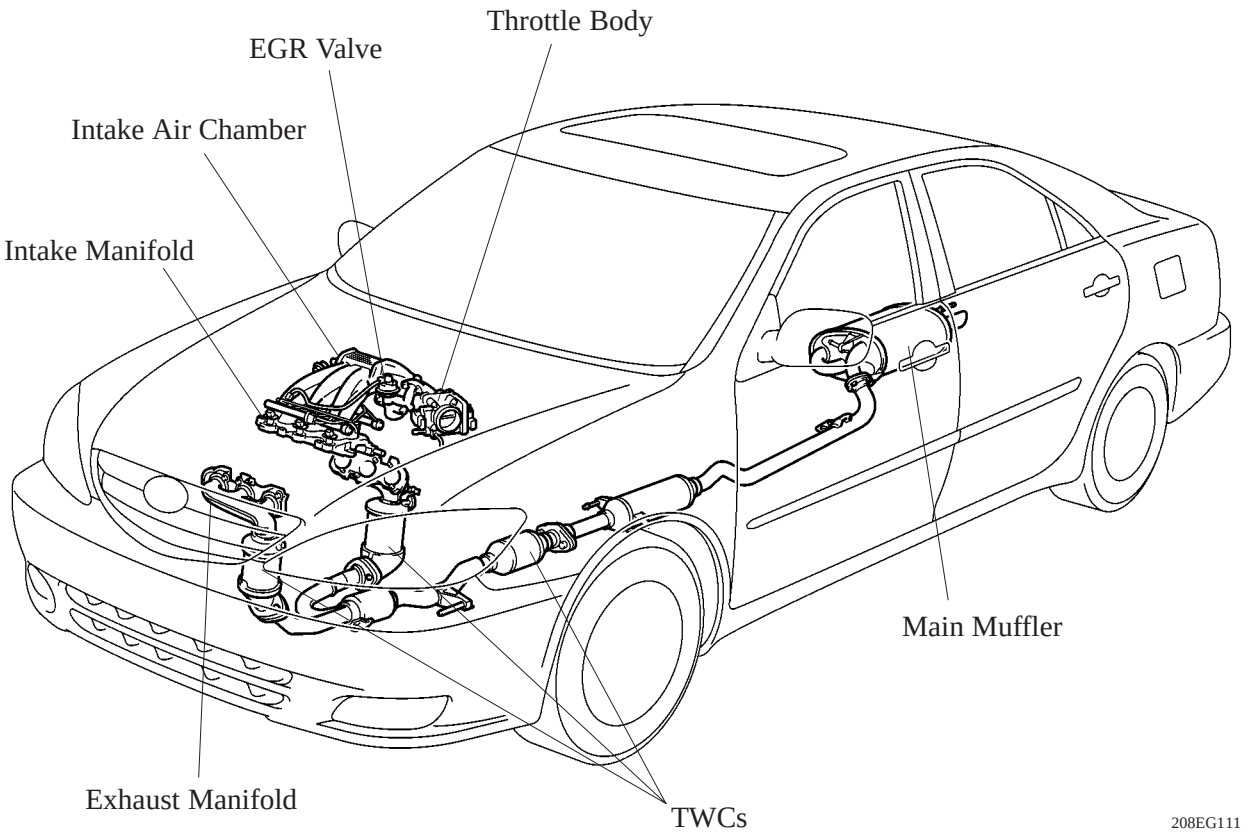
■INTAKE AND EXHAUST SYSTEM

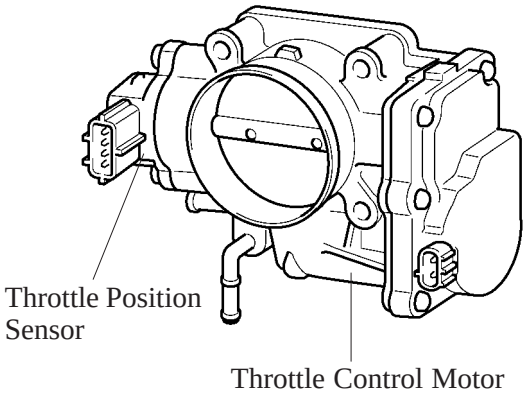
1. General

- The adoption of the ETCS-i (Electronic Throttle Control System-intelligent) has realized excellent throttle control.
- The adoption of the ACIS (Acoustic Control Induction System) has improved the engine performance.
- The adoption of the air intake control system has improved engine noise reduction and performance. For details, see page EG-82.
- 2-way exhaust control system is provided to reduce noise and vibration in the main muffler.
- The EGR (Exhaust Gas Recirculation) system is used to reduce and control NOx formation.



