DTC	P0657	Actuator Supply Voltage Circuit / Open

DESCRIPTION

The ECM monitors the output voltage to the throttle actuator. This self-check ensures that the ECM is functioning properly. The output voltage is usually 0 V when the ignition switch is turned off. If the output voltage is higher than 7 volts when the ignition switch is turned off, the ECM will illuminate the MIL and set a DTC when the ignition switch is turned on.

DTC	DTC Detection Condition	Trouble Area
P0657	Throttle actuator power supply error	ECM

MONITOR STRATEGY

Related DTC	P0657: ETCS power supply
Required sensors/Components (main)	ECM
Required sensors/Components (sub)	Throttle actuator
Frequency of Operation	Once per driving cycle
Duration	Within 1 second
MIL Operation	Immediate
Sequence of Operation	None

TYPICAL ENABLING CONDITIONS

Monitor will run whenever this DTC is not present	None
Ignition switch	From ON to OFF

TYPICAL MALFUNCTION THRESHOLDS

Throttle actuator power supply	7 V or more

INSPECTION PROCEDURE

1	CHECK WHETHER DTC OUTPUT RECURS (IN ADDITION TO DTC P0657)

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch to the ON position.
(c) Turn the tester on.
(d) Clear the DTC.
(e) Turn the ignition switch off.
(f) Disconnect the battery negative terminal and wait for 1 minute.
(g) Connect the battery negative terminal.
(h) Turn the ignition switch to the ON position for 10 seconds.
(i) Turn the ignition switch off.
(j) Turn the ignition switch to the ON position.
(k) Enter the following menus: DIAGNOSIS / ENHANCED II / DTC INFO / CURRENT CODES.
(l) Read the DTCs.

Result

Display (DTC output)	Proceed to
P0657	A
No output DTC	B

B → CHECK FOR INTERMITTENT PROBLEMS

A

REPLACE ECM