

RADIATOR REMOVAL/INSTALLATION[LF, L3]

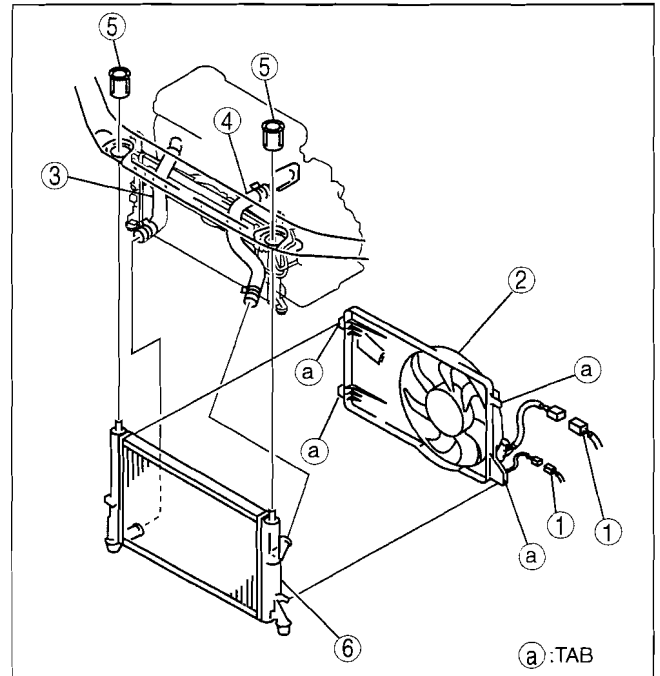
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Warning

- Remove and install all parts when the engine is cold, otherwise they can cause severe burns or serious injury.

- Remove the battery cover. (See 01-17A-2 BATTERY REMOVAL/INSTALLATION[LF, L3].)
- Disconnect the negative battery cable.
- Remove the under cover.
- Drain the engine coolant. (See 01-12A-3 ENGINE COOLANT REPLACEMENT[LF, L3].)
- Disconnect the coolant reservoir hose from the radiator.
- Position the front wiring harnesses out of the way.
- Remove in the order indicated in the table.
- Install in the reverse order of removal.
- Add engine coolant.(See 01-12A-3 ENGINE COOLANT REPLACEMENT[LF, L3].)
- Inspect for engine coolant leakage. (See 01-12A-4 ENGINE COOLANT LEAKAGE INSPECTION[LF, L3].)

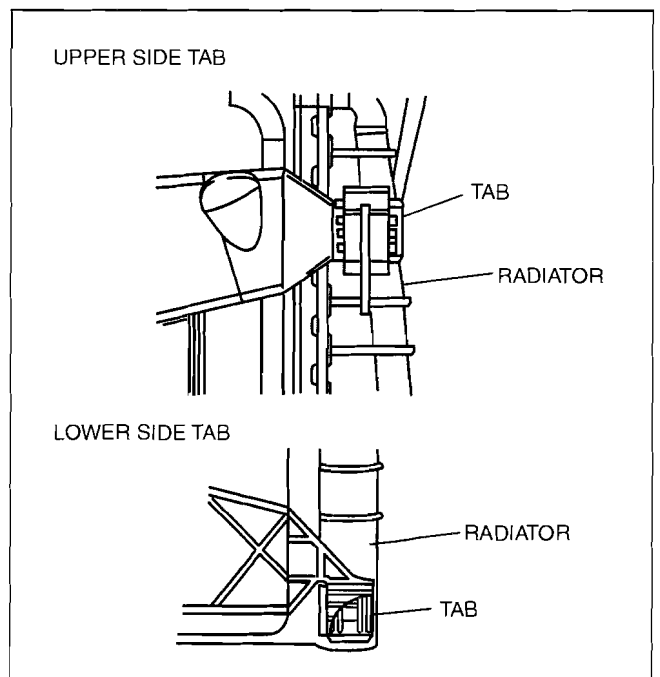
| | |
|---|--|
| 1 | Fan control module connector |
| 2 | Cooling fan component (See 01-12A-6 Cooling Fan Component Removal Note.) (See 01-12A-7 Cooling Fan Component Installation Note.) |
| 3 | Radiator lower hose |
| 4 | Radiator upper hose |
| 5 | Radiator mount |
| 6 | Radiator (See 01-12A-7 Radiator Removal Note.) (See 01-12A-7 Radiator Installation Note.) |



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Cooling Fan Component Removal Note

