GROUP 15

INTAKE AND EXHAUST

CONTENTS

AIR INTAKE SYSTEM

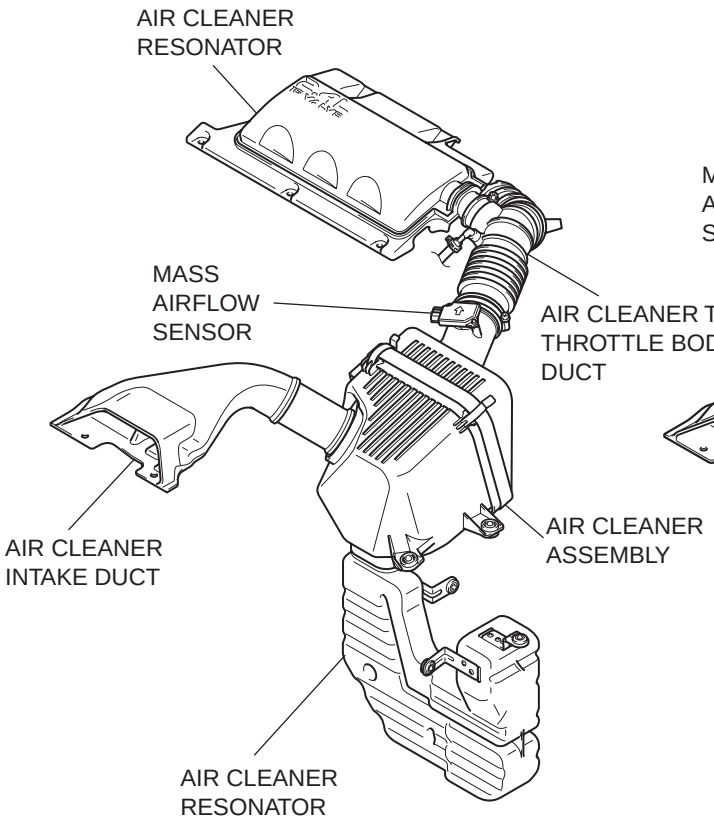
AIR DUCT AND AIR CLEANER

M2150004000333

- A front air intake system that actively sucks cooling air from the front through the top of the radiator improves engine performance and reduces air intake noise.
- A large air cleaner resonator has been installed on the rocker cover to increase engine performance and reduce air intake noise. <2.4L Engine>
- A dual stage air intake system has been adopted to reduce air intake noise and improve engine performance. <3.8L Engine>

