

SPECIAL INSTALLATION FOR VEHICLES WITHOUT CIGARETTE LIGHTERS

The charger plug has an integral overload protector (fuse). DO NOT REMOVE THIS PLUG.

Purchase a female cigarette lighter receptacle from your local automobile parts store. Wire this receptacle in accordance with the instructions provided with the cigarette lighter receptacle.

Plug your charger into this receptacle.

MODIFICATION FOR POSITIVE GROUND OPERATION OF CHARGER

For use with a vehicle with a positive ground battery, the connection to the charger plug must be reversed.

Have this modification made at your nearest qualified Black & Decker Service Center.

STORAGE RECOMMENDATIONS

1. The best storage place is one that is cool and dry—away from direct sunlight and excess heat or cold.
2. Long storage will not harm the energy pack or charger. Under proper conditions, they can be stored for 5 years or more.

SERVICE

In the event service is required, take or send the charger to your nearest qualified Black & Decker Service Center. The address may be found under "Tools-Electric" in the yellow pages of your telephone directory.

IMPORTANT

To assure product SAFETY and RELIABILITY: Repairs, maintenance, and adjustments should be performed by BLACK & DECKER Service Centers or other qualified service organizations, always using BLACK & DECKER replacement parts.

COMMERCIAL/INDUSTRIAL USE WARRANTY (U.S.)

Black & Decker (U.S.) Inc. warrants this product for one year from date of purchase. We will repair without charge, any defects due to faulty material or workmanship. Please return the complete unit, transportation prepaid, to any Black & Decker Service Center or Authorized Service Station listed under "Tools Electric" in the yellow pages. This warranty does not apply to accessories or damage caused where repairs have been made or attempted by others. WARRANTIES MAY VARY BY COUNTRY.

Every Black & Decker tool is of the highest quality. If you wish to contact us in the United States regarding this product, please call toll free between 8:00 a.m. and 5:00 p.m. EST, Monday through Friday.

1-800-762-6672

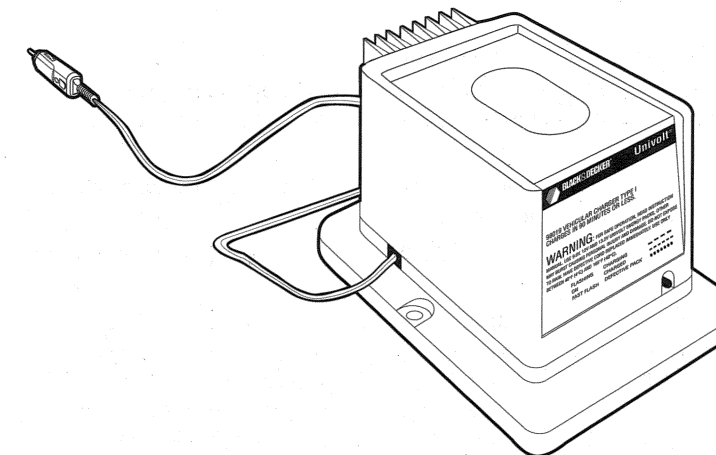


See 'Tools-Electric'
—Yellow Pages—
for Service & Sales



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BLACK & DECKER (U.S.) INC 701 E. Joppa Rd, Towson, MD 21204



INSTRUCTION MANUAL

Instructions for
No. 98019 Univolt® Vehicular Charger
For use with 9.6 Volt, 12.0 Volt and 13.2 Volt
Univolt® Energy Packs
(Nos. 98048, 98050, 98051)

You can use your Black & Decker 98019 Univolt® Vehicular Charger in any vehicle having a cigarette lighter socket operating from a 12 volt negative ground battery. Some vehicles have a 12 volt positive ground battery. For these vehicles, the charger must be converted for use with a positive ground system by a Black & Decker Service Center. See "Tools, Electric" in the Yellow Pages for your nearest Black & Decker Service Center.

Read this manual carefully and observe all safety instructions.

IMPORTANT CHARGER SAFETY INSTRUCTIONS

1. SAVE THESE INSTRUCTIONS — This manual contains important safety and operating instructions for the Univolt 98019 Vehicular Charger.
2. Before using charger, read all instructions and cautionary markings on (1) charger, (2) energy pack and (3) product using energy pack.
3. The charger and energy pack are specifically designed to work together. DO NOT attempt to charge any other cordless tool or energy pack with this charger.
4. Do not expose charger to rain or snow.
5. Use of an attachment not recommended or sold by the charger manufacturer may result in a risk of fire, electric shock, or injury to persons.
6. To reduce risk of damage to electric plug and cord, pull by plug rather than cord when disconnecting charger.
7. Make sure cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
8. The charger plug has an integral overload protector (fuse). If a cordset or plug failure occurs, a replacement cordset must be used. This part is available from Black & Decker Service Centers at extra cost. DO NOT operate the charger without proper overload protection (fuse). Refer to the Special Installation instructions for wiring information in vehicles without a cigarette lighter socket.
9. The charger is designed to operate from a 12 volt negative ground battery system. DO NOT attempt to use it with any other voltage system without first having the needed modifications made at a Black & Decker Service Center.
10. Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way; take it to a qualified Black & Decker Service Center.
11. Do not disassemble charger; take it to a qualified Black & Decker Service Center when service or repair is required. Incorrect reassembly may result in a risk of electrical shock or fire.
12. DO NOT store the tool and energy pack in locations where the temperature may reach or exceed 120°F (49°C) (such as outside sheds, vehicles or metal buildings in summer.)
13. DO NOT Charge energy pack when it or air temperature is BELOW + 40°F (+4°C) or ABOVE + 105°F (+40°C).

