

General Description

COOLING

1. General Description

A: SPECIFICATION

Cooling system				Electric fan + Forced engine coolant circulation system	
Total engine coolant capacity					

Coolant	Recommended materials	Item number	Alternative
Coolant	SUBARU coolant	000016218	Phosphoric acid (non-amine) type
Water for dilution	Distilled water	—	Soft water or tap water
Cooling system protective agent	Cooling system conditioner	SOA345001	None

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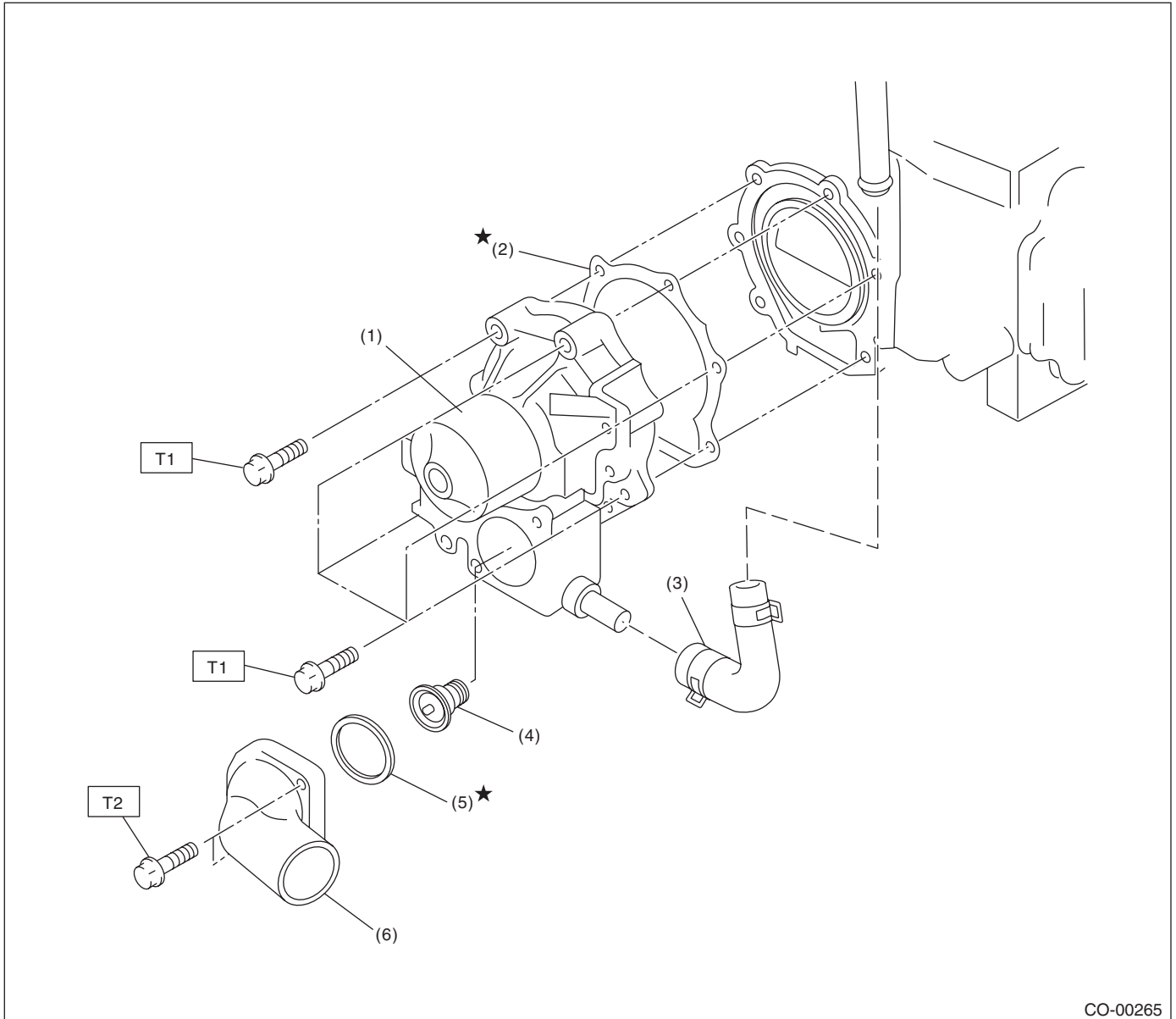
Vehicle speed	A/C compressor load	Engine coolant temperature		
		Increase: 95°C (203°F) or less Decrease: 92°C (198°F) or less	Increase: 96 — 99°C (205 — 210°F) Decrease: 93 — 94°C (199 — 201°F)	Increase: 100°C (212°F) or more Decrease: 95°C (203°F) or more
		Radiator fan operation	Radiator fan operation	Radiator fan operation
During acceleration: 19 km/h (12 MPH) or less During deceleration: 10 km/h (6 MPH) or less	OFF	OFF	Low-Speed	High-Speed
	Low	Low-Speed	Low-Speed	High-Speed
	High	High-Speed	High-Speed	High-Speed
During acceleration: 20 — 69 km/h (12 — 43 MPH) During deceleration: 11 — 64 km/h (7 — 40 MPH)	OFF	OFF	Low-Speed	High-Speed
	Low	High-Speed	High-Speed	High-Speed
	High	High-Speed	High-Speed	High-Speed
During acceleration: 70 — 105 km/h (43 — 65 MPH) During deceleration: 65 — 103 km/h (40 — 64 MPH)	OFF	OFF	Low-Speed	High-Speed
	Low	OFF	Low-Speed	High-Speed
	High	Low-Speed	High-Speed	High-Speed
During acceleration: 106 km/h (66 MPH) or more During deceleration: 104 km/h (65 MPH) or more	OFF	OFF	OFF	High-Speed
	Low	OFF	Low-Speed	High-Speed
	High	OFF	Low-Speed	High-Speed

