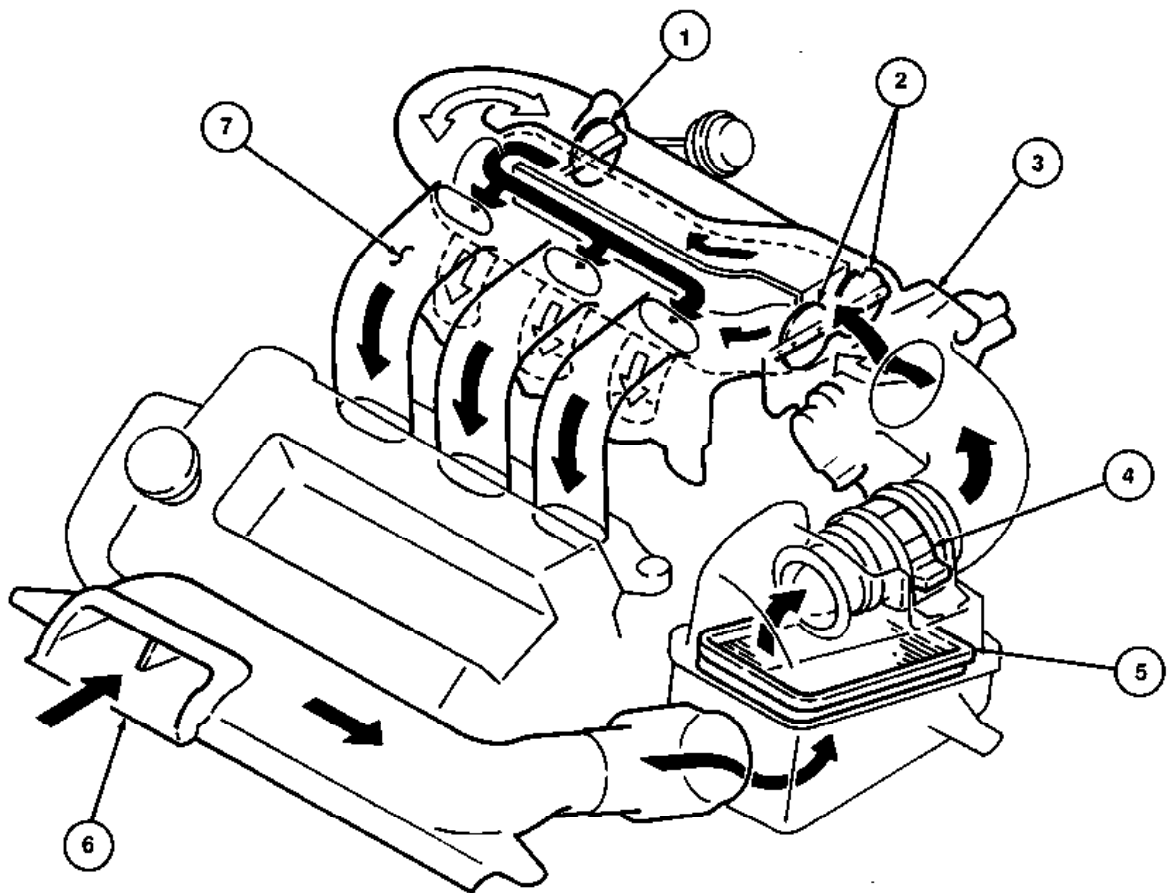




Air Induction System

The air induction system consists of:

- Fresh air duct
- Resonance chamber
- Resonance duct
- Air cleaner element
- Volume Air Flow (VAF) meter
- Throttle body
- Intake manifold
- Variable Resonance Induction System (VRIS) solenoids and shutter valves

