IDLE AIR CONTROL VALVE (IACV)

SUMMARY

IACV consists of ECM, step motor, slide valve and bypass circuit.

IACV regulates the amount of air flow through the throttle valve by operating the slide valve in accordance with the input signal from ECM in order to maintain specified engine idle speed at $1,700 \pm 100 \text{ min}^{-1}$ (rpm).



WHEN IGNITION SWITCH IS TURNED ON

When ignition switch is turned ON, ECM turns the step motor and it pulls the slide valve toward itself. While detecting engine coolant temperature, ECM drives the motor in order to slide the valve back to proper position where necessary amount of incoming air for starting the engine can be obtained.



DURING WARM UP

When the engine is still cold, ECM controls the slide valve position in order to increase the amount of incoming air. As a result, engine idle speed is maintained at $1,900 \pm 100 \text{ min}^{-1}$ (rpm)

As the engine gets warmed up, slide valve returns toward its original position. ECM decreases the amount of incoming air by controlling the position of the slide valve in order to obtain specified engine idle speed at 1,700 \pm 100 min⁻¹ (rpm).

