

■ MAJOR DIFFERENCES

The following changes have been made to the 2JZ-GE engine.

System	Features
Engine Proper	● The cylinder head water jacket has been modified to improve the cooling performance around the spark plugs, thus increasing the compression ratio. ● The cylinder head intake port has adopted a smaller diameter to improve the intake airflow velocity, thus increasing the torque in the low- to medium-speed range. ● The piston and connecting rod are lightweight to reduce the noise and vibration.
Valve Mechanism	● The VVT-i system is used to improve engine performance, fuel economy and reduce exhaust emissions. ● The spring tension of the valve springs has been decreased to reduce friction.
Cooling System	An electric cooling fan has been adopted. The fan speed is controlled in 3 steps to improve cooling performance and reduce cooling fan noise.
Intake and Exhaust System	● A thermostat is installed in the throttle body in order to restrain the rise in the intake air temperature, thus improving the intake charging efficiency. ● A long port exhaust manifold made of stainless steel is used to improve the engine's torque in the low- to medium-speed range. ● A long tail muffler is used to ensure quieter operation during idling.
Fuel System	● The injector has been made more compact and the injection nozzle has been modified to improve the atomization of the fuel. ● An air assist fuel injection system is used to promote atomizing of the fuel for improved fuel economy.*¹ ● A fuel returnless system has been adopted to reduce evaporative emissions. ● A jet pump has been adopted to use the fuel in the fuel tank effectively.
Ignition System	The DIS (Direct Ignition System) is used to enhance the reliability of the ignition system.
Engine Control System	● The ETCS-i has been adopted to realize excellent vehicle controllability and comfort. ● A 3-step control type fuel pump speed control has been adopted. ● M-OBD (Multiplex On-Board Diagnosis) system is adopted. ● The cruise control system and the engine immobiliser system have been integrated with the engine ECU. ● The engine ECU has been installed in the engine compartment.
Emission Control System	● EGR system has been discontinued.*² ● The 2 TWCs (Three-Way Catalytic Converters) have been integrated with the exhaust manifold and the TWC under the floor has been discontinued.*²

*1: On the model for Europe, adopted since the previous model.

*2: Only for Europe and Australia model.