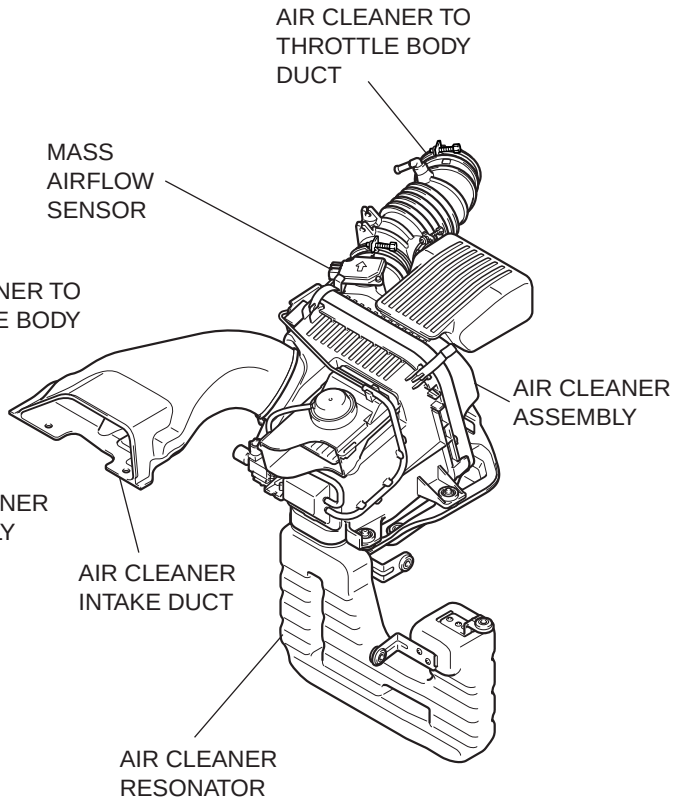
CONSTRUCTION DIAGRAM

<2.4L ENGINE>



AC406367

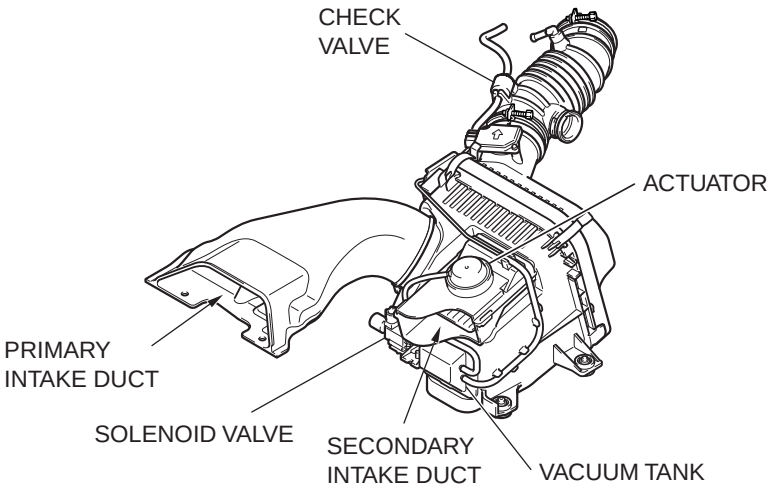
<3.8L ENGINE>



AC404945
AC406711AB

DESCRIPTION OF STRUCTURE AND OPERATION

DUAL STAGE AIR INTAKE SYSTEM



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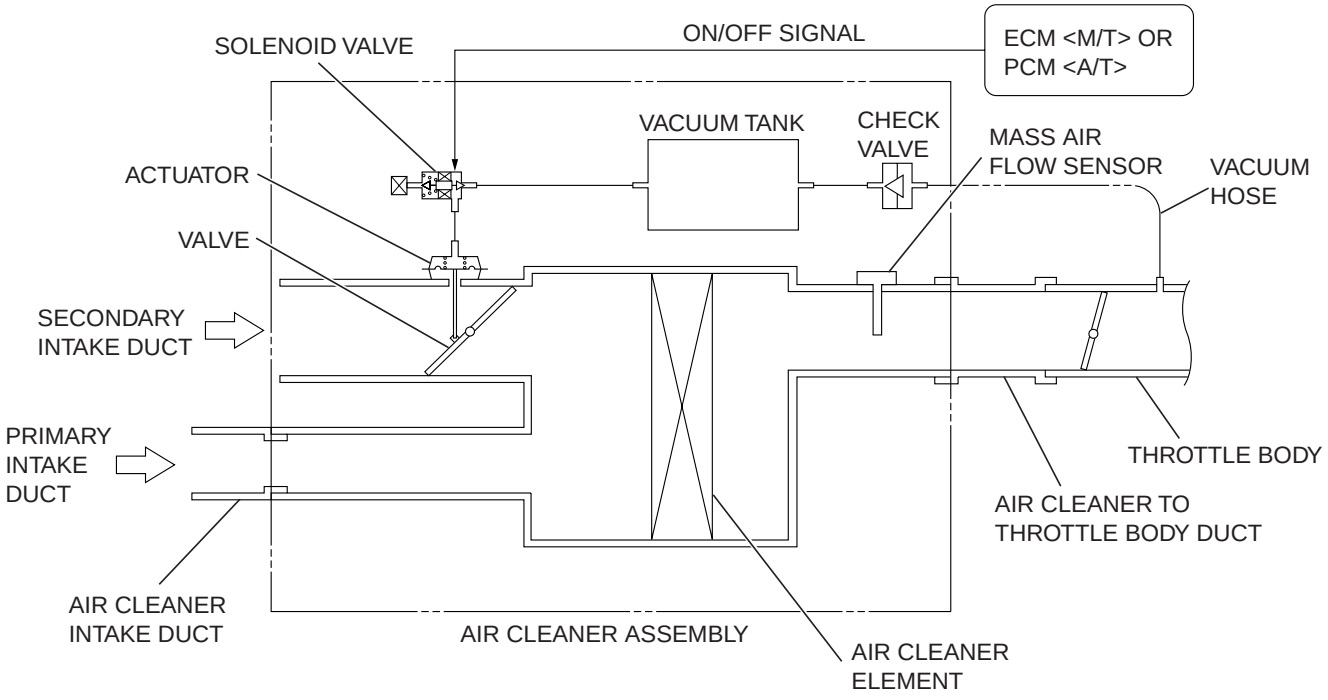


