TP Sensor Voltmeter Test

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**

_____ **1.** Check service information for the location, specifications for the throttle position (TP) sensor.

_____ **2.** Carefully back probe the wires at the connector to gain access to the 5-volt reference, signal, and signal return (ground) terminal.

_____ **3.** With the ignition on, engine off (KOEO), set the digital multimeter (DMM) to DC volts and attach the black meter lead to a good clean engine ground.

_____ **4.** Measure the reference voltage (should be close to 5 volts) = _____.

_____ **5.** Measure the sensor signal voltage at idle _____,

specification = _____.

_____ **6.** Measure the TP sensor at wide-open throttle (W.O.T.) = _____ volts (should be about 4.5 volts).

_____ **7.** Measure the voltage (voltage drop) between the signal return at the TP sensor and a good clean engine ground.

_____ volts (should be less than 0.2 volts)

_____ **8.** Based on the test results, what is the necessary action?

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