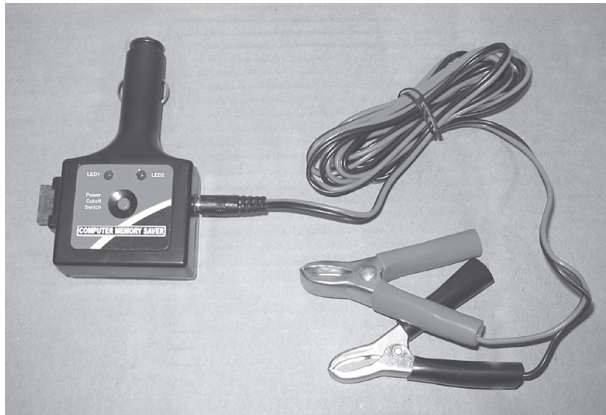




# ***12V Computer Memory Saver*** ***(Temporary Battery Backup)***

## **Model 93550**

### **ASSEMBLY AND OPERATING INSTRUCTIONS**



Due to continuing improvements, actual product may differ slightly from the product described herein.



3491 Mission Oaks Blvd., Camarillo, CA 93011

Visit our Web site at <http://www.harborfreight.com>

Copyright© 2005 by Harbor Freight Tools®. All rights reserved. No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools.

**For technical questions and replacement parts, please call 1-800-444-3353.**

## Specifications

Construction:	Solid State electronics with 9V battery plug and 12VDC connectors	Power:	Uses 9V/12V battery to provide power backup for 12VDC memory systems.
Read Outs:	2 Green LED indicator lights	Attachment:	Cigarette lighter plug in.
Fuse:	3 Amp standard automobile type	Wire Gauge:	20 Ga. Copper Wire
		Net Weight:	½ Lb.

## Save This Manual

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

## Safety Warnings and Precautions

**WARNING: When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.**

**Read all instructions before using this tool!**

1. **Keep work area clean.** Cluttered areas invite injuries.
2. **Observe work area conditions.** Do not use electrical tools in damp or wet locations. Don't expose to rain. Keep work area well lit. Do not use electrically powered tools in the presence of flammable gases or liquids.
3. **Keep children away.** Children must never be allowed in the work area. Do not let them handle machines, tools, or extension cords.
4. **Store idle equipment.** When not in use, tools must be stored in a dry location to prevent corrosion.
5. **Use the right tool for the job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool and do not use this tool for a purpose for which it was not intended.
6. **Dress properly.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically nonconductive clothes and nonskid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
7. **Use eye and ear protection.** Always wear ANSI-approved impact safety goggles when working near vehicle motors or batteries.

8. **Do not overreach.** Keep proper footing and balance at all times.
9. **Maintain tools with care.** Keep tools maintained and clean for better and safer performance. Inspect tool cords periodically and, if damaged, have them repaired by an authorized technician. The tool must be kept clean, dry, and free from oil and grease at all times.
10. **Disconnect power.** Unplug tool when not in use.
11. **Stay alert.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
12. **Check for damaged parts.** Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Any part that is damaged should be properly repaired or replaced by a qualified technician. Do not use the tool if any switch does not operate properly.
13. **Guard against electric shock.** Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerator enclosures.
14. **Replacement parts and accessories.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool. Approved accessories are available from Harbor Freight Tools.
15. **Do not operate tool if under the influence of alcohol or drugs.** Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
16. **Maintenance.** For your safety, service and maintenance should be performed regularly by a qualified technician.

**Warning: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.**

## Unpacking

*When unpacking, check to make sure that the product is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual.*

## Operation

This device must be powered to preserve the vehicle's saved settings. You may use a 12V battery or a 9V "radio" battery to supply this power (neither one included).

1. **If using a 12V battery:** connect the Red alligator clip to the positive (+) pole of the battery and the Black alligator clip to the negative (-) pole of the battery. Plug connector into the Jack on side to the tool. **WARNING:** 12V lead/acid batteries can be very dangerous. Always wear safety gloves and ANSI-approved safety goggles when working with 12V lead/acid batteries. Do not allow battery to overheat.

**If using a 9V battery:** open the battery cover of the device, and install a new 9V battery, attaching the battery plug to the battery. Close the battery compartment cover.

2. Using either a spare 12V battery or an installed 9V battery, two green LED lights will illuminate indicating the device has power. Do not short out the 12V Lighter adapter on a metal surface, it is now powered.
3. Be sure that vehicle ignition and all accessories, including lights, radio, interior light, etc. are OFF Before using this device. If any powered item is ON, the memory device may fail.
4. Press and hold the Red Button on the device while inserting the plug into the vehicle cigarette lighter outlet.
5. One Green LED will now glow, indicating a good connection through the vehicle cigarette lighter outlet.

**NOTE:** On some vehicles, the key must be left in the "Accessories" setting for the cigarette lighter outlet to be active.

