

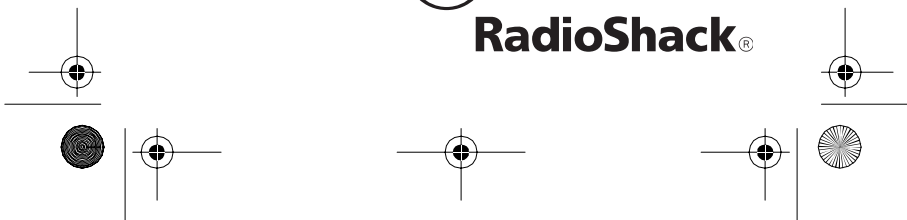
Cat. No. 22-503  
**OWNER'S MANUAL**

Please read before using this equipment.

**Portable AC-to-DC  
Regulated Power Supply**



**RadioShack®**



## FEATURES

Your RadioShack Portable AC-to-DC Regulated Power Supply is designed to supply power to equipment such as CB and ham radios and auto-sound systems that require 12V DC power. The power supply converts standard 120V or European 220/240V AC power to regulated 13.8V DC (vehicle) power. The power supply can supply up to 3 amps (40 watts) of continuous power. Small and portable in the supplied carry case, the power supply is easy to use in the field.



**Note:** Your vehicle's electrical system provides approximately 13.8 volts when the engine is running.

If you are an electronic hobbyist or technician, you will appreciate the many uses for the power supply at your workbench or in your home. For example, you can use the power supply to power a laptop computer or your CB mobile transceiver as a base station, or check the operation of auto-sound systems before you install them in your vehicle.

© 1998 Tandy Corporation.  
All Rights Reserved.  
RadioShack is a registered trademark used by  
Tandy Corporation.

***Not recommended for outdoor use.***

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

|  |   |  |
|--|---|--|
|   | <b>CAUTION</b><br>RISK OF ELECTRIC SHOCK.<br>DO NOT OPEN. |  |
| <b>CAUTION:</b> 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.

Your power supply's features include:

**Built-In Cigarette Lighter Socket** — lets you quickly connect a cigarette-lighter plug to the power supply.

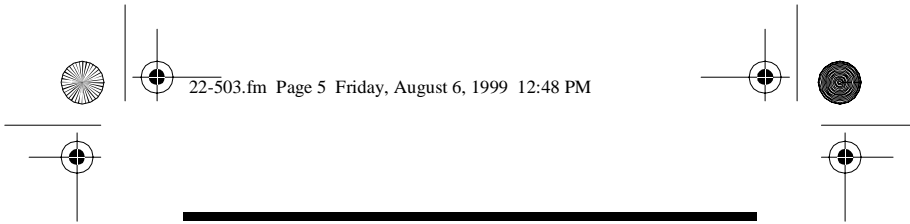
**Over Temperature Protection Circuit** — automatically shuts off AC power to the power supply if it overheats.

**Current Overload Fuse Protection** — the built-in fuse automatically detects an output overload and shuts off standard 120/240V AC current input power to the power supply.

**Lighted Power Switch** — makes it easy to see if the power supply is on.

**Universal AC Input Voltage** — lets you use standard 120V or European 220/240V AC power to power the power supply.

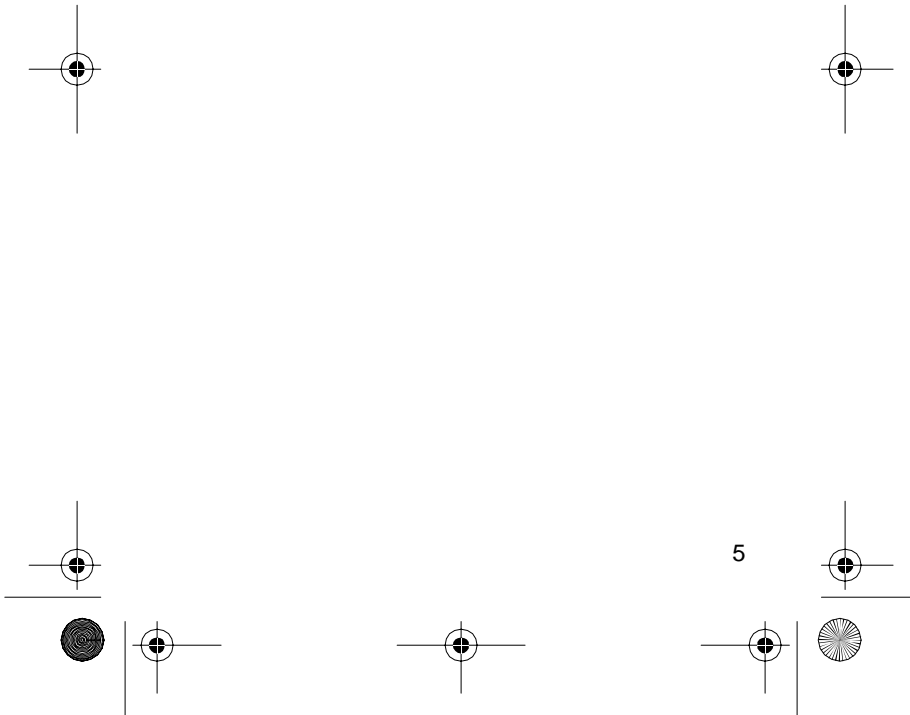
**Output Short Circuit Protection** — the power supply automatically shuts off output power if the output is shorted, then restores output power when the short circuit is removed.