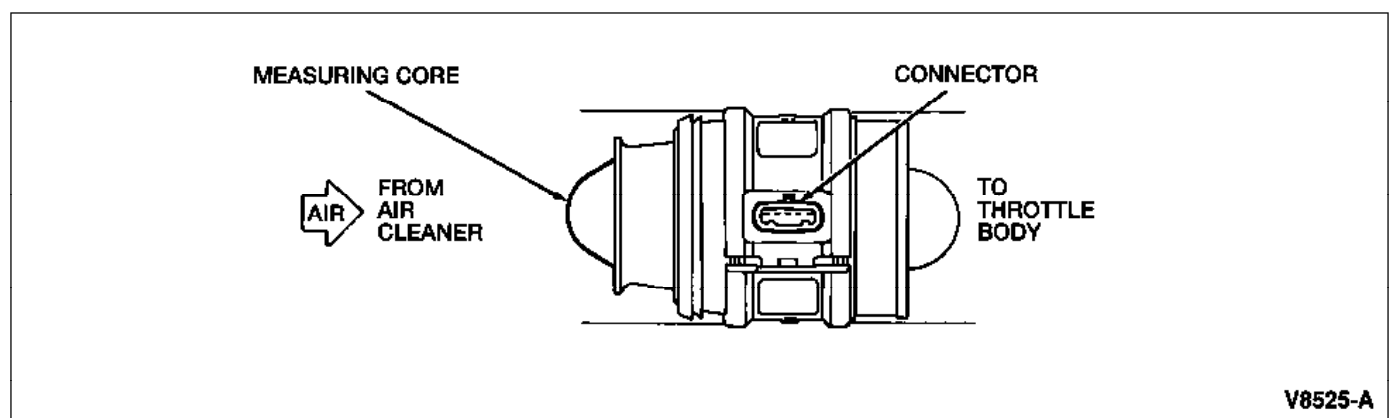


V8794-B

Item	Description
1	Variable Resonance Induction System (VRIS) Shutter Valve (1)

2	Variable Resonance Induction System (VRIS) Shutter Valves (2)
3	Throttle Body
4	Volume Air Flow (VAF) Meter
5	Air Cleaner Element
6	Fresh Air Duct and Resonance Chamber
7	Intake Manifold

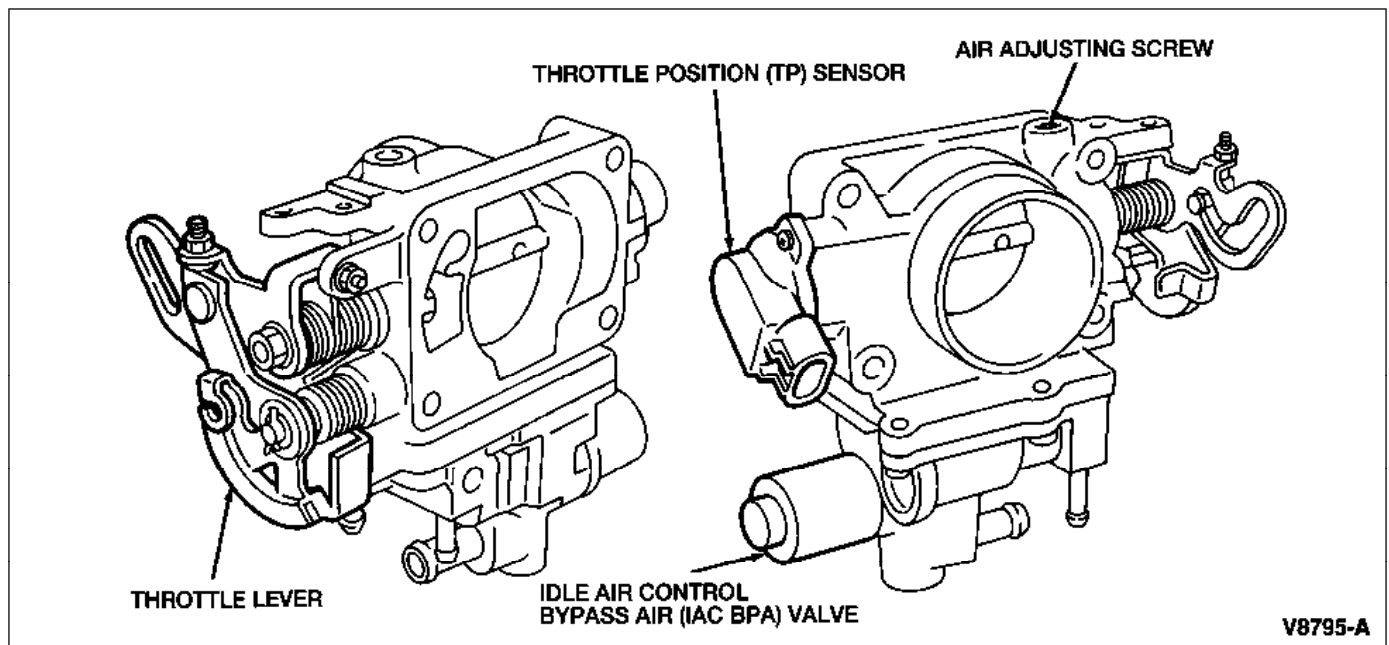
The air induction system supplies filtered air to the engine to be mixed with the fuel supply. The Volume Air Flow (VAF) meter is mounted to the rear of the air cleaner housing and is used to monitor the amount and temperature of the incoming air. This information is sent to the PCM.



