

General Description

FUEL INJECTION (FUEL SYSTEMS)

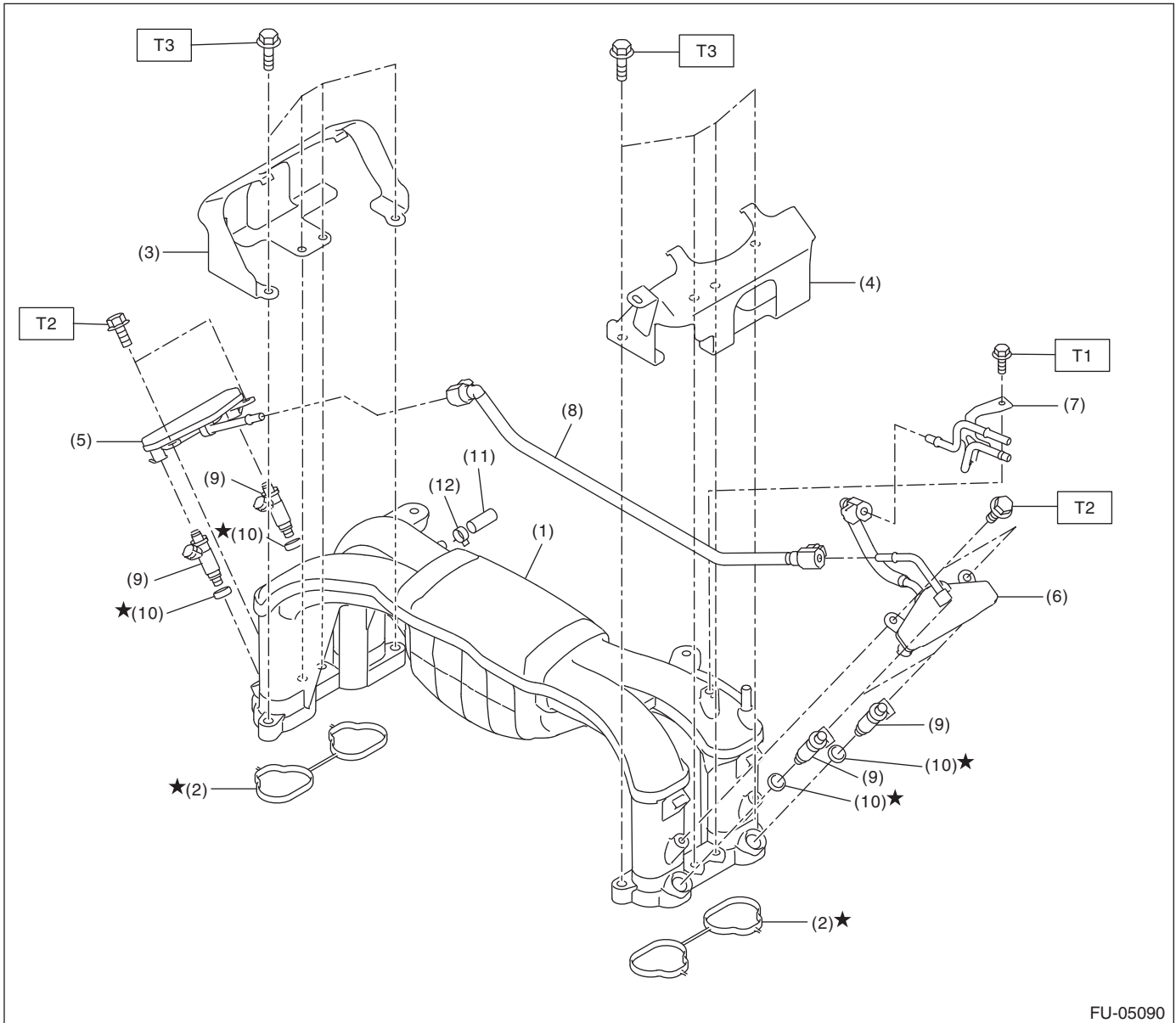
1. General Description

A: SPECIFICATION

Fuel tank	Capacity	70 ℓ (18.5 US gal, 15.4 Imp gal)
	Install locations	Under rear seat
Fuel pump	Type	Impeller
	Shutoff discharge pressure	677 kPa (6.9 kgf/cm ² , 98.2 psi) or less
	Discharge rate	105 ℓ (27.7 US gal, 23.1 Imp gal) [12 V at 300 kPa (3.06 kgf/cm ² , 43.5 psi)]
Fuel filter		In-tank type

