

GROUP 15

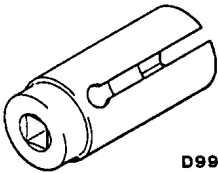
INTAKE AND EXHAUST

GENERAL

OUTLINE OF CHANGE

The service procedures have been established due to the adoption of the intake manifold made of steel pipe for the 4G1 engine and the exhaust manifold incorporated with the catalytic converter. Other service procedures are the same as before.

SPECIAL TOOL

Tool	Number	Name	Use
 D998770	MD998770	Oxygen sensor wrench	Removal/Installation of oxygen sensor

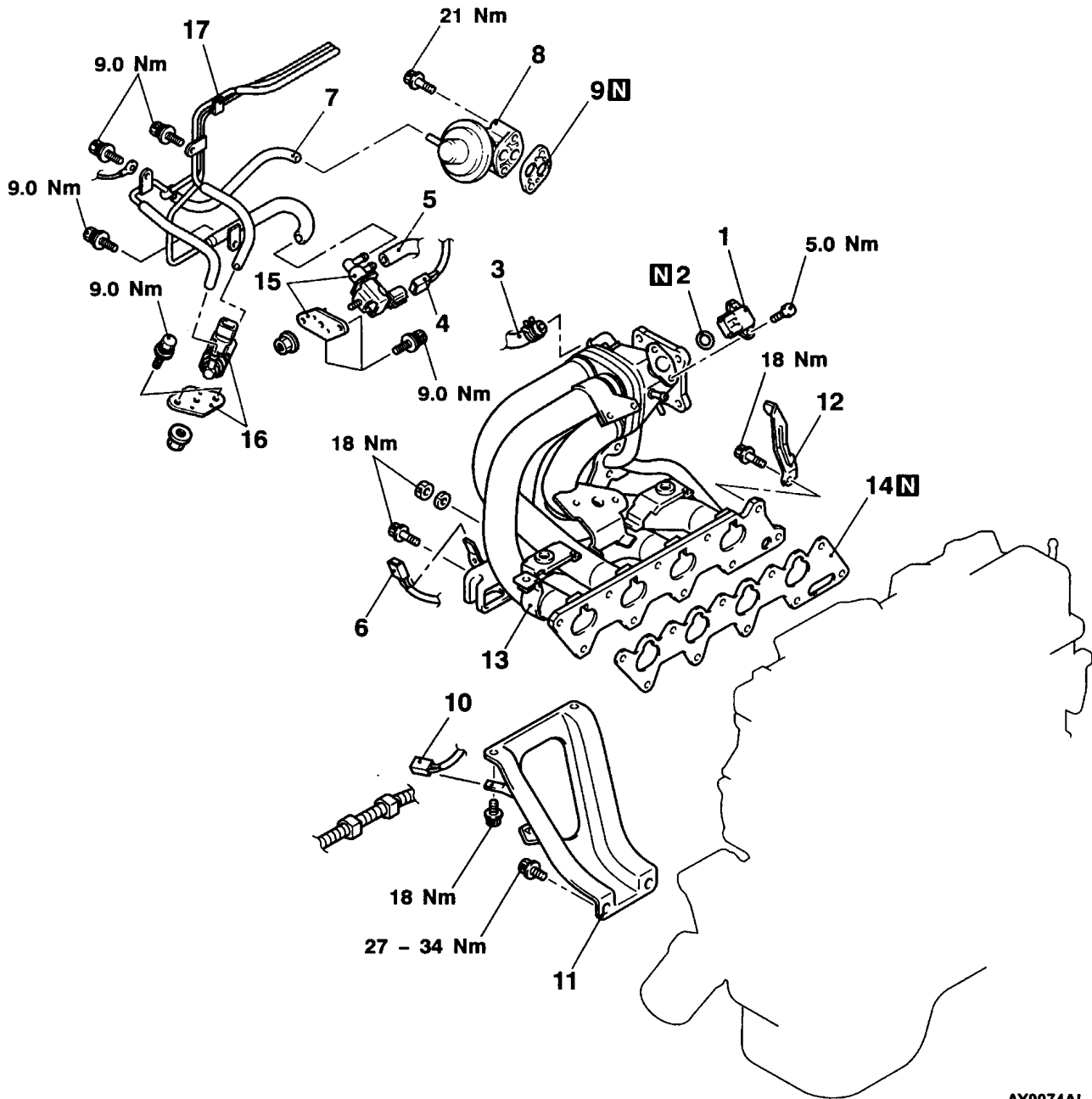
INTAKE MANIFOLD

REMOVAL AND INSTALLATION

<4G1>

Pre-removal and Post-installation Operation

- Prevention of Fuel Discharge <before removal only>
- Fuel Leak Check <after installation only>
- Accelerator Cable Adjustment
- Engine Coolant Draining and Supplying
- Air Cleaner Removal and Installation
- Throttle Body Removal and Installation
- Fuel Pressure Regulator, Delivery Pipe and Injector Assembly Removal and Installation (Refer to GROUP 13A – Injector.)



AY0074AL

Removal steps

1. Vacuum sensor
2. O-ring
3. Brake booster vacuum hose connection
4. Purge control solenoid valve connector
5. Vacuum hose connection
6. Detonation sensor connector
7. Vacuum hose connection
8. EGR valve
9. EGR valve gasket
10. Oxygen sensor (rear) connector
11. Intake manifold stay
12. Engine hanger
13. Intake manifold
14. Intake manifold gasket
15. Purge control solenoid valve assembly
16. EGR solenoid valve assembly
17. Vacuum pipe and hose assembly

