

General Description

FUEL INJECTION (FUEL SYSTEMS)

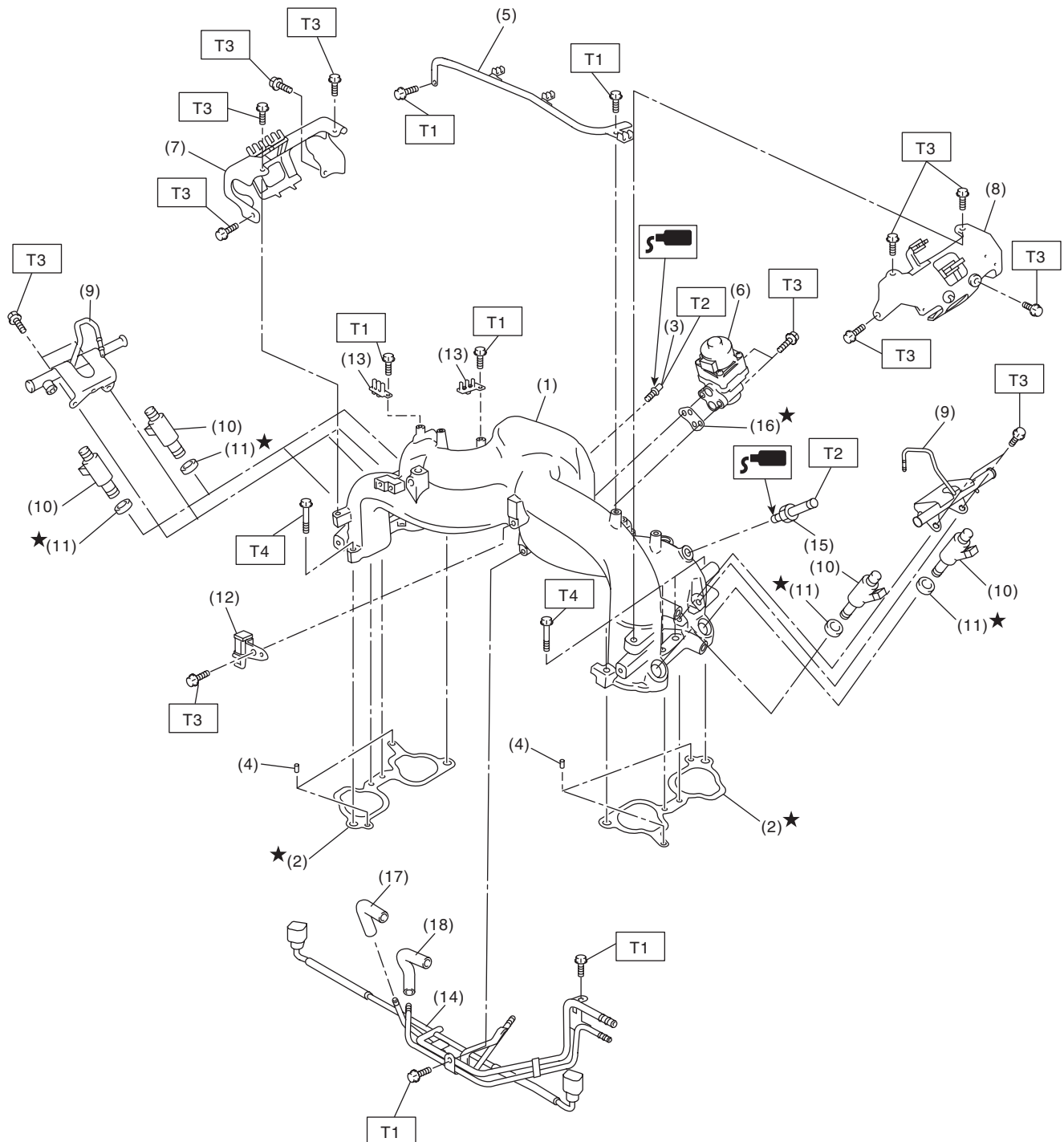
1. General Description

A: SPECIFICATION

Fuel tank	Capacity	64 ℓ (16.9 US gal, 14.1 Imp gal)
	Location	Under rear seat
Fuel pump	Type	Impeller
	Shutoff discharge pressure	550 — 850 kPa (5.6 — 8.7 kg/cm ² , 79.7 — 123.2 psi)
	Discharge rate	125 ℓ (33 US gal, 27.5 Imp gal)/h or more [12 V at 300 kPa (3.06 kg/cm ² , 43.5 psi)]
Fuel filter		In-tank type