B: COMPONENT

1. INTAKE MANIFOLD



FU-05090

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|----------------------------------|------------------------|
| (1) Intake manifold | (7) Fuel pipe |
| (2) Gasket | (8) Fuel delivery pipe |
| (3) Intake manifold protector RH | (9) Injector |
| (4) Intake manifold protector LH | (10) O-ring |
| (5) Fuel gallery RH | (11) Cap |
| (6) Fuel gallery LH | (12) Clip |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 6.4 (0.7, 4.7)

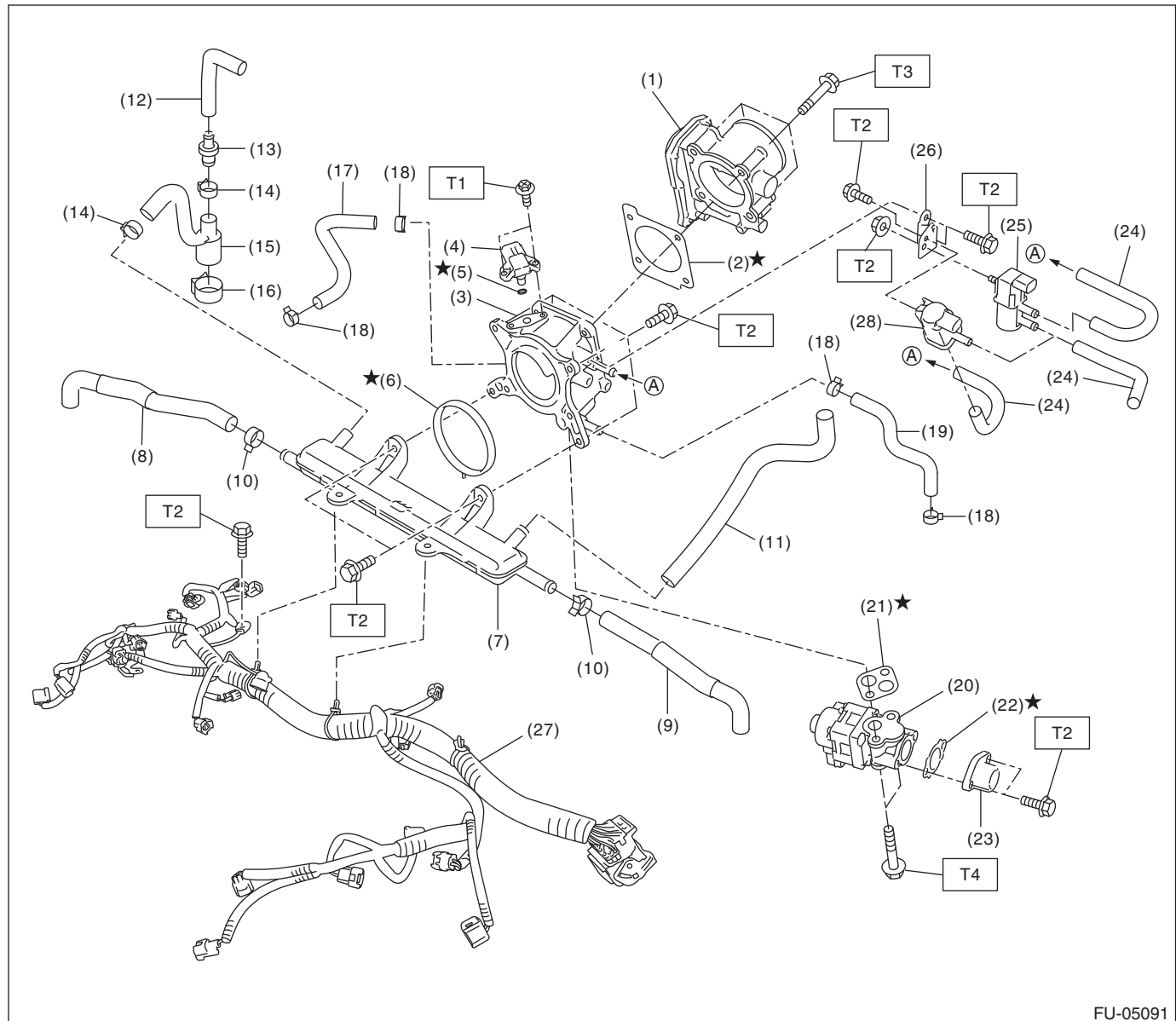
T2: 19 (1.9, 14.0)

