

13. Drive Cycle S048812

A: OPERATION S048812A16

There are 3 drive patterns for trouble diagnosis. Driving in the specified pattern allows to diagnose the malfunctioning items listed below. After the malfunctioning items listed below are repaired, always check whether they correctly resume their functions by driving in the required drive pattern.

1. PREPARATION FOR THE DRIVE CYCLE. S048812A1601

- 1) Make sure that fuel remains approx. half amount [20 to 40 ℓ (5.3 — 10.6 US gal, 4.4 — 8.8 Imp gal)], and battery voltage is 12V or more.
- 2) After performing diagnostics and cleaning the memory, check for any remaining unresolved trouble data. <Ref. to EN(H6)-58, Clear Memory Mode.>
- 3) Separate test mode connector.

NOTE:

- Except for water temperature specified items at starting, diagnosis is carried out after engine warm up.
- Carry out diagnosis which is marked * on DTC twice, Then, after finishing 1st diagnosis, stop engine and do the second time at the same condition.

2. AFTER RUNNING 20 MINUTES AT 80 KM/H (50 MPH), IDLE ENGINE FOR 1 MINUTE.

S048812A1602

DTC No.	Item	Condition
*P0111	Intake air temperature sensor circuit range/performance problem	Coolant temperature at start is less than 30°C (86°F).
*P0125	Insufficient coolant temperature for closed loop fuel control	Coolant temperature at start is less than 20°C (68°F).
*P0128	Thermostat malfunction	Coolant temperature at start is less than 55°C (131°F).
*P0133	Bank #1 and sensor #1 oxygen (A/F) sensor (front RH) circuit slow response	—
*P0153	Bank #2 and sensor #1 oxygen (A/F) sensor (front LH) circuit slow response	—
*P0181	Fuel temperature sensor A circuit range/performance problem	—
*P0420	Catalyst system efficiency below threshold	—
*P0442	Evaporative emission control system malfunction	—
*P0451	Evaporative emission control system pressure sensor range/performance problem	—
P0453	Evaporative emission control system pressure sensor high input	—
*P0457	Evaporative system malfunction	—
P0459	Evaporative emission control system purge control valve circuit high input	—
P0461	Fuel level sensor circuit range/performance problem	—
*P0464	Fuel level sensor intermittent input	—

DRIVE CYCLE

Engine (DIAGNOSTICS)

3. IDLE FOR 10 MINUTES S048812A1603

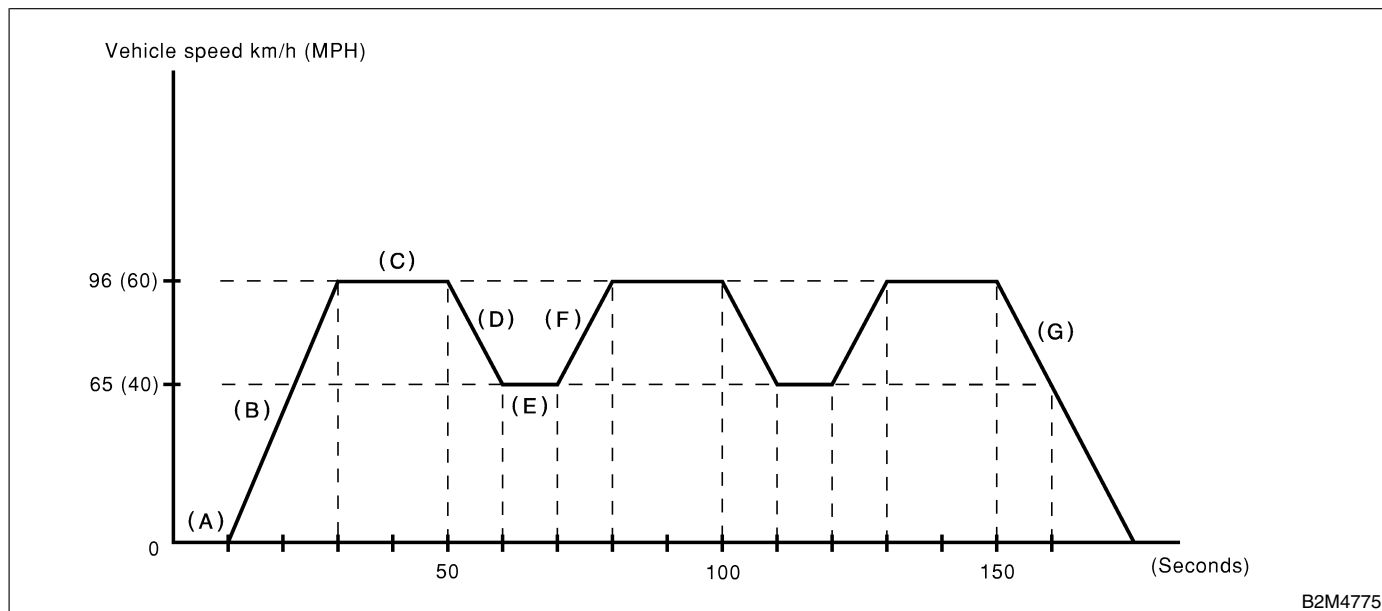
NOTE:

Before diagnosis, drive vehicle at 4 km/h (6 MPH) or more.

DTC No.	Item	Condition
*P0483	Cooling fan function problem	—
*P0506	Idle control system RPM lower than expected	—
*P0507	Idle control system RPM higher than expected	—
*P1139	Bank #1 and sensor #1 oxygen (A/F) sensor (front RH) heater circuit range/performance problem	—
*P1140	Bank #2 and sensor #1 oxygen (A/F) sensor (front LH) heater circuit range/performance problem	—

4. DRIVE ACCORDING TO THE FOLLOWING DRIVE PATTERN

S048812A1604



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|---|--|---|
| (A) Idle engine for 1 minute. | (D) Decelerate with fully closed throttle to 64 km/h (40 MPH). | (F) Accelerate to 97 km/h (60 MPH) within 10 seconds. |
| (B) Accelerate to 97 km/h (60 MPH) within 20 seconds. | (E) Drive vehicle at 64 km/h (40 MPH) for 10 seconds. | (G) Stop vehicle with throttle fully closed. |
| (C) Drive vehicle at 97 km/h (60 MPH) for 20 seconds. | | |

DTC No.	Item	Condition
*P0121	Throttle position sensor circuit range/performance problem (high input)	Coolant temperature at start is more than 80°C (176°F).
*P0139	Rear oxygen sensor circuit slow response	—
*P0171	Fuel trim #1 (RH) malfunction (A/F too lean)	—
*P0172	Fuel trim #1 (RH) malfunction (A/F too rich)	—
*P0174	Fuel trim #2 (LH) malfunction (A/F too lean)	—
*P0175	Fuel trim #2 (LH) malfunction (A/F too rich)	—
*P0301	Cylinder 1 misfire detected	—
*P0302	Cylinder 2 misfire detected	—
*P0303	Cylinder 3 misfire detected	—
*P0304	Cylinder 4 misfire detected	—
*P0305	Cylinder 5 misfire detected	—
*P0306	Cylinder 6 misfire detected	—
*P0400	EGR system malfunction	—
*P1142	Throttle position sensor circuit range/performance problem (low input)	—