B: COMPONENT

1. INTAKE MANIFOLD



FU-04391

General Description

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- | | | |
|----------------------------|-----------------------------------|---------------------------|
| (1) Intake manifold | (9) Fuel injector pipe | (17) Evaporation hose (A) |
| (2) Gasket | (10) Fuel injector | (18) Evaporation hose (B) |
| (3) Nipple | (11) O-ring | |
| (4) Guide pin | (12) Purge control solenoid valve | |
| (5) Plug cord stay | (13) Plug cord holder | |
| (6) EGR valve | (14) Fuel pipe ASSY | |
| (7) Fuel pipe protector RH | (15) Nipple | |
| (8) Fuel pipe protector LH | (16) Gasket | |

Tightening torque: N·m (kgf-m, ft-lb)

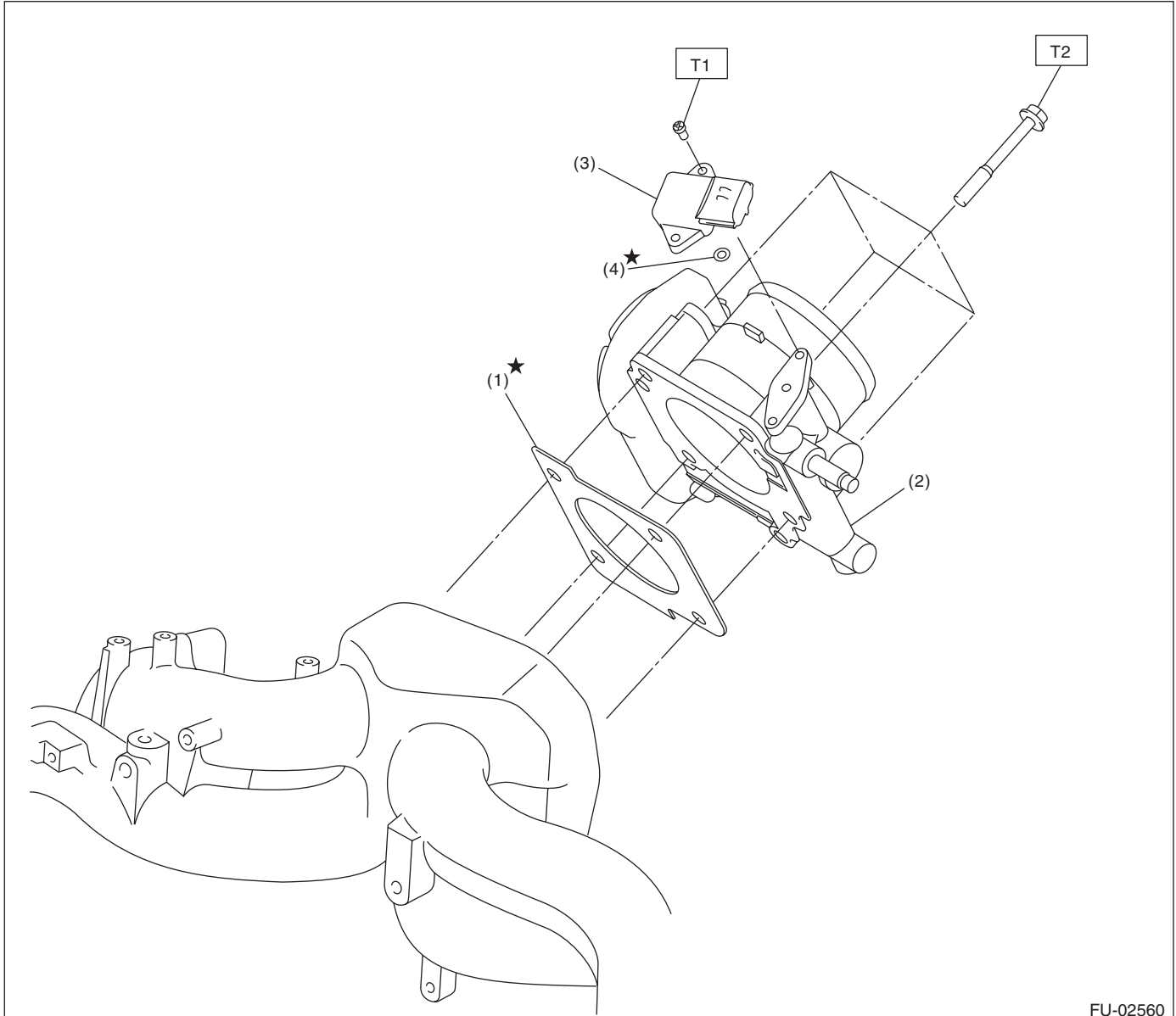
T1: 6.4 (0.7, 4.7)