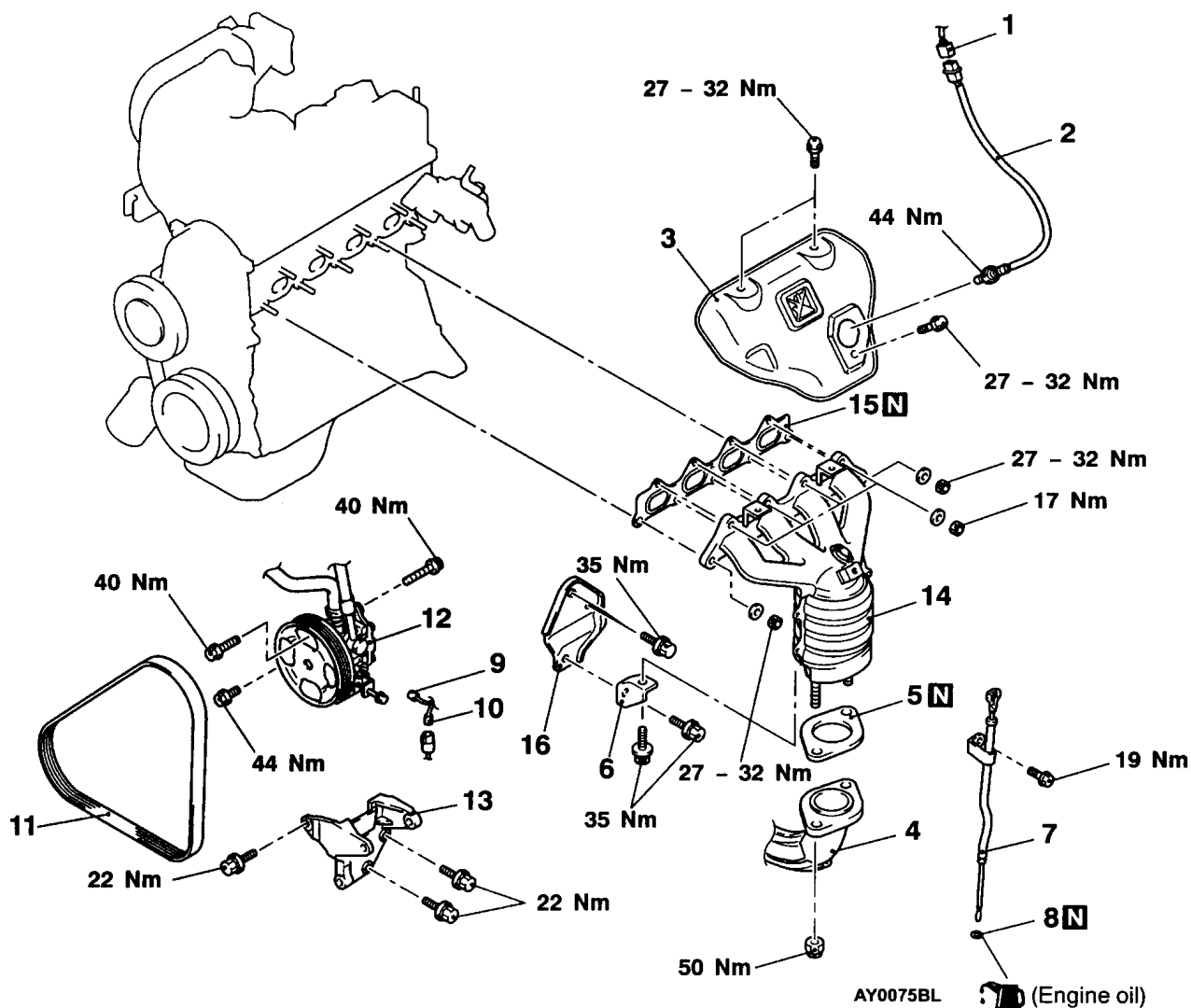
EXHAUST MANIFOLD

REMOVAL AND INSTALLATION

Pre-removal and Post-installation Operation

- Under Cover Removal and Installation
- Drive Belt Tension Adjustment <4G1>
<after installation only>

<4G1>



Removal steps

◀A▶ ▶A▶

1. Oxygen sensor (front) connector
2. Oxygen sensor (front)
3. Exhaust manifold cover
4. Front exhaust pipe connection
5. Front exhaust pipe gasket
6. Exhaust manifold bracket
7. Engine oil level gauge assembly
8. O-ring
9. Power steering oil pressure switch connector
10. Air conditioner refrigerant temperature switch and magnetic clutch connector
11. Power steering oil pump and air conditioner compressor drive belt
12. Power steering oil pump and brace assembly
13. Power steering oil pump bracket
14. Exhaust manifold
15. Exhaust manifold gasket
16. Exhaust manifold bracket

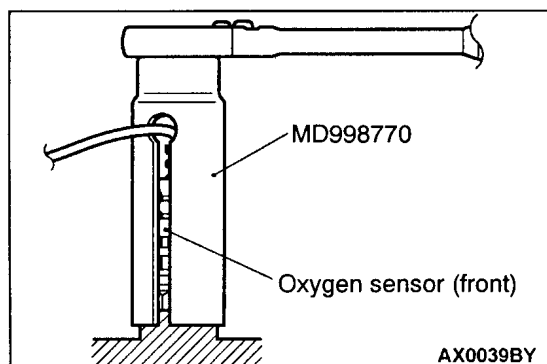
Exploded view diagram of the engine oil pump assembly. Components and torque specifications are labeled:

- 1: Oil pump housing
