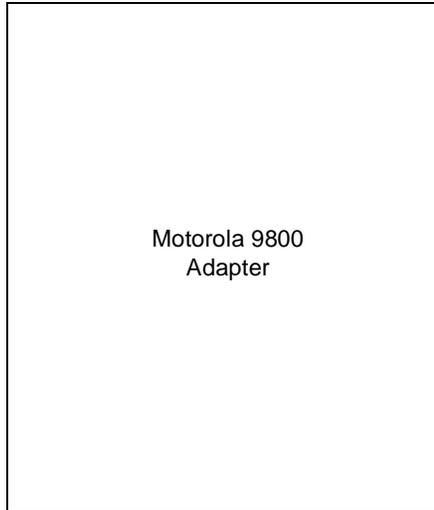


Alignment notches and tabs

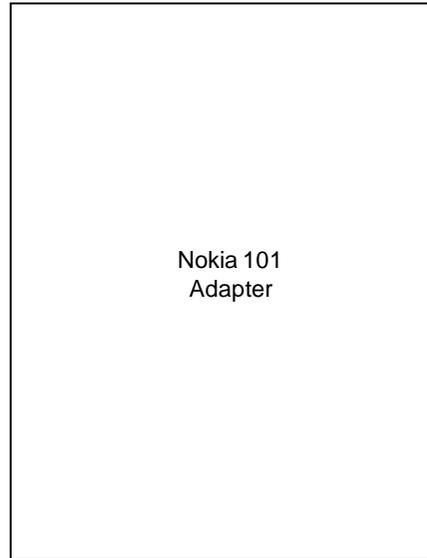
2. Push the adapter toward the left until it clicks into place.
3. Hold the battery with its charging contacts to the right, then place the battery's bottom slide groove over the adapter's slide guides.

4. Push the battery toward the left until it clicks into place.

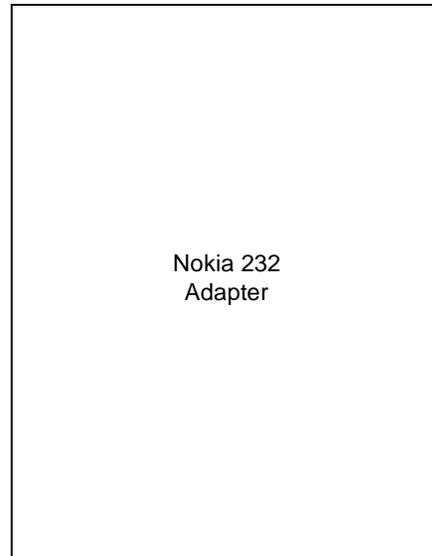
**Motorola 9800**



**Nokia 101**



**Nokia 232**



Follow these steps to connect a Nokia 101/232 battery using the appropriate charging adapter.

1. Place the charging adapter's left edge over the left edge of the conditioner/charger's mounting guides.
2. Push the adapter toward the left until it clicks into place.
3. Hold the battery with its charging contacts toward the right and place them over the adapter's charging contacts.
4. Push down on the battery's left side until it clicks onto the adapter.

## REMOVING A BATTERY



1. Press down on the battery's locking tab.
2. Push the battery toward the right until it slips out of the mounting guides.

2. Push the adapter toward the right until it slips out of the conditioner/charger's mounting guides.

## CONNECTING POWER

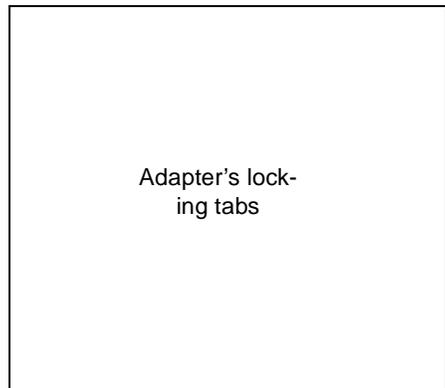
### Cautions:

- Always plug the AC or DC adapter into the conditioner/charger before you plug it into a standard AC outlet, and always unplug it from the outlet before you unplug it from the conditioner/charger.
- Never connect power to the conditioner/charger when you are not using it to charge or condition a battery.

