

## SECTION 14

## ENGINE COOLING

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**General Information**

The following servicing information has been issued in conjunction with changes to the 4G63-MPI-T/C engine on the new Lancer Evolution VIII.

Other servicing information remains the same.

- Sealant has been added to the water outlet fitting and thermostat case mounting surface.
- The shapes of the water hose and pipe have been changed.

**Sealants**

Location	Name
Water outlet fitting	Semi-dry sealant: Three Bond silicone-based liquid gasket sealant 1207F [MZ100191] (contents 150g)
Thermostat case	

**Note**

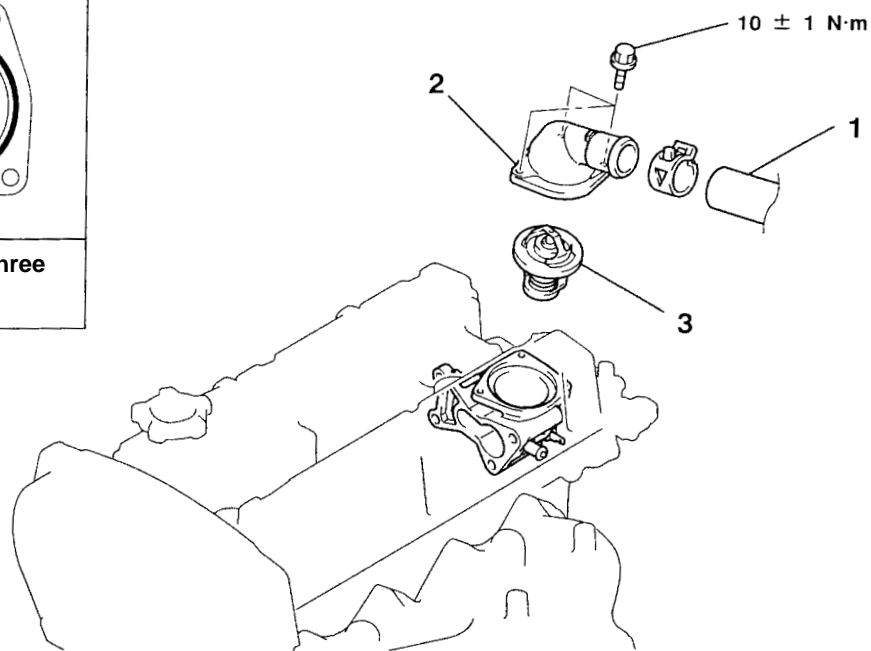
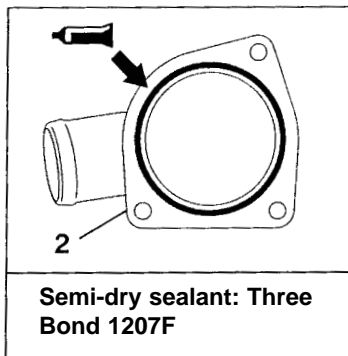
[            ]: original part numbers

## Thermostat

## Removal and Fitting

**Pre-removal and post-fitting operations**

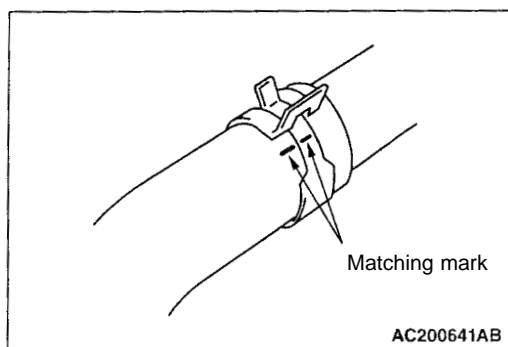
- Draining and filling of coolant
- Removal and fitting of air ducts
- Removal and fitting of air pipe ASSY (ref. Chapter 15-2 Secondary Air Control System)



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**Removal procedure**

- ◀ A ▶ ▶ C ▶ 1. Radiator upper hose connection  
 ▶ B ▶ 2. Water outlet fitting  
 ▶ A ▶ 3. Thermostat

**REMOVAL**

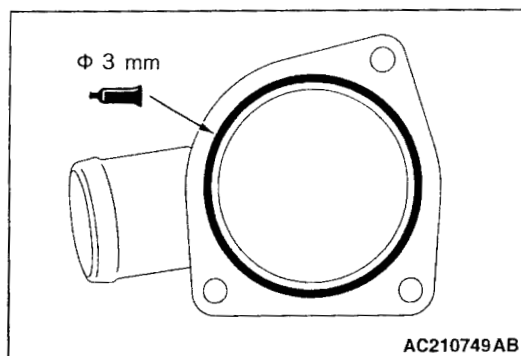
- ◀ A ▶ Disconnect radiator upper hose  
 Disconnect radiator upper hose after having first aligned the matching marks on the radiator upper hose and hose clamp.

**FITTING****► A ◀ Fitting thermostat**

Fit the thermostat being careful not to fold over or damage the rubber ring.