T2: 17 (1.7, 12.5)

T3: 19 (1.9, 14.0)

T4: 25 (2.5, 18.4)

2. AIR INTAKE SYSTEM



FU-02560

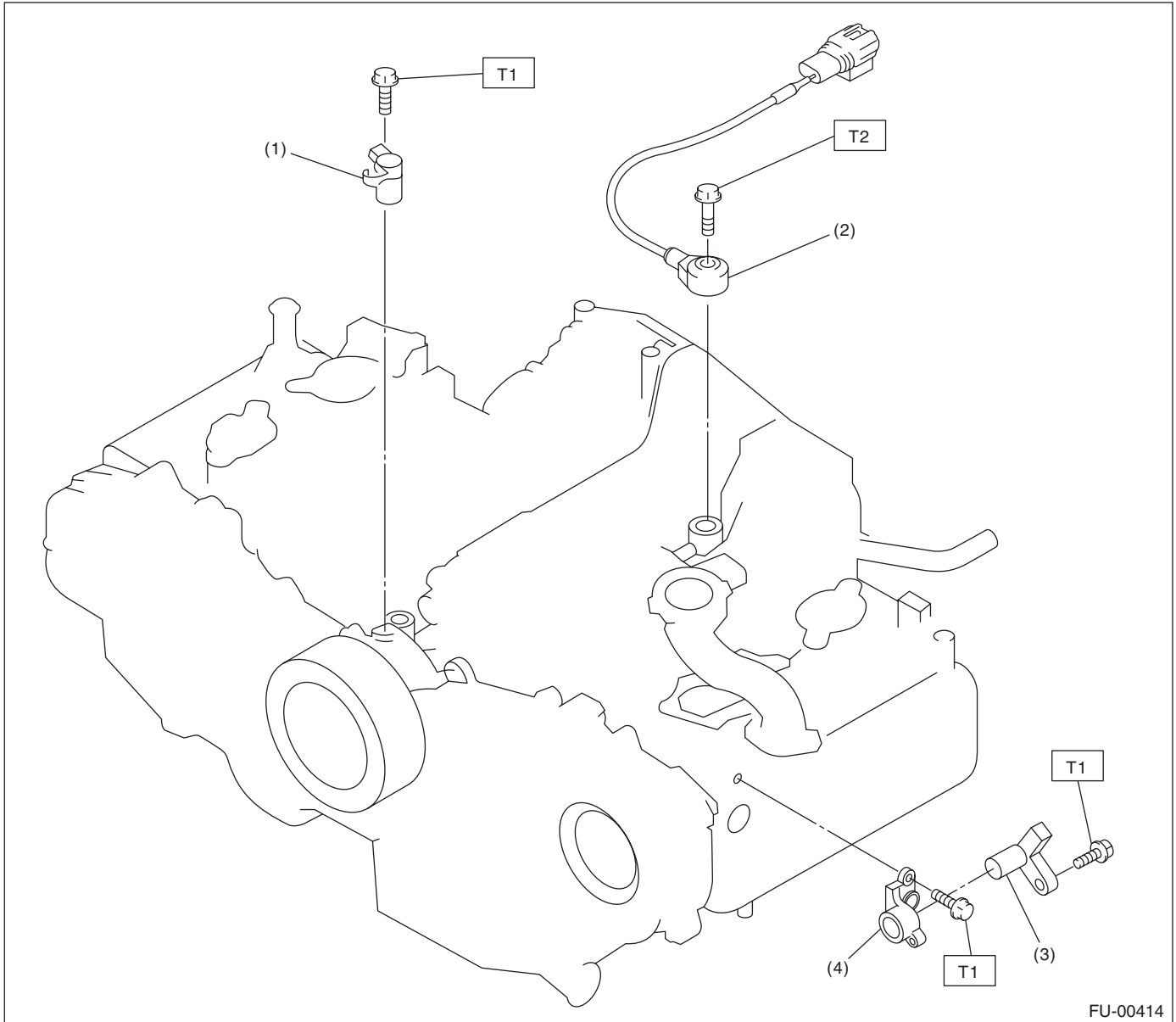
- | | |
|---------------------------------------|------------|
| (1) Gasket | (4) O-ring |
| (2) Throttle body | |
| (3) Manifold absolute pressure sensor | |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 2 (0.2, 1.5)