AC406568AB

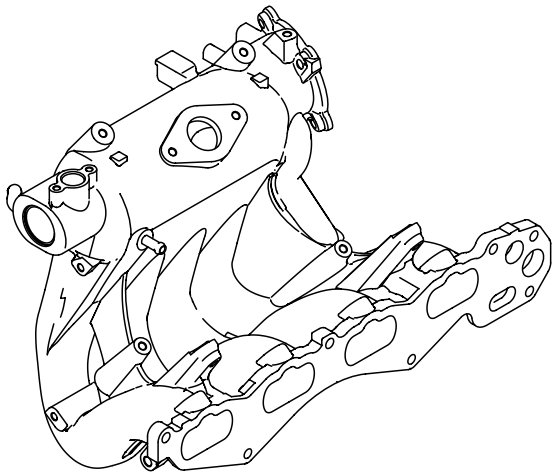
There are two intake ducts, primary side and secondary side in the air cleaner assembly. The valve on the secondary side opens and closes depending on the engine speed to reduce air intake noise and improve the engine performance. The actuator, the solenoid valve, the vacuum tank, the check valve are also installed. If the engine speed reaches 4,000 r/min or more, the solenoid activates by the signal from the ECM <M/T> or PCM <A/T>, and the actuator opens the valve.

TSB Revision

INTAKE MANIFOLD