T3: 25 (2.5, 18.4)

General Description

FUEL INJECTION (FUEL SYSTEMS)

2. AIR INTAKE SYSTEM



FU-05091

(1) Throttle body	(13) PCV valve	(25) Purge control solenoid valve (U6 model)
(2) Gasket	(14) Clip	(26) Bracket
(3) Multi-function duct	(15) PCV hose ASSY	(27) Engine harness
(4) Manifold absolute pressure sensor	(16) Clip	(28) Purge control solenoid valve (U5 model)
(5) O-ring	(17) Heater hose A	
(6) Gasket	(18) Clip	
(7) PCV pipe	(19) Heater hose B	
(8) PCV hose A	(20) EGR valve	
(9) PCV hose B	(21) Gasket	
(10) Clip	(22) Gasket	
(11) PCV hose C	(23) EGR pipe adapter	
(12) PCV hose D	(24) Evaporation hose	

Tightening torque: N·m (kgf-m, ft-lb)

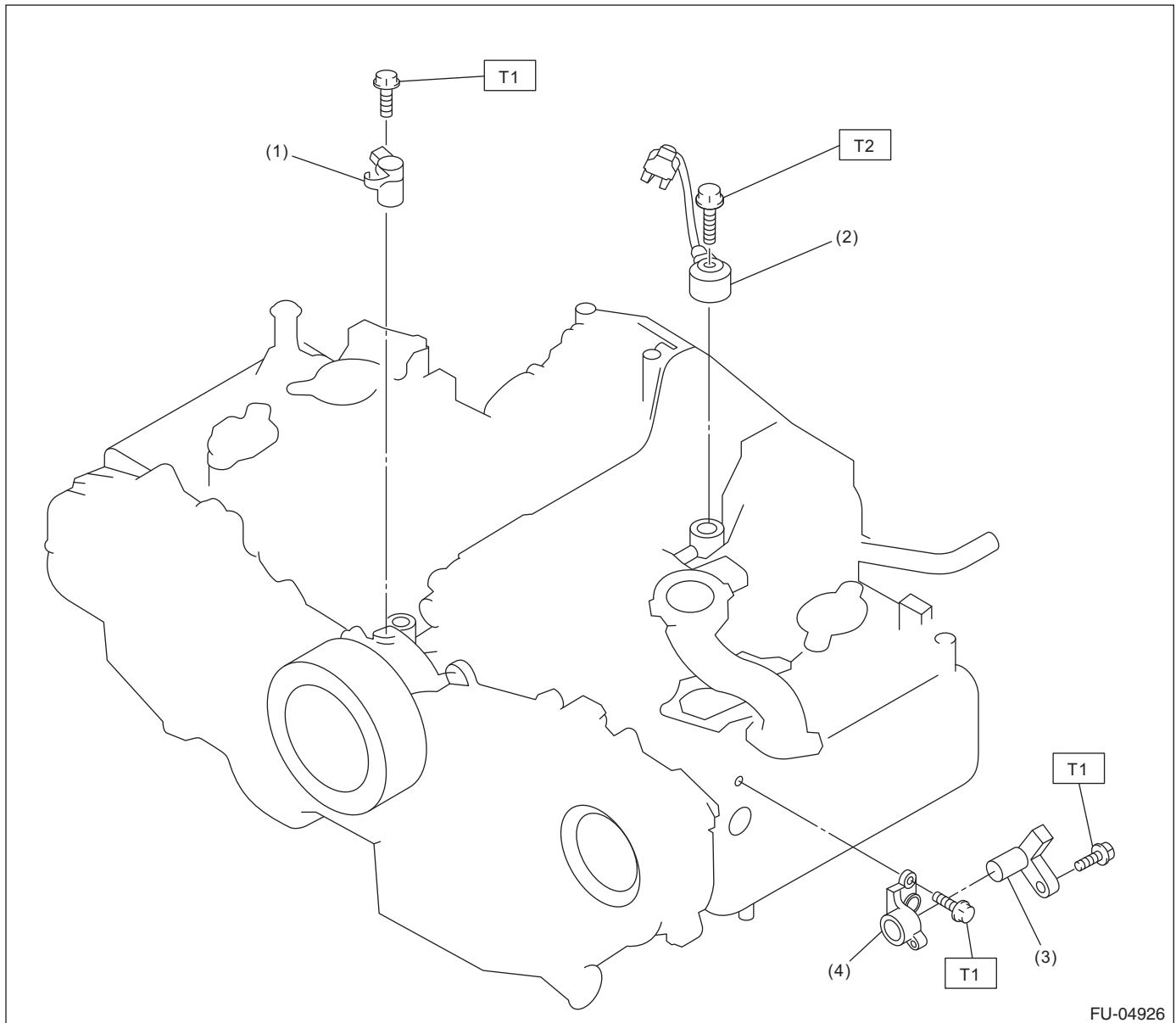
T1: 2 (0.2, 1.5)

