MAP Sensor Output Chart

Meets NATEF Task: (A8-B-7) Inspect and test sensors, actuators, and circuits using a graphing multimeter (GMM)/digital storage oscilloscope (DSO); perform necessary action. (P-1)

Name _____ **Date** _____ **Time on Task** _____

Make/Model/Year _____ **VIN** _____ **Evaluation: 4 3 2 1**

Most vehicle MAP sensors use a 5-volt reference, a signal return and a ground connection. As the vacuum inside the intake manifold changes, the MAP sensor voltage changes.

- High vacuum (low absolute manifold pressure) = low voltage
- Low vacuum (high absolute manifold pressure) = high voltage

_____ **1.** Connect a T-pin to the signal wire connector at the MAP sensor.

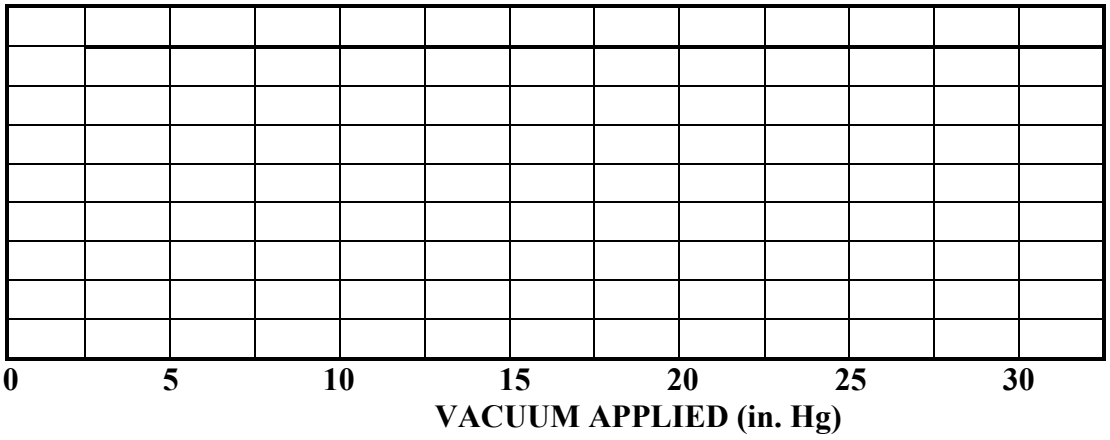
_____ **2.** Connect the red lead of a digital voltmeter set to read DC volts to the T-pin. Connect the black meter lead to a good chassis ground.

_____ **3.** Disconnect the vacuum hose from the MAP sensor (or remove the sensor from the manifold) and attach a hand-operated vacuum pump to the sensor.

_____ **4.** Place a dot on the graph that represents the MAP sensor voltage when 5, 10, 15, 20, 25 and 30 in. Hg of vacuum is applied to the sensor.

_____ **5.** Connect the dots. The results should be a straight line.

OK _____ **NOT OK** _____



_____ **6.** Based on the results of this test, what is the necessary action? _____

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