M2150005000143

<2.4L ENGINE>



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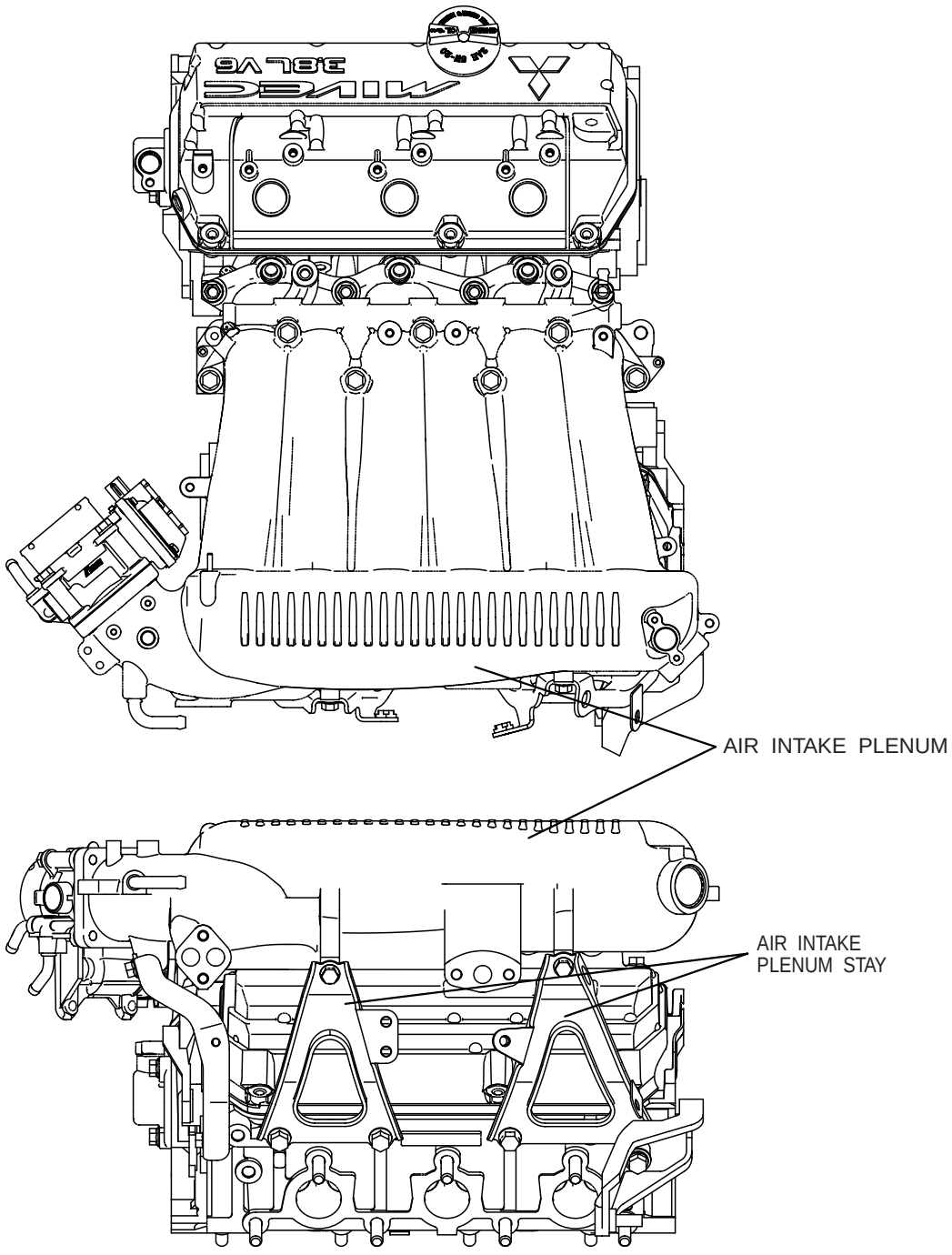
The intake manifold is designed to improve the low, middle and high torque by optimizing the port diameter and length.

<3.8L ENGINE>



Air intake plenum is adopted for weight reduction.

TSB Revision

EXHAUST SYSTEM

EXHAUST PIPE AND MUFFLER

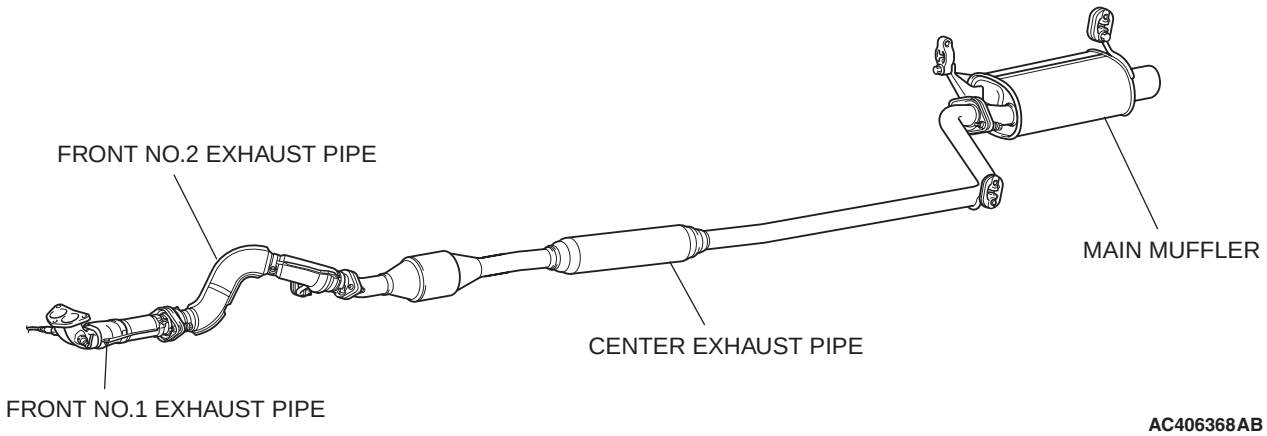
M2150003000374

The exhaust system is composed of the front exhaust pipe, center exhaust pipe, and main muffler, and it has the following characteristics.