T2: 6.4 (0.7, 4.7)

T3: 8 (0.8, 5.9)

T4: 19 (1.9, 14.0)

3. CRANKSHAFT POSITION, CAMSHAFT POSITION AND KNOCK SENSORS



FU-04926

(1) Crankshaft position sensor

(2) Knock sensor

(3) Camshaft position sensor

(4) Camshaft position sensor support

Tightening torque: N·m (kgf-m, ft-lb)

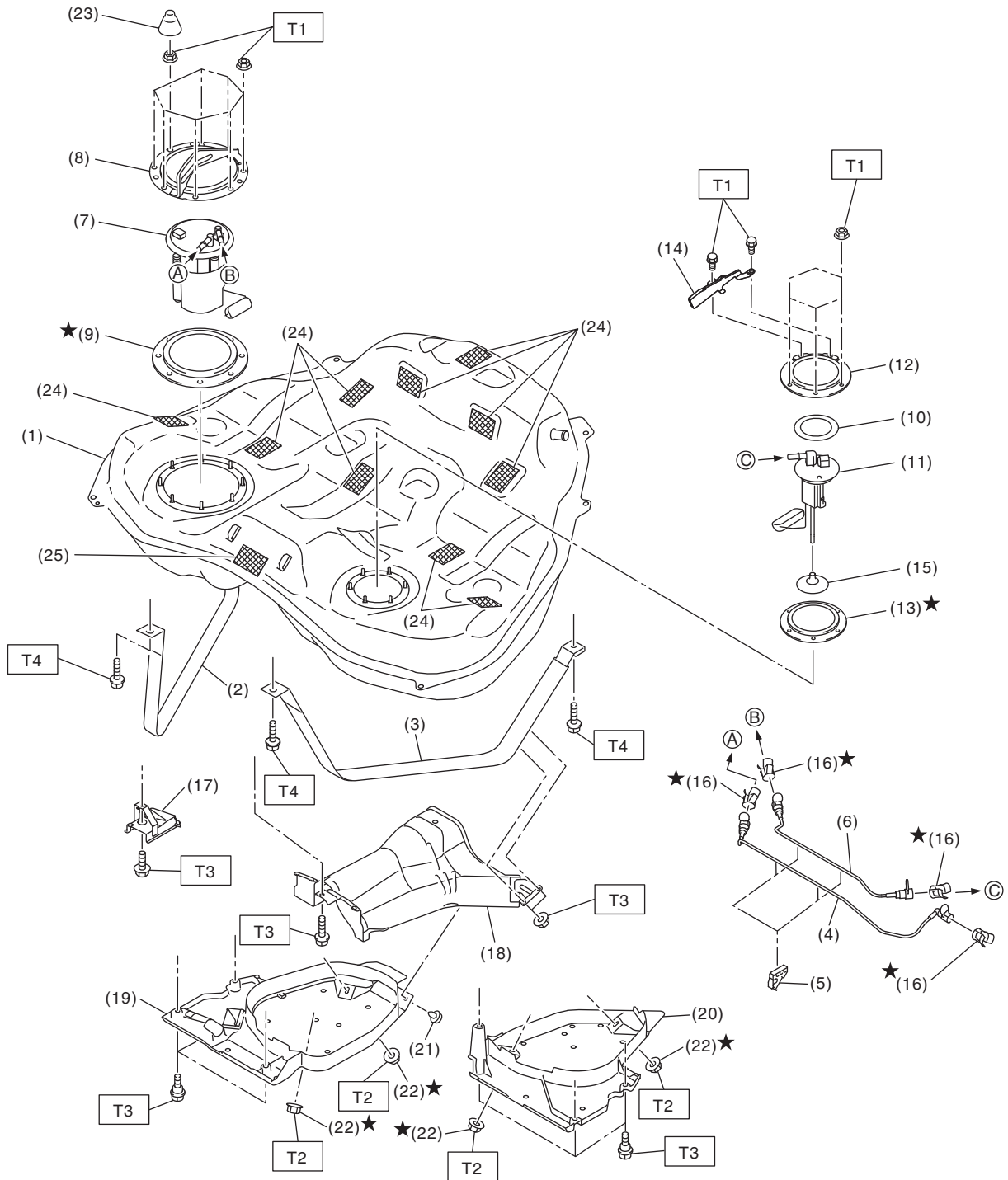
T1: 6.4 (0.7, 4.7)