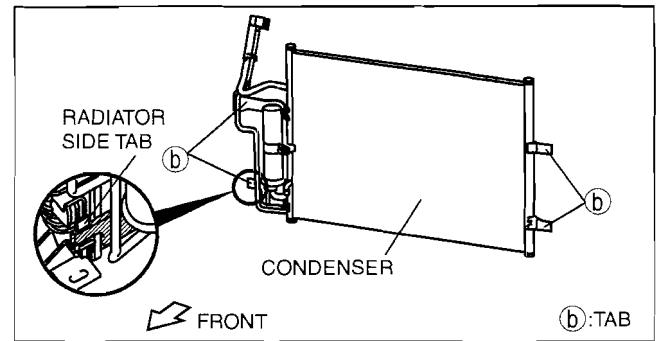
- Unlock lower side tabs a at two points by pressing the cooling fan side tabs, remove upper side tabs a at two points, then remove the cooling fan component from the radiator.



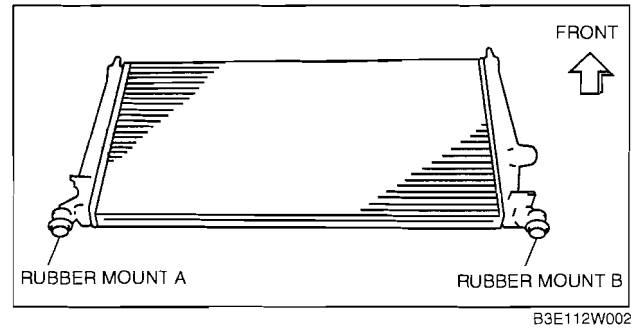
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Radiator Removal Note

1. Remove the condenser from the radiator with the pipes still connected, by pressing the radiator side tabs to unlock tabs b on the condenser.

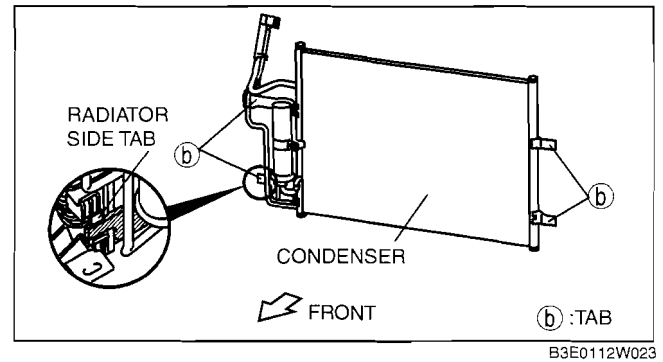


2. Remove rubber mount A from the mount installation hole.
3. Tilt the radiator to the engine side.
4. Remove rubber mount B from the mount installation hole.
5. Remove the radiator from below.



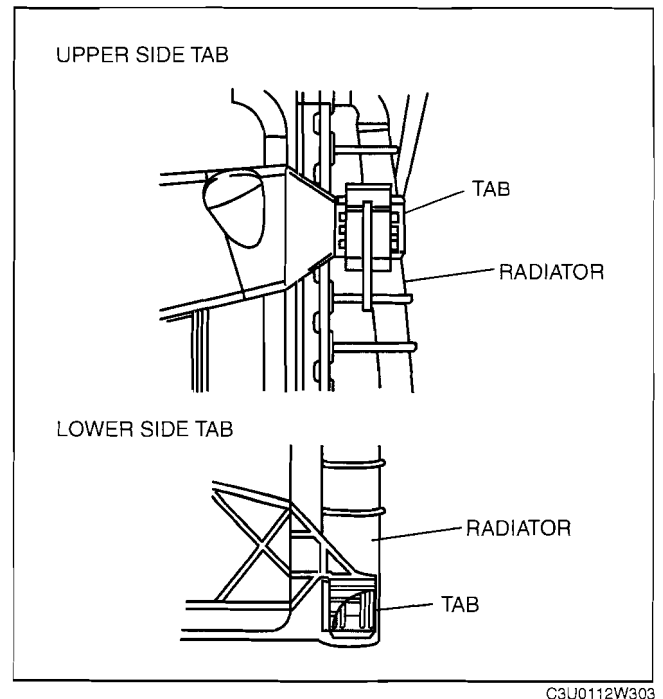
Radiator Installation Note

1. Install the condenser to the radiator by aligning lower side tabs b with the radiator side tabs, install upper tabs b, then install lower side tabs b.
2. Install the radiator.