---

**Push-Terminal Connectors** — let you easily connect wires directly to the power supply.

This power supply has been tested and found to comply with all applicable UL standards and FCC requirements.



## **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 this power supply. Before you use the power supply, read all the instructions and cautionary markings in this manual, on the power supply, and on the product that you will connect to the power supply.

1. **Read Instructions** — All the safety and operating instructions should be read before the appliance is operated.
2. **Retain Instructions** — The safety and operating instructions should be retained for future reference.
3. **Use in Countries other than USA** — For connection to a supply not in the USA, use an attachment plug adapter of the proper configuration for the power outlet.

4. **Heed Warnings** — All warnings on the appliance and in the operating instructions should be adhered to.
5. **Follow Instructions** — All operating and use instructions should be followed.
6. **Cleaning** — Unplug the power supply from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
7. **Attachments** — Do not use attachments not recommended by RadioShack as they may cause hazards.
8. **Water and Moisture** — Do not use this power supply near water — for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.
9. **Accessories** — Do not place this power supply on an unstable cart, stand, tripod, bracket, or table. The power supply may fall, causing serious injury to someone and serious damage to the appliance. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the

power supply. Any mounting of the appliance should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer. An appliance and cart combination should be moved with care.

Quick stops, excessive force, and uneven surfaces may cause an appliance and cart combination to overturn.

10. **Ventilation** — Slots and openings in the cabinet and the back or bottom are provided for ventilation and to ensure reliable operation of the power supply and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the power supply on a bed, sofa, rug, or other similar surface.

This power supply should never be placed near or over a radiator or heat register. This power supply should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.



11. **Power Sources** — This power supply should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your appliance dealer or local power company.
12. **Grounding and Polarization** — This power supply is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
13. **Power-Cord Protection** — Power-supply cords should be routed so they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

14. **Extension Cords** — Do not use an extension cord unless absolutely necessary. Using an improper extension cord could result in a risk of fire and electric shock. If an extension cord must be used, make sure:

- a. The pins on the extension cord's plug are of the same number, size, and shape as those of the plug on the charger.
- b. The extension cord is properly wired and in good electrical condition.
- c. The extension cord's wire size is at least 18 AWG.

15. **Lightning** — For added protection for this power supply 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 power supply due to lightning and power-line surges.

16. **Overloading** — Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

17. **Object and Liquid Entry** — Never push objects of any kind into this power supply 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 power supply.

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

19. **Damage Requiring Service** — Unplug this power supply from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power-supply cord or plug is damaged or frayed.
- If liquid has been spilled or objects have fallen into the power supply.
- If the power supply has been exposed to rain or water.
- If the power supply does not operate normally by following the operating instructions or if any unusual sounds or smells

come from it. Adjust only those controls that are covered by the operating instructions, as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the power supply to its normal operation.

- If the power supply has been dropped or the cabinet has been damaged.
- When the power supply exhibits a distinct change in performance — this indicates a need for service.

20. **Replacement Parts** — When replacement parts are required, be sure the service technician has used replacement parts, specified by the manufacturer, that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, injury to persons or other hazards.

21. **Safety Check** — Upon completion of any service or repairs to this power supply, ask the service technician to perform routine safety checks to determine that the power supply is in proper operating condition.

