

PURGE CONTROL OPERATION [LF]

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Determination of purge solenoid valve energization time

• The PCM determines the target purge flow amount according to engine operation conditions as the basic flow amount. The actual operation delays the build-up of operation current from coil inductance and corrects energization time according to fluctuation in battery voltage to cause operation delay based on the mass of the needle valve and plunger, and spring resistance. The lower the rate of battery positive voltage, the longer the energization time.

Calculation method for purge flow amount

• The PCM determines the purge flow amount through the addition of each correction to the basic purge flow amount.

Contents		Calculation or determination method of purge flow amount and correction
Basic purge flow amount		The basic purge flow amount is determined by multiplying the intake air temperature correction to the purge mass volume which is calculated by multiplying the base purge rate and the intake air mass volume, which differs according to engine conditions.
Correction	Purge startup correction	Purpose: Prevents a sudden change in air/fuel ratio during the startup of purge control. During purge control startup • When purge control operation conditions are met→correction
	Volume decrease correction	Purpose: Decreases the amount of purge flow and stabilize the air/fuel ratio. When the fuel injection control feedback correction value is unstable • According to the front HO2S feedback condition

Operation conditions

• For purge control during normal driving, the PCM sends a duty signal to the purge solenoid valve when all of the following conditions are met.

- Fuel injection control is in the feedback zone or the high load volume increase zone.
- Airflow passage damage related DTC is not stored.
- Engine coolant temperature is **78 °C {172 °F} or more**.