**Caution**

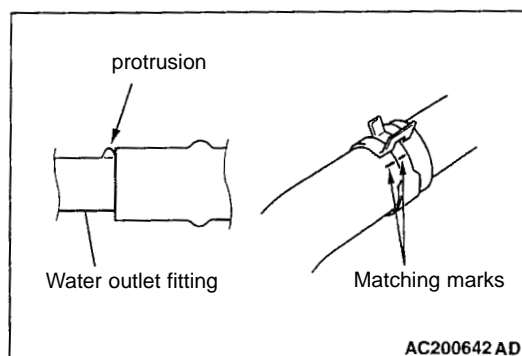
**Make absolutely sure that no oil is adhering to the rubber ring of the thermostat. Moreover, if the rubber ring is damaged, replace the thermostat.**

**► B ◀ Installing water outlet fitting**

1. Remove any sealant adhering to water outlet fitting and thermostat casing.
  2. As shown in the diagram, apply sealant to the thermostat case mounting surface of the water outlet fitting.
- Semi-dry sealant: Three Bond 1207F**
3. Mount the water outlet fitting on the thermostat case.

**Note**

Mount the water outlet fitting on the thermostat case while the sealant is still moist (within 15 minutes of applying the sealant).

**► C ◀ Radiator upper hose connection**

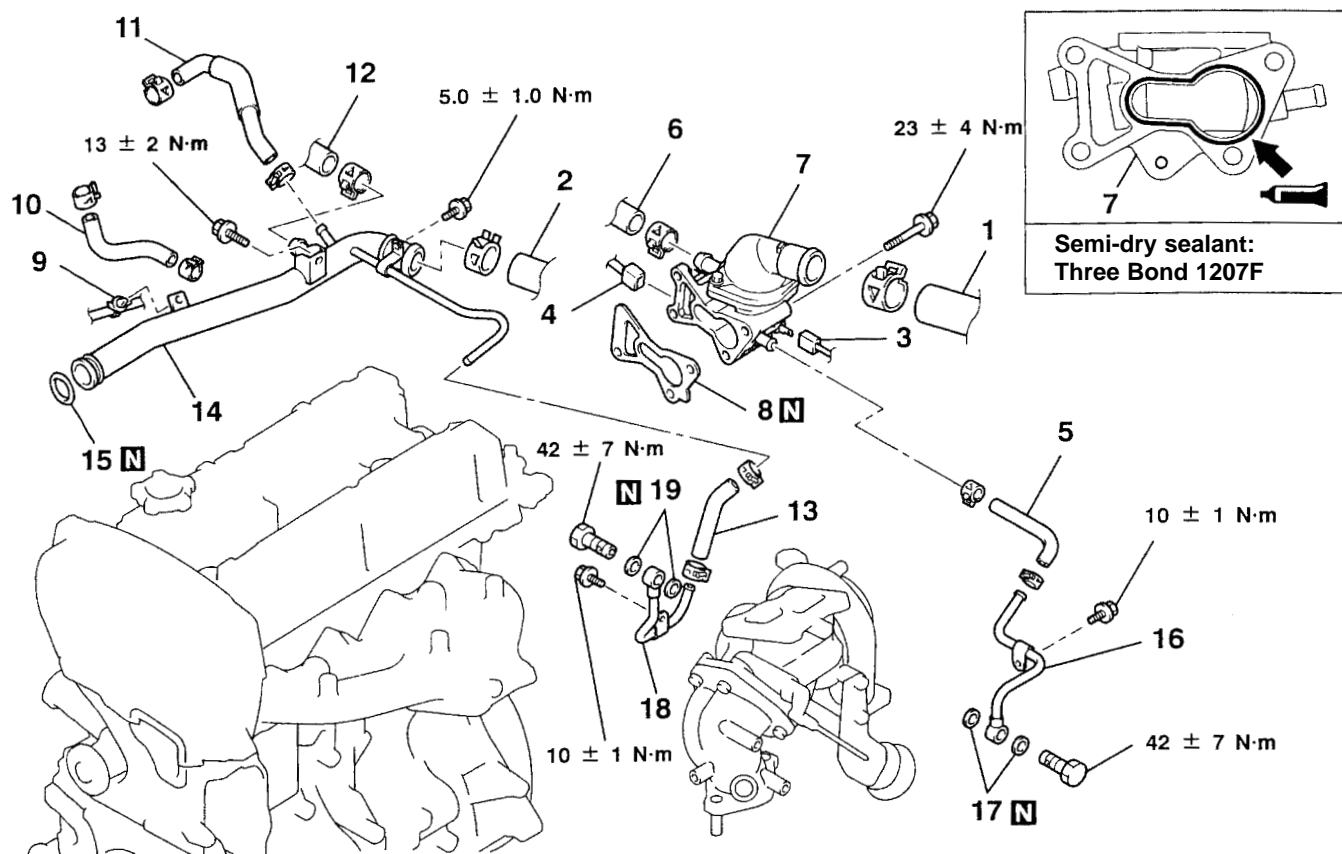
1. Insert radiator upper hose as far as the protrusion on the water outlet fitting.
2. Fit the radiator upper hose, aligning the matching marks on the radiator upper hose and hose clamp.