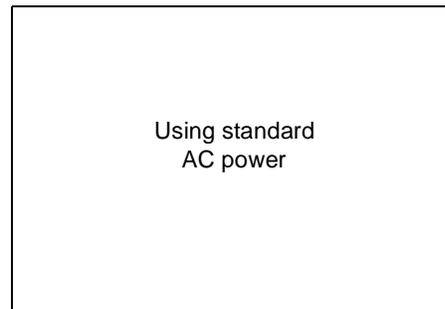
### Using Standard AC Power

To power the conditioner/charger from standard AC power, connect the supplied AC adapter's barrel plug to the conditioner/charger's **DC 12V-24V** jack. Then plug the other end into a standard AC outlet.

## REMOVING AN ADAPTER



1. Press down on the adapter's locking tabs.





The conditioner/charger beeps one short beep and the red CHARGE LED lights.

**Caution:** The supplied AC adapter supplies 13.5 volts DC and delivers up to 1000 mA. It has a center positive plug which properly fits the conditioner/charger's **DC 12V-24V** jack. Using an adapter that does not meet these specifications could damage the battery conditioner/charger or the adapter.

### Using Your Vehicle's Battery Power

You can power the conditioner/charger from your vehicle's cigarette lighter socket using the supplied DC power cord.

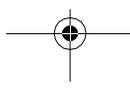
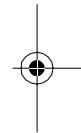
**Caution:** The supplied DC power cord connects your conditioner/charger to your vehicle battery power and lets it draw 12–13.5 volts DC, and up to 1000 mA. It has a center positive plug which properly fits the conditioner/charger's **DC 12V-24V** jack. Using an adapter or power cord that does not meet these specifications could damage the battery conditioner/charger or the adapter.

Plug the supplied DC adapter's barrel plug into the conditioner/charger's **DC 12V-24V** jack, then plug the DC adapter cigarette-lighter plug into the vehicle's cigarette-lighter socket.



**Caution:** Before plugging the DC adapter's cigarette-lighter plug into the cigarette-lighter socket, make sure the knurled ring is screwed firmly onto the plug. See "Replacing the DC Power Cord's Fuse" on Page 11.

The conditioner/charger beeps one short beep and the red CHARGE LED lights.



# OPERATION

## CHARGING A RECHARGEABLE BATTERY

You can charge a nickel-cadmium or nickel-metal hydride rechargeable battery by selecting either a slow-charge for a complete and long-lasting charge, or a quick-charge so you can begin using it more quickly.

1. To slow-charge the battery, press **QUICK/SLOW** so the green SLOW LED lights.

To quick-charge the battery, press **QUICK/SLOW** so the red QUICK LED lights.

When charging is complete, the green READY LED lights and the conditioner/charger beeps 8 times.

2. If necessary, press the battery's release latch on the left side, then push the battery toward the right to remove it.
3. Disconnect power if you do not want to charge another battery.

### Notes:

- The quick-charge and slow-charge total charging times depend on the type of battery you are recharging.

Battery (mA)	Quick (Minutes)	Slow (Hours)
600	40	3
800	55	2
900	60	2.3
1500	100	4

- Charging time also varies depending on the battery's voltage condition. Old batteries take longer to fully charge.
- To ensure the batteries are ready to use at any time, the conditioner/charger continuously charges the battery with a 20–30 mA trickle current after the batteries are fully charged.



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## CONDITIONING A RECHARGEABLE BATTERY

To prevent your battery from losing its ability to fully recharge, you must condition it (by discharging it) about once every 10 times you recharge it.

Follow these steps to condition (discharge) a rechargeable battery.

1. Press **CONDITION** to discharge the remaining power in the battery. The yellow **CONDITION** LED lights and the conditioner/charger beeps once.