- Fewer, more environmentally-friendly rubber hangers to reduce vibration from exhaust system.
- Straighter exhaust pipe to reduce noise.

CONSTRUCTION DIAGRAM

<2.4L ENGINE>



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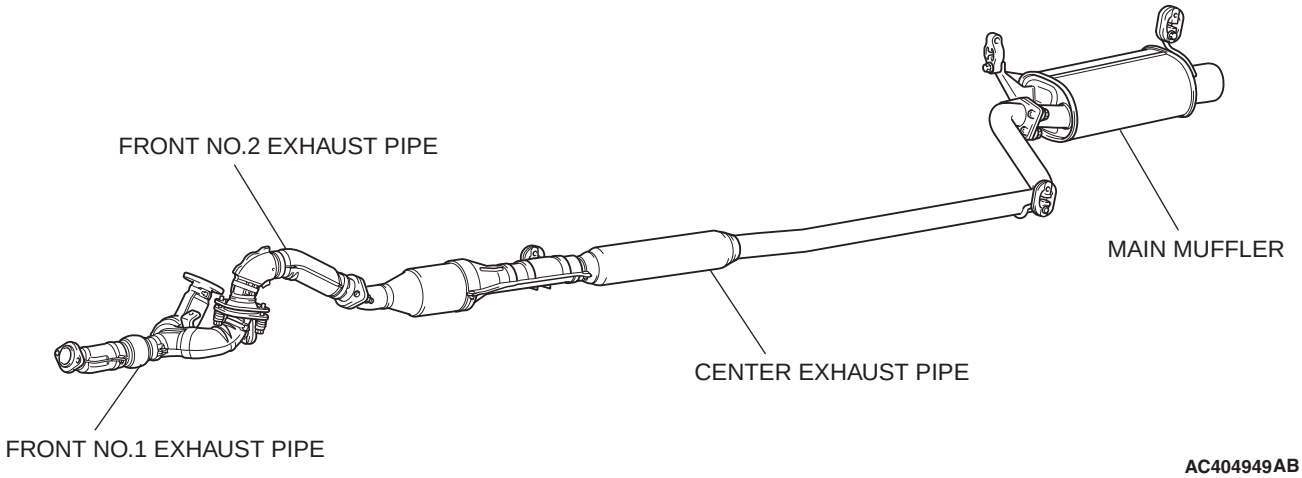

