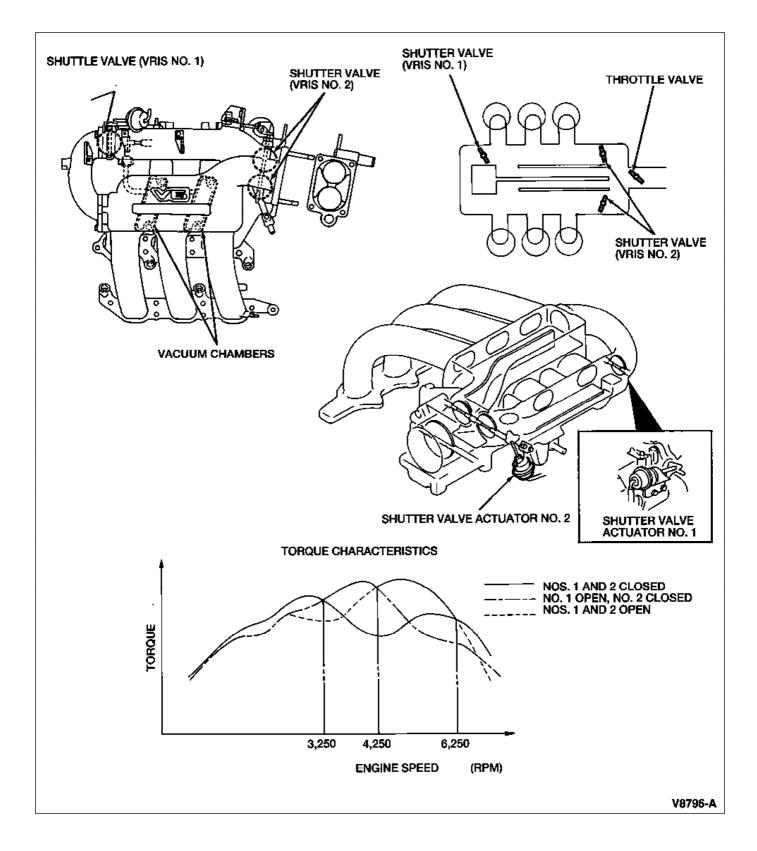


## Variable Resonance Induction System (VRIS)

Three solenoid operated shutter valves are installed in the dynamic chamber of the Variable Resonance Induction System (VRIS). The VRIS 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. These vacuum chambers maintain a constant supply of vacuum to the VRIS shutter valves during wide-open throttle operation and other low-vacuum, low-speed situations.

**Variable Resonance Induction System (VRIS)** 



## Variable Resonance Induction System (VRIS) Shutter Valve Operation

Engine Speed (rpm)	0-3,250	3,250-4,250	4,250-6,250	6,250-7,500
Shutter valve No. 1	Closed	Open	0pen	Closed
Shutter valve No. 2	Closed	Closed	0pen	Closed