
INTAKE AND EXHAUST

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GENERAL

OUTLINE OF CHANGES

- The following service procedures have been established in line with the addition of vehicles with 4G63-MPI engine. Furthermore, other items are the same as for the 4G64-GDI engine.
- Service procedures have been established to correspond to changes to the exhaust manifold heat protector in vehicles with 4G64-GDI engine.

SERVICE SPECIFICATION

Items	Standard value	Limit
Manifold distortion of the installation surface mm	0.15 or less	0.20

INTAKE MANIFOLD <4G6-MPI>**REMOVAL AND INSTALLATION**

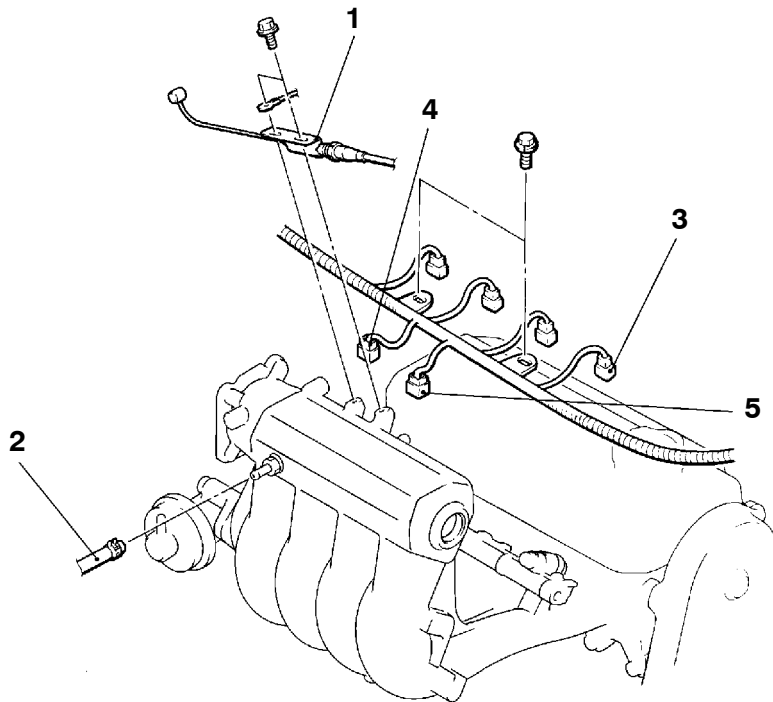
<4G6>

Pre-removal Operation

- Engine Coolant Draining
- Air Cleaner Removal
- Throttle Body Removal (Refer to GROUP 13A.)