- 2: Pump body
- 3: Pump gear
- 4: Pump gear shaft
- 5: Pump gear shaft nut (Note: (Engine oil) :)
- 6: Electrical connector
- 7: Electrical cable
- 8: Oil pump housing
- 9: Oil pump
- 10: Engine block
- 11: Pump gear shaft
- 12 - 14 Nm: Torque for housing screws
- 12 - 15 Nm: Torque for pump gear shaft nut
- 17 Nm: Torque for pump gear shaft
- 19 Nm: Torque for pump gear
- 27 - 32 Nm: Torque for pump gear shaft
- 35 Nm: Torque for pump gear shaft nut
- 50 Nm: Torque for pump gear
- N 10: Part number for the engine block
- N 5: Part number for the pump gear shaft nut
- N 2: Part number for the pump body

AY0076BL

1. Front exhaust pipe connection
2. Front exhaust pipe gasket
3. Exhaust manifold bracket
4. Engine oil level gauge assembly
5. O-ring
6. Oxygen sensor (front) connector

7. Oxygen sensor (front)
 8. Exhaust manifold cover
 9. Exhaust manifold
 10. Exhaust manifold gasket
 11. Exhaust manifold bracket



◀A▶ OXYGEN SENSOR (FRONT) REMOVAL

▶◀ OXYGEN SENSOR (FRONT) INSTALLATION