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EXHAUST MANIFOLD

M2150006000351

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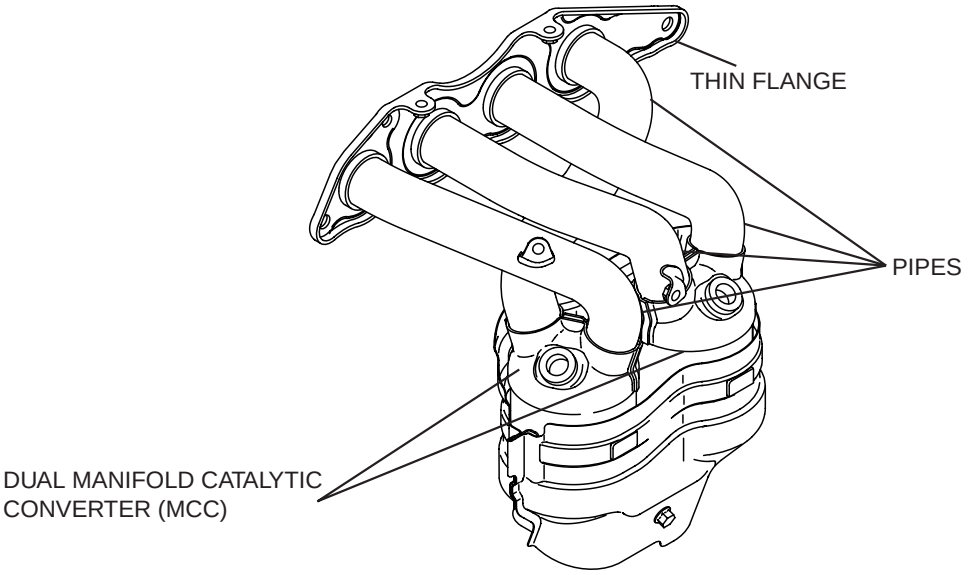
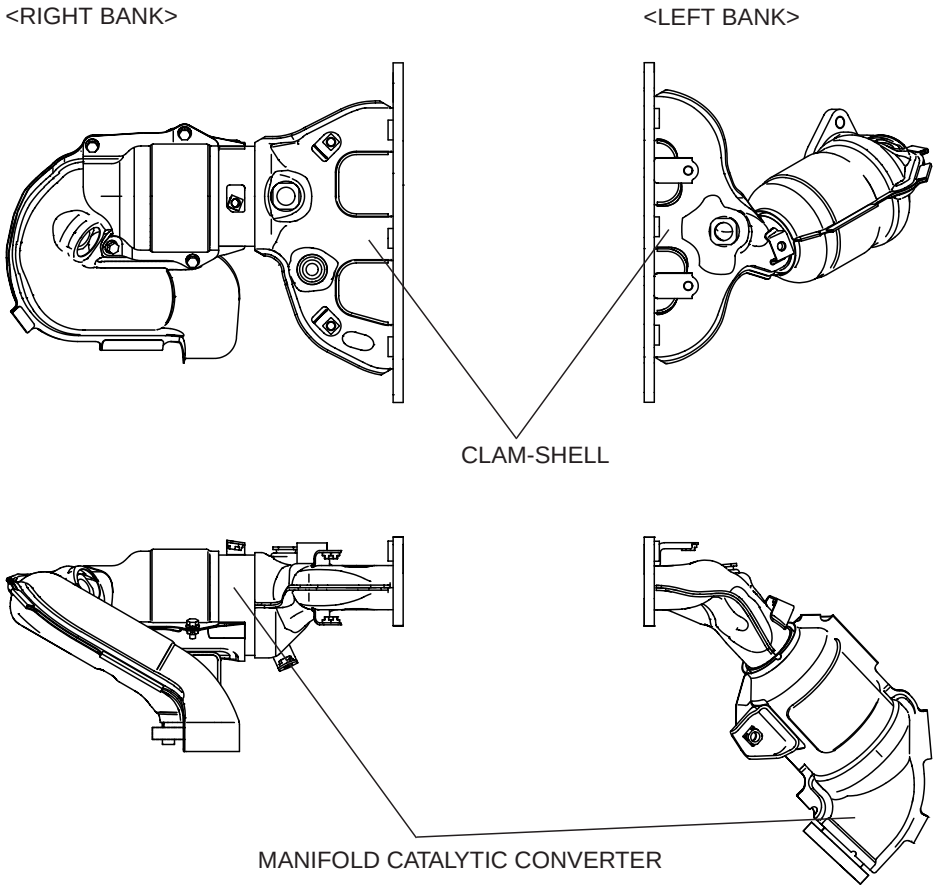


AK403951AB

The exhaust manifold is designed to reduce the heat capacity and to improve exhaust gas performance by preventing exhaust interference through dual piping. Improved exhaust gas performance just after engine start is achieved through quicker warm-up in the catalyst by installing manifold catalytic converter (MCC) on the dual portion.

The flange plate thickness is reduced for lighter weight.

<3.8L ENGINE>



AK403953AB

The exhaust manifold clam-shell design reduces heat capacity and improves exhaust gas performance.

It advances the early warm-up of the catalyst and improves exhaust gas performance, especially right after the engine start, by installing the manifold catalytic converter just under the exhaust manifold.