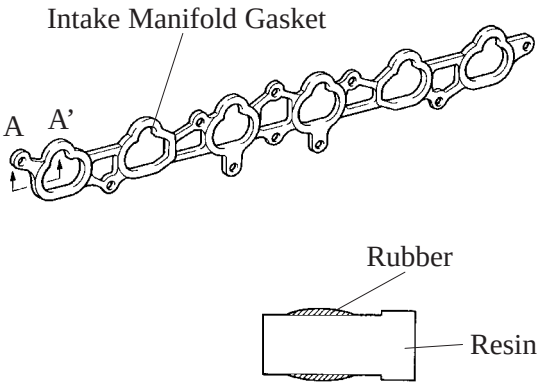
■INTAKE AND EXHAUST SYSTEM

1. 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, thus improving the intake charging efficiency.

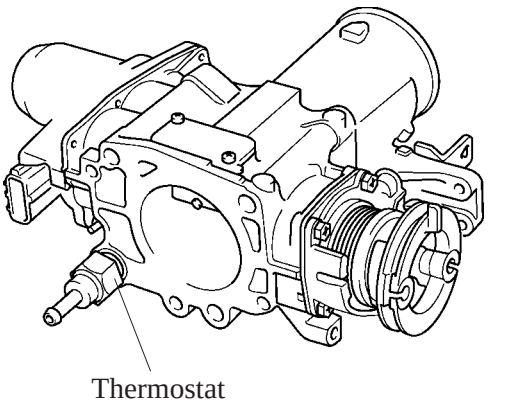


A-A' Cross Section

150EG19

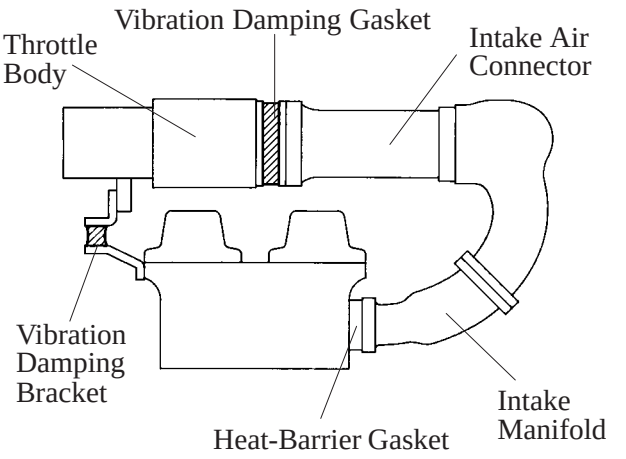
2. Throttle Body

- The ETCS-i has been adopted to realize excellent throttle control.
- The ETCS-i comprehensively controls the ISC system, TRC system, and the cruise control system. As a result, the ISC valve and the sub-throttle valve have been discontinued.
- A thermostat is installed in the throttle body to restrain the rise in the intake air temperature.



150EG54

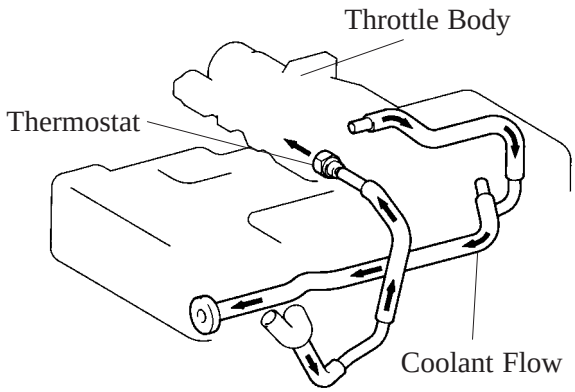
- The throttle body is supported by a vibration damping gasket and a vibration damping bracket in order to reduce throttle body vibration. As a result, the vibration that is transmitted from the throttle body to the vehicle via the accelerator cable has been reduced.



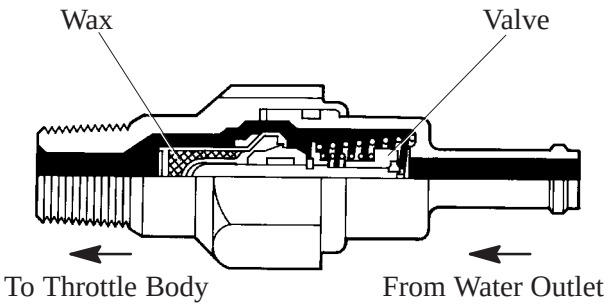
150EG25

Thermostat

The thermostat uses the termal 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.



