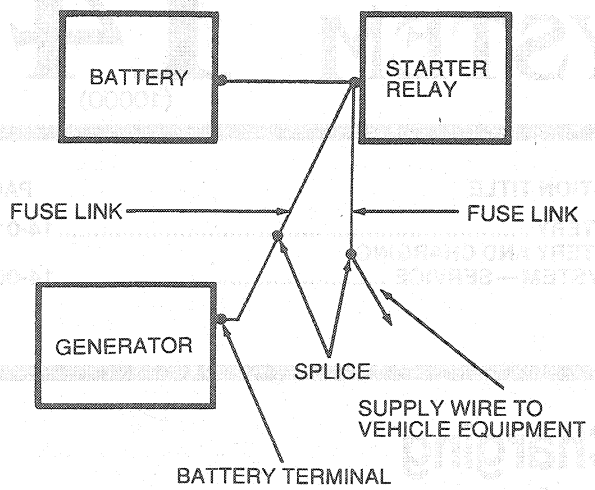
DESCRIPTION AND OPERATION (Continued)

Fuse Link

The fuse link is a short length of insulated wire integral with the engine compartment wiring harness. It is several wire gauges smaller than the circuit that it protects. The fuse link for the generator is a 12-gauge gray wire.



Service fuse links are brown, green or black depending on usage. All fuse links have a flag moulded on the wire or on the terminal insulator. Color identification of the flag or connector for the external voltage regulator system is brown 18-gauge wire or gray 12-gauge wire. The illustration shows a typical fuse link installation.

The fuse link is designed to burn out, thus protecting the generator and wiring when heavy reverse current flows, such as when a booster battery is connected incorrectly, or a short to ground occurs in the wiring harness.

A burned-out link may have bare wire ends protruding from the insulation, or bubbled insulation with illegible identification. If it is hard to determine if the link is burned out, perform a continuity test.

Refer to Diagnosis, for testing procedures for fuse links used in the charging system.

DIAGNOSIS

Preliminary Checks

Before performing charging or starting system tests on the vehicle, note the complaint such as: slow cranking, battery discharged or using an excessive amount of water, top of battery wet, generator warning lamp does not come on or never goes out. This information will aid in isolating the part of the system causing the symptom.

Next, visually inspect as follows:

1. Check the fuse link located between the power distribution box and the generator. Replace the fuse link if burned.
2. Make certain that the battery is OK; then turn on the headlamps or any other accessory. If the headlamps or accessory do not operate, the fuse link is probably burned out.
3. On some vehicles there are several fuse links. Use the same procedure as in Step 1 to test the fuse link that protects vehicle equipment.

To test the fuse link that protects the generator, make certain the battery is OK. Then check with a voltmeter for voltage at the BAT terminal of the generator. No voltage indicates that the fuse link is probably burned out.

4. Check battery posts and battery cable terminals for clean and tight connections. Remove the battery cables (if corroded), clean and install them securely.
5. Check for clean and tight wiring connections at the generator, voltage regulator and engine ground.
6. Check the generator belt tension. Refer to Section 03-05.

- When a relatively new battery is discharged, test for current drain. Refer to Section 14-01 for proper procedures. The following are some of the most common current drain problems:
  - — Glove compartment lamp stays on with the door closed
  - — Hood lamp stays on constantly
  - — License plate lamp or interior lamp stays on constantly
  - — Other electronic component malfunctions
- Check for secure ground connections at the engine and body. Also check for proper connections at the generator and voltage regulator.
- Check the testing equipment and instructions. If the equipment is malfunctioning or the instructions for use are incorrect, use the equipment on a vehicle you know to be operating properly.
- Only test the charging system with a fully charged, properly operating battery. Make sure cable connections are clean and secure.