T2: 24 (2.4, 17.7)

General Description

FUEL INJECTION (FUEL SYSTEMS)

4. FUEL TANK



FU-05148

General Description

FUEL INJECTION (FUEL SYSTEMS)

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|--|--|-----------------|
| (1) Fuel tank | (12) Fuel sub level sensor upper plate | (23) Rubber cap |
| (2) Fuel tank band RH | (13) Fuel sub level sensor gasket | (24) Cushion |
| (3) Fuel tank band LH | (14) Fuel sub level sensor protector | (25) Cushion |
| (4) Fuel delivery tube | (15) Fuel sub level sensor filter | |
| (5) Tube clamp | (16) Retainer | |
| (6) Fuel sub delivery tube | (17) Stopper | |
| (7) Fuel pump ASSY | (18) Heat shield cover | |
| (8) Fuel pump upper plate | (19) Fuel tank protector RH | |
| (9) Fuel pump gasket | (20) Fuel tank protector LH | |
| (10) Fuel sub level sensor upper plate cushion | (21) Clip | |
| (11) Fuel sub level sensor | (22) Self-locking nut | |

Tightening torque:N·m (kgf-m, ft-lb)

T1: 4.4 (0.4, 3.2)

T2: 9 (0.9, 6.6)

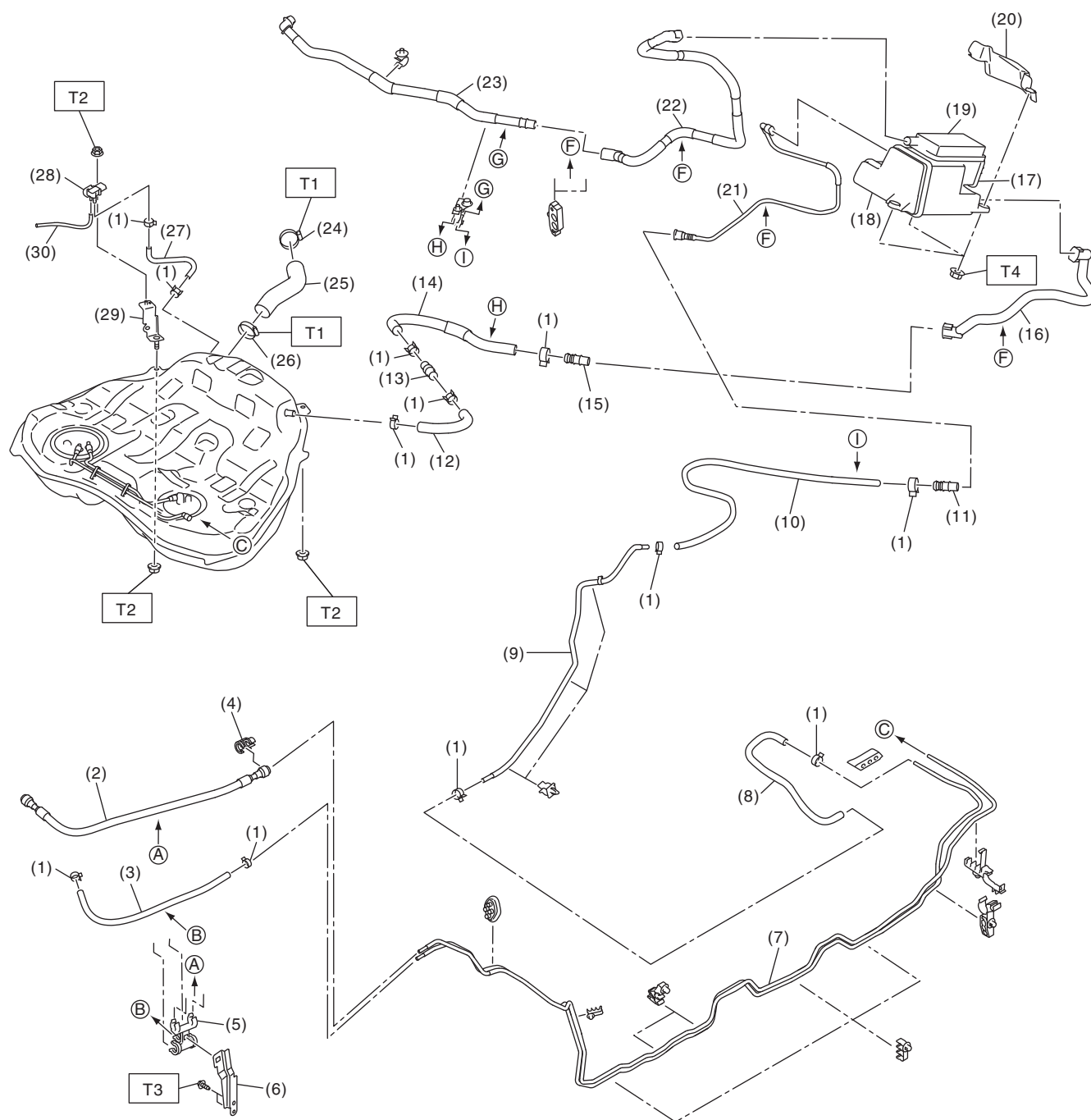
T3: 18 (1.8, 13.3)

