1. General Description

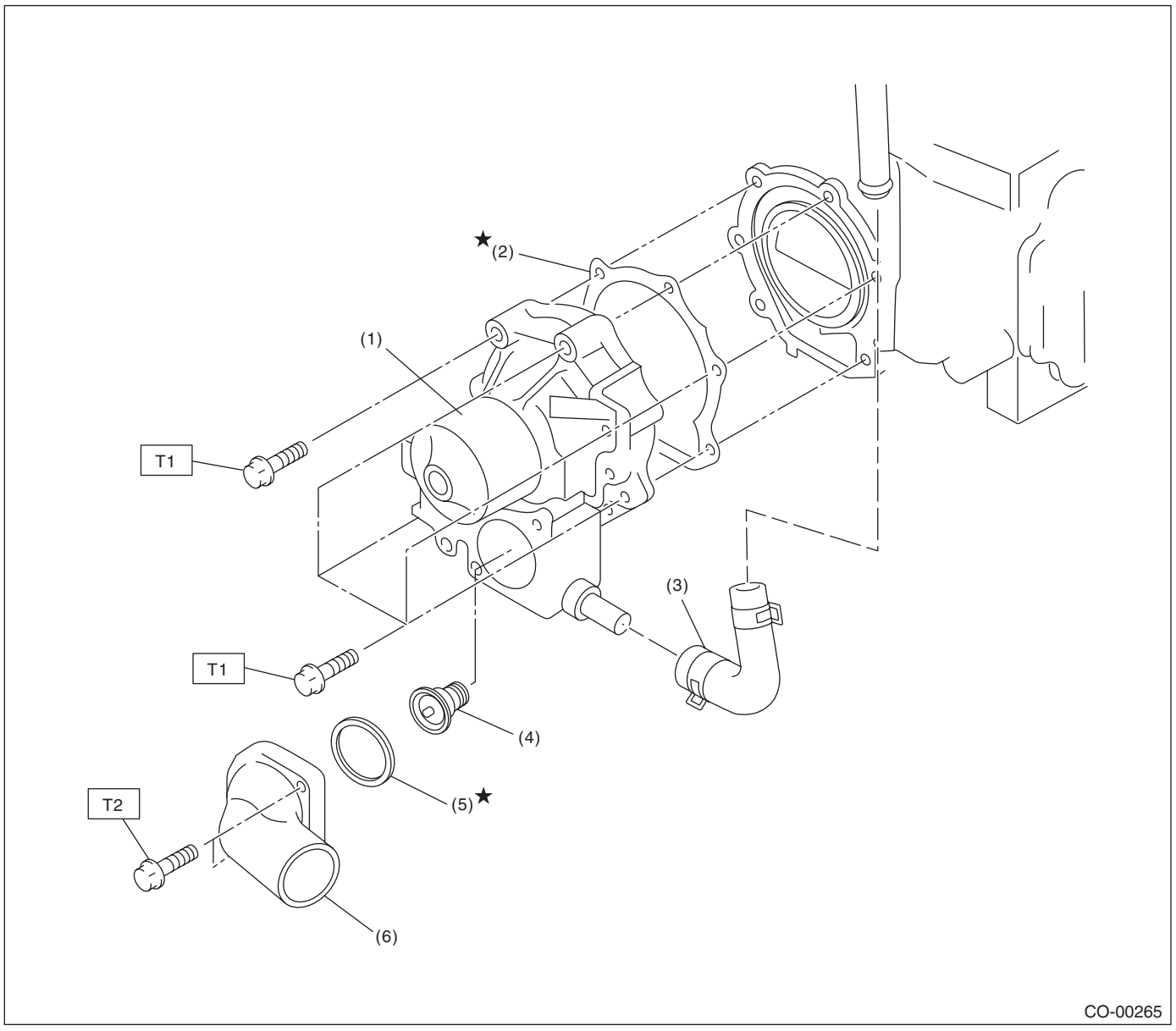
A: SPECIFICATION

Cooling system				Electric fan + Forced engine coolant circulation system
Total engine coolant capacity ℓ (US qt, Imp qt)				MT: approx. 6.4 (6.8, 5.6) AT: Approx. 6.3 (6.7, 5.5)
Water pump	Type			Centrifugal impeller type
	Discharge performance I	Discharge rate ℓ (US gal, Imp gal) /min		20 (5.3, 4.4)
		Pump speed — Discharge pressure		760 rpm — 2.9 kPa (0.3 mAq)
		Engine coolant temperature		80°C (176°F)
	Discharge performance II	Discharge rate ℓ (US gal, Imp gal) /min		100 (26.4, 22.0)
		Pump speed — Discharge pressure		3,000 rpm —49 kPa (5.0 mAq)
		Engine coolant temperature		80°C (176°F)
	Discharge performance III	Discharge rate ℓ (US gal, Imp gal) /min		200 (52.8, 44.0)
		Pump speed — Discharge pressure		6,000 rpm — 225.4 kPa (23 mAq)
		Engine coolant temperature		80°C (176°F)
	Impeller diameter mm (in)			76 (2.99)
	Number of impeller vanes			8
	Pump pulley diameter mm (in)			60 (2.36)
	Clearance between impeller and case		Standard mm (in)	0.5 — 1.5 (0.020 — 0.060)
Thermostat	Type			Wax pellet type
	Starting temperature to open			80 — 84°C (176 — 183°F)
	Fully opens			95°C (203°F)
	Valve lift mm (in)			9.0 (0.354) or more
	Valve bore mm (in)			35 (1.38)
Radiator fan	Motor input	Main fan		90 W
		Sub fan		90 W
	Fan diameter / Blade	Main fan		300 mm (11.81 in)/4
		Sub fan		300 mm (11.81 in)/5
Radiator	Type			Down flow, pressure type
	Core dimensions	Width × Height × Thickness mm (in)		687.4 × 340 × 16 (27.06 × 13.39 × 0.63)
	Pressure range in which cap valve is open kPa (kg/cm^2, psi)			Above: 108±15 or more (1.1±0.15, 16±2) Below: –1.0 — –4.9 or less (–0.01 — –0.05, –0.1 — –0.7)
	Fins			Corrugated fin type
Reservoir tank	Capacity ℓ (US qt, Imp qt)			0.45 (0.48, 0.40)

