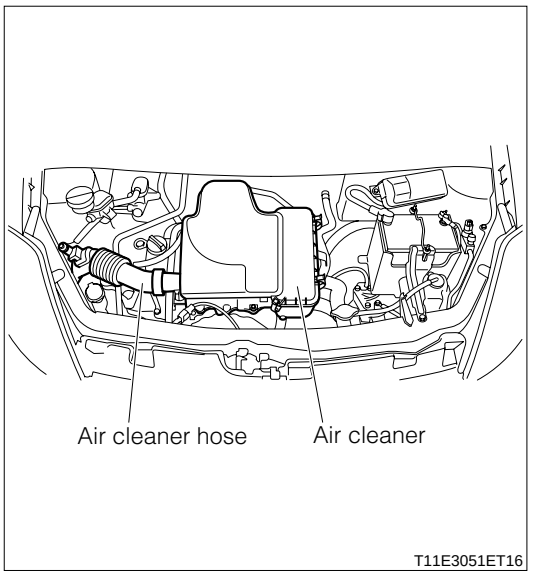
TO INDEX

B3 INTAKE SYSTEM

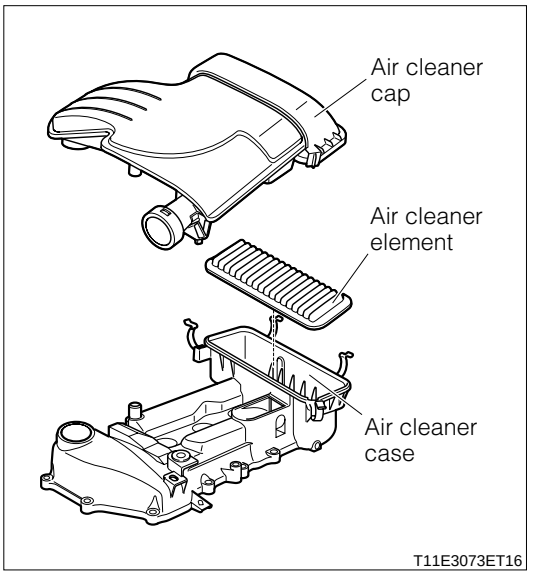
1KR
1 OUTLINE
1-1 DESCRIPTION

The air intake system consists of an air cleaner hose, air cleaner (integral with the cylinder head cover), throttle body, intake manifold and intake manifold insulator. The air cleaner is arranged directly above the engine, and the air cleaner and throttle body are mounted directly, thus reducing the air intake resistance and engine radiation noise.



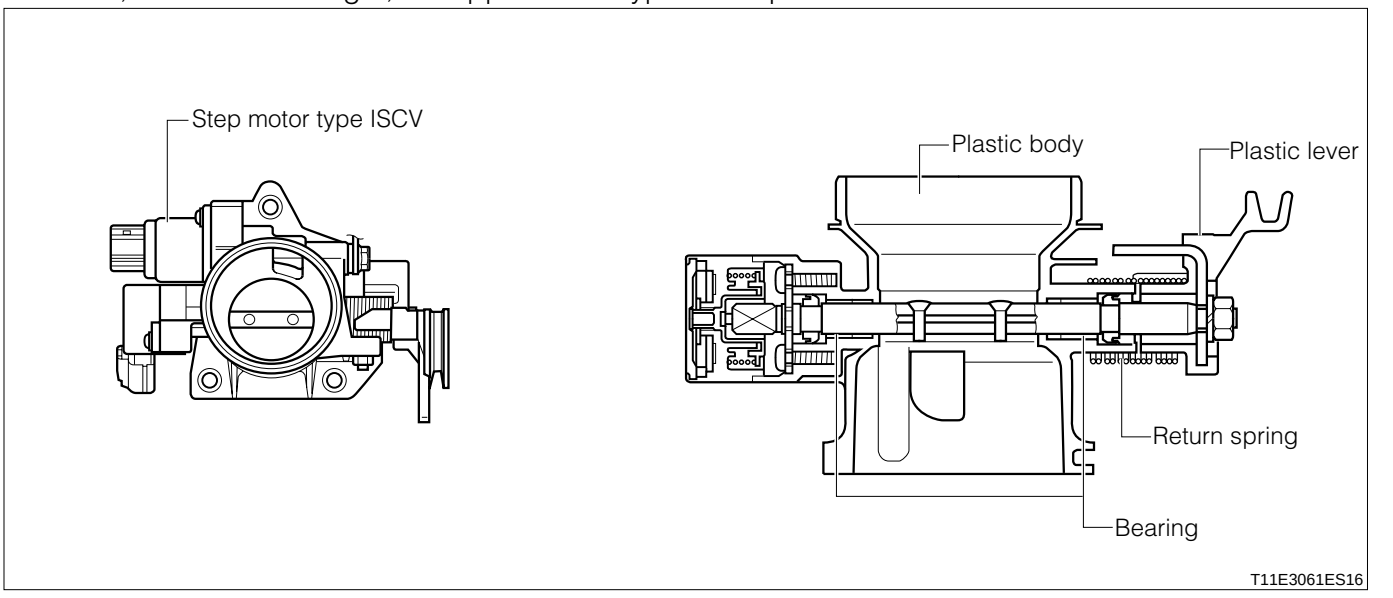
2 CONSTRUCTION AND OPERATION
2-1 AIR CLEANER

