

## EMISSION CONTROL - V8

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If the SAI vacuum solenoid valve malfunctions, the following fault codes may be stored in the ECM diagnostic memory, which can be retrieved using TestBook/T4:

P-code	Description
P0412	SAI vacuum solenoid valve powerstage fault - harness damage, short circuit to battery supply voltage
P0413	SAI vacuum solenoid valve not connected, open circuit
P0414	SAI vacuum solenoid valve short circuit to ground

*NOTE: Refer to 'SAI System Fault Finding' and 'Checking Malfunctions on SAI System' at the end of this section to determine root cause of fault codes.*

As a result of the SAI vacuum solenoid malfunction, other fault codes may also be stored in the ECM diagnostic memory. These may include the following:

*NOTE: A malfunction of the valve is logically expected to result in both engine banks reporting the same fault.*

P-code	Description
P1412	Secondary Air Injection System – Malfunction Bank 1 LH (Insufficient SAI flow during passive test)
P1413	Secondary Air Injection System – Air control valve always open Bank 1 LH (Excessive SAI flow during active leak test)
P1414	Secondary Air Injection System – Malfunction Bank 1 LH (Insufficient SAI flow during passive test)
P1415	Secondary Air Injection System – Malfunction Bank 2 RH (Insufficient SAI flow during passive test)
P1416	Secondary Air Injection System – Air control valve always open Bank 2 RH (Excessive SAI flow during active leak test)
P1417	Secondary Air Injection System – Low air flow Bank 2 RH (Insufficient SAI flow during active test)

*NOTE: Refer to 'SAI System Fault Finding' and 'Checking Malfunctions on SAI System' at the end of this section to determine root cause of fault codes.*