

DTC P2228 [LF]

B3E010201083W01

DTC P2228	BARO sensor circuit low input
DETECTION CONDITION	<ul style="list-style-type: none"> PCM monitors input voltage from BARO sensor. If input voltage at PCM terminal 1AG is below 1.99 V, PCM determines that BARO sensor circuit has malfunction. <p>Diagnostic support note</p> <ul style="list-style-type: none"> This is a continuous monitor (CCM). MIL illuminates if PCM detects the above malfunction condition during first drive cycle. PENDING CODE is available if PCM detects the above malfunction condition. FREEZE FRAME DATA is available. DTC is stored in PCM memory.
POSSIBLE CAUSE	<ul style="list-style-type: none"> BARO sensor malfunction Connector or terminal malfunction Short to ground in wiring between BARO sensor terminal A and PCM terminal 1AG Open circuit in wiring between BARO sensor terminal C and PCM terminal 1AE PCM malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	VERIFY FREEZE FRAME DATA HAS BEEN RECORDED • Has FREEZE FRAME DATA been recorded?	Yes Go to the next step.
		No Record the FREEZE FRAME DATA on the repair order, then go to the next step.
2	VERIFY RELATED REPAIR INFORMATION AVAILABILITY • Verify related service repair information availability. • Is any related repair information available?	Yes Perform repair or diagnosis according to the available repair information. • If the vehicle is not repaired, go to the next step.
		No Go to the next step.
	INSPECT CONNECTION OF BARO SENSOR CONNECTOR • Turn the ignition switch to off.	Yes Go to the next step.

3	<ul style="list-style-type: none"> • Verify that BARO sensor connector is connected securely. • Is connection normal? 	No	Reconnect the connector, then go to Step 9.
4	INSPECT BARO SENSOR CONNECTOR FOR POOR CONNECTION <ul style="list-style-type: none"> • Disconnect the BARO sensor connector. • Inspect for poor connection (damaged/pulled-out pins, corrosion, etc.). • Is there malfunction? 	Yes	Repair or replace suspected terminal, then go to Step 8.
		No	Go to the next step.
5	INSPECT BARO SENSOR MALFUNCTION <ul style="list-style-type: none"> • Perform BARO sensor inspection. (See BAROMETRIC PRESSURE (BARO) SENSOR INSPECTION [LF].) • Is BARO sensor normal? 	Yes	Go to the next step.
		No	Replace BARO sensor, then go to Step 9.
6	INSPECT POWER SUPPLY CIRCUIT VOLTAGE AT BARO SENSOR CONNECTOR Note <ul style="list-style-type: none"> • If DTCs P0107 and P0122 are also retrieved with P2228, go to REFERENCE VOLTAGE troubleshooting procedure. • Measure voltage between BARO sensor terminal C (harness-side) and body ground. • Is voltage within 4.5-5.5 V? 	Yes	Go to the next step.
		No	Inspect for open circuit between PCM terminal 1AE (harness-side) and BARO sensor terminal C (harness-side). Repair or replace suspected harness, then go to Step 9.
7	INSPECT BARO SENSOR SIGNAL CIRCUIT FOR SHORT TO GROUND <ul style="list-style-type: none"> • Turn the ignition switch to off. • Disconnect PCM connector. • Inspect for continuity between BARO sensor terminal B (harness-side) and body ground. • Is there continuity? 	Yes	Repair or replace suspected harness, then go to Step 9.
		No	Go to the next step.
8	INSPECT PCM CONNECTOR FOR POOR CONNECTION <ul style="list-style-type: none"> • Disconnect PCM connector. • Inspect for poor connection at terminals (damaged/pulled-out pins, corrosion, etc.). • Is there malfunction? 	Yes	Repair terminal, then go to Step 9.
		No	Go to the next step.
9	VERIFY TROUBLESHOOTING OF DTC P2228 COMPLETED <ul style="list-style-type: none"> • Make sure to reconnect all disconnected connectors. • Turn the ignition switch to the ON position (Engine off). • Clear DTC from memory using WDS or equivalent. • Start the engine. • Is same DTC present? 	Yes	Replace PCM, then go to the next step. (See PCM REMOVAL/INSTALLATION [LF] .)
		No	No concern is detected. Go to the next step.
10	VERIFY AFTER REPAIR PROCEDURE <ul style="list-style-type: none"> • Perform "After Repair Procedure". (See AFTER REPAIR PROCEDURE [LF].) • Is there any DTC present? 	Yes	Go to applicable DTC troubleshooting. (See DTC TABLE [LF] .)
		No	Troubleshooting completed.