T2: 8 (0.8, 5.9)

3. CRANKSHAFT POSITION, CAMSHAFT POSITION AND KNOCK SENSORS



- (1) Crankshaft position sensor
- (2) Knock sensor
- (3) Camshaft position sensor

- (4) Camshaft position sensor support

Tightening torque: N·m (kgf-m, ft-lb)

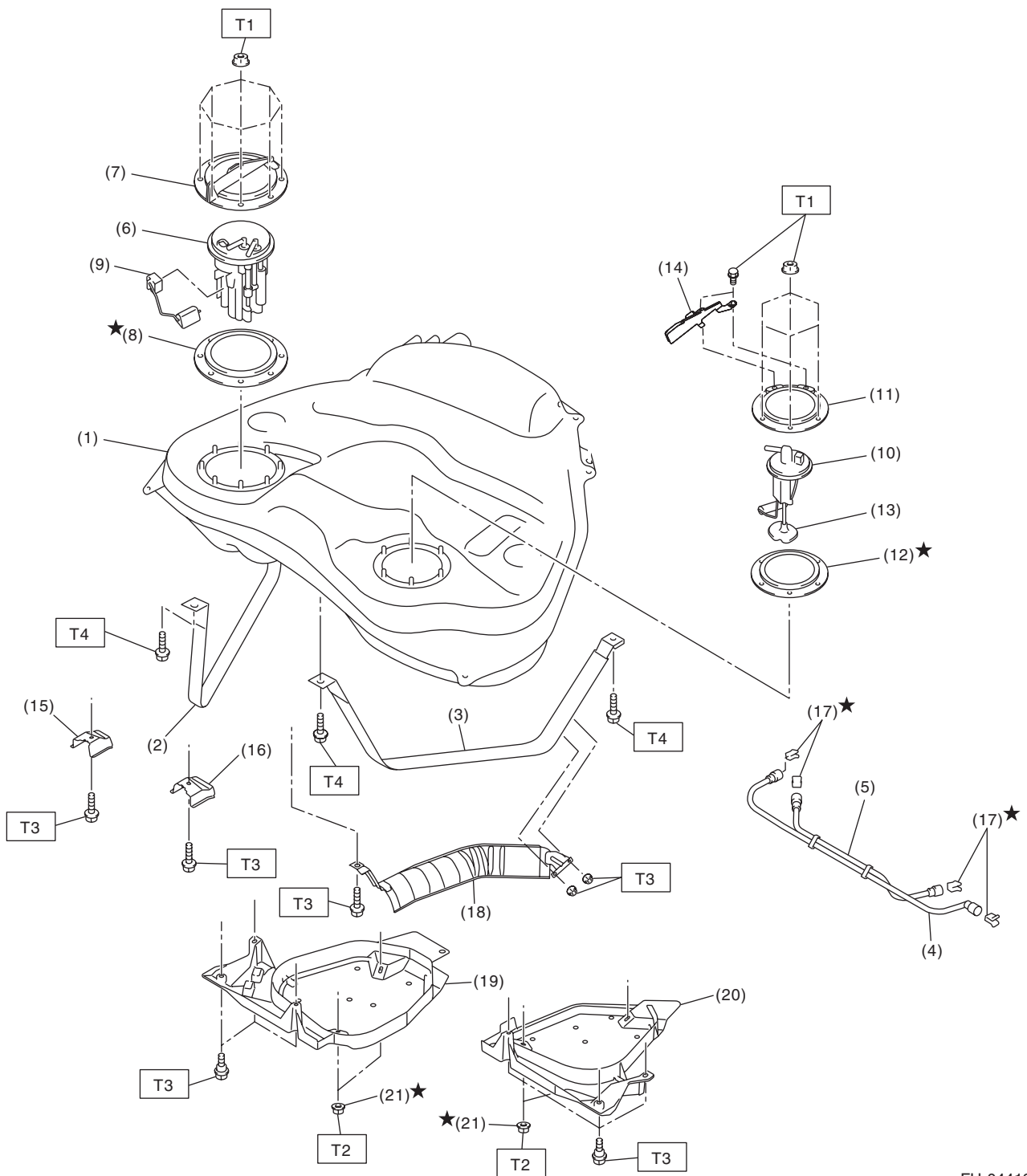
T1: 6.4 (0.7, 4.7)