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B: COMPONENT

1. WATER PUMP



- | | |
|-------------------------|----------------------|
| (1) Water pump ASSY | (4) Thermostat |
| (2) Gasket | (5) Gasket |
| (3) Heater by-pass hose | (6) Thermostat cover |

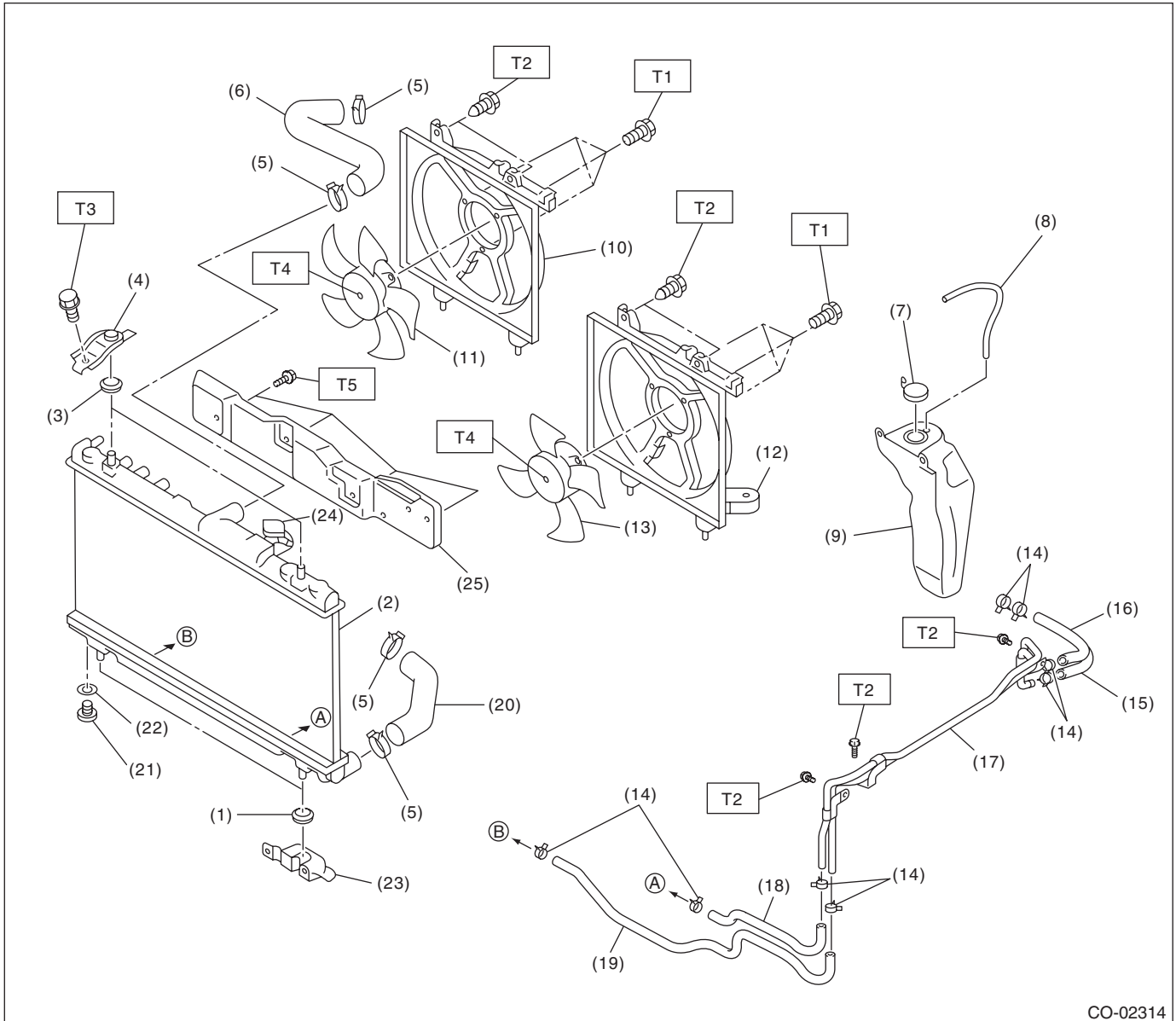
Tightening torque:N·m (kgf-m, ft-lb)

