VOLTAGE DROPS IN CONNECTIONS

The diagram in Figure 1 shows a dirty ground connection. At any point where the lug surface contacts the chassis an electrical connection exists. Corrosion or other foreign material such as paint or grease, can prevent a good electrical connection producing resistance and a voltage drop.

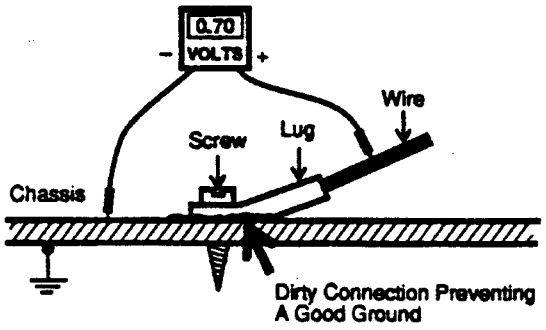

Figure 1

The corroded connection presents a resistance to high circuit current. The resistance can be detected by a voltage drop measured with a DVOM (high quality digital voltmeter). An ohmmeter may not reveal any resistance being present because the very small ohmmeter test current is able to pass through the corroded connection with no resistance being detected.

Figure 2 shows what the corroded connection looks like electrically when high current is flowing. The bad connection is represented by the resistance symbol. The voltage drop developed by the connection's resistance to current is detected by the DVOM.

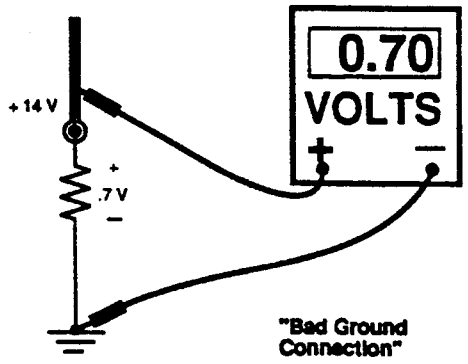

Figure 2

The resistance is detected by measuring the voltage drop completely across the ground connection. To check the entire connection measure from the wire itself to the metal chassis.

In Figure 3 a defective ground cable connection is shown. Several strands are broken loose from the cable end. This would produce a voltage drop at the connector.

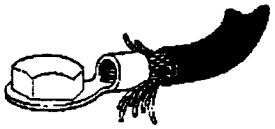

Figure 3