T2: 24 (2.4, 17.7)

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4. FUEL TANK



FU-04412

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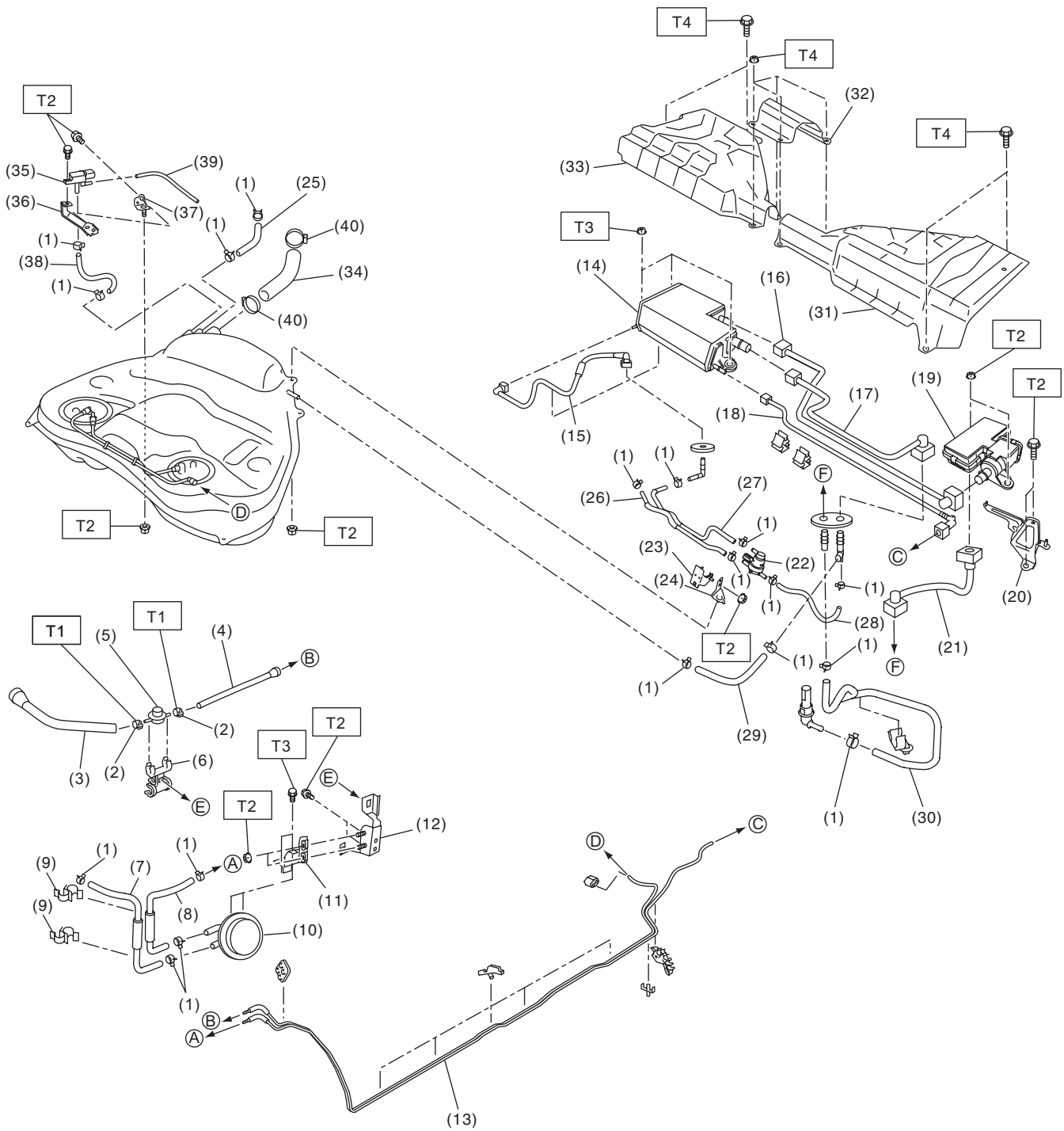
(1) Fuel tank	(10) Fuel sub level sensor	(19) Fuel tank protector RH
(2) Fuel tank band RH	(11) Fuel sub level sensor upper plate	(20) Fuel tank protector LH
(3) Fuel tank band LH	(12) Fuel sub level sensor gasket	(21) Self-locking nut
(4) Delivery tube	(13) Fuel sub level sensor filter	
(5) Jet pump tube	(14) Fuel sub level sensor protector	
(6) Fuel pump ASSY	(15) Stopper RH	
(7) Fuel pump upper plate	(16) Stopper LH	
(8) Fuel pump gasket	(17) Retainer	
(9) Fuel level sensor	(18) Heat shield cover	