The throttle body controls intake air quantities. The throttle body consists of:

- Aluminum housing
- Primary throttle valve
- Throttle Position (TP) sensor
- Idle Air Control Bypass Air (IAC BPA) valve

The Idle Air Control Bypass Air (IAC BPA) valve supplies small quantities of air to the engine during idle by regulating the amount of bypass air which passes through the throttle body. The Throttle Position (TP) sensor is mounted on the top of the RH side of the throttle body. The TP sensor provides the PCM with throttle position information.

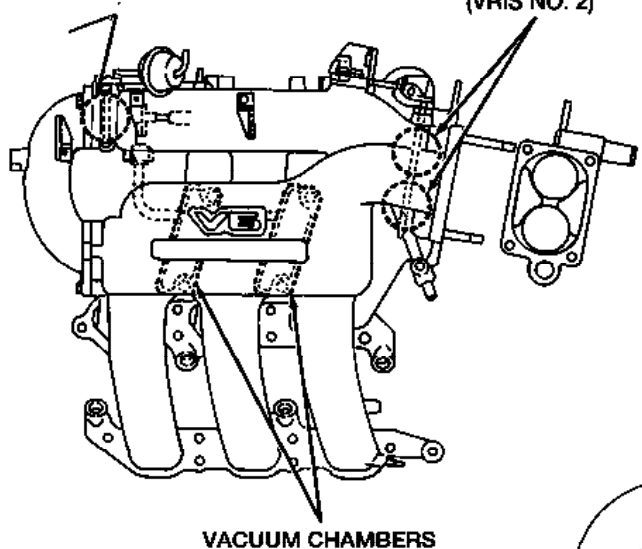


Variable Resonance Induction System (VRIS)

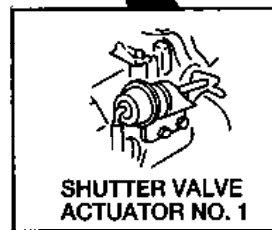
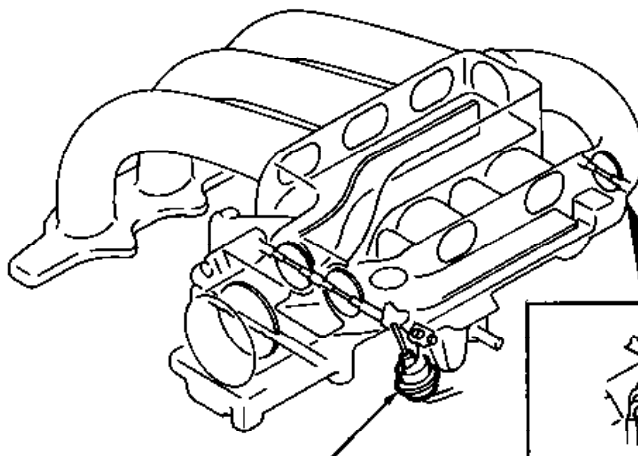
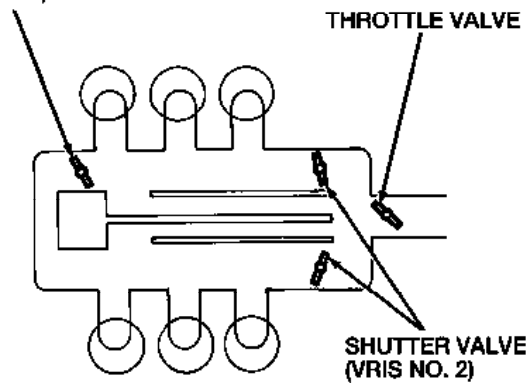
Three shutter valves are installed in the dynamic chamber of the Variable Resonance Induction System (VRIS). This system opens and closes the shutter valves according to the engine speed and throttle opening angle to improve the charging efficiency by utilizing the pressure waves of the intake air.

There are two vacuum chambers located under the front (LH) bank of the intake manifold in order to maintain a constant supply of vacuum to the VRIS shutter valve actuators during wide-open throttle operation and other low-vacuum, low-speed situations. For more information on the VRIS, refer to [«Section 03-12B»](#).

SHUTTLE VALVE (VRIS NO. 1)



SHUTTLE VALVE (VRIS NO. 1)



TORQUE CHARACTERISTICS

