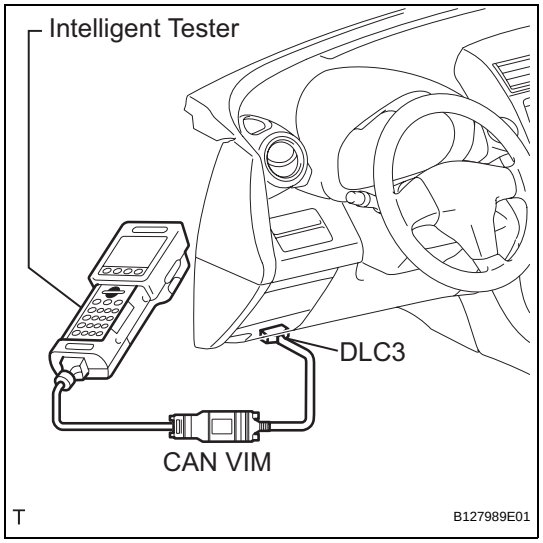
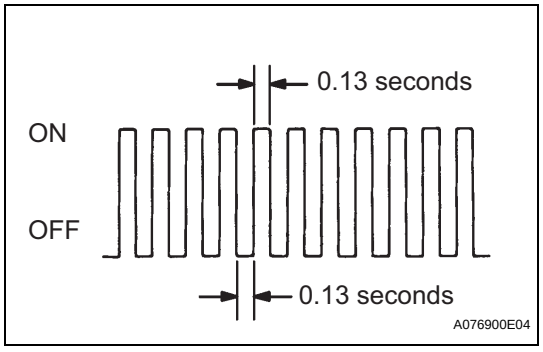
CHECK MODE PROCEDURE

HINT:
Intelligent tester only:
Compared to normal mode, check mode is more sensitive to malfunctions. Therefore, check mode can detect the malfunctions that cannot be detected by normal mode.
NOTICE:
All the stored DTCs and freeze frame data are erased if: 1) the ECM is changed from normal mode to check mode or vice versa; or 2) the ignition switch is turned from ON to ACC or OFF while in check mode. Before changing modes, always check and make a note of any DTCs and freeze frame data.



1. CHECK MODE PROCEDURE (Using intelligent tester)

(a) Check and ensure the following conditions:
  (1) Battery positive voltage 11 V or more.
  (2) Throttle valve fully closed.
  (3) Transmission in the P or N position.
  (4) A/C switch OFF.
(b) Turn the ignition switch OFF.
(c) Connect the intelligent tester to the DLC3.
(d) Turn the ignition switch ON.
(e) Turn the tester ON.
(f) Select the following menu items: DIAGNOSIS / ENHANCED OBD II/ CHECK MODE.
(g) Switch the ECM from normal mode to check mode.



(h) Make sure the MIL flashes as shown in the illustration.
(i) Start the engine.
(j) Make sure the MIL turns off.
(k) Simulate the conditions of the malfunction described by the customer.
(l) Check DTCs and freeze frame data using the tester.

FAIL-SAFE CHART

If any of the following DTCs are set, the ECM enters fail-safe mode to allow the vehicle to be driven temporarily.

DTCs	Components	Fail-Safe Operations	Fail-Safe Deactivation Conditions
P0031 and P0032	Air-Fuel Ratio (A/F) Sensor Heater	ECM turns off A/F sensor heater.	Ignition switch OFF
P0037 and P0038	Heated Oxygen (HO2) Sensor Heater	ECM turns off HO2 sensor heater.	Ignition switch OFF
P0100, P0102 and P0103	Mass Air Flow (MAF) Meter	ECM calculates ignition timing according to engine speed and throttle valve position.	Pass condition detected
P0110, P0112 and P0113	Intake Air Temperature (IAT) Sensor	ECM estimates IAT to be 20°C (68°F).	Pass condition detected
P0115, P0117 and P0118	Engine Coolant Temperature (ECT) Sensor	ECM estimates ECT to be 80°C (176°F).	Pass condition detected
P0120, P0121, P0122, P0123, P0220, P0222, P0223, P0604, P0606, P0607, P0657, P2102, P2103, P2111, P2112, P2118, P2119 and P2135	Electronic Throttle Control System (ETCS)	ECM cuts off throttle actuator current and throttle valve returned to 6° throttle position by return spring. ECM then adjusts engine output by controlling fuel injection (intermittent fuel-cut) and ignition timing in accordance with accelerator pedal opening angle to allow vehicle to continue at minimal speed*.	Pass condition detected and then ignition switch turned OFF
P0327 and P0328	Knock Sensor	ECM sets ignition timing to maximum retard.	Ignition switch OFF
P0351 to P0354	Igniter	ECM cuts fuel.	Pass condition detected
P1550, P1551, P1552 and P1602	Generator	Alternator command is fixed.	Pass condition detected
P2120, P2121, P2122, P2123, P2125, P2127, P2128 and P2138	Accelerator Pedal Position (APP) Sensor	APP sensor has 2 sensor circuits: Main and Sub. If either circuit malfunctions, ECM controls engine using other circuit. If both circuits malfunction, ECM regards accelerator pedal as being released. As result, throttle valve closed and engine idles.	Pass condition detected and then ignition switch turned OFF

HINT:

*: The vehicle can be driven slowly when the accelerator pedal is depressed firmly and slowly. If the accelerator pedal is depressed quickly, the vehicle may speed up and slow down erratically.