Cooling Fan Component Installation Note

1. Insert tabs a to the radiator to install the cooling fan component.



COOLING SYSTEM [LF, L3]

THERMOSTAT REMOVAL/INSTALLATION[LF, L3]

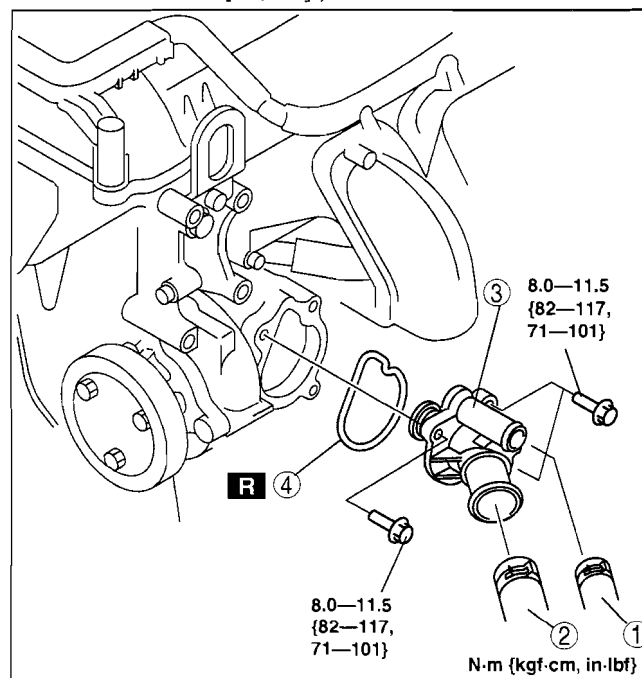
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Warning

- Remove and install all parts when the engine is cold, otherwise they can cause severe burns or serious injury.

1. Remove the battery cover. (See 01-17A-2 BATTERY REMOVAL/INSTALLATION[LF, L3].)
2. Disconnect the negative battery cable.
3. Remove the under cover and splash shield as a single unit.
4. Drain the engine coolant. (See 01-12A-3 ENGINE COOLANT REPLACEMENT[LF, L3].)
5. Position the coolant reserve tank out of the way.
6. Remove the plug hole plate. (See 01-10A-3 PLUG HOLE PLATE REMOVAL/INSTALLATION[LF, L3].)
7. Position the drive belt out of the way. (See 01-10A-4 DRIVE BELT REPLACEMENT[LF, L3].)
8. Remove the drive belt tensioner. (See 01-10A-12 TIMING CHAIN REMOVAL/INSTALLATION[LF, L3].)
9. Remove in the order indicated in the table.
10. Install in the reverse order of removal.
11. Add engine coolant. (See 01-12A-3 ENGINE COOLANT REPLACEMENT[LF, L3].)
12. Inspect for engine coolant leakage. (See 01-12A-4 ENGINE COOLANT LEAKAGE INSPECTION[LF, L3].)

| | |
|---|----------------------|
| 1 | Water hose |
| 2 | Lower radiator hose |
| 3 | Thermostat component |
| 4 | Gasket |



THERMOSTAT INSPECTION[LF, L3]

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1. Inspect the thermostat for the following.

Warning

- During inspection, the thermostat and water are extremely hot and can cause severe burns. Do not touch the thermostat and water.
- The valve should not open under normal temperature.
- Opening temperature and valve lift
 - If there is a malfunction, replace the thermostat.

| Item | Specification |
|---------------------------------------|--------------------|
| Initial-opening temperature (°C {°F}) | 80—84 {176—183} |
| Full-open temperature (°C {°F}) | 97 {207} |
| Full-open lift (mm {in}) | 8.0 {0.31} or more |

COOLING SYSTEM [LF, L3]

WATER PUMP REMOVAL/INSTALLATION[LF, L3]

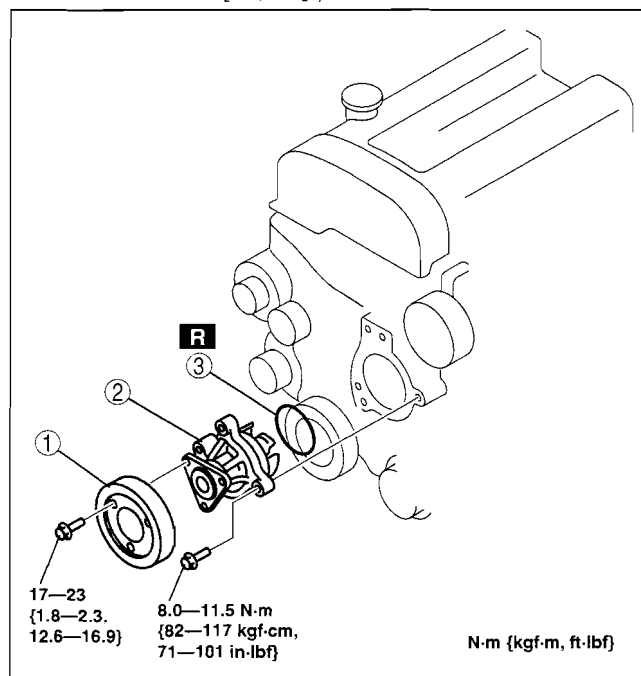
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Warning

