

# MAF Sensor Scope

**Meets NATEF Task:** (A8-B-5) Inspect and test sensors, actuators, and circuits using a graphing multimeter (GMM)/digital storage oscilloscope (DSO); perform necessary action. (P-1)

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Name \_\_\_\_\_ Date \_\_\_\_\_ Time on Task \_\_\_\_\_

Make/Model/Year \_\_\_\_\_ VIN \_\_\_\_\_ Evaluation: 4 3 2 1

Most mass air flow sensors produce a variable frequency signal or voltage proportional to the amount (mass) of air flowing through the sensor.

\_\_\_\_\_ 1. Check service information and determine the voltage (analog MAF sensor) or frequency (digital MAF sensor) range for the unit on the vehicle being tested.

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\_\_\_\_\_ 2. Set the scope to 2ms/div and 200 mV/div.

\_\_\_\_\_ 3. Locate the MAF sensor and connect the scope probe to the signal wire on the sensor by carefully back probing the connector.

\_\_\_\_\_ 3. Connect the scope probe ground lead to a good non-painted engine or body ground.

\_\_\_\_\_ 4. Draw the MAF sensor signal at idle speed with the engine in neutral or park.

\_\_\_\_\_ 5. Place the gear selector in drive or reverse (automatic transmissions only) and draw the MAF sensor signal.

\_\_\_\_\_ 6. What difference did you notice? \_\_\_\_\_

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\_\_\_\_\_ 7. Based on the test results, what is the necessary action? \_\_\_\_\_