150EG20

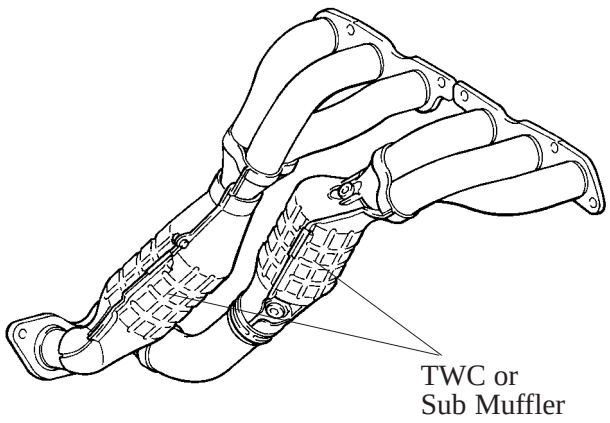


Thermostat

150EG21

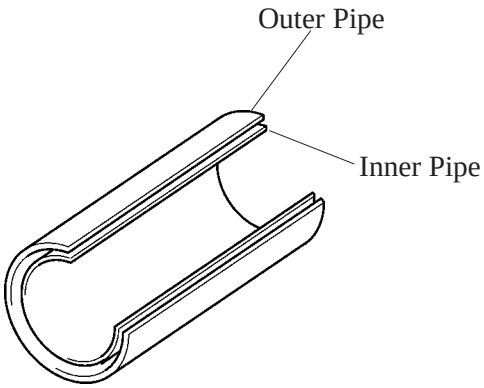
3. Exhaust Manifold

- A dual exhaust manifold has been adopted. Its branch portion is made long to utilize the exhaust pulsation. Thus, the flow of the exhaust gas is optimized to improve torque in the low- to mid-speed range.
- On the models for Europe and Australia, 2 TWCs (Three-Way Catalytic Converters) have been integrated with the exhaust manifold. On the models for the G.C.C. countries, the sub-mufflers have been integrated.
- The branch portion adopts a double-wall construction to reduce the amount of heat that is radiated from the branch portion. As a result, the insulators have been discontinued.



Exhaust Manifold

150EG35

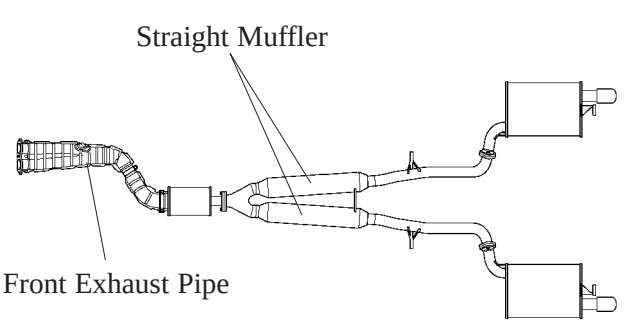


Cross Section of the Branch Portion

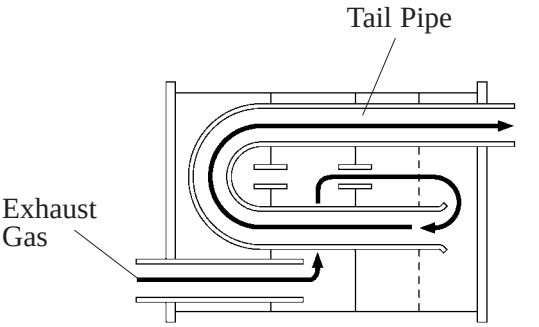
150EG51

4. Exhaust Pipe

- The front exhaust pipe of the exhaust pipe has adopted a dual pipe construction to improve engine performance.
- The center exhaust pipe has adopted a larger diameter and a straight muffler to reduce the exhaust pressure and to improve engine performance.
- The main muffler has adopted a long tail pipe construction forquieter operation.



152EG04



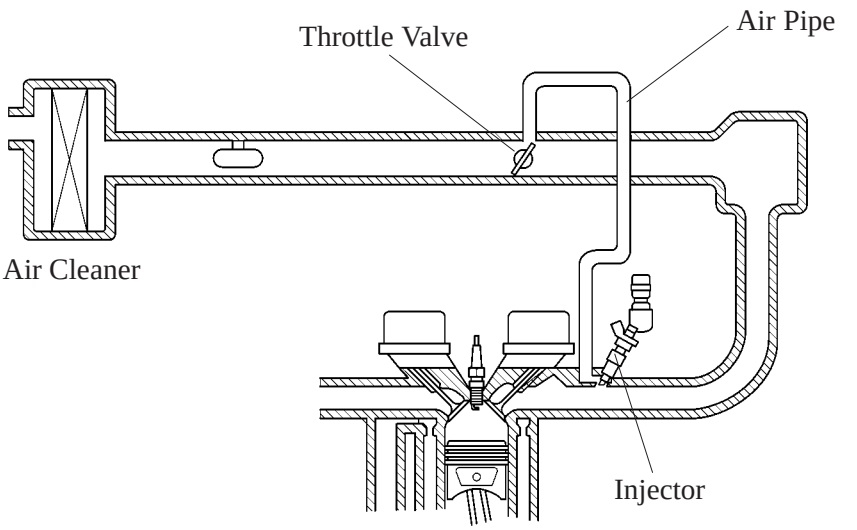
Main Muffler

152EG05

■FUEL SYSTEM

1. Air Assist Fuel Injection System

This system is designed to regulate air intake (atmospheric side) using the throttle valve, and direct it to the nozzle of the fuel injector inside the intake manifold (negative pressure side). This promotes atomization of the fuel while reducing emissions and improving fuel economy and idle stability.



150EG55