

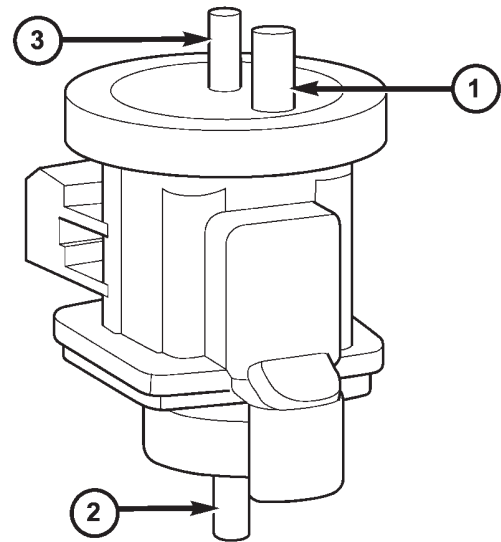
TURBOCHARGER

DESCRIPTION

The boost pressure vacuum solenoid is located under the air filter housing and is responsible for turbo-charger boost pressure. It generates a control vacuum in response to a PWM signal from the ECM. Vacuum is achieved by mixing the system vacuum (from the vacuum pump) with atmospheric pressure to a certain degree. The resulting vacuum is sent to the vacuum unit at the turbocharger (Fig. 4).

OPERATION

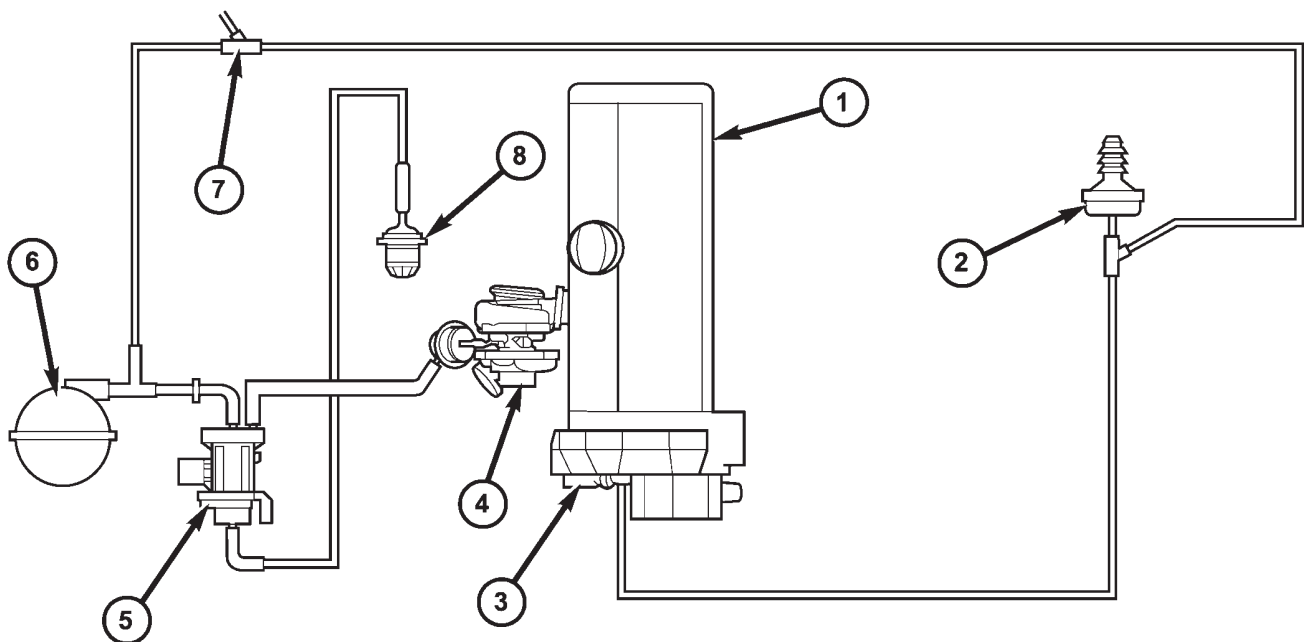
The vacuum solenoid receives 12V from the ECM. The ECM controls the solenoid through a PWM signal. When the solenoid receives a signal it closes the passage to atmospheric pressure. The subchamber is no longer under atmospheric pressure, it's spring can push the diaphragm and valve downwards; this releases the VAC duct. Vacuum can now go from here through the throttle hole, filters and out the connection to the turbocharger vacuum unit (Fig. 5).



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Fig. 4 CHARGE PRESSURE VACUUM TRANSDUCER

- 1 - CONNECTION TO TURBOCHARGER VACUUM UNIT
- 2 - VENT
- 3 - SUPPLY FROM VACUUM PUMP



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Fig. 5 TURBOCHARGER VACUUM ROUTING

- 1 - ENGINE
- 2 - BRAKE BOOSTER CHECK VALVE
- 3 - VACUUM PUMP
- 4 - TURBOCHARGER
- 5 - VACUUM SOLENOID
- 6 - VACUUM RESERVOIR
- 7 - ACCESSORY VACUUM JUNCTION
- 8 - FILTER