

## GROUP 15

# INTAKE AND EXHAUST

### GENERAL

#### OUTLINE OF CHANGE

A 6G74-SOHC 24-valve engine has been added. To correspond to this, the maintenance service procedures for the intake manifold are given below.

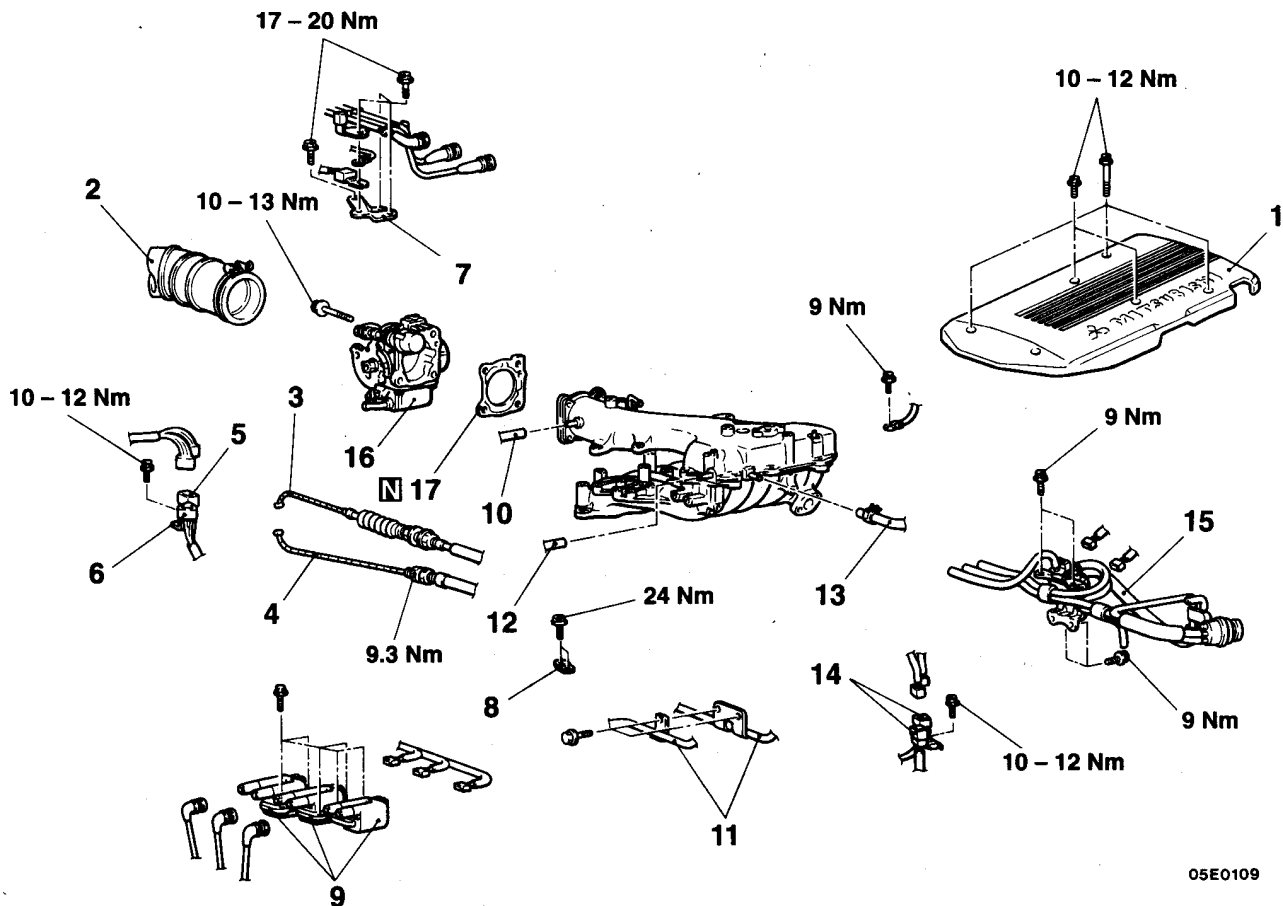
### AIR INTAKE PLENUM

#### REMOVAL AND INSTALLATION

##### Post-installation Operation

- Accelerator Cable Adjustment

- Throttle Cable Adjustment <A/T>

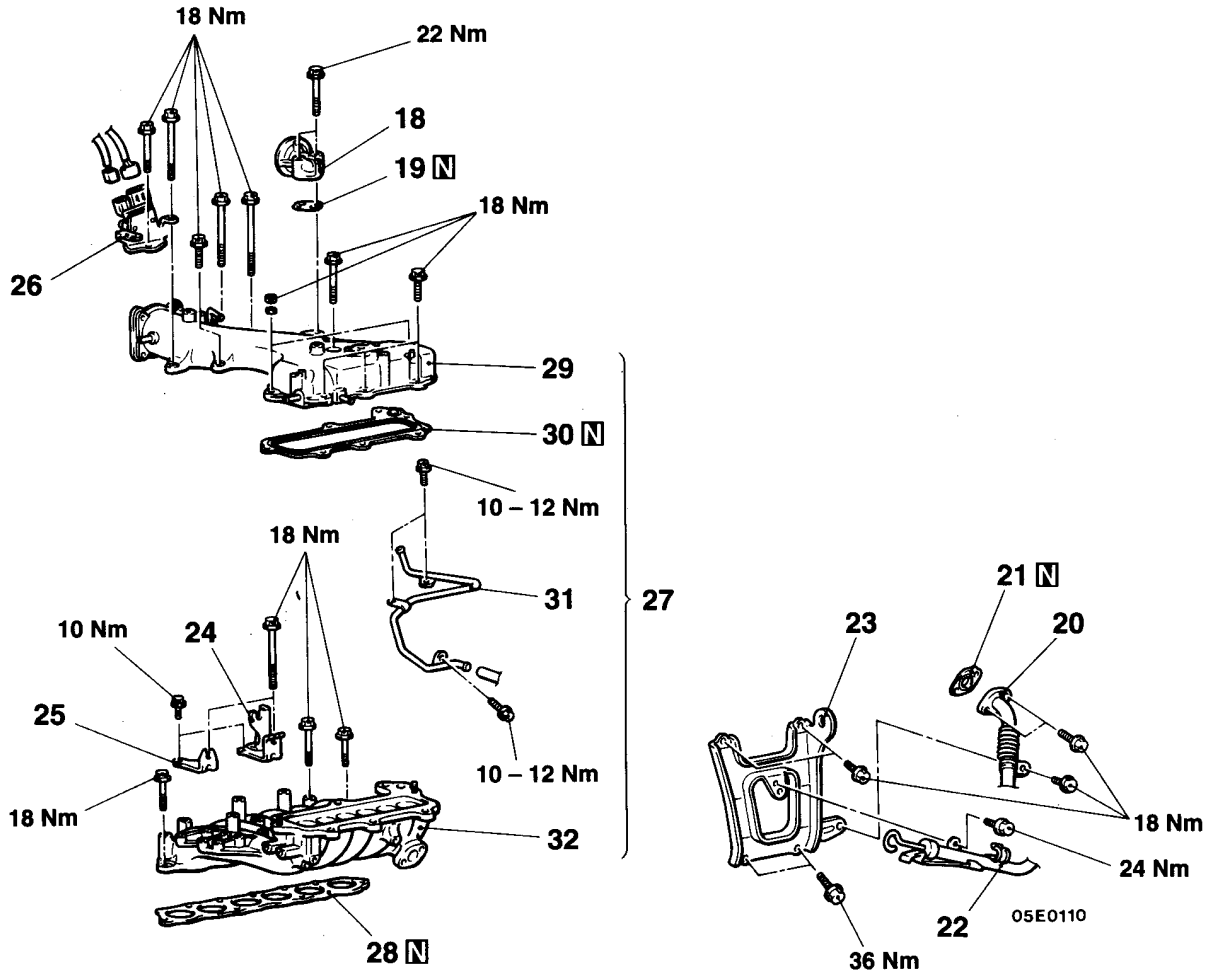


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#### Removal steps

1. Air intake plenum cover
2. Air intake hose connection
3. Throttle cable connection <A/T>
4. Accelerator cable connection
5. Crank angle sensor connector
6. Camshaft position sensor connector
7. Water outlet fitting bracket
8. Water pump stay
9. Ignition coils
10. Vacuum hose connection
11. Fuel pipe connection
12. PCV hose connection
13. Brake booster vacuum hose connection
14. Oxygen sensor connector
15. Solenoid valve assembly and vacuum hose assembly
16. Throttle body assembly
17. Throttle body gasket





