

OIL PRESSURE GAUGE (cont.)

NOTE: Sun U.S. or Metric adapters are available from your local auto parts store and can be placed between the "T" adapter and engine block if necessary.

5. Start engine and check for oil leaks at all connections.

VOLTMETER GAUGE

The voltmeter gauge indicates electrical pressure or voltage. It provides easy to understand information on the condition and operation of your vehicle's electrical system.

Under normal conditions, the voltmeter will indicate between 13 to 15 volts while the car is being operated at usual road speeds. If the gauge reads higher than 15 volts, it indicates that the charging system's voltage regulator is not operating properly and it can result in damage to the battery and accessories. A continuous reading of less than 13 volts indicates that the charging system is not operating properly and will eventually result in a discharged battery.

If the voltmeter reads too high or too low at normal operating conditions, the battery, the starting system, and the charging system should be thoroughly tested and serviced as necessary.

ASSEMBLY INSTRUCTIONS

1. Add a flatwasher and a nut to each post at the back of the gauge as shown in Figure 7.
2. Connect insulated wires (18 gauge or larger recommended) between the washer and the last nut on each post (Figure 7).
3. Connect the wire from the negative (-) terminal of the voltmeter to engine/chassis ground.

NOTE: Not all dashboards are properly grounded. Avoid painted or insulated surfaces.

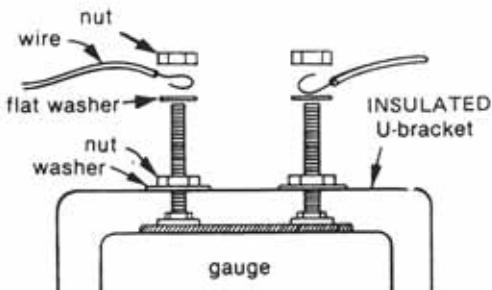


FIGURE 7

4. Turn the ignition switch to the accessory or on position.
5. Route the wire from the positive (+) terminal of the voltmeter to the fuseblock and touch the wire to the exposed accessory terminals. When the voltmeter indicates battery voltage (approximately 12 volts) turn the ignition switch to the off position. If the voltmeter now reads 0 volts, this is the terminal that you want to make your permanent connection to. If the voltmeter still reads battery voltage, try another accessory terminal and repeat the above procedure.

VOLTMETER GAUGE (cont.)

6. Disconnect the battery ground cable to avoid accidental grounding and damage to the vehicle's electrical system while making the permanent connections.
7. Securely connect the wire from the positive (+) terminal of the gauge to the accessory terminal.

- PRO TIP:**
1. If there are no accessory terminals available, alternate hook-up locations can be found on the accessory terminal of the ignition switch or the radio's power leads.
 2. These instructions apply to vehicles with negative ground systems. For positive ground systems, reverse the leads at the back of the meter.

AMMETER GAUGE

The ammeter gauge indicates the amount and direction of current flow to and from the vehicle's battery. This gives you a good indication of the operation and electrical condition of the battery, alternator and voltage regulator.

A needle positioned on the charge or positive (+) side of the gauge indicates that the charging system is supplying enough electrical current to satisfy all of the requirements of the vehicle's electrical system and still has enough current to charge the battery. A needle positioned on the discharge or negative (-) side of the gauge indicates that the charging system is not supplying enough electrical current to satisfy all of the requirements of the vehicle's electrical system and the battery is being discharged to supply this extra needed current.

Normally, after starting the engine, the ammeter will indicate a slight charge. This occurs due to the fact that the battery has to be recharged for the current used to start the engine. After a few minutes, at fast idle or at cruising speeds, the needle should swing towards zero indicating that the charging system has restored the battery to a charged condition and is satisfying all of the electrical needs of the vehicle.

If the ammeter indicates discharging at all engine speeds, there is a problem with the charging system or the current required is above the capability of the charging system. Check for loose connections, loose drive belts, a faulty alternator, a faulty generator, a faulty voltage regulator, or reason for the excessive current load, that should be eliminated. An ammeter reading continuously and excessively in the charge position indicates a battery or voltage regulator problem, poor ground or a loose connection.

INSTALLATION INSTRUCTIONS

The wires used to connect the ammeter to the vehicle should be insulated and heavy enough to carry the current required on all of the accessories operating simultaneously.

MAXIMUM EXPECTED LOAD	WIRE SIZE REQUIRED
30 amperes	10 gauge
45 amperes	8 gauge
60 amperes	6 gauge