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)***

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5. FUEL LINE



FU-03433

FU(H4SO)-8

General Description

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(1) Clip	(17) Vent tube	(33) Canister cover RH
(2) Clamp	(18) Purge tube	(34) Fuel filler hose
(3) Fuel delivery hose A	(19) Drain valve	(35) Fuel tank pressure sensor
(4) Fuel delivery hose B	(20) Drain valve bracket	(36) Fuel tank pressure sensor bracket A
(5) Fuel damper	(21) Drain tube B	(37) Fuel tank pressure sensor bracket B
(6) Fuel damper holder	(22) Pressure control solenoid valve	(38) Pressure hose
(7) Evaporation hose A	(23) Pressure control solenoid valve bracket A	(39) Vacuum hose
(8) Evaporation hose B	(24) Pressure control solenoid valve bracket B	(40) Clamp
(9) Clamp	(25) Evaporation hose A	
(10) Purge damper valve	(26) Evaporation hose B	
(11) Purge damper valve bracket A	(27) Evaporation hose C	
(12) Purge damper valve bracket B	(28) Evaporation hose D	
(13) Fuel pipe ASSY	(29) Evaporation hose E	
(14) Canister	(30) Canister drain hose	
(15) PCV drain tube	(31) Canister cover LH	
(16) Drain tube A	(32) Center canister cover	

Tightening torque: N·m (kgf-m, ft-lb)

T1: 1.25 (0.1, 0.9)

T2: 7.5 (0.8, 5.5)

