



Suggested Installation Instructions for: **601-082, Manifold Absolute Pressure Sensor Test Tool**

INTRODUCTION:

The Manifold Absolute Pressure (MAP) sensor measures the change in the intake manifold pressure which results from engine load (intake manifold vacuum) and rpm changes; and converts these into a voltage output. The ECM sends a 5 volt reference voltage to the MAP sensor. When the manifold pressure changes, the output voltage of the sensor also changes. By monitoring the sensor output voltage, the ECM knows the manifold pressure. A lower pressure (low voltage) output voltage will be about 1-2 volts at idle. A higher pressure (high voltage) output voltage will be about 4 to 4.8 volts at wide open throttle (WOT). The MAP sensor is also used, under certain conditions to measure barometric pressure, allowing the ECM to make adjustments for different altitudes. The ECM uses the MAP sensor to control fuel delivery and ignition timing.

INSTALLATION AND TEST PROCEDURES:

1. With the ignition key "OFF", disconnect the ECM connector from the Manifold Absolute Pressure Sensor. Refer to the GM Shop Manual for the sensor location.
2. Plug in the MAP Test Tool. **CAUTION:** Carefully move the test jumper from side to side to align the pins into place. **DO NOT** force the test jumper into the connection. Damage to the pins or sensor may result.
3. Voltage readings may vary depending on make and model. Refer to the GM Shop Manual for the proper voltage and resistance values. Use a digital voltmeter (10 megaohm impedance required) to take measurement readings.
4. Turn the ignition key "OFF" and remove the MAP Test Tool. Re-connect the ECM connector to the Manifold Absolute Pressure Sensor.