T4: 33 (3.4, 24.3)

General Description

FUEL INJECTION (FUEL SYSTEMS)

5. FUEL LINE



FU-05092

General Description

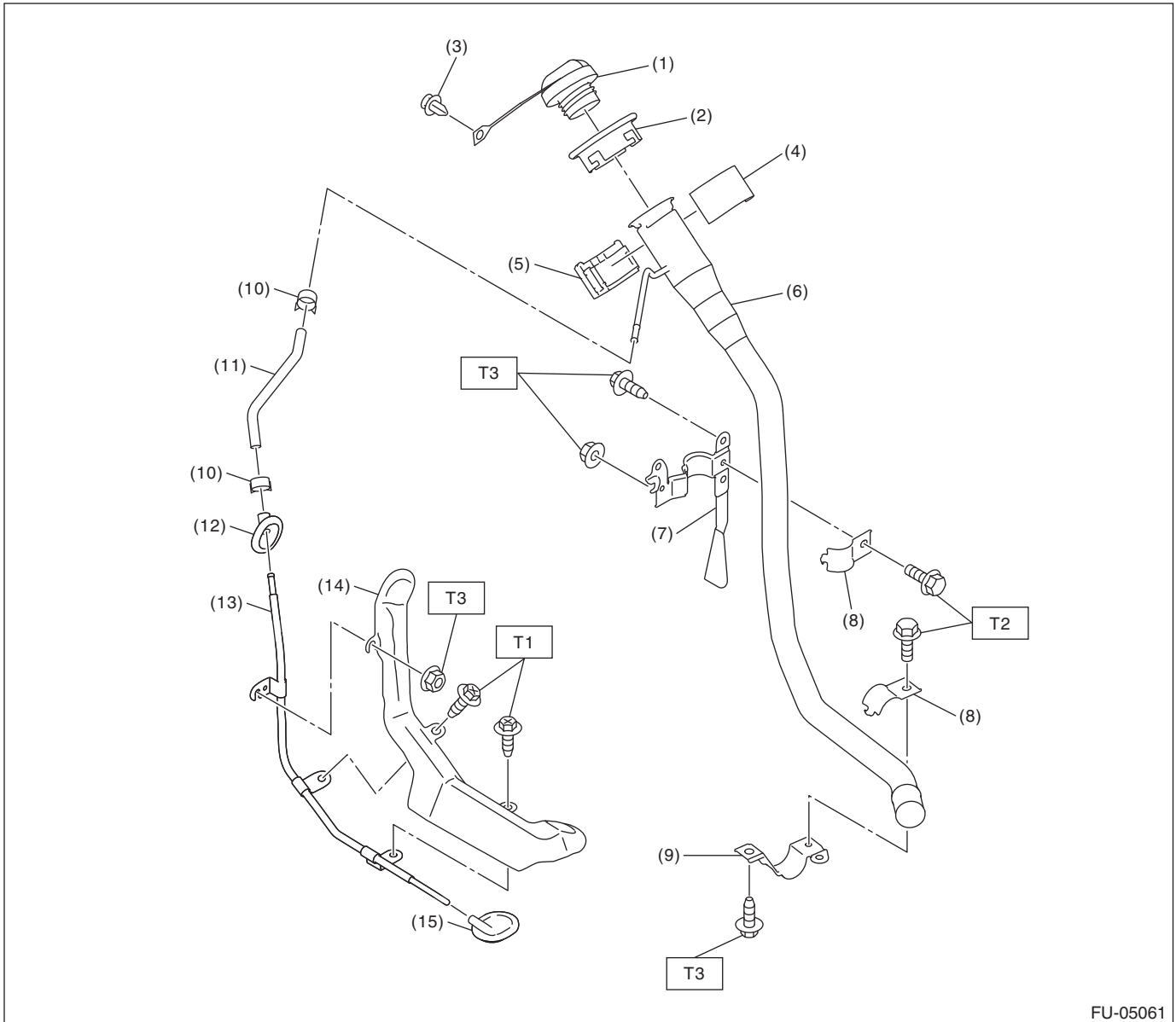
FUEL INJECTION (FUEL SYSTEMS)