6. Release the Red Button. Both green LED lights will now glow indicating a good connection.
7. You may now disconnect the vehicle 12V battery. Keep in mind that the temporary power supply will only last as long as the battery used.
8. When the work is finished, reconnect the vehicle 12V battery.
9. Press and hold the Red Button on the Memory Saver while you remove the Memory Saver device from the cigarette lighter outlet. Do not leave the unit connected after use.
10. If a 12V Battery is used, carefully disconnect the Alligator clips from the 12V battery, and unplug from Jack on side of tool.

## Maintenance

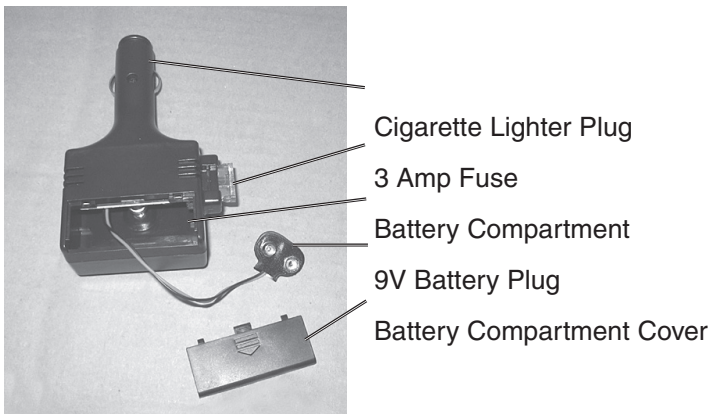
1. This item must be kept clean and dry. Protect it from water and moisture to prevent damage to the electrical components.
2. If it is to be stored for a long time, remove the 9V battery before storage to prevent damage from possible battery leakage.

## Troubleshooting

**Green LED's do not light when connected to 12V battery or 9V battery installed.** Possible causes: Battery has no charge, or faulty connection. Solution: Check the charge of the battery and recheck the battery connection and polarity.

**Green LED's do not light even though battery is charged and properly connected.** Possible Causes: Fuse is blown or device is damaged. Solution: Test and/or replace 3 Amp fuse. Only replace fuse with same kind and amperage fuse

**Single Green LED does not glow after device is connected to cigarette lighter outlet in step 4, page 4.** Possible cause: Cigarette lighter outlet is not active or not in good condition. Solution: Try moving ignition key to "accessory" position and repeat steps 3-5 on page 4. If this still doesn't work, inspect the condition of the cigarette lighter outlet. Try the cigarette lighter. With the vehicle battery disconnected, clean the outlet. (**NOTE: Disconnecting the battery may erase the vehicle memory.**) If damaged or dirty, the cigarette lighter outlet may need to be replaced by a qualified technician.



**NOTE:** Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.

3 Amp Fuse

Green LED

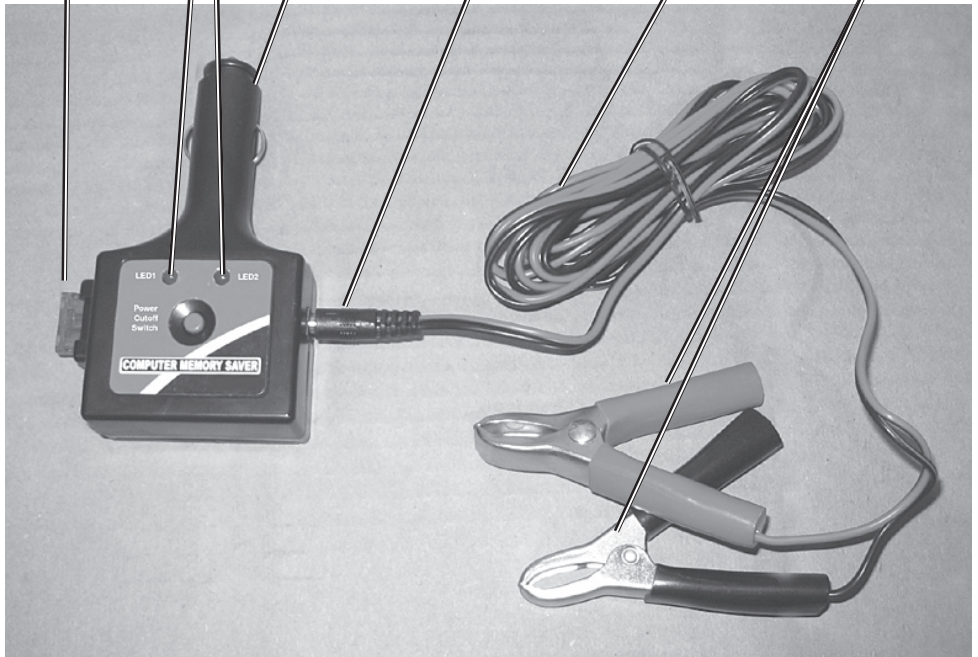
Cigarette  
Lighter Plug

## Parts List

12V Spare  
Battery Jack

12V Spare  
Battery Cable

Alligator Clips



**NOTE:** Only the Fuse and the Battery Cable/Clamps are replaceable.

### PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.