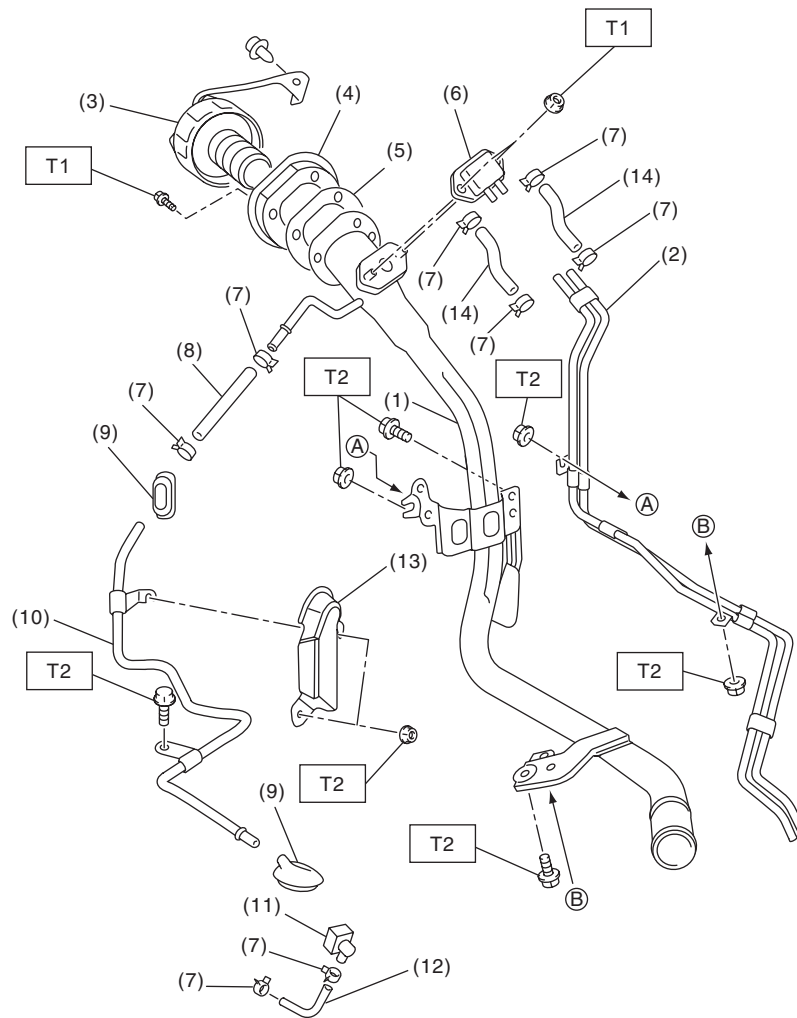
T3: 8 (0.8, 5.9)

T4: 18 (1.8, 13.3)

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6. FUEL FILLER PIPE



FU-04295

- (1) Fuel filler pipe ASSY
- (2) Evaporation pipe A
- (3) Fuel filler cap
- (4) Filler ring
- (5) Filler pipe gasket
- (6) Shut valve

- (7) Clip
- (8) Evaporation hose A
- (9) Grommet
- (10) Evaporation pipe B
- (11) Quick connector
- (12) Evaporation hose B

