

RadioShack® 23-332

20 Hour 9.6 V Ni-Cd/ NI-MH Battery Pack Charger

Your RadioShack 20-Hour 9.6 V Ni-Cd/NI-MH Battery Pack Charger can fully charge 9.6V nickel-cadmium and nickel-Metal Hydride cord-connected battery packs (such as RadioShack Cat. No. 23-229, 23-329, and 23-331), used in many remote-controlled cars, in about 20 hours.

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used by Tandy Corporation. 1

Its Safety Guard Protection Timer automatically stops charging after 20 hours to prevent damage to the battery pack. Its Dual Colored Charging Indicators light while a battery pack is charging and automatically turn off when charging is complete — red for nickel-cadmium or green for nickel-Metal Hydride.



WARNING: To reduce the risk of fire or shock hazard, do not expose this product to rain or moisture.

	CAUTION	
RISK OF ELECTRIC SHOCK. DO NOT OPEN.		

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.



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



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



IMPORTANT SAFETY INSTRUCTIONS

Save These Instructions!

Danger: To reduce the risk of fire or electric shock, carefully follow these instructions.


This manual contains important safety and operating instructions for your charger. Before using the battery charg-



er, read all the instructions and cautionary markings in this manual and on the battery charger, on the batteries to be charged, and on the products that use the batteries.

Warning: To reduce the risk of injury:

- Charge only nickel-cadmium and Ni-MH batteries with this charger. Other types of batteries might burst, causing personal injury and damage.

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- Unplug the charger from the AC outlet before attempting any maintenance or cleaning.
 - Do not disassemble the charger; take it to a qualified service technician when service or repair is required. Improper reassembly may result in a risk of electric shock or fire.
 - Do not use an attachment not recommended or sold by RadioShack as this

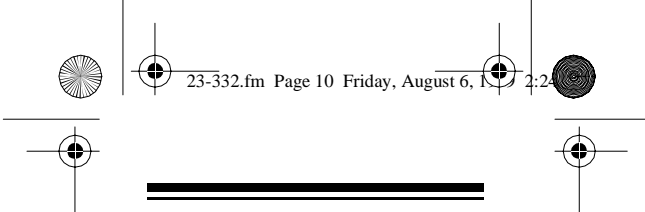


could result in a risk of fire,
electric shock, or injury to
persons.

Caution: To reduce the risk of
damage:

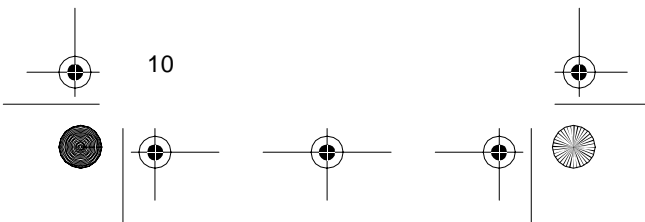
- Do not expose the charger
to rain or excessive mois-
ture.
- Do not operate the charger
if it has received a sharp
blow, or been dropped or
damaged in any way. Take
it to a qualified service
technician for repair.

- To reduce the risk of damage to the AC plug and cord, disconnect the charger by pulling the plug rather than the cord.
- Do not use an extension cord. Its use could result in fire or electric shock.
- Do not operate the charger if the cord or plug is damaged. Have the charger repaired. Never alter the provided AC cord or plug. If it does not fit in the AC



outlet, have a qualified service technician install the proper outlet. Improper connection can result in an electrical shock.

- Never use the charger as a DC power source for any electrical equipment.



OPERATION

General Charging Hints

- Completely discharge the battery pack before you charge it. Repeatedly charging a battery pack that is not fully discharged can shorten its useful life.
- Charge the battery pack in an area between 32 and 104°F (0 and 40°C). The battery pack cannot be fully charged when it is

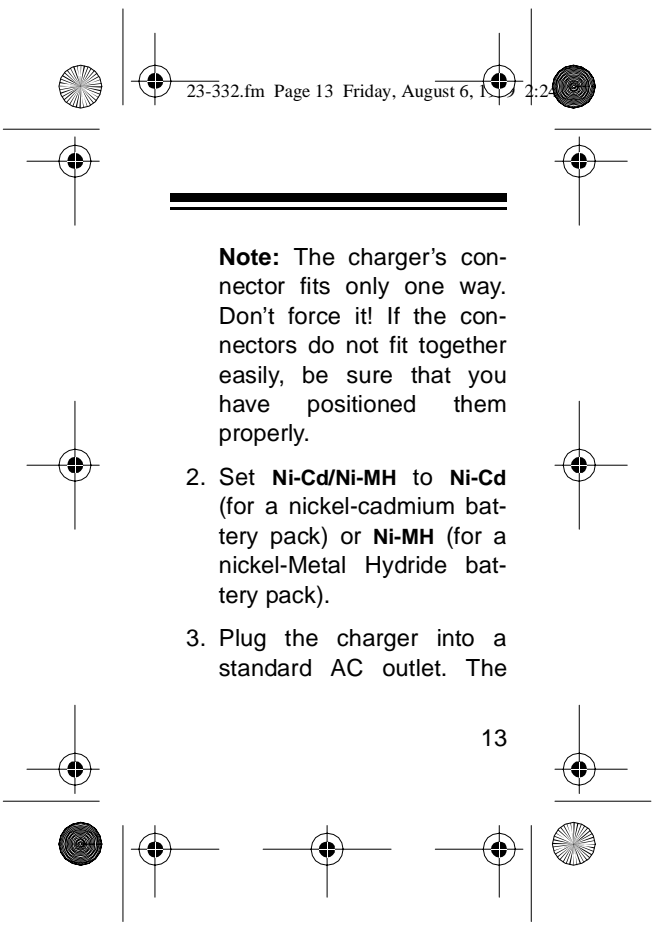


cold. If the area is too warm, the battery pack can permanently lose its ability to charge.