The resin cylinder head cover is integrated with the resin air cleaner case. Moreover, for reduced weight, the air cleaner cap integral with the cool air duct/engine cover is employed.



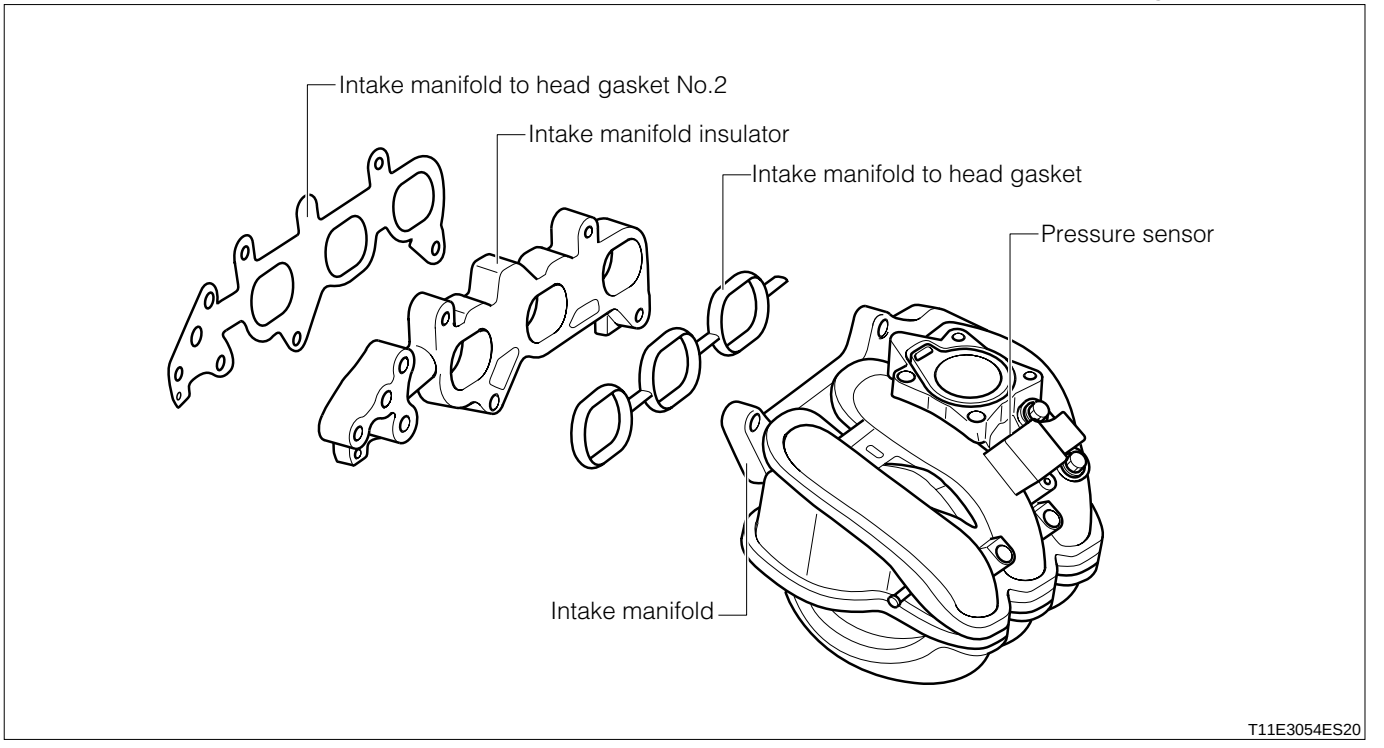
2-2 THROTTLE BODY

For reduced weight, a resin-made throttle body is adopted.
Moreover, for reduced weight, a stepper motor type is adopted for the ISCV.