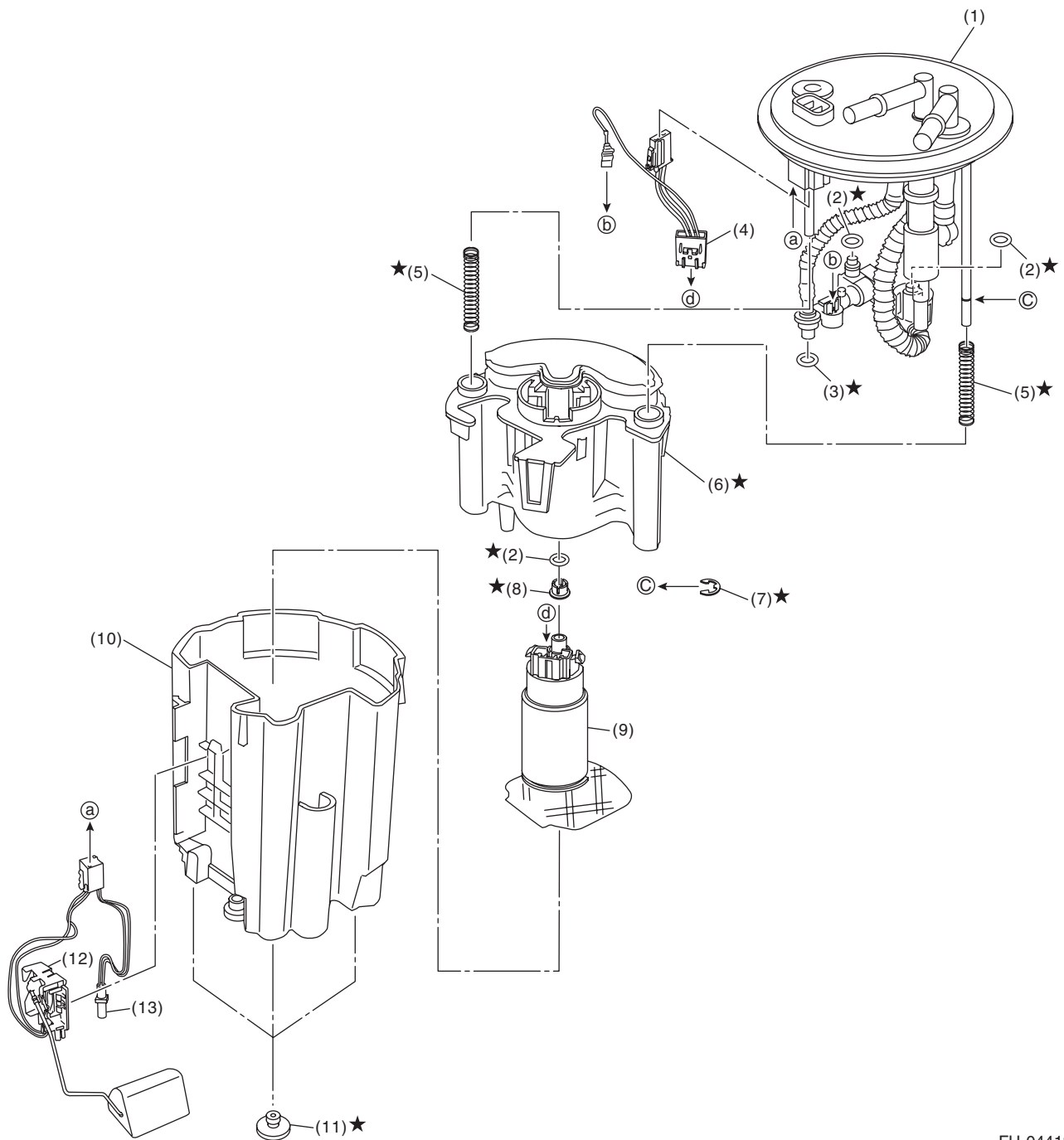
- (13) Evaporation pipe protector
- (14) Evaporation hose C

Tightening torque: N·m (kgf-m, ft-lb)

T1: 4.4 (0.4, 3.2)

T2: 7.5 (0.8, 5.5)

7. FUEL PUMP



FU-04413

- | | | |
|---------------------------|-----------------|------------------------------|
| (1) Sub tank bracket ASSY | (6) Fuel filter | (11) Cushion |
| (2) O-ring | (7) Clip | (12) Fuel level sensor |
| (3) O-ring | (8) Spacer | (13) Fuel temperature sensor |
| (4) Fuel pump harness | (9) Pump ASSY | |
| (5) Spring | (10) Sub tank | |

C: CAUTION

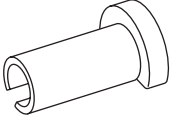
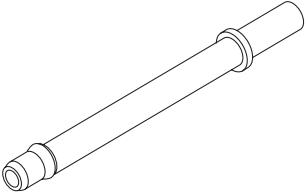
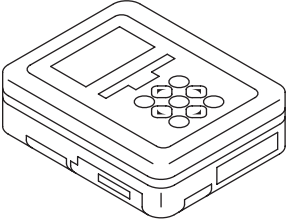
- Wear appropriate work clothing, including a cap, protective goggles and protective shoes when performing any work.
- Remove contamination including dirt and corrosion before removal, installation or disassembly.
- Keep the disassembled parts in order and protect them from dust and dirt.
- Before removal, 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
 ST42099AE000	42099AE000	QUICK CONNECTOR RELEASE	Used for removing the quick connector.
 ST18471AA000	18471AA000	FUEL PIPE ADAPTER	Used for draining fuel.
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for draining fuel and each inspection.

2. GENERAL TOOL

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