(1) Clip	(13) Circulate tube	(25) Fuel filler hose
(2) Fuel delivery hose	(14) Air vent tube	(26) Clamp
(3) Connect check cover	(15) Circulate hose	(27) Fuel tank pressure sensor bracket
(4) Evaporation hose	(16) Vent tube	(28) Pressure hose
(5) Fuel hose clamp	(17) Drain valve	(29) Fuel tank pressure sensor
(6) Bracket	(18) Canister	(30) Vacuum hose
(7) Fuel pipe ASSY	(19) Drain filter	
(8) Purge hose A	(20) Canister protector	<i>Tightening torque:N·m (kgf-m, ft-lb)</i>
(9) Purge pipe	(21) Charge tube	<i>T1: 2.5 (0.3, 1.8)</i>
(10) Purge hose B	(22) Canister drain tube	<i>T2: 7.35 (0.7, 5.4)</i>
(11) Connector	(23) Drain tube ASSY	<i>T3: 7.5 (0.8, 5.5)</i>
(12) Air vent hose A	(24) Clamp	<i>T4: 8 (0.8, 5.9)</i>

General Description

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6. FUEL FILLER PIPE



FU-05061

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|--------------------------------|---------------------------------|--------------|
| (1) Fuel filler cap | (8) Fuel filler pipe bracket B | (15) Grommet |
| (2) Fuel filler pipe protector | (9) Fuel filler pipe bracket C | |
| (3) Clip | (10) Clip | |
| (4) Neck holder A | (11) Evaporation hose | |
| (5) Neck holder B | (12) Grommet | |
| (6) Fuel filler pipe | (13) Evaporation pipe | |
| (7) Fuel filler pipe bracket A | (14) Evaporation pipe protector | |