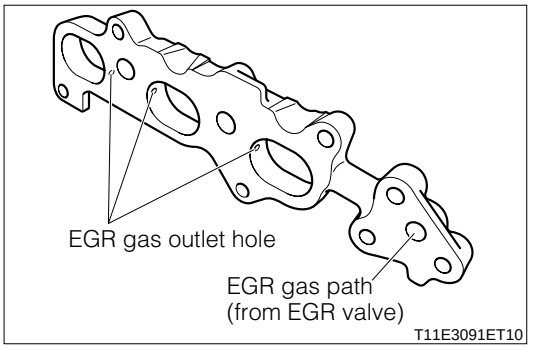


2-3 INTAKE MANIFOLD, INTAKE MANIFOLD INSULATOR, INTAKE MANIFOLD GASKET

An excellent roughness of the port inner surface obtained by a resin die form reduces the intake resistance, thus improving the volumetric efficiency. Furthermore, the intake air temperature is lowered by the employment of resin parts, thus enhancing the filling efficiency. Moreover, the manifold absolute pressure/intake air temperature integral type sensor, that is an integral sensor of the manifold absolute pressure sensor and the intake air temperature sensor, is installed to the intake manifold serge tank.



An EGR gas outlet hole to the each cylinder is provided to the aluminum intake manifold insulator that is mounted between the intake manifold and the cylinder head.

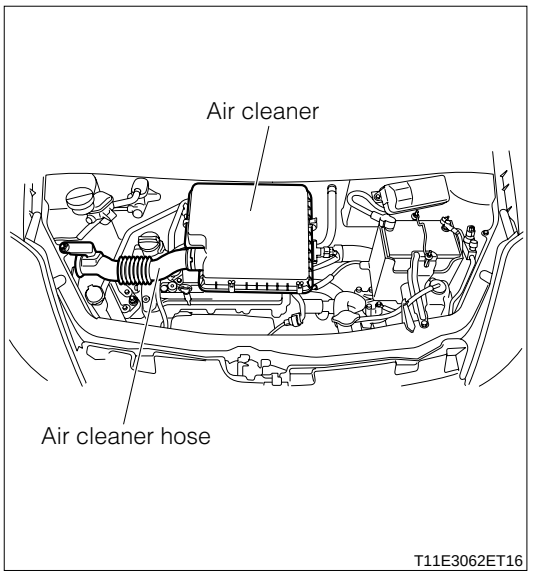


K3

1 OUTLINE

1-1 DESCRIPTION

The air intake system consists of an air cleaner hose No. 1, air cleaner, air connector, throttle body, and intake manifold. A resin-made long port is adopted for the intake manifold, thus improving the performance at medium and low speed.



2 CONSTRUCTION AND OPERATION

2-1 AIR CLEANER

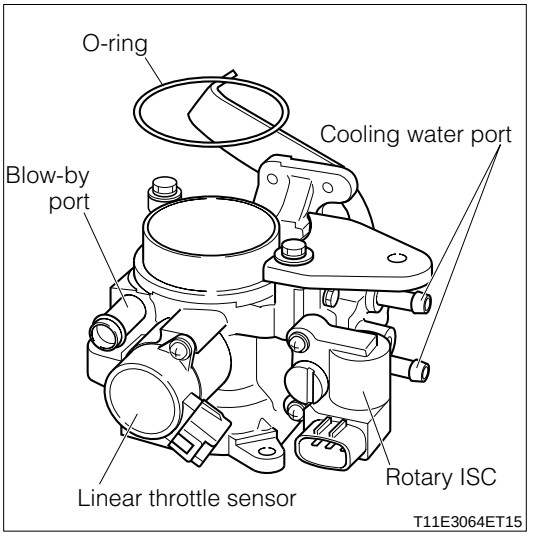
The air cleaner is made of plastic and its capacity is 4.1ℓ. The air cleaner No. 1 hose is integrated with the engine cover and the resonator to improve appearance and reduce engine noise.

2-2 THROTTLE BODY

The down draft type is adopted to the throttle body. It is directly mounted to the cylinder head via the bracket to reduce vibration and improve reliability.

The plastic throttle link, small size R-ISC, and small size throttle position sensor are adopted to realize weight saving.

The throttle link is nonlinear type. Sense of acceleration when starting has been improved.



2-3 INTAKE MANIFOLD AND INTAKE MANIFOLD GASKET

Adoption of an assembling type plastic intake manifold has improved performance and realized weight saving.

By employing axial flow and equal length, the air intake to each cylinder has been made even, thus reducing the intake rambling noise.

The tapered long intake port makes the maximum use of the inertia supercharging effect to improve the torque in the low and medium speed.

Excellent port internal surface roughness obtained by plastic moulding has reduced the intake air resistance, resulting in an improve volumetric efficiency. Also, the reduced intake air temperature by employment of the plastic material has improved the charging efficiency.