- Use and store the battery charger in an area between -13 and 140°F (-25 and 60°C).

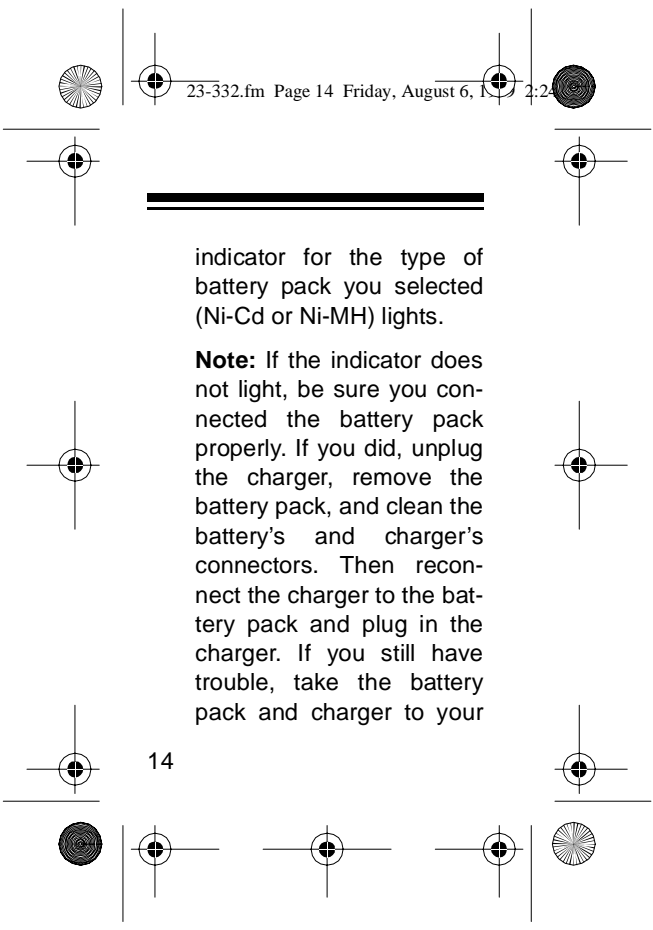
Charging a Battery Pack

1. Slide the charger's connector into the battery pack's connector.



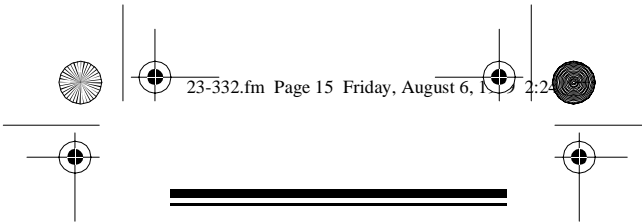
Note: The charger's connector fits only one way. Don't force it! If the connectors do not fit together easily, be sure that you have positioned them properly.

2. Set **Ni-Cd/Ni-MH** to **Ni-Cd** (for a nickel-cadmium battery pack) or **Ni-MH** (for a nickel-Metal Hydride battery pack).
3. Plug the charger into a standard AC outlet. The



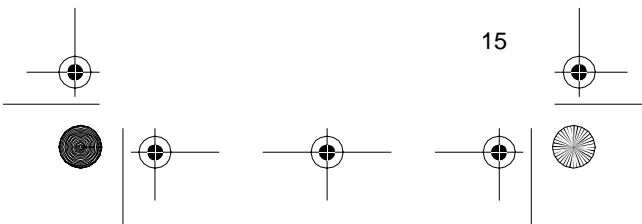
indicator for the type of battery pack you selected (Ni-Cd or Ni-MH) lights.

Note: If the indicator does not light, be sure you connected the battery pack properly. If you did, unplug the charger, remove the battery pack, and clean the battery's and charger's connectors. Then reconnect the charger to the battery pack and plug in the charger. If you still have trouble, take the battery pack and charger to your



local RadioShack store for assistance.

4. After about 20 hours, the charger stops charging and the indicator automatically turns off. Unplug the charger from the AC outlet and remove the battery pack.



SPECIFICATIONS

Charging Current

At input 120 V 60 Hz, 11.6 V battery level:

Ni-Cd 65 mA \pm 10%
Ni-MH 90 mA \pm 10%

At input 120 \pm 15 V, 60 Hz, 11.6V battery level:

Ni-Cd 65 mA \pm 35%
Ni-MH 90 mA \pm 35%



Power
Input 120 ±15 VAC, 60 Hz,
7.2 W
Output ... 11.6 VDC, 90/65 mA
Safety Guard Protection
Timer 20 hrs ±1 hr
Safety Standard ETL

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, *(Continued)*



(Continued) 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 *(Continued)*

(Continued) 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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