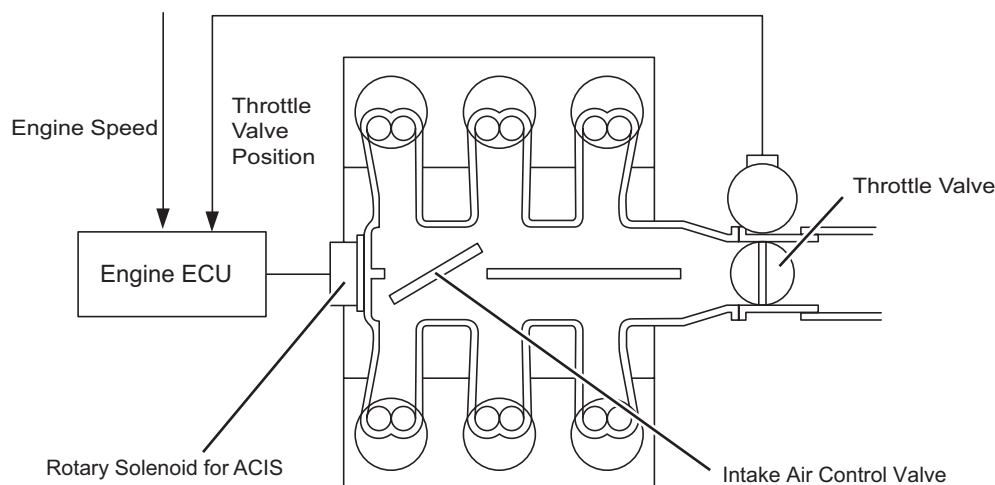


Electronic ACIS (Acoustic Control Induction System)

- Pressure fluctuations are indirectly created in the intake manifold by the intake stroke. The influence exerted on the subsequent intake stroke by the pressure fluctuations remaining in the intake manifold, even after the intake valve has closed, is called a pulsation effect. When the pressure fluctuations that remain after the intake valve has closed coincides with the subsequent intake stroke, the pressure increases at the time the valve opens, the intake air volume increases, and the torque increases.
- To proactively utilize this pulsation effect, the Acoustic Control Induction System changes the effective intake manifold length in accordance with the cycle of the pulsation flow that changes with the engine speed, in order to increase the torque in all ranges.



A4270200P

List of Functions

Device Name	Function
Crankshaft Position Sensor	Detects engine speed.
Throttle Position Sensor	Detects throttle valve position.
Intake Air Control Valve	Opens and closes the valve to switch the effective intake manifold length in two stages.
Rotary Solenoid for ACIS	Opens and closes the intake Air control valve under the command of the engine ECU.
Engine ECU	Sends a signal to the ACIS rotary solenoid at an appropriate timing in accordance with the signals received from the sensors.

Electronic ACIS Operation

- The engine ECU opens and closes the intake air control valve in accordance with the engine speed and the throttle valve position, in order to enhance the torque in all ranges, particularly in the medium-speed range.

