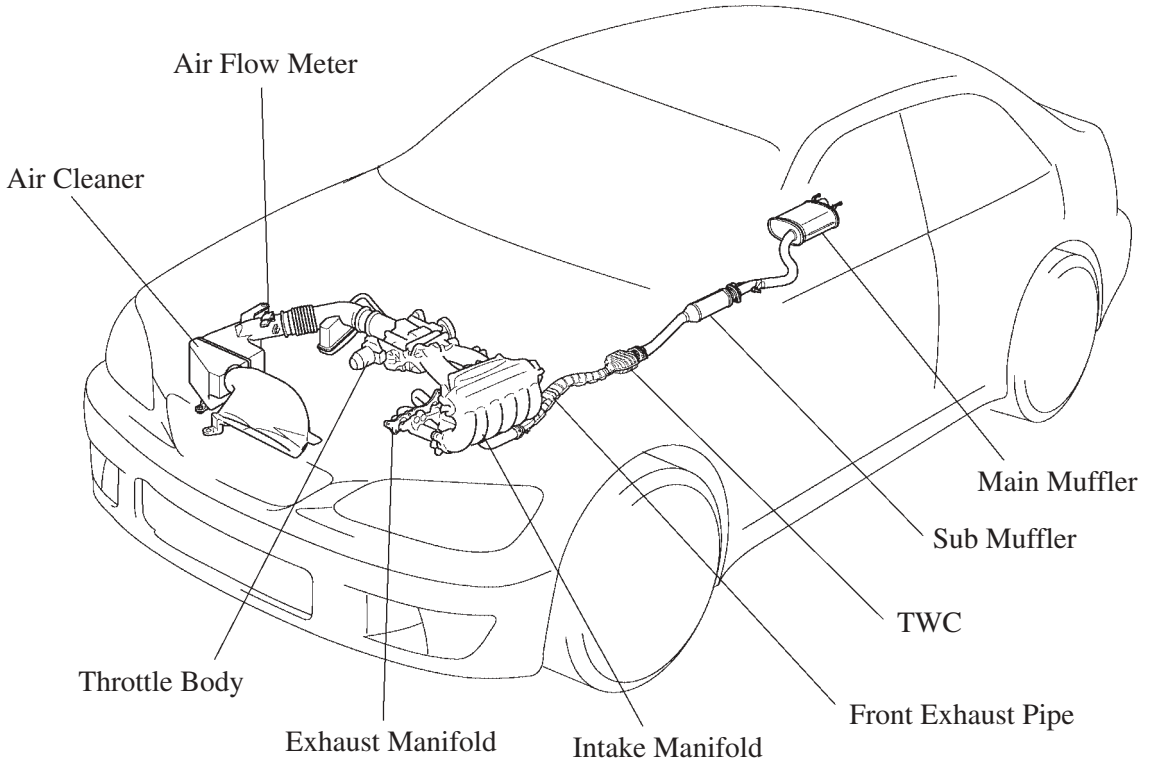
■INTAKE AND EXHAUST SYSTEM

1. General

- The ETCS-i (Electronic Throttle Control System-intelligent) has been adopted.
- The ACIS (Acoustic Control Induction System) has been adopted.
- A double-wall construction exhaust manifold made of stainless steel has been adopted.
- The 2 TWCs (Three-way Catalytic Converters) have been integrated with the exhaust manifold.
- Dual type long pipe construction has been adopted in the front exhaust pipe.
- A long tail muffler is used.



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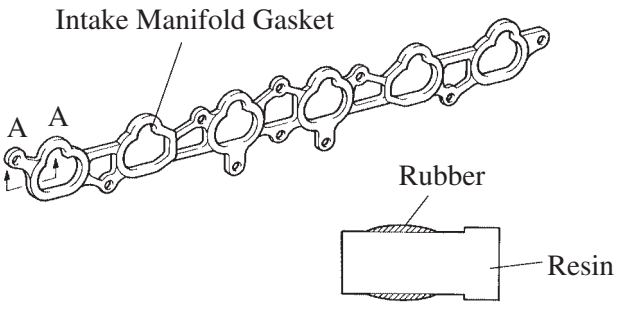
2. Intake Manifold Gasket

A heat-barrier gasket made of phenol resin is used between the cylinder head and the intake manifold to restrain the rise in the intake air temperature.

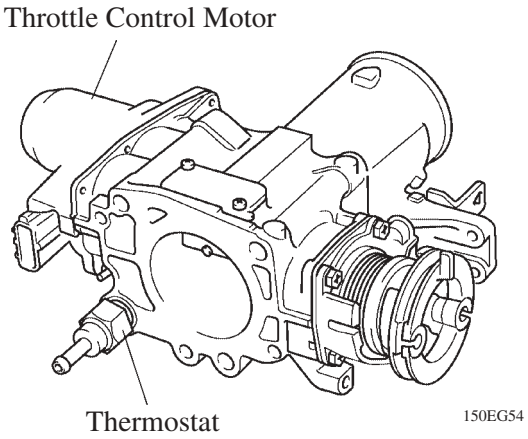


A – A Cross Section

150EG19

3. Throttle Body

- The adoption of the ETCS-i has realized excellent throttle control. For details of the ETCS-i control, refer to page 46.
- A DC motor with excellent response and minimal power consumption is used for the throttle control motor. The engine ECU performs the duty ratio control of the direction and the amperage of the current that flows to the throttle control motor in order to regulate the opening angle of the throttle valve.
- A thermostat is installed in the throttle body to restrain the rise in the intake air temperature.
- The throttle body is supported by a vibration damping gasket and a vibration damping bracket in order to suppress throttle body vibration.