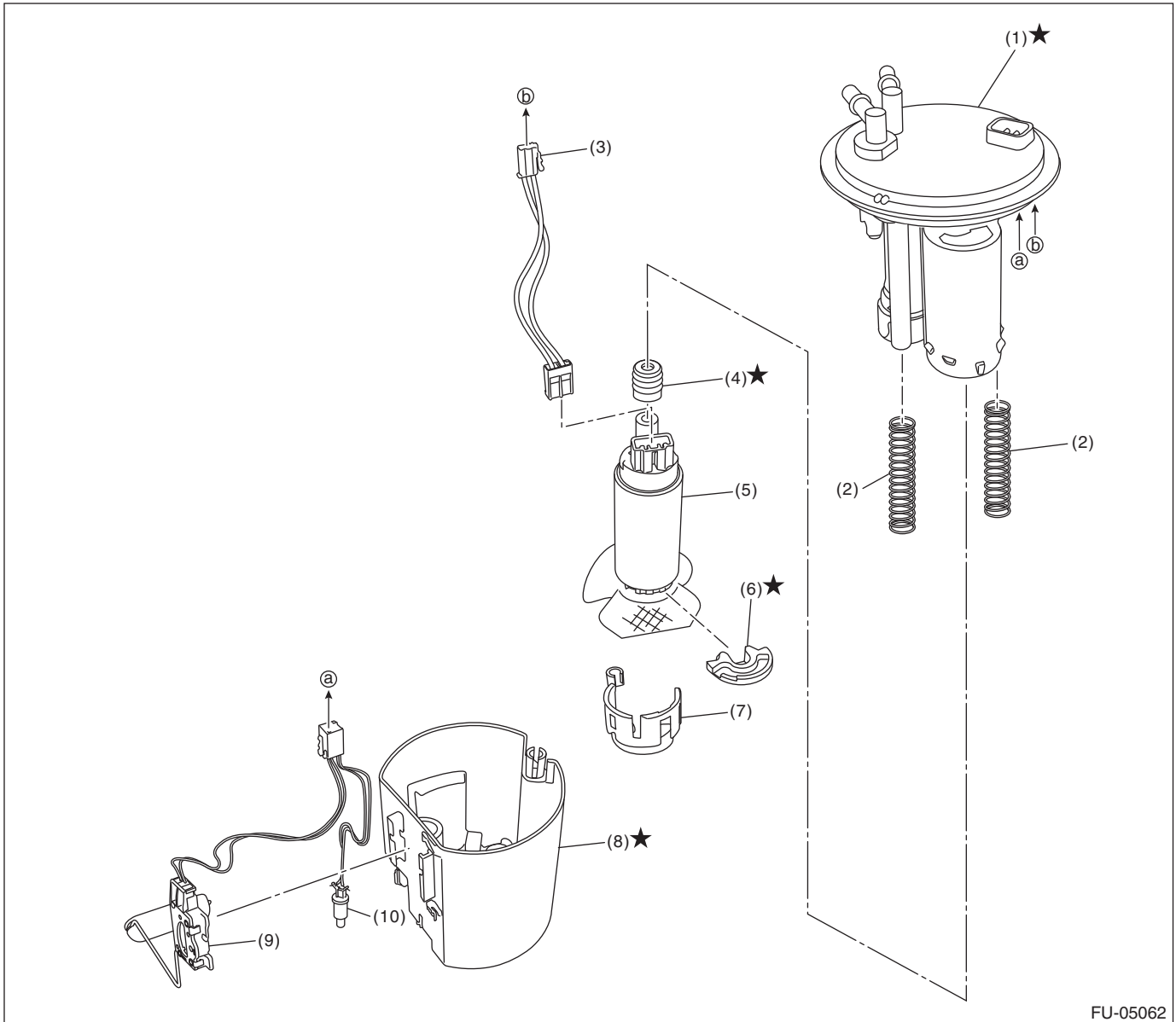
Tightening torque: N·m (kgf-m, ft-lb)

T1: 1 (0.1, 0.7)

T2: 7.35 (0.7, 5.4)

T3: 7.5 (0.8, 5.5)

7. FUEL PUMP



FU-05062

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|--------------------------|----------------------------|------------------------------|
| (1) Fuel filter assembly | (5) Fuel pump | (9) Fuel level sensor |
| (2) Pump module spring | (6) Support rubber cushion | (10) Fuel temperature sensor |
| (3) Fuel pump harness | (7) Fuel pump holder | |
| (4) Gasket spacer | (8) Fuel chamber ASSY | |

C: CAUTION

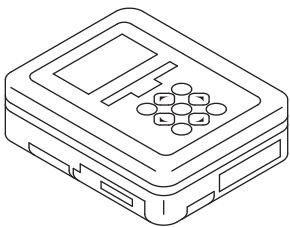
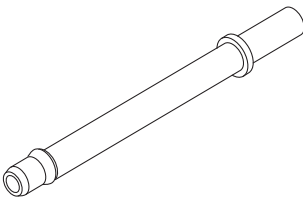
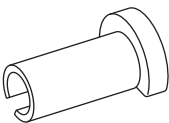
- Wear appropriate work clothing, including a cap, protective goggles and protective shoes when performing any work.
- Remove contamination including dirt and corrosion before removal, installation or disassembly.
- Keep the disassembled parts in order and protect them from dust and dirt.
- Before removal, 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 battery.
- Place “NO OPEN FLAMES” signs near the working area.
- Prepare a container and cloth to prevent scattering of fuels when performing work where fuels can be spilled. If the oil spills, wipe it off immediately to prevent from penetrating into floor or flowing out for environmental protection.
- Follow all government and local regulations concerning disposal of refuse when disposing fuel.

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D: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for draining fuel and each inspection.
 ST18471AA000	18471AA000	FUEL PIPE ADAPTER	Used for draining fuel.
 ST42099AE000	42099AE000	QUICK CONNECTOR RELEASE	Used for disconnecting quick connector of the engine compartment.

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.
Oscilloscope	Used for inspecting the waveform of each sensor.