## Water hose and pipe

## Removal and Fitting

**Pre-removal and post-fitting operations**

- Removal and fitting of cover
- Draining and filling of coolant
- Removal and fitting of air cleaner ASSY
- Removal and fitting of air by-pass valve ASSY, air by-pass hose, air hose D and E, and air pipe C (ref. Chapter 15 - Intercooler)
- Removal and fitting of air control valve bracket (ref. Chapter 15 -2 Secondary Air Control System)



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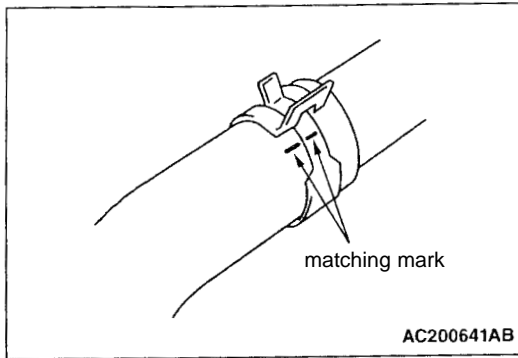
**Fuel tank ASSY disassembly procedure**

- |             |  |                                    |
|-------------|--|------------------------------------|
| ◀ A ▶ ▶ C ◀ | 1. Radiator upper hose connection              | 11. Water hose                     |
| ◀ A ▶ ▶ C ◀ | 2. Radiator lower hose connection              | 12. Heater hose connection         |
|             | 3. Water temperature gauge unit connector      | 13. Water hose                     |
|             | 4. Water temperature sensor connector          | ▶ A ◀ 14. Water inlet pipe         |
|             | 5. Water hose                                  | ▶ A ◀ 15. O-ring                   |
| ▶ B ◀       | 6. Heater hose connection                      | 16. Turbocharger water feed pipe   |
|             | 7. Water outlet fitting & thermostat case ASSY | 17. Gasket                         |
|             | 8. Thermostat case gasket                      | • Turbocharger ASSY                |
|             | 9. Knock sensor harness clamp                  | 18. Turbocharger water return pipe |
|             | 10. Water hose                                 | 19. Gasket                         |

## REMOVAL

## ◀ A ▶ Disconnect radiator upper hose /radiator lower hose

Disconnect radiator hoses after having first aligned matching marks on radiator hose and hose clamp.



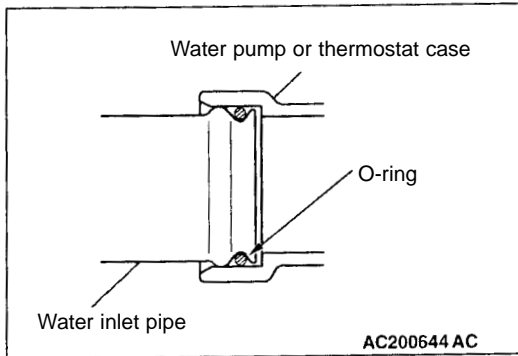
## FITTING

## ▶ A ◀ O-ring /water inlet pipe fitting

Insert O-ring into the groove on the water inlet pipe, then insert the pipe after wetting the area around the circumference of the O-ring or the inner surface of water inlet pipe where it connects with water

**Caution**

**Make absolutely sure that no engine oil or other grease is adhering to the O-ring.**



## ▶ B ◀ Water outlet fitting and thermostat case ASSY

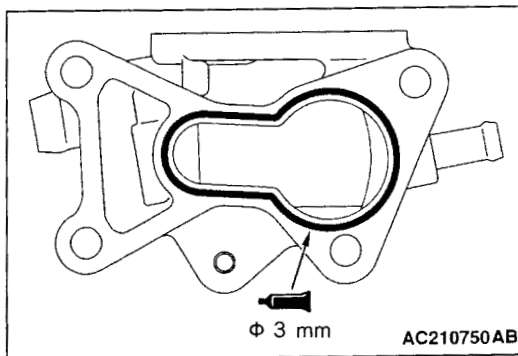
1. Remove any sealant adhering to the thermostat case or cylinder head.
2. As shown in the diagram, apply sealant to the cylinder head mounting surface the thermostat case.

**Semi-dry sealant: Three Bond 1207F**

3. Fit the water outlet fitting and thermostat case ASSY to the cylinder head.

**Note**

Mount the water outlet fitting & thermostat case ASSY on the cylinder head while the sealant is still moist (within 15 minutes of applying the sealant).



## ▶ C ◀ Connecting radiator lower hose/radiator upper hose

1. Insert hoses as far as the protrusion on the water inlet pipe and water outlet fitting.
2. Connect the radiator hoses, aligning the matching marks on the radiator hose and hose clamp.