- Remove and install all parts when the engine is cold, otherwise they can cause severe burns or serious injury.

1. Remove the battery cover. (See 01-17A-2 BATTERY REMOVAL/INSTALLATION[LF, L3].)
2. Disconnect the negative battery cable.
3. Remove the under cover and splash shield as a single unit.
4. Drain the engine coolant. (See 01-12A-3 ENGINE COOLANT REPLACEMENT[LF, L3].)
5. Position the coolant reserve tank out of the way.
6. Remove the plug hole plate. (See 01-10A-3 PLUG HOLE PLATE REMOVAL/INSTALLATION[LF, L3].)
7. Loosen the water pump pulley bolt and position the drive belt out of the way. (See 01-10A-4 DRIVE BELT REPLACEMENT[LF, L3].)
8. Remove in the order indicated in the table.
9. Install in the reverse order of removal.
10. Add engine coolant. (See 01-12A-3 ENGINE COOLANT REPLACEMENT[LF, L3].)
11. Inspect for engine coolant leakage. (See 01-12A-4 ENGINE COOLANT LEAKAGE INSPECTION[LF, L3].)

| | |
|---|-------------------|
| 1 | Water pump pulley |
| 2 | Water pump |
| 3 | O-ring |



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COOLING FAN MOTOR COMPONENT INSPECTION[LF, L3]

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1. Perform the cooling fan control system inspection. (See 01-03A-68 ENGINE CONTROL SYSTEM OPERATION INSPECTION[LF, L3].)
 - If the cooling fan control does not operate properly, inspect the following.
 - ECT sensor
 - A/C switch
 - A/C refrigerant pressure switch (High/low pressure)
 - A/C refrigerant pressure switch (Middle pressure)
 - VSS
 - A/C magnetic clutch
 - Fan control module power supply circuit
 - Fan control module ground circuit
 - Fan control signal circuit (between fan control module terminal B and PCM terminal 1Y^{*1}, 1W^{*2}, 1R^{*3})
 - If the all items are normal, replace the cooling fan component.

^{*1} : California emission regulation applicable model

^{*2} : Except for California emission regulation applicable model with LF ATX

^{*3} : Except for California emission regulation applicable model with LF MTX, L3

COOLING SYSTEM [LF, L3]

RADIATOR DRAIN PLUG REPLACEMENT[LF, L3]

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1. Drain the engine coolant. (See 01-12A-3 ENGINE COOLANT REPLACEMENT[LF, L3].)
2. Loosen the radiator drain plug completely.
3. Using a flathead screwdriver or equivalent, pry out the radiator drain plug.

Caution

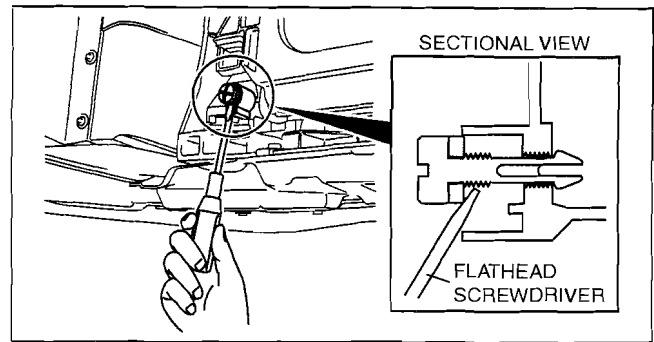
- Do not apply excessive force to the flathead screwdriver or equivalent as doing so can damage the drain bore. Slowly and carefully pry out the radiator drain plug when removing it.

4. Install a new radiator drain plug with a new O-ring.

Tightening torque

1.2—1.5 N·m {13—15 kgf·cm, 11—13 in·lbf}

5. Add engine coolant. (See 01-12A-3 ENGINE COOLANT REPLACEMENT[LF, L3].)



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