**Note:** To switch to the recharging mode before discharging is complete, remove the battery from the conditioner/charger and reinstall it. The conditioner/charger beeps once and automatically switches to the charging mode.

When discharging is complete, the yellow **CONDITION** LED turns off. The conditioner/charger automatically starts charging, and the red **CHARGE** LED lights.

2. If necessary, press the battery's release latch at the left side, then push the battery toward the right to remove it.
3. Disconnect power if you do not want to discharge another battery.

## REFRESHING A FULLY DISCHARGED BATTERY

Some rechargeable batteries that are not used for a long time can lose their ability to be recharged due to the crystallization of the electrodes inside the battery. Your battery conditioner/charger lets you refresh this type of battery, which is almost the same as conditioning it.

Note that when a battery has fully discharged, its voltage might be too low to start the conditioning process and you might need to repeatedly press **CONDITION** until the yellow **CONDITION** LED lights.





## CARE AND MAINTENANCE

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Your Radio Shack Cellular Battery Conditioner/Charger is an example of superior design and craftsmanship. The following suggestions will help you care for your conditioner/charger so you can enjoy it for years.



Keep the conditioner/charger dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.



Handle the conditioner/charger gently and carefully. Dropping it can damage the circuit boards and can cause it to work improperly.



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



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



Wipe the conditioner/charger 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 conditioner/charger's internal components can cause a malfunction and might invalidate its warranty. If your conditioner/charger is not performing as it should, take it to your local Radio Shack store for assistance.



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## REPLACING THE DC POWER CORD'S FUSE

If the battery conditioner/charger does not work using vehicle battery power, check the fuse in the DC power cord. If the fuse is blown, replace it with a 3 Amp, 250V fast blow fuse (such as Radio Shack Cat. No. 270-1009).

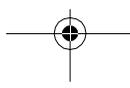
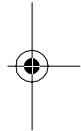
**Caution:** Do not use a fuse with a higher rating.

Follow these steps to check a fuse and replace it, if necessary.

1. Disconnect the DC power cord from the cigarette-lighter socket.
2. Grasp the two ends of the fuse holder, twist them counterclockwise, then pull the ends apart.

3. If the fuse is blown, remove it and replace the fuse with a new one of the same size and rating.
4. Grasp the two ends of the fuse holder, align the cigarette-lighter plug's tab with the slot, then push them together and twist them clockwise until they lock in place.

Cigarette-lighter plug's  
tab aligned with the slot



# SPECIFICATIONS

- Power Requirement ..... 12–24 VDC, 1 Amp
- Charge Mode ..... Negative (–) Delta Voltage, Delta Temperature
- Charging Current:
  - Fast Charge ..... 800–1000 mA
  - Slow Charge ..... 400–500 mA
  - Trickle Charge ..... 20–30 mA
- Discharging Current..... 3210 mA
- Types of Rechargeable Batteries ..... Ni-Cd, Ni-MH
- Dimensions (without adapter) ..... 7<sup>15</sup>/<sub>16</sub> ¥ 4<sup>9</sup>/<sub>16</sub> ¥ 1<sup>7</sup>/<sub>16</sub> Inches (HWD)  
(202 ¥ 116 ¥ 37 mm)
- Weight (without adapter) ..... 9 Oz. (255 g)
- Included Accessories:
  - Battery Adapters ..... Nokia 101, Nokia 232, Motorola 9800 Series
  - AC Adapter (Input Source) ..... Standard AC Outlet
  - DC Cord (Input Source)..... Vehicle Battery

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 Radio Shack against manufacturing defects in material and workmanship under normal use for ninety (90) days from the date of purchase from Radio Shack company-owned stores and authorized Radio Shack franchisees and dealers. In the event of a product defect during the warranty period, take the product and the Radio Shack sales receipt as proof of purchase date to any Radio Shack store. Radio Shack 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 Radio Shack. 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 Radio Shack 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.

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