

# Fuel Trim Diagnosis

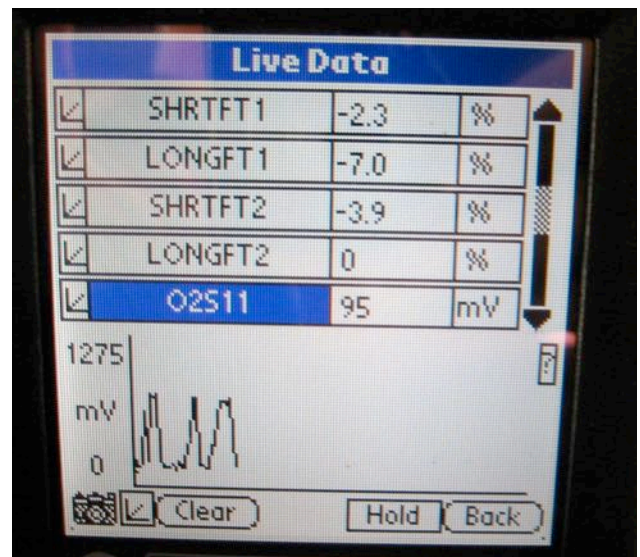
**Meets NATEF Task:** (A8-B-7) Diagnose driveability and emissions problems resulting from malfunctions of interrelated systems; determine necessary action. (P-3)

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

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

Fuel trim is the computer correction factor that uses the oxygen sensor to determine if more or less fuel needs to be delivered by the fuel injectors. Fuel trim is only available on a scan tool.

- \_\_\_\_\_ 1. Connect a scan tool and select long-term fuel trim (LTFT) (block learn) and short-term fuel trim (STFT).
- \_\_\_\_\_ 2. Start the engine and operate until normal operating temperature and closed loop status is achieved.
- \_\_\_\_\_ 3. Record the following cell number and LTFT amount:



| Cell | LTFT | STFT |
|------|------|------|
|------|------|------|

|  |       |       |       |
|--|-------|-------|-------|
| Idle in Drive (if automatic transmission only) | _____ | _____ | _____ |
|--|-------|-------|-------|

|                      |       |       |       |
|----------------------|-------|-------|-------|
| Idle in Park A/C off | _____ | _____ | _____ |
|----------------------|-------|-------|-------|

|                     |       |       |       |
|---------------------|-------|-------|-------|
| Idle in Park A/C on | _____ | _____ | _____ |
|---------------------|-------|-------|-------|

|                  |       |       |       |
|------------------|-------|-------|-------|
| 3000 RPM in Park | _____ | _____ | _____ |
|------------------|-------|-------|-------|

Results: Fuel trim should be within plus or minus 10% or within 118-138 if the block/integration is displayed as a binary number.

- \_\_\_\_\_ 4. Based on the test results, what is the necessary action? \_\_\_\_\_

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