NO: 18-09-99

SUBJECT: Common Diagnostic Trouble Codes Caused By An Open Fuse.

DATE: May 21, 1999

DISCUSSION:

Recent quality analysis has revealed an issue with repeated repairs for the same Diagnostic Trouble Code (DTC). The DTC may be due to an overlooked open circuit used to power the component in question. In most instances, either the circuit fuse has been erroneously removed or the fuse itself has an open (blown).

The component in question, and its circuit, are often protected by two fuses. It is usually the lower amperage fuse that is either missing or open.

The lower amperage fuse is positioned electrically in the circuit between the component in question and either a relay (Auto Shut Down, O2 heater) or the ignition switch. The lower amperage fuse will be located either in the underhood Power Distribution Center (PDC) or in the instrument panel Junction Block.

The lower amperage fuse is often missing because it was removed erroneously for use in another low current circuit. If the lower amperage fuse is open (blown), then the circuit and component in question must be checked for an electrical short. Check to make sure that the open fuse was not exchanged with another fuse or was damaged by an installed accessory.

NOTE: IF AN OXYGEN SENSOR IS REPLACED, VERIFY THAT THE CIRCUIT FUSE IS GOOD. AN OXYGEN SENSOR HEATER, WHEN DAMAGED OR OVERHEATED, MAY SHORT THE CIRCUIT AND CAUSE THE FUSE TO OPEN (BLOW).

The higher amperage fuse should be checked, but is not normally the cause of the DTC. The higher amperage fuse is located in the underhood PDC. It is positioned electrically in the circuit between the battery and either the relay (Auto Shut Down, O2 heater) or the ignition switch.

Refer to the applicable Diagnostic Procedures Manual and/or Service Manual (Group 8) for further technical assistance.

The following is a list of the components frequently replaced erroneously due to an open fuse. Included are the possible DTC(s) which would be generated as a result.

1. Oxygen Sensor (O2)

    - P0132 ($3E) = 1/1 O2 Sensor Shorted to Voltage
    - P0135 ($67) = 1/1 O2 Sensor Heater Failure

    - P0138 ($7E) = 1/2 O2 Sensor Shorted to Voltage
    - P0141 ($69) = 1/2 O2 Sensor Heater Failure

    - P0152 ($42) = 2/1 O2 Sensor Shorted To Voltage

- P0155 ($7C) = 2/1 O2 Sensor Heater Failure

- P0158 ($7F) = 2/2 O2 Sensor Shorted To Voltage
- P0161 ($7D) = 2/2 O2 Sensor Heater Failure

2. Leak Detection Pump (LDP)

    - P1495 ($B7) = Leak Detection Pump Solenoid Circuit

3. Evaporative Purge Solenoid (DCP)

    - P0443 ($12) = Evaporative Purge Solenoid Circuit

4. Torque Converter Clutch Solenoid (TCC)

    - P0743 ($0C) = Torque Converter Clutch Solenoid / Trans Relay Circuits

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