

AU: Manifold Absolute Pressure (MAP)/Barometric Pressure (BARO) Correlation

Note: Regeneration may occur during normal operation. During regeneration, diagnostic procedures may display biased values. If a regeneration occurs during diagnostic procedures, allow the process to complete before continuing diagnostics.

This pinpoint test is intended to diagnose the following:

- BARO sensor
- MAP sensor (12A697)
- Reductant Dosage Control Module (5H298)
- PCM (12A650)

AU1 PRELIMINARY DIAGNOSIS

Note: Diagnose and repair all circuit DTCs before diagnosing range or performance DTCs.

Are DTCs P0069 or P2226 present?

Yes	For DTC P2226, GO to AU2 . For all others, GO to AU5 .
No	RETURN to Section 3, Symptom Charts for further direction.

AU2 CHECK FOR DTCS

- Clear the DCU DTCs.
- Ignition ON, engine running.
- Ignition OFF.
- Ignition ON, engine OFF.
- Carry out the DCU self-test.

Is DTC P2226 present?

Yes	GO to AU3 .
No	The system is operating correctly at this time. RETURN to Section 3, Symptom Charts for further direction.

AU3 CHECK BARO SENSOR OPERATION

Note: Most local weather reports include a barometric pressure that is corrected to factor in sea level. However, the BARO PID indicates the barometric pressure for the actual vehicle altitude. Local weather conditions (high or low pressure) may change the local barometric pressure by several inches of mercury.

- Ignition ON, engine OFF.
- Access the PCM and monitor the BARO (PRESS) PID.
- Record the PID value.
- Verify that the BARO PID value is approximately the same as the daily barometric pressure from your local weather report.

Does the BARO PID value compare with the reported barometric pressure?

Yes	INSTALL a new RDCM. REFER to Section 2, Flash Electrically Erasable Programmable Read Only Memory (EEPROM) .
No	GO to AU4 .

AU4 CHECK FOR CORRECT PCM OPERATION

- Disconnect all the PCM connectors.
- Visually inspect for:
 - pushed out pins
 - corrosion
- Connect all the PCM connectors and make sure they seat correctly.
- Carry out the PCM self-test.
- Verify the concern is still present.

Is the concern still present?

Yes	INSTALL a new PCM. REFER to Section 2, Flash Electrically Erasable Programmable Read Only Memory (EEPROM) .
No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector.

AU5 COMPARE THE KEY ON ENGINE OFF (KOE) BARO AND MAP PID VALUES

- Ignition ON, engine OFF.
- Access the PCM and monitor the BARO (PRESS) and MAP (PRESS) PIDs.

Is the MAP sensor reading within 4.5 kPa (0.65 psi) of the BARO reading?

Yes	REMOVE and CHECK the MAP sensor for moisture, ice or any other type of restriction. If necessary, INSTALL a new MAP sensor. REFER to the Workshop Manual Section 303-14, Electronic Engine Controls. Clear the PCM DTCs. REPEAT the self-test.
No	INSTALL a new MAP sensor. REFER to the Workshop Manual Section 303-14, Electronic Engine Controls. Clear the PCM DTCs. REPEAT the self-test.