2. Throttle Body

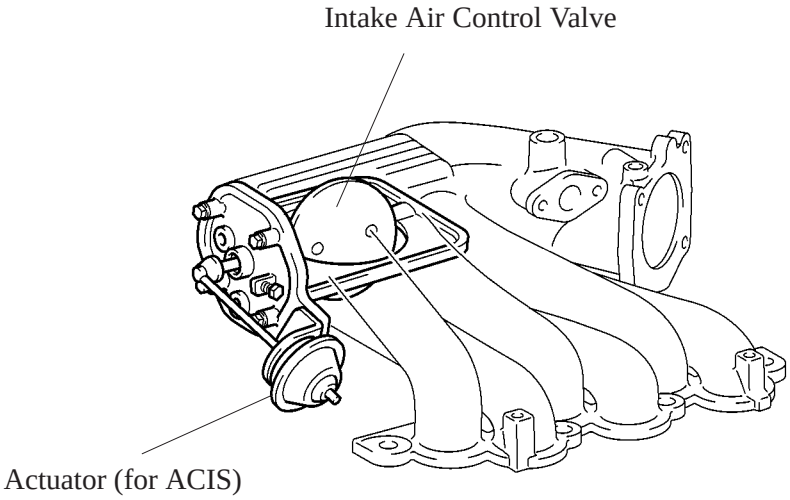
- The link-less type ETCS-i has adopted and it realizes excellent throttle control.
  For details of ETCS-i control, refer to see page EG-77.
- A DC motor with excellent response and minimal power consumption is used for the throttle control motor. The engine ECU performs the duty ratio control of the 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.



208EG112

3. Intake Air Chamber

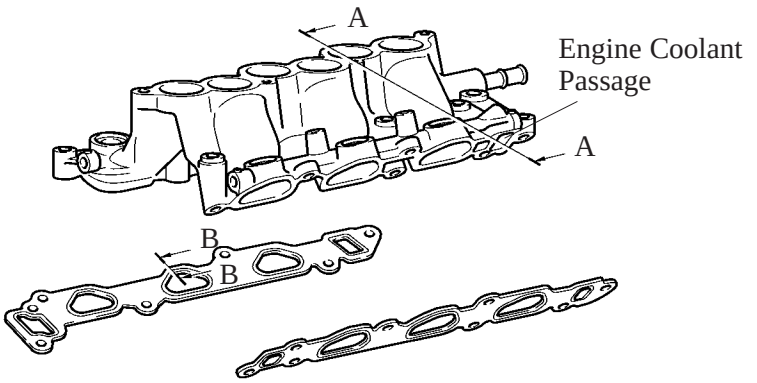
The intake air chamber consists of upper and lower sections and contains an intake air control valve. This valve is activated by ACIS (Acoustic Control Induction System) and is used to alter the intake pipe length to improve the engine performance in all speed ranges. For details of ACIS control, refer to see page EG-79.

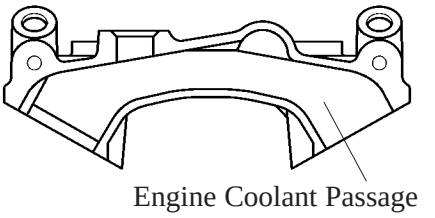


208EG46

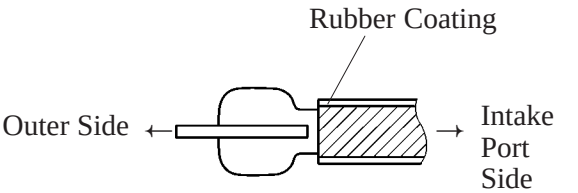
4. Intake Manifold

- The port diameter of the intake manifold has been increased and the port length has been optimized to improve engine performance.
- An engine coolant passage connects the left and right banks at the rear end of the intake manifold.
- The intake manifold gaskets has rubber coating applied onto surface, and provide superior durability.





