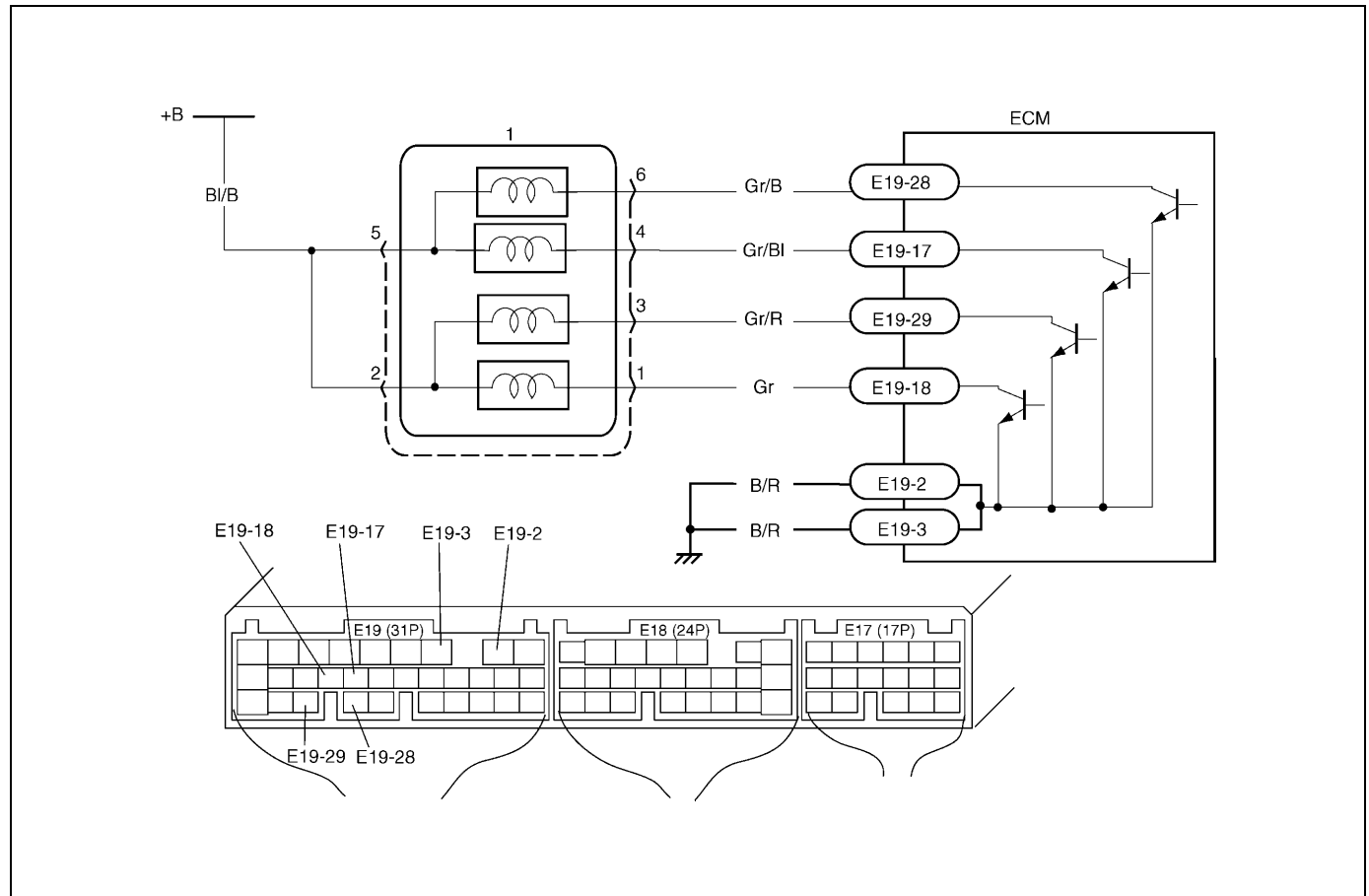


DTC P0400 Exhaust Gas Recirculation Flow Malfunction

CIRCUIT DESCRIPTION



1. EGR valve

DTC DETECTING CONDITION	POSSIBLE CAUSE
- While running at specified vehicle speed after engine warm-up - During deceleration (engine speed high with closed throttle position ON) in which fuel cut is involved, difference in intake manifold absolute pressure between when EGR valve is opened at specified value and when it is closed is larger or smaller than specified value. *2 driving cycle detection logic, monitoring once / 1 driving	- EGR valve or its circuit - EGR passage - ECM

DTC CONFIRMATION PROCEDURE

WARNING:

