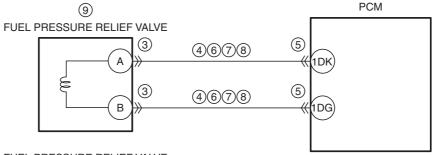
| DTC P009B: 00 | Fuel pressure relief valve signal circuit problem |
|------------------|--|
| | • The operation amount of the fuel pressure relief valve is the specified value or more when the following |
| | conditions are met: |
| | MONITORING CONDITIONS |
| | — Battery voltage: 10—16 V |
| DETECTION | Diagnostic support note |
| CONDITION | This is an intermittent monitor (fuel system). |
| | • The check engine light illuminates if the PCM detects the above malfunction condition during the first drive |
| | cycle. |
| | • FREEZE FRAME DATA (Mode 2)/Snapshot data is available. |
| | DTC is stored in the PCM memory. |
| FAIL-SAFE | PCM restricts engine torque. |
| FUNCTION | PCM restricts fuel pressure. (high pressure side). |
| TONOTION | Inhibits engine-stop by operating the i-stop function. |
| | Fuel pressure relief valve connector or terminals malfunction |
| | Short to ground in wiring harness between the following terminals: |
| | Fuel pressure relief valve terminal A—PCM terminal 1DK |
| | Fuel pressure relief valve terminal B—PCM terminal 1DG |
| POSSIBLE | PCM connector or terminals malfunction |
| | Short to power supply in wiring harness between the following terminals: |
| | Fuel pressure relief valve terminal A—PCM terminal 1DK |
| CAUSE | Fuel pressure relief valve terminal B—PCM terminal 1DG |
| | Fuel pressure relief valve circuits are shorted to each other |
| | Open circuit in wiring harness between the following terminals: |
| | Fuel pressure relief valve terminal A—PCM terminal 1DK |
| | Fuel pressure relief valve terminal B—PCM terminal 1DG |
| | Fuel pressure relief valve malfunction |
| | • PCM malfunction |
| | (9) PCM |



FUEL PRESSURE RELIEF VALVE WIRING HARNESS-SIDE CONNECTOR





PCM WIRING HARNESS-SIDE CONNECTOR

| 1EF 1EB 1DX 1DT 1DP 1DL 1DH 1DB 1CX 1CT 1CP 1CL 1CH 1CD 1BZ 1BS 1BN 1BI | 1BC 1AX 1AS 1AN 1AI 1AD 1Y 1T 1O 1J 1E 1A 1BD 1AY 1AT 1AO 1AJ 1AE 1Z 1U 1P 1K 1F 1B |
|--|---|
| 1EF 1EB 1DX 1DT 1DP 1DL 1DH 1DB 1CX 1CT 1CP 1CL 1CH 1CD 1BZ 1BS 1BN 1BI | |
| | 1 1BD 1AY 1AT 1AO 1AJ |
| | |
| BT BD 1BJ | 1BE 1AZ 1AU 1AP 1AK 1AF 1AA 1V 1Q 1L 1G 1C |
| 1EI 1EG 1EC 1DY 1DU 1DQ 1DM 1DI 1DE 1DC 1CY 1CU 1CQ 1CM 1CI 1CE 1CA 1BW 1BU 1BP 1BK | 1BF 1BA 1AV 1AQ 1AL 1AG 1AB 1W 1R 1M 1H 1D |
| \ 1EJ 1EH 1ED 1DZ 1DV 1DR 1DN 1DJ 1DF 1DD 1CZ 1CV 1CR 1CN 1CJ 1CF 1CB 1BX 1BV 1BQ 1BL | 1BG1BB1AW1AR1AM 1AH1AC 1X 1S 1N 1I |
| | |
| | |



