# Ford EVP Voltage Check

**Meets NATEF Task:** (A8-E-5) Inspect and test electrical/electronic sensors, controls, and wiring of exhaust gas recirculation (EGR) systems; perform necessary action. (P-2)

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

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

The EGR valve position (EVP) sensor is used by the PCM to provide feedback as to the actual position of the EGR valve. If the actual position and the commanded position are different, a diagnostic trouble code could be set. An EVP signal that is out-of-range can also cause an incorrect fuel mixture to be supplied to the engine. Compare the voltage reading to the percentage of EGR valve opening.

- Check that the valve is able to be fully closed (could be stuck with carbon).
- If the EVP is too low, ignition timing will be retarded.

_____ **1.** Check service information for the exact specification for the vehicle being tested (typical specification).

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| EGR Opening Percentage | Black Sensor Volts | Gray Sensor Volts |
|---|---|---|
| 0% | 0.90 | 0.35 |
| 10% | 1.25 | 0.75 |
| 20% | 1.65 | 1.10 |
| 30% | 1.95 | 1.45 |
| 40% | 2.30 | 1.80 |
| 50% | 2.65 | 2.15 |
| 60% | 3.00 | 2.50 |
| 70% | 3.35 | 2.85 |
| 80% | 3.70 | 3.20 |
| 90% | 4.05 | 3.55 |
| 100% | 4.40 | 3.90 |

_____ **2.** Does the voltage and the commanded position as determined by a scan tool agree?

**Yes** ☐ **No** ☐

_____ **3.** Based on the test results, what is the necessary action? _____