SAVE THESE SAFETY INSTRUCTIONS

IMPORTANT CHARGING NOTES

1. Longest life and best performance can be obtained if the energy packs are charged when the air temperature is about + 75°F (24°C). DO NOT charge the energy packs in an air temperature below + 40°F (+4°C) or above + 105°F (+40°C). This is important and will prevent serious damage to the energy packs.
2. While charging, the charger heat sink will become warm to touch. This is a normal condition, and does not indicate a problem.
3. The energy pack should be recharged when it fails to produce sufficient power on jobs which were easily done previously. DO NOT CONTINUE to use under these conditions. Repeat the charging procedure. You may also charge a partially used energy pack whenever desired.

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

CHARGING PROCEDURE

1. Plug in the charger.
2. Place the energy pack in the charger as shown in Figure 1.
3. The indicator light will start to blink. Refer to "INDICATOR LIGHT OPERATION" on page 4.
4. In about one and one half hours, the indicator light will stop blinking and remain continuously on. Fast charging is complete and your energy pack is ready for use.
5. The indicator light will remain on for an additional 16 hours while the charger maintains your energy pack in a fully charged condition. The indicator light will go out automatically at the end of 16 hours.
6. IF THE ENERGY PACK IS LEFT IN THE CHARGER FOR 16 HOURS UNTIL THE LIGHT GOES OUT, THE CHARGER **MUST** BE RESET BEFORE ANOTHER ENERGY PACK CAN BE CHARGED. UNPLUG THE CHARGER AND PLUG BACK IN. THE CHARGER IS NOW RESET, AND AGAIN READY FOR CHARGING.
7. IF THE ENERGY PACK IS REMOVED FROM THE CHARGER BEFORE THE END OF THE 16 HOURS, IT IS NOT NECESSARY TO RESET THE CHARGER.
8. The indicator light may stay on momentarily after the energy pack is removed from the charger. ALWAYS wait for the indicator light to go out before inserting another pack.

INDICATOR LIGHT OPERATION

CHARGING	1 1/2 sec. on — 1 1/2 sec. off
DEFECTIVE ENERGY PACK	1/2 sec. on — 1/2 sec. off
FULLY CHARGED	CONTINUOUS ON

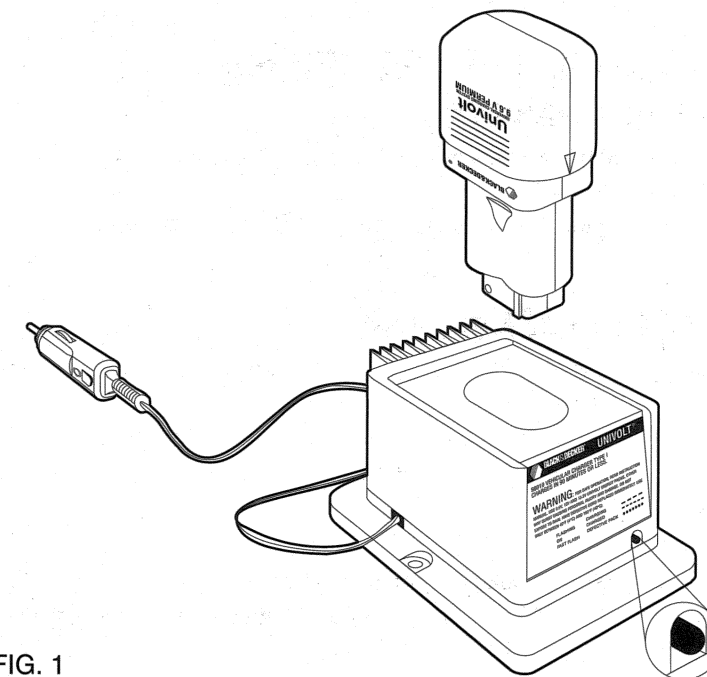


FIG. 1

TROUBLE SHOOTING

1. If the indicator light does not come on when the energy pack is inserted into the charger:
 - (a) Be sure the energy pack is inserted in the proper direction;
 - (b) Try a second pack if one is available;
 - (c) Be sure the charger plug is fully inserted into the cigarette lighter socket;
 - (d) Be sure the cigarette lighter socket is not connected to the ignition switch, so that power is disconnected in the "OFF" position;
 - (e) Be sure the cigarette lighter socket is clean;
 - (f) Be sure the cigarette lighter operates in the socket;
 - (g) Reset the charger (see Charging Procedure, item 6).