Post-installation Operation

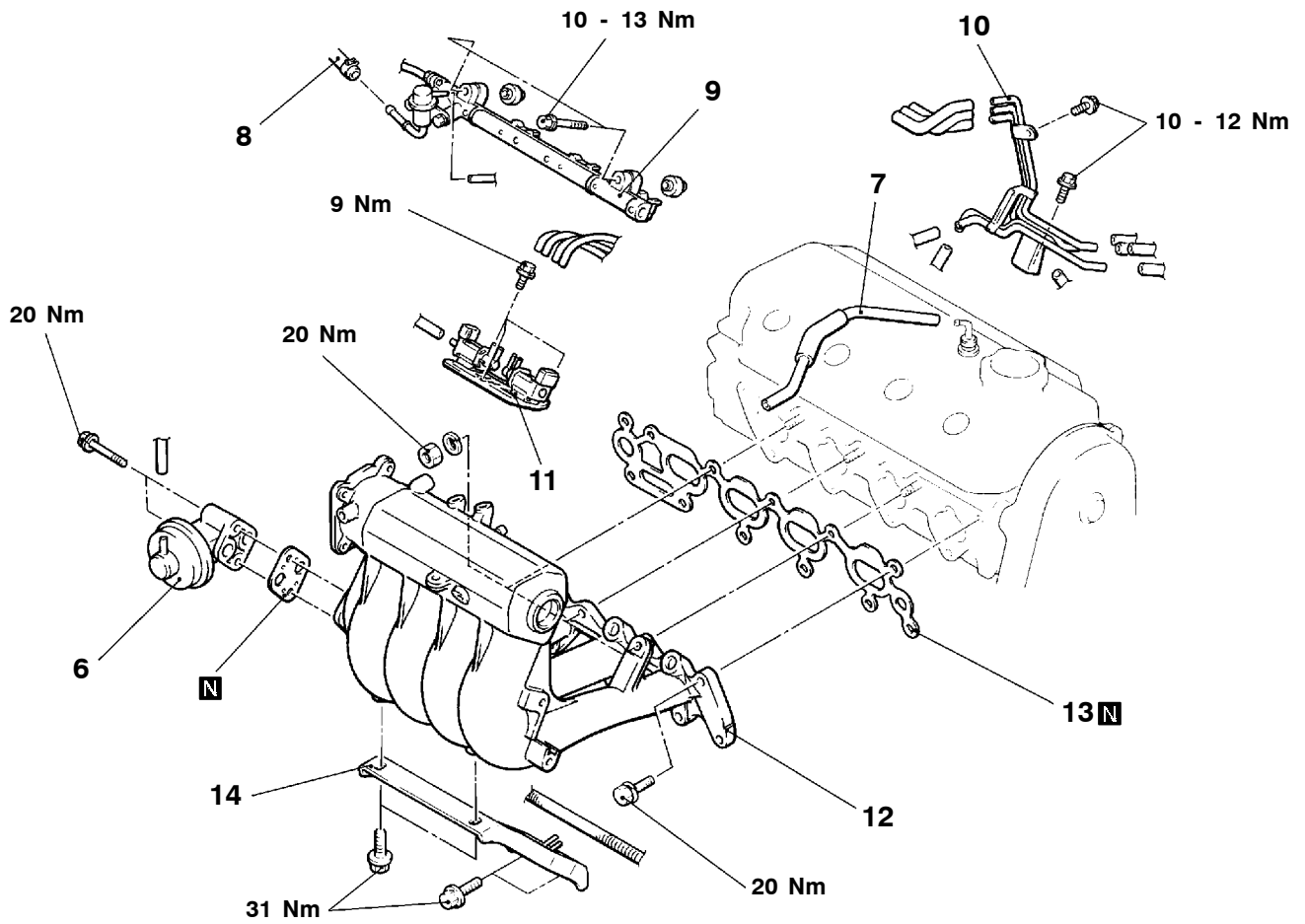
- Throttle Body Installation (Refer to GROUP 13A.)
- Air Cleaner Installation
- Engine Coolant Supplying
- Accelerator Cable Adjustment (Refer to GROUP 17 - On-vehicle Service.)



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Removal steps

1. Accelerator cable
2. Brake booster vacuum hose connection
3. Injector connector
4. EGR solenoid valve connector
5. Purge control solenoid valve connector



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- 6. EGR valve
- 7. PCV hose
- 8. Fuel return hose connection
- 9. Delivery pipe, injector and pressure regulator

- 10. Vacuum pipe assembly
- 11. Solenoid valve assembly
- 12. Intake manifold
- 13. Intake manifold gasket
- 14. Intake manifold stay



REMOVAL SERVICE POINT**◀A▶ DELIVERY PIPE, INJECTOR AND PRESSURE REGULATOR REMOVAL**

Remove the delivery pipe (with the injectors and pressure regulator attached to it).

Caution

Care must be taken, when removing the delivery pipe, not to drop the injector.

INSPECTION

Check the following points; replace the part if a problem is found.

INTAKE MANIFOLD CHECK

1. Check for damage or cracking of any part.
2. Check for obstruction of the negative pressure (vacuum) outlet port, and for obstruction of the water passage or gas passage.
3. Using a straight edge and thickness gauge, check for distortion of the cylinder head installation surface.