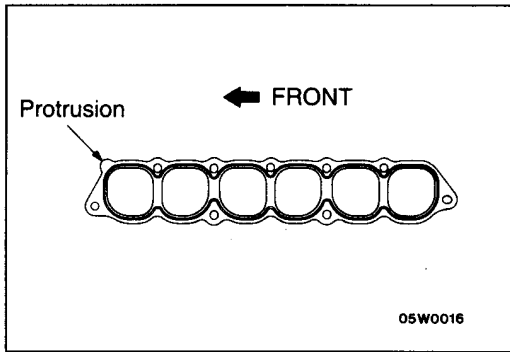
- 18. EGR valve
- 19. EGR valve gasket
- 20. EGR pipe connection
- 21. EGR pipe gasket
- 22. Fluid filler pipe connection <A/T>
- 23. Air intake plenum stay
- 24. Throttle cable bracket <A/T>
- 25. Accelerator cable bracket <M/T>

- ▶A◀ 26. Power transistor
- ▶A◀ 27. Air intake plenum assembly
- ▶A◀ 28. Air intake plenum gasket
- ▶A◀ 29. Air intake fitting
- ▶A◀ 30. Air intake fitting gasket
- ▶A◀ 31. Vacuum pipe
- ▶A◀ 32. Upper intake manifold

**REMOVAL SERVICE POINT**

**◀A▶ THROTTLE BODY ASSEMBLY REMOVAL**

Leave the water hoses attached to the throttle body assembly.

**INSTALLATION SERVICE POINT****▶◀ AIR INTAKE PLENUM GASKET INSTALLATION**

Install the gasket with the protrusion in the position illustrated.

**INSPECTION**

Check the air intake plenum for damage and cracks and replace it if any defects are found.

# INTAKE MANIFOLD

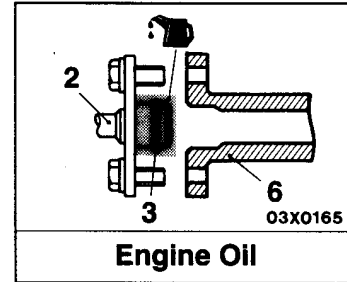
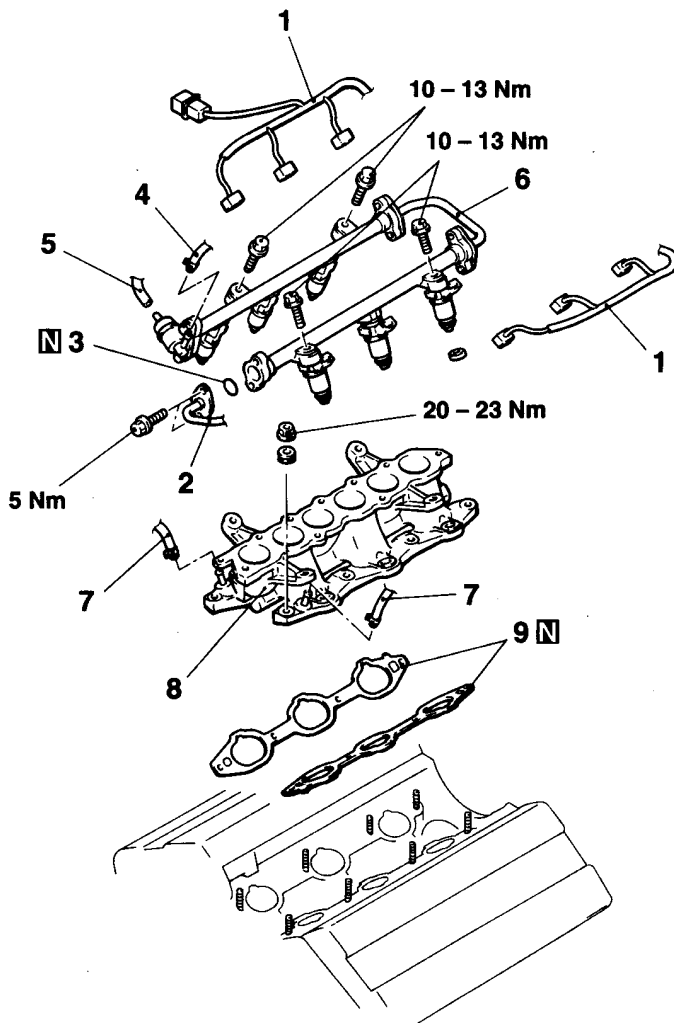
## REMOVAL AND INSTALLATION

