

Product: Voltmeter	Description VOLTMETER / WIRING	Date Oct 03
Type: Electrical		Issue 1

General Information:

This troubleshooting guide is intended to help you with the installation of Siemens VDO Automotive instruments. Please however check the instructions provided within the package the instrument came in for more details.

VOLTMETERS

- Key on-engine off-12 volts.
- Engine running without accessories or lights on-13.5-14.5 volts, (approx.)
- Engine running with accessories and lights on-13.0-14.0 volts (approx.)
- Lower readings mean a weak battery or malfunction in the alternator or voltage regulator.

WIRING

We recommend 16-gauge wiring except for the final ground wire which should be 14-gauge. Wire the gauges in a series from a (+) accessory source which is not already overloaded with other accessories such as electric fans and air conditioning. The ground is also run in series including the light socket ground. The final 14-gauge wire needs to be connected to a good ground such as the engine block ground strap or the battery ground itself.

All wiring should be of high quality stranded wire with good insulation. Take care to avoid hot engine components when running engine compartment wire. Use grommets when running wire through the fire wall. If your gauge's pointer moves noticeably when the lights, fans, or air conditioner turns on, you are experiencing a low voltage condition. This may be due to the following factors:

- You have installed the gauges to an overloaded circuit either on the positive or negative wire. Re-wire to eliminate problem.
- Voltage output of alternator during idle conditions may be too small for electrical system. Hook up voltmeter and monitor voltage. Voltage should not drop below 12.75 volts at any time.