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
Driving speed 19 km/h (12 MPH) or less Driving speed 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

B: COMPONENT

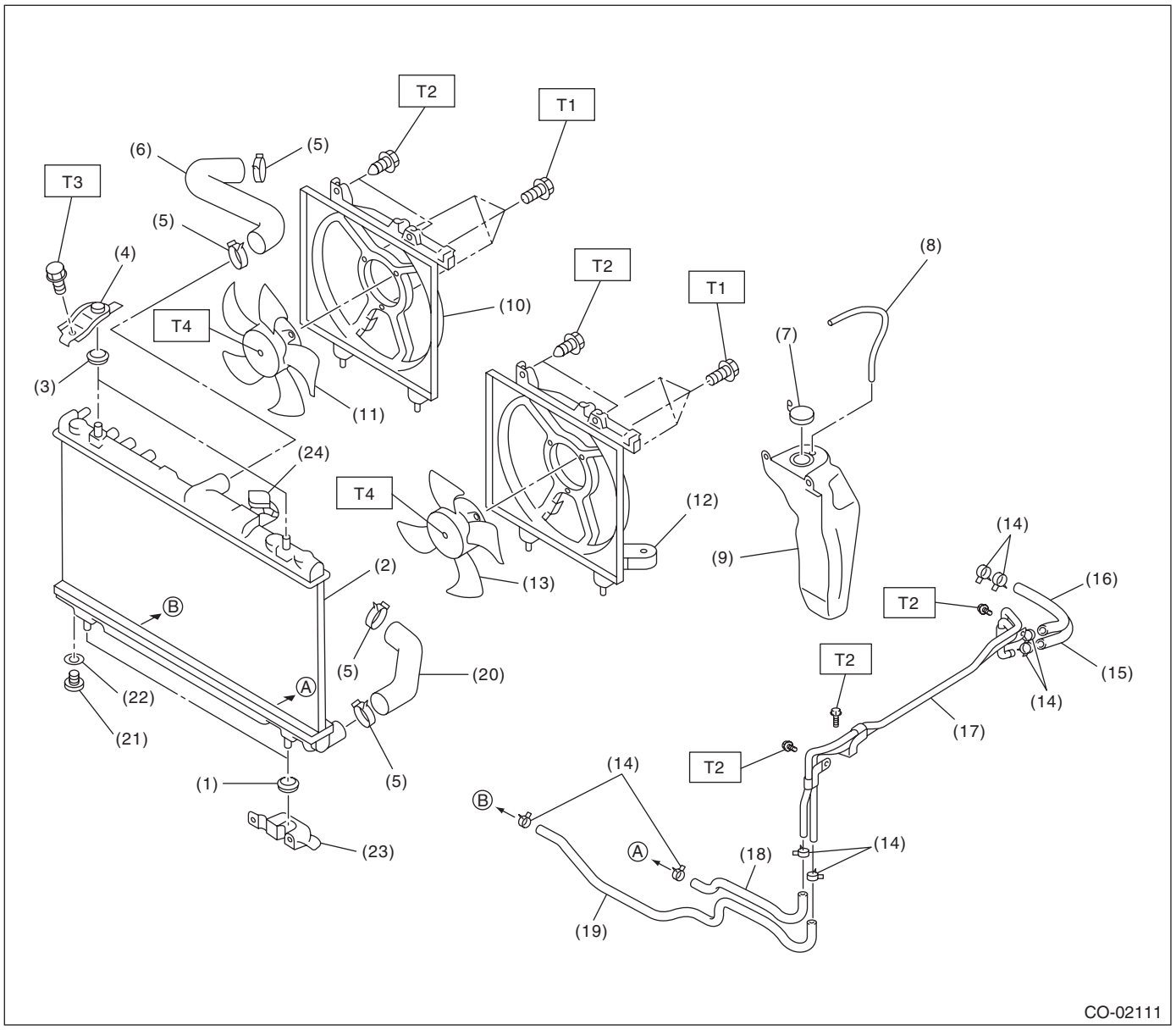
1. WATER PUMP



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



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

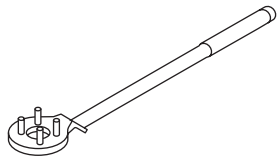
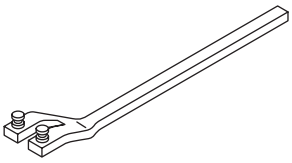
Tightening torque: N·m (kgf-m, ft-lb)
T1: 5 (0.5, 3.6)
T2: 7.5 (0.76, 5.5)
T3: 12 (1.2, 8.9)
T4: 3.4 (0.35, 2.5)

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	• Used for removing and installing cam sprocket. • CAM SPROCKET WRENCH (499207100) can also be used.