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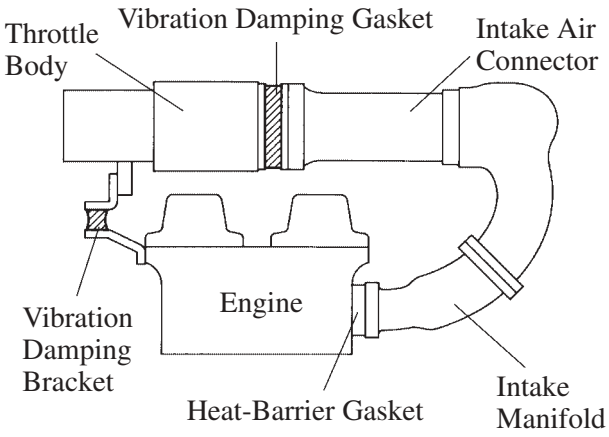
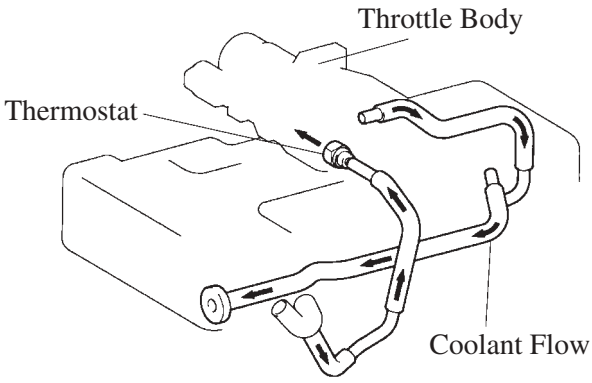


150EG25

Thermostat

The thermostat uses the thermal expansion of the wax to open and close the valve to shut off the flow of warm coolant when the coolant temperature is high in the throttle body's warm coolant passage. This prevents the throttle body temperature from rising more than the needed level, thus restraining the rise in the intake air temperature.



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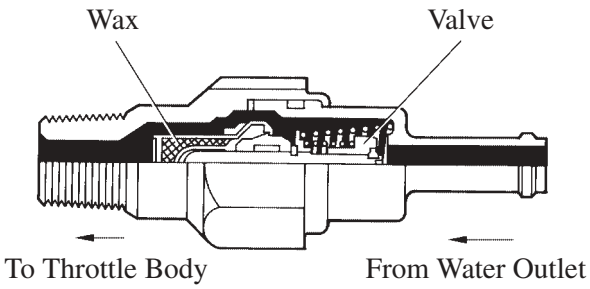
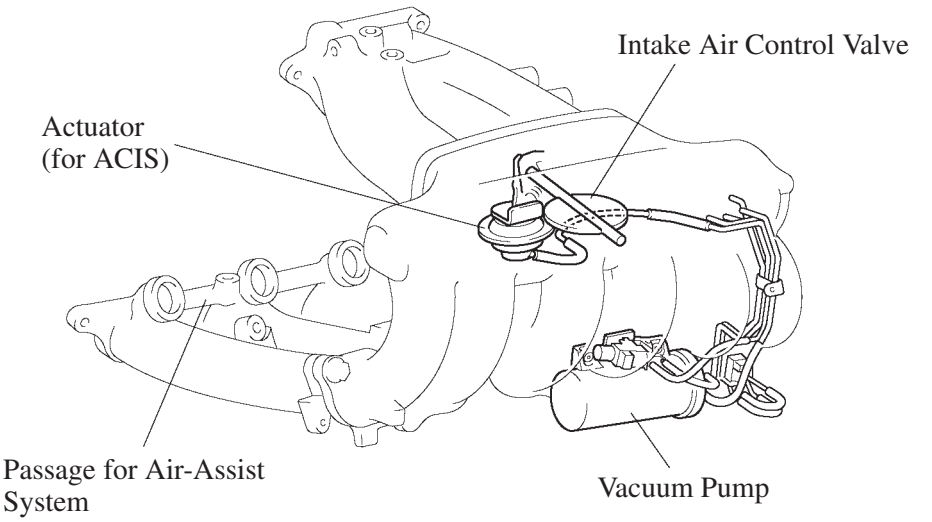


