

## Set Opposite Code

**Meets NATEF Task:** (A8-B-5) Diagnose the causes of emissions or driveability concerns with stored or active diagnostic trouble codes; obtain, graph, and interpret scan tool data. (P-1)

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

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

If a diagnostic trouble code is set, a commonly used method of diagnosis is to attempt to set the opposite code after clearing the original code. For example, if a throttle position (TP) code is set, clear the DTC and attempt to set a DTC for the opposite condition.

- If a signal high DTC is set, clear the code and turn the ignition switch on (engine off), unplug the sensor and a signal low DTC should be set.
- If a signal low DTC is set, unplug the sensor connector and using a jumper wire, connect the 5-volt reference to the signal terminal in the connector (not at the sensor). Turn the ignition switch on (engine off) and the opposite DTC should set.

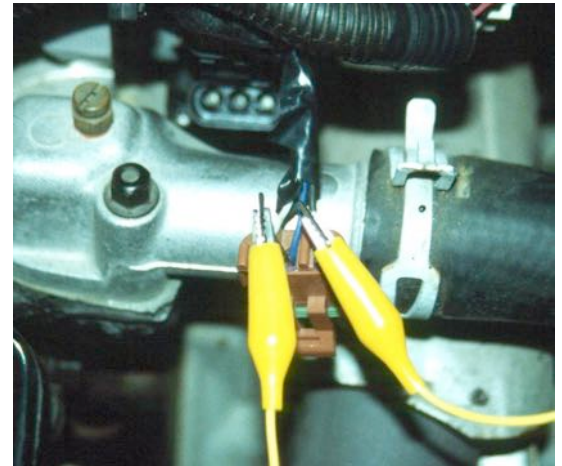
\_\_\_\_\_ 1. Set a DTC for TP or MAP sensor.

- Which sensor was used? \_\_\_\_\_
- What code set? \_\_\_\_\_
- Meaning of code set? \_\_\_\_\_

\_\_\_\_\_ 2. Clear the DTC.

\_\_\_\_\_ 3. Disconnect the sensor wiring and use a jumper wire to set the opposite code.

- What code was set? \_\_\_\_\_
- OK** \_\_\_\_\_ **NOT OK** \_\_\_\_\_



### Results:

If the opposite code *does* set, the cause of the original DTC is the result of a fault in the sensor (component) itself.

If the opposite DTC *does not* set, the problem is likely due to a wiring fault.

**NOTE:** Always consult a factory service manual for the factors that must be met for a DTC to be set. Be sure that all factors are present when attempting to set the opposite code.