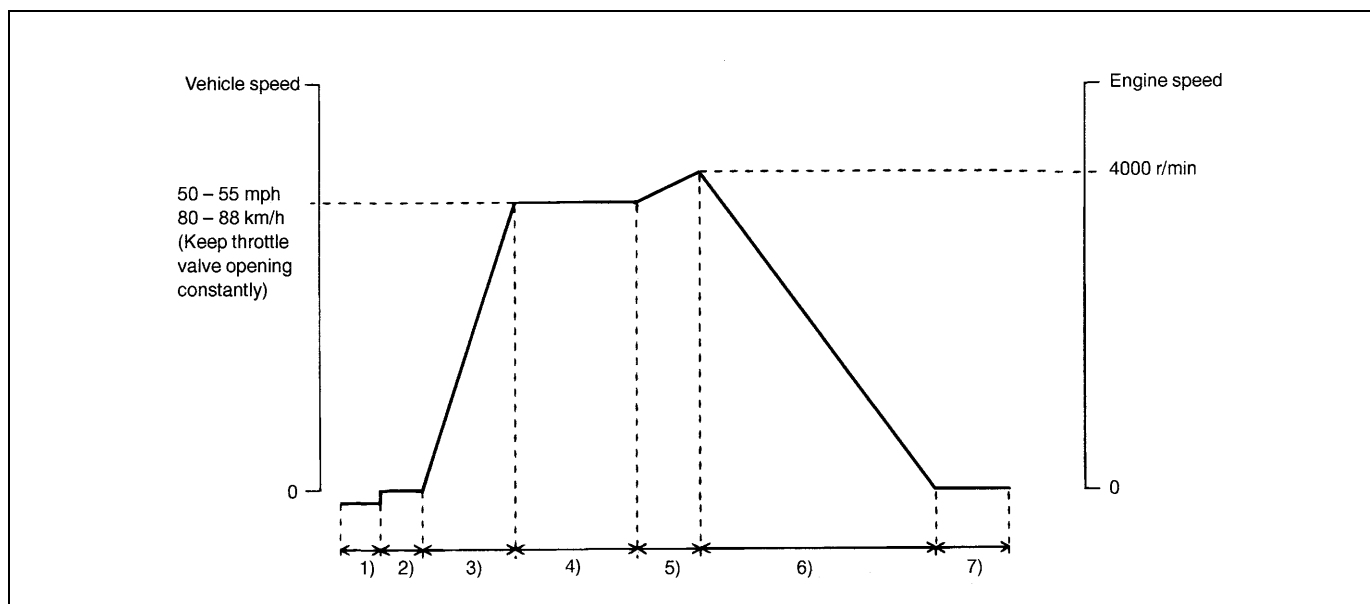
- When performing a road test, select a place where there is no traffic or possibility of a traffic accident and be very careful during testing to avoid occurrence of an accident.
- Road test should be carried out with 2 persons, a driver and a tester, on a level road.

1) Turn ignition switch OFF.

Clear DTC with ignition switch ON, check vehicle and environmental condition for :

- Altitude (barometric pressure) : 2400 m, 8000 ft or less (560 mmHg, 75 kPa or more)
- Ambient temp. : -10 °C, 14 °F or higher
- Intake air temp. : 70 °C, 122 °F or lower

- 2) Start engine and warm it up to normal operating temperature (70 – 110 °C, 158 – 230 °F) and run it at idle for 5 min.
- 3) Increase vehicle speed to 50 – 55 mph, 80 – 88 km/h in 5th gear or in “D” range.
- 4) Hold throttle valve at that opening position for 2 min. or longer.
- 5) Increase engine speed to 4000 r/min. in 3rd gear or in “2” range.
- 6) Release accelerator pedal and with engine brake applied, keep vehicle coasting (fuel cut condition) till engine speed reaches 1500 r/min.
- 7) Stop vehicle (don't turn ignition switch OFF) and confirm test results according to following “Test Result Confirmation Flow Table.”

**Test Result Confirmation Flow Table**

Step	Action	Yes	No
1	Check DTC in “DTC” mode and pending DTC in “ON BOARD TEST”. Is DTC or pending DTC displayed?	Proceed to applicable DTC flow table.	Go to Step 2.
2	Set scan tool to “READINESS TESTS” mode and check if testing has been completed. Is test completed?	No DTC is detected. (Confirmation test is completed)	Repeat DTC confirmation procedure.

INSPECTION

Step	Action	Yes	No
1	Was “Engine Diag. Flow Table” performed?	Go to Step 2.	Go to “Engine Diag. Flow Table”.
2	1) Turn ignition switch ON. 2) Does EGR stepper motor operation for 0.6 second after ignition switch OFF?	Go to Step 3.	Go to Step 6.
3	With ignition switch at OFF, check voltage between E19-28, 17, 29, 18 terminals of ECM and body ground. See Fig. 2. Is voltage about 0 V?	Go to Step 4.	Go to Step 8.

Step	Action	Yes	No
4	With ignition switch at ON, check voltage between E19-28, 17, 29, 18 terminals of ECM and body ground. See Fig. 2. Is voltage within 10 – 14 V?	Go to Step 5.	Go to Step 8.
5	Do you have SUZUKI scan tool?	Go to Step 6.	Stuck or faulty EGR valve or clogged EGR gas passage. If all above are OK, substitute a known-good ECM and recheck.
6	Check EGR system referring to “EGR System” in Section 6E. Is check result satisfactory?	Substitute a known-good ECM and recheck.	Stuck or faulty EGR valve or clogged EGR gas passage.
7	1) Disconnect EGR valve connector with ignition switch OFF. 2) Check voltage between “BI/B” wire terminal (2) of EGR valve connector (1) and body ground with ignition switch ON. See Fig. 1. 3) Are they about 10 – 14 V?	Go to Step 3.	“BI/B” wire open or short.
8	Check EGR valve referring to “EGR System” in Section 6E. Is it good condition?	EGR valve harness (“Gr/B”, “Gr/BI”, “Gr/R” or “Gr” wire) open or short or poor connector connection (EGR valve connector, E19-28, 17, 29, 18) If wire harness and connection are OK, substitute a known-good ECM and recheck.	Faulty EGR valve.

[A] Fig. 1 for Step 7 / [B] Fig. 2 for Step 3 and 4