Diagnostic Procedure

| STEP | INSPECTION | | ACTION |
|---------------------|--|-----|---|
| | E FRAME DATA (MODE 2)/ | Yes | Go to the next step. |
| | TA HAS BEEN RECORDED | No | Record the FREEZE FRAME DATA (Mode 2)/snapshot data |
| | ZE FRAME DATA (Mode 2)/ | | on the repair order, then go to the next step. |
| | been recorded? | | J. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. |
| | ED SERVICE INFORMATION | Yes | Perform repair or diagnosis according to the available |
| AVAILABILITY | | | Service Information. |
| Verify related | Service Information availability. | | If the vehicle is not repaired, go to the next step. |
| | Service Information available? | No | Go to the next step. |
| 3 INSPECT FUEL | PRESSURE RELIEF VALVE | Yes | Repair or replace the connector and/or terminals, then go to |
| CONNECTOR (| CONDITION | | Step 10. |
| Switch the ignit | tion off. | No | Go to the next step. |
| Disconnect the | e fuel pressure relief valve | | · |
| connector. | | | |
| Inspect for poc | or connection (such as damaged/ | | |
| pulled-out pins | s, corrosion). | | |
| Is there any ma | alfunction? | | |
| I I | PRESSURE RELIEF VALVE | Yes | If the short to ground circuit could be detected in the wiring |
| SIGNAL CIRCU | IIT FOR SHORT TO GROUND | | harness: |
| _ | fuel pressure relief valve connector | | Repair or replace the wiring harness for a possible short to |
| is disconnected | | | ground. |
| | tinuity between the following | | If the short to ground circuit could not be detected in the |
| | ng harness-side) and body ground: | | wiring harness: |
| | sure relief valve terminal A | | Replace the PCM (short to ground in the PCM internal |
| | sure relief valve terminal B | | circuit). |
| Is there continuate | uity? | | (See PCM REMOVAL/INSTALLATION [SKYACTIV-D |
| | | | 2.2].) |
| | | | Go to Step 10. |
| 5 INCRECT DOM | CONNECTOR CONDITION | No | Go to the next step. |
| | CONNECTOR CONDITION PCM connector. | Yes | Repair or replace the connector and/or terminals, then go to Step 10. |
| | or connection (such as damaged/ | No | Go to the next step. |
| pulled-out pins | | INO | Go to the next step. |
| • Is there any ma | | | |
| | PRESSURE RELIEF VALVE | Yes | Go to the next step. |
| | IIT FOR SHORT TO POWER | No | Repair or replace the wiring harness for a possible short to |
| SUPPLY | III OKONOKI TOTOWEK | 140 | power supply, then go to Step 10. |
| I I | fuel pressure relief valve and PCM | | power suppry, then go to step 10. |
| | e disconnected. | | |
| | tion ON (engine off). | | |
| | oltage at the following terminals | | |
| (wiring harness | | | |
| | sure relief valve terminal A | | |
| | sure relief valve terminal B | | |
| Is the voltage (| | | |
| | . PRESSURE RELIEF VALVE | Yes | Repair or replace the wiring harness for a possible short to |
| I I | SHORT TO EACH OTHER | | each other, then go to Step 10. |
| Verify that the | fuel pressure relief valve and PCM | No | Go to the next step. |
| connectors are | e disconnected. | | |
| Switch the ignit | | | |
| 1 1 | tinuity between fuel pressure relief | | |
| • Inspect for con | in the state of th | | |
| | s A and B (wiring harness-side). | | |

| STEP | INSPECTION | | ACTION |
|------|--|-----|---|
| 8 | INSPECT FUEL PRESSURE RELIEF VALVE | Yes | Go to the next step. |
| | SIGNAL CIRCUIT FOR OPEN CIRCUIT Verify that the fuel pressure relief valve and PCM connectors are disconnected. Inspect for continuity between the following terminals (wiring harness-side): Fuel pressure relief valve terminal A—PCM | No | Repair or replace the wiring harness for a possible open circuit, then go to Step 10. |
| | terminal 1DK — Fuel pressure relief valve terminal B—PCM terminal 1DG • Is there continuity? | | |
| 9 | INSPECT FUEL PRESSURE RELIEF VALVE Inspect the fuel pressure relief valve. (See FUEL PRESSURE RELIEF VALVE) | Yes | Replace the common rail, then go to the next step. (See COMMON RAIL REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) |
| | INSPECTION [SKYACTIV-D 2.2].) • Is there any malfunction? | No | Go to the next step. |
| 10 | VERIFY DTC TROUBLESHOOTING COMPLETED • Always reconnect all disconnected connectors. • Clear the DTC from the PCM memory using the M-MDS. (See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].) • Start the engine. • Repeat deceleration 10 times using engine braking after accelerating the vehicle speed to 60 km/h {37 mph}. • Perform the DTC Reading Procedure. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-D 2.2].) • Is the same DTC present? | Yes | Repeat the inspection from Step 1. • If the malfunction recurs, replace the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) Go to the next step. Go to the next step. |
| 11 | VERIFY AFTER REPAIR PROCEDURE • Perform the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE [SKYACTIV-D 2.2].) • Are any DTCs present? | Yes | Go to the applicable DTC inspection. (See DTC TABLE [SKYACTIV-D 2.2].) DTC troubleshooting completed. |