Standard value: 0.15 mm or less

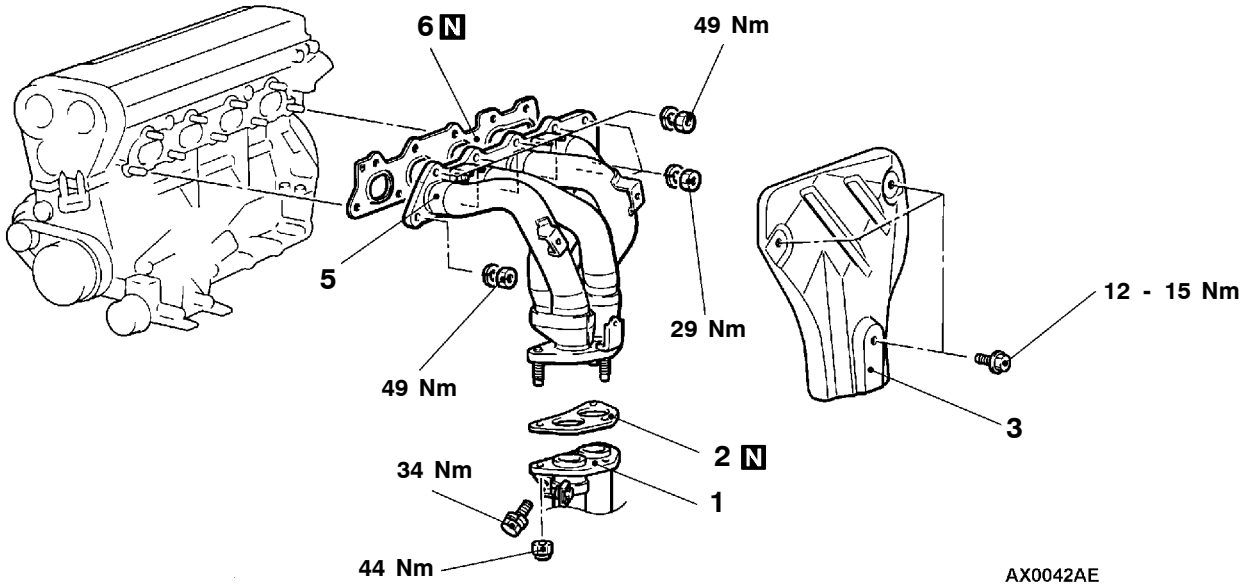
Limit: 0.20 mm

EXHAUST MANIFOLD

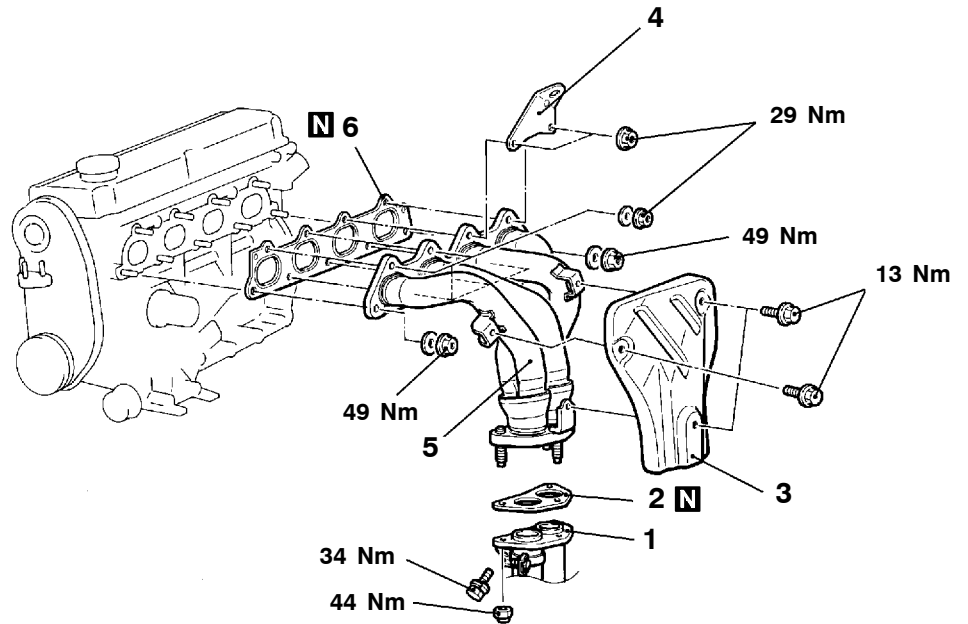
REMOVAL AND INSTALLATION

Pre-removal and Post-installation Operation
Under Cover Removal and Installation

<4G6-GDI>



<4G6-MPI>



Removal steps

1. Front exhaust pipe connection
2. Gasket
3. Heat protector

4. Engine hanger <4G6-MPI>
5. Exhaust manifold
6. Exhaust manifold gasket

INSPECTION**EXHAUST MANIFOLD CHECK**

1. Check for damage or cracking of any part.
2. Using a straight edge and thickness gauge, check for distortion of the cylinder head installation surface.

Standard value: 0.15 mm or less

Limit: 0.20 mm

NOTES