- 
22. **Heat** — This power supply product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

## SERVICE

1. Except as noted in this Owner's Manual, do not attempt to service this power supply yourself. Instead, unplug it and contact a qualified service technician.
2. Be sure the service technician uses authorized replacement parts or their equivalents. Unauthorized parts may cause fire, electrical shock, or other hazards.
3. Following any service or repair, be sure the service technician performs safety checks to certify that your power supply is in safe operating order.

## CONNECTIONS

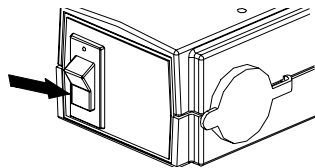
**Caution:** Make all other connections before you connect the power supply to AC power.

### CONNECTING A DEVICE REQUIRING POSITIVE AND NEGATIVE WIRES

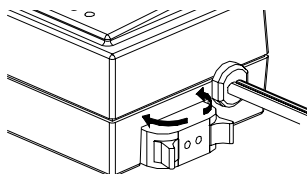
**Warning:** To avoid damage to both the power supply and the device:

- Follow the correct polarity when connecting the power supply and the device.
- Do not let the ends of the positive and negative wires touch each other.

1. Turn off the device you are connecting to the power supply.
2. Set **POWER** on the front of the power supply to **OFF**.



3. While pressing the red tab on the back of the power supply, insert the device's positive (+) wire (usually red) into the hole next to the red tab. Then release the tab to secure the wire.



4. While pressing the black tab on the back of the power supply, insert the device's negative (-) wire (usually black or white) into the hole next to the black tab. Then release the tab to secure the wire.
5. Connect the power supply's AC power cord to a standard AC outlet.

---

## CONNECTING A DEVICE REQUIRING A CIGARETTE- LIGHTER SOCKET

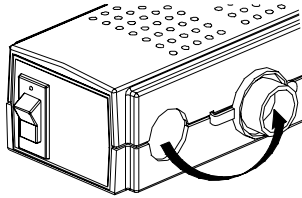
You can connect a device that uses a cigarette-lighter adapter to the power supply.

### Cautions:

- You must use a cigarette-lighter adapter that supplies 12 volts and delivers at least 3 amps of power. Its center tip must be set to positive and its plug must fit the power jack for the device you are powering. Using an adapter that does not meet these specifications could damage the power supply, the device you are powering, or the cigarette-lighter adapter.
- Always plug the cigarette-lighter adapter into the device you are powering before you plug it into the power supply's cigarette-lighter socket. Always unplug the cigarette-lighter adapter from the power supply's cigarette-lighter socket before you unplug it from the device you are powering.

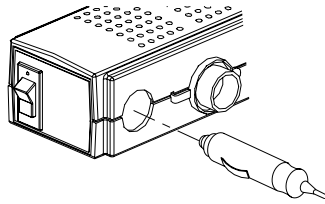


1. Turn off the device you are connecting to the power supply.
2. Set **POWER** to **OFF**.
3. Pull the tab on the cigarette-lighter socket's rubber cap on the side of the power supply to expose the socket.



**Notes:**

- The rubber cap is attached to the power supply. Do not try to remove it.
  - Be sure to close the cigarette lighter socket's rubber cap when you are not using the socket.
4. Connect the device's DC power cord to the power supply's cigarette lighter socket.



5. Connect the power supply's AC cord to a standard AC outlet.

## OPERATION

To turn the power supply on or off after you properly connect a device to it, set **POWER** to **ON** or **OFF**. **POWER** lights when the power supply is turned on.

**Caution:** If **POWER** does not light or the connected device stops operating:

- Check all connections and confirm the AC outlet has power.
- Make sure the connected device and the device's DC power cord are not shorted or overloaded. Then wait about 10 minutes for the power supply to cool.
- The fuse inside the power supply might be blown. If this happens, contact your local RadioShack store.

**Note:** Your power supply's temperature protection circuit automatically shuts down the power supply if the power supply overheats. If this happens, turn off the power supply, then wait about 10 minutes or until the power supply cools before you turn it on again.

## CARE AND MAINTENANCE

Your RadioShack Portable AC-to-DC Regulated Power Supply is an example of superior design and craftsmanship. The following suggestions will help you care for your power supply so you can enjoy it for years.



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



Use and store the power supply only in normal temperature environments. Temperature extremes can shorten the life of electronic devices and distort or melt plastic parts.



Keep the power supply away from dust and dirt, which can cause premature wear of parts.



Handle the power supply gently and carefully. Dropping it can damage circuit boards and cases and can cause the power supply to work improperly.