**Pre-removal Operation**

- Residual Pressure Release from High Pressure Hose
- Engine Coolant Draining
- Air Intake Plenum Removal (Refer to P.15-1.)

**Post-installation Operation**

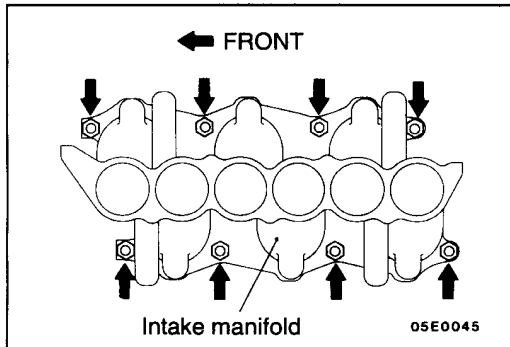
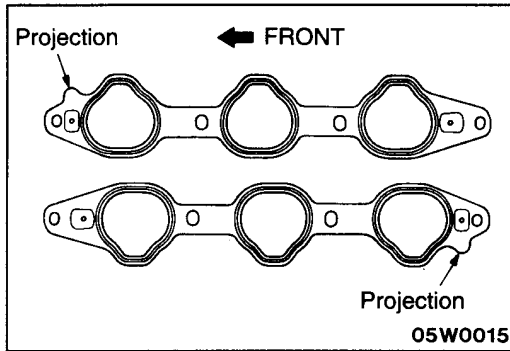
- Air Intake Plenum Installation (Refer to P.15-1.)
- Engine Coolant Filling
- Accelerator Cable Adjustment
- Throttle Cable Adjustment
- Fuel Leakage Checking



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**Removal steps**

- |  |   |
|--|---|
| <p>➤C➤</p> <ol style="list-style-type: none"> <li>1. Injector harness connection</li> <li>2. High-pressure fuel hose connection</li> <li>3. O-ring</li> <li>4. Fuel return hose connection</li> <li>5. Vacuum hose connection</li> </ol> | <p>➤B➤<br/>➤A➤</p> <ol style="list-style-type: none"> <li>6. Fuel rail (with injectors)</li> <li>7. Water hose connection</li> <li>8. Intake manifold</li> <li>9. Intake manifold gasket</li> </ol> |
|--|---|



## INSTALLATION SERVICE POINTS

### ►A◄ INTAKE MANIFOLD GASKET INSTALLATION

Install the gaskets so that the projections face in the directions shown in the illustration.

### ►B◄ INTAKE MANIFOLD INSTALLATION

Tighten the intake manifold mounting nuts one bank after the other by the following procedure.

- (1) Tighten the nuts in the right bank to 7 Nm.
- (2) Tighten the nuts in the left bank to 20 to 23 Nm.
- (3) Tighten the nuts in the right bank to 20 to 23 Nm.
- (4) Repeat steps (2) and (3) again in the same order.

### ►C◄ HIGH-PRESSURE FUEL HOSE INSTALLATION

1. Apply a drop of new engine oil to the O-ring.

#### Caution

**Be sure not to let engine oil in the delivery pipe.**

2. While turning the high-pressure fuel hose to the right and left, install the delivery pipe, while being careful not to damage the O-ring.
3. If it does not turn smoothly, the O-ring may be trapped, remove the high-pressure fuel hose and then re-insert it into the delivery pipe and check once again.
4. Tighten the high-pressure fuel hose to the specified torque.

**Tightening torque: 5 Nm**

## INSPECTION

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

- (1) Damage or cracking of any part.
- (2) Clogging of the negative pressure (vacuum) outlet port, or clogging of the water or gas passages.