Thermostat

150EG21

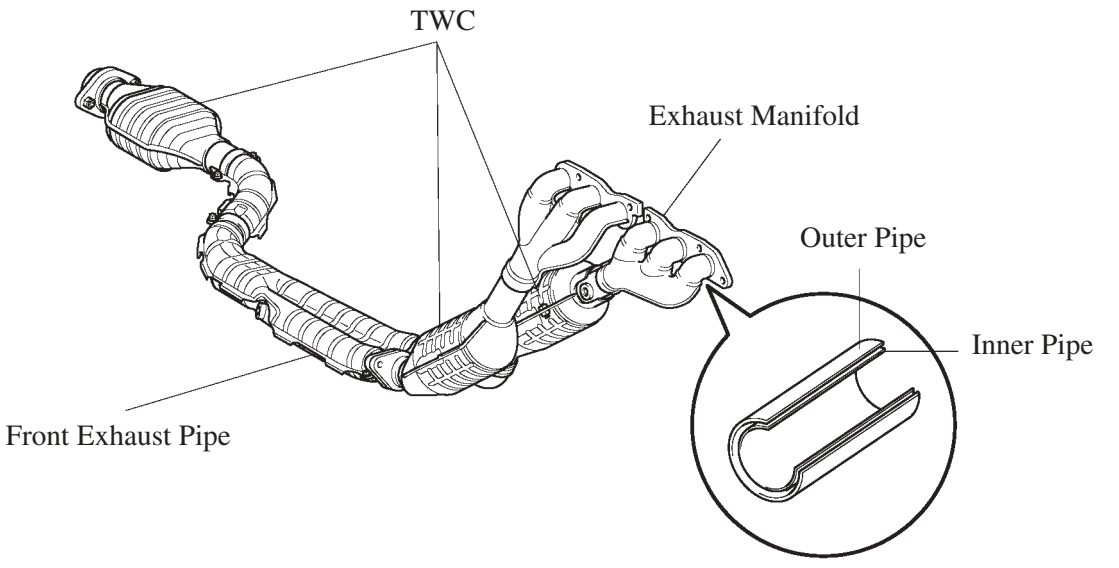
4. Intake Manifold

- The air intake chamber contains an intake air control valve. This valve is activated by ACIS and is used to alter the intake pipe length to realize the highly engine performance in all speed ranges. For details of ACIS control, refer to page 48.
- The passage for air-assist system has been provided in the intake manifold port.



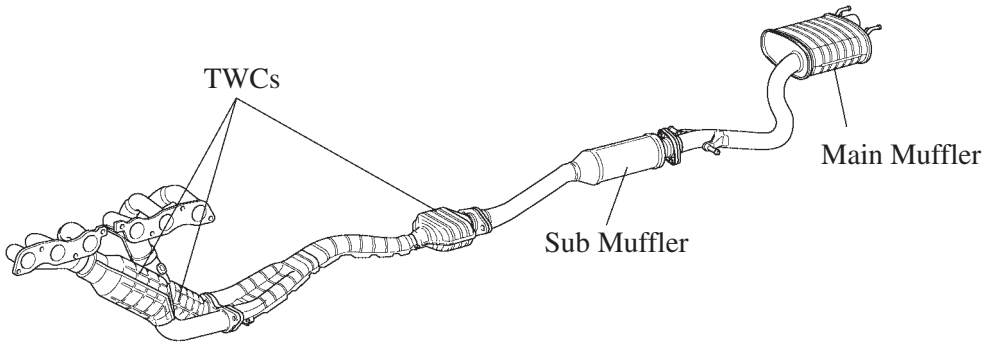
5. Exhaust Manifold and Front Exhaust Pipe

- The length of the branches has been made equal and a dual type exhaust manifold and front exhaust pipe which has dual type long pipe construction have been adopted to realize high torque in the low-to medium-speed range.
- The 2 TWCs have been integrated with the exhaust manifold.
- A stainless exhaust manifold is used, and the length of its pipes has been shortened to realize the highly warm-up performance of the TWC.
- The branch portion adopts a double-wall construction to reduce the amount of heat that is radiated from the branch portion.



6. Muffler

- A main muffler and sub muffler with large capacities are used to reduce the exhaust noise.
- A long tail pipe construction has been adopted in the main muffler to reduce low-frequency booming noise.



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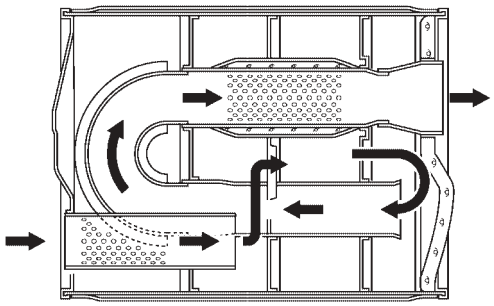

Main Muffler Cross-Section

204EG44

■FUEL SYSTEM

1. General

- An air-assist system has been adopted.
- A compact 4-hole type fuel injector has been used.
- A fuel returnless system has been used to reduce evaporative emissions.
- A saddle-shaped fuel tank has been adopted.
- A fuel cut control is adopted to stop the fuel pump when the airbag is deployed at the front or side collision. For details, refer to page 51.

▶ Specification ◀

Pressure Regulator	Adjusting Pressure	kPa (kgf/cm^2)	324 (3.3)