Wipe the power supply with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the power supply.

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

## THE FCC WANTS YOU TO KNOW

This device complies with Part 15 of the *FCC Rules*. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## SPECIFICATIONS

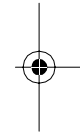
Input Voltage ..... 90 to 240 VAC Nominal  
Input Frequency ..... 50–60 Hz  
Output Voltage ..... 13.8 VDC  $\pm 5\%$   
Output Current .. 3 Amps DC Continuous (Max.)  
AC Fault Protection ..... 1 Amp 250V AC Fuse  
Short Circuit Protection Automatic Power Down  
Line/Load Regulation ..... Less than 5%  
Output Ripple ..... 100 mV RMS (Max.)  
Design ..... Switch Mode Type  
Operating Temperature ..... 32 to 104°F  
(0 to 40°C)  
Storage Temperature ..... –13 to 158°F  
(–25 to 70°C)  
Input Cable ..... 18 AWG x 2C W/1-15P Plug,  
SPT-2 6 Feet  
Power Switch, Illuminated:  
125 VAC ..... 15 Amps  
250 VAC ..... 10 Amps  
Dimensions (HWD) .....  $1\frac{7}{8} \times 3 \times 7\frac{1}{2}$  Inches  
(48 × 76 × 191 mm)



Weight ..... .89 lbs  
(0.4 kg)  
Accessory ..... Padded Carry Case

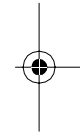


Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.

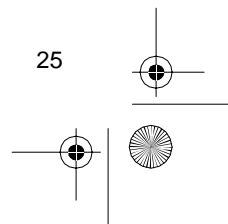
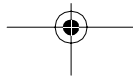
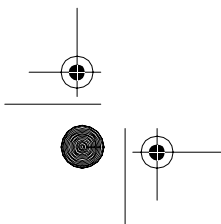
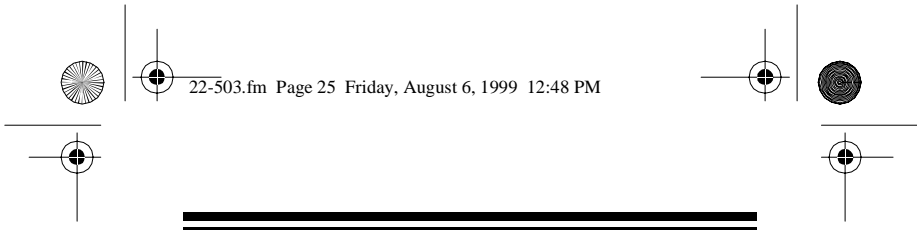


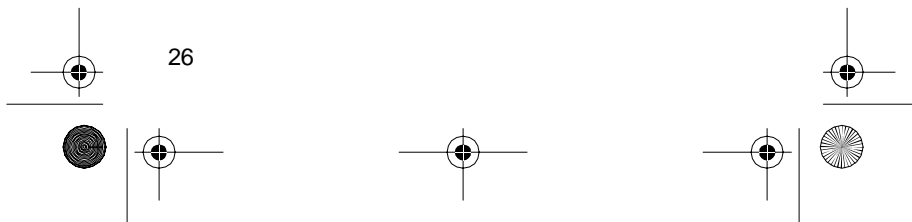
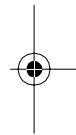
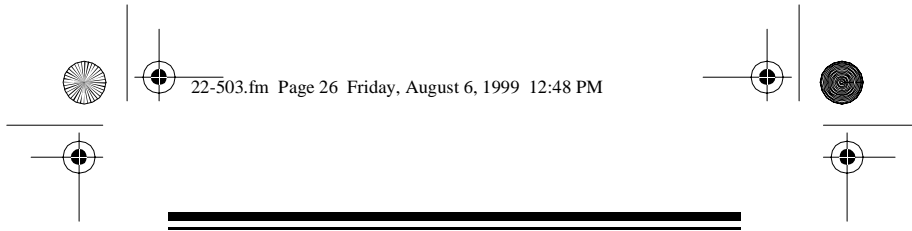


## NOTES









### 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. (continued)

(continued) 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, Dept. W,  
100 Throckmorton St.,  
Suite 600, Fort Worth, TX 76102

*We Service What We Sell*

3/97

**RadioShack**  
**A Division of Tandy Corporation**  
**Fort Worth, Texas 76102**

9/98N

Printed in the USA