A – A Cross Section

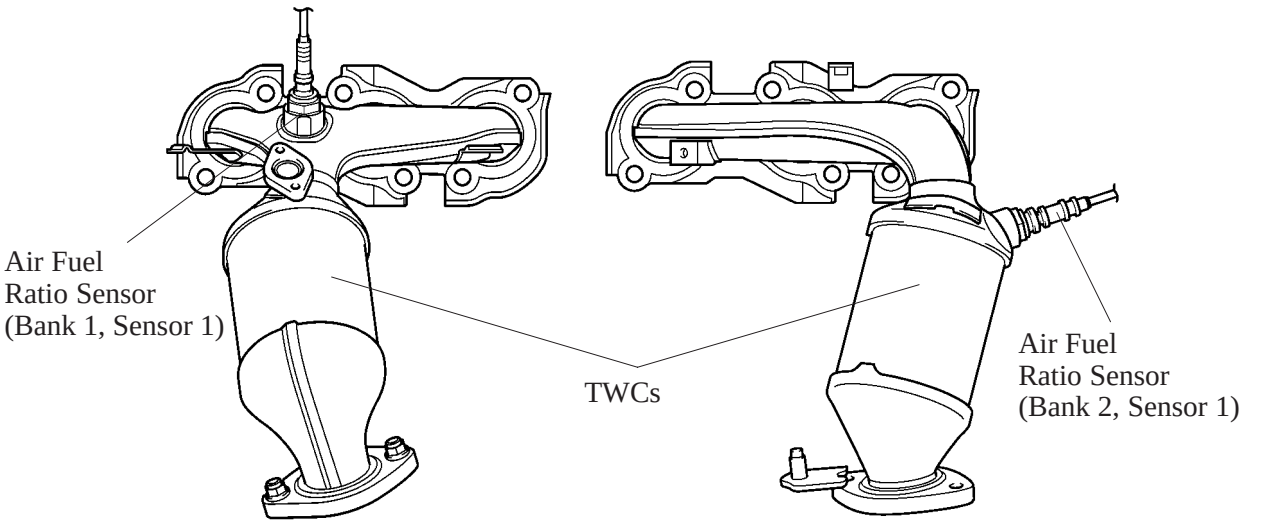


B – B Cross Section

208EG66

5. Exhaust Manifold

- A stainless steel exhaust manifold is used for improving the warm-up of three-way catalytic converter and for weight reduction.
- The air fuel ratio sensor has been adopted to the exhaust manifold.
- An ultra thin-wall, high-cell metal type TWC (Three-Way Catalytic Converter) has been adopted. This TWC enables to improve exhaust emissions by optimizing the cells density.



for Right Bank

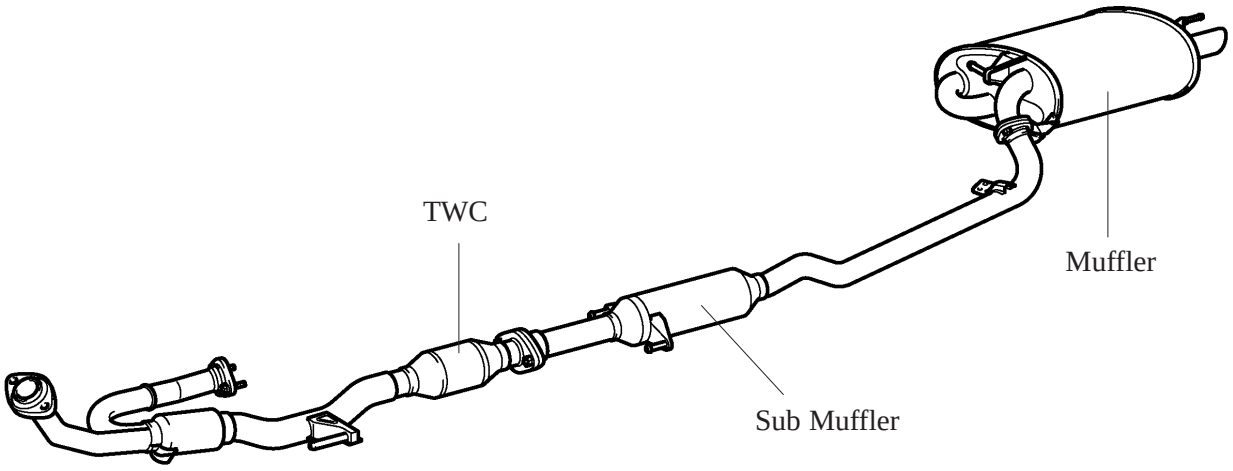
208EG114

for Left Bank

208EG113

6. Exhaust Pipe

- An ultra thin-wall, high-cell ceramic type TWC has been adopted. This TWC enables to improve exhaust emissions by optimizing the cells density.
- 2- way exhaust control system is provided to reduce noise and vibration in the main muffler. For details, see page EG-24 in 2AZ-FE engine section.



208EG115