T1: First 12 (1.2, 8.9)

Second 12 (1.2, 8.9)

T2: 12 (1.2, 8.9)

2. RADIATOR & RADIATOR FAN



CO-02314

- | | | |
|--|--|-----------------------------|
| (1) Radiator lower cushion | (12) Radiator main fan shroud | (22) O-ring |
| (2) Radiator | (13) Radiator main fan, radiator main fan motor ASSY | (23) Radiator lower bracket |
| (3) Radiator upper cushion | (14) ATF hose clamp (AT model) | (24) Radiator cap |
| (4) Radiator upper bracket | (15) ATF hose A (AT model) | (25) Heat shield cover |
| (5) Clamp | (16) ATF hose B (AT model) | |
| (6) Radiator hose A | (17) ATF pipe (AT model) | |
| (7) Engine coolant reservoir tank cap | (18) ATF hose C (AT model) | |
| (8) Over flow hose | (19) ATF hose D (AT model) | |
| (9) Engine coolant reservoir tank | (20) Radiator hose B | |
| (10) Radiator sub fan shroud | (21) Radiator drain plug | |
| (11) Radiator sub fan, radiator sub fan motor ASSY | | |

Tightening torque: N·m (kgf·m, ft·lb)

T1: 5 (0.5, 3.6)

T2: 7.5 (0.76, 5.5)

T3: 12 (1.2, 8.9)

T4: 3.4 (0.35, 2.5)

T5: 3 (0.3, 2.2)

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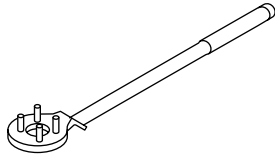
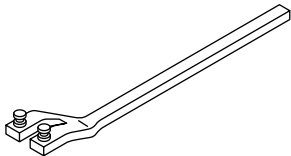
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C: CAUTION

- Wear appropriate work clothing, including a cap, protective goggles and protective shoes when performing any work.
- Remove contamination including dirt and corrosion before removal, installation or disassembly.
- Keep the disassembled parts in order and protect them from dust and dirt.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly and replacement.
- Vehicle components are extremely hot after driving. Be wary of receiving burns from heated parts.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or rigid racks at the specified points.
- Before disconnecting connectors of sensors or units, be sure to disconnect the ground cable from the battery.

D: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST-499977100	499977100	CRANK PULLEY WRENCH	Used for stopping the rotation of crank pulley when removing and tightening the crank pulley bolt.
 ST18231AA010	18231AA010	CAM SPROCKET WRENCH	<ul style="list-style-type: none">• Used for removing and installing cam sprocket.• CAM SPROCKET WRENCH (499207100) can also be used.