

General Description

BRAKE

1. General Description

A: SPECIFICATION

Front disc brake	Size		16-inch type	17-inch type
	Type		Disc (floating type, ventilated)	
	Effective disc diameter	mm (in)	244 (9.61)	261 (10.28)
	Disc thickness × Diameter	mm (in)	24 × 294 (0.94 × 11.57)	30 × 316 (1.18 × 12.44)
	Effective cylinder diameter	mm (in)	42.8 (1.685) × 2	
	Pad dimensions (Length × Width × Thickness)	mm (in)	117.8 × 50.5 × 11.0 (4.638 × 1.988 × 0.433)	130.0 × 53.5 × 11.0 (5.118 × 2.106 × 0.433)
	Clearance adjustment		Automatic adjustment	
Rear disc brake	Size		15-inch type	16-inch type
	Type		Disc (floating type, solid)	Disc (floating type, ventilated)
	Effective disc diameter	mm (in)	238 (9.37)	243 (9.57)
	Disc thickness × Diameter	mm (in)	10 × 274 (0.39 × 10.79)	18 × 278 (0.71 × 10.94)
	Effective cylinder diameter	mm (in)	38.1 (1.500)	40.4 (1.591)
	Pad dimensions (Length × Width × Thickness)	mm (in)	92.0 × 33.0 × 9.0 (3.622 × 1.299 × 0.354)	95.5 × 34.8 × 11.0 (3.759 × 1.370 × 0.433)
	Clearance adjustment		Automatic adjustment	
Master cylinder	Type		Tandem	
	Effective diameter	mm (in)	23.8 (15/16)	
	Reservoir type		Sealed type	
	Brake fluid reservoir capacity	cm ³ (cu in)	240 (12.51)	
Brake booster	Type		Vacuum suspended	
	Effective diameter	mm (in)	208 + 229 (8.19 + 9.02)	
Brake line			Dual circuit system	
Brake fluid			FMVSS No. 116, DOT3 or DOT4 CAUTION: • Avoid mixing brake fluid of different brands to prevent fluid performance from degrading. • When filling with brake fluid, be careful not to allow any dust to enter the reservoir. • Use new SUBARU genuine brake fluid when replacing or refilling the fluid.	

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NOTE:

Refer to “PARKING BRAKE” for parking brake specifications. <Ref. to PB-2, SPECIFICATION, General Description.>

Item			Standard	Limit
Front brake	Pad thickness mm (in)	All models	11 (0.43)	1.5 (0.059)
	Disc thickness mm (in)	16-inch	24 (0.94)	22 (0.87)
		17-inch	30 (1.18)	28 (1.10)
	Disc runout mm (in)	All models	—	0.05 (0.0020)
Rear brake (disc type)	Pad thickness mm (in)	Solid disc	9.0 (0.354)	1.5 (0.059)
	Pad thickness mm (in)	Ventilated disc	11 (0.43)	1.5 (0.059)
	Disc thickness mm (in)	Solid disc	10 (0.39)	8.5 (0.335)
	Disc thickness mm (in)	Ventilated disc	18 (0.71)	16 (0.63)
	Disc runout mm (in)		—	0.05 (0.0020)
Parking brake	Inside diameter mm (in)		170 (6.69)	171 (6.73)
	Lining thickness mm (in)		3.5 (0.14)	1.5 (0.059)

		Brake pedal force N (kgf, lbf)	Fluid pressure kPa (kgf/cm ² , psi)
Brake booster	Brake fluid pressure with engine stopped	147 (15, 33)	553 (5, 77)
		294 (30, 66)	1,551 (16, 225)
	Brake fluid pressure with engine running and vacuum pressure at 66.7 kPa (500 mmHg, 19.69 inHg)	147 (15, 33)	6,177 (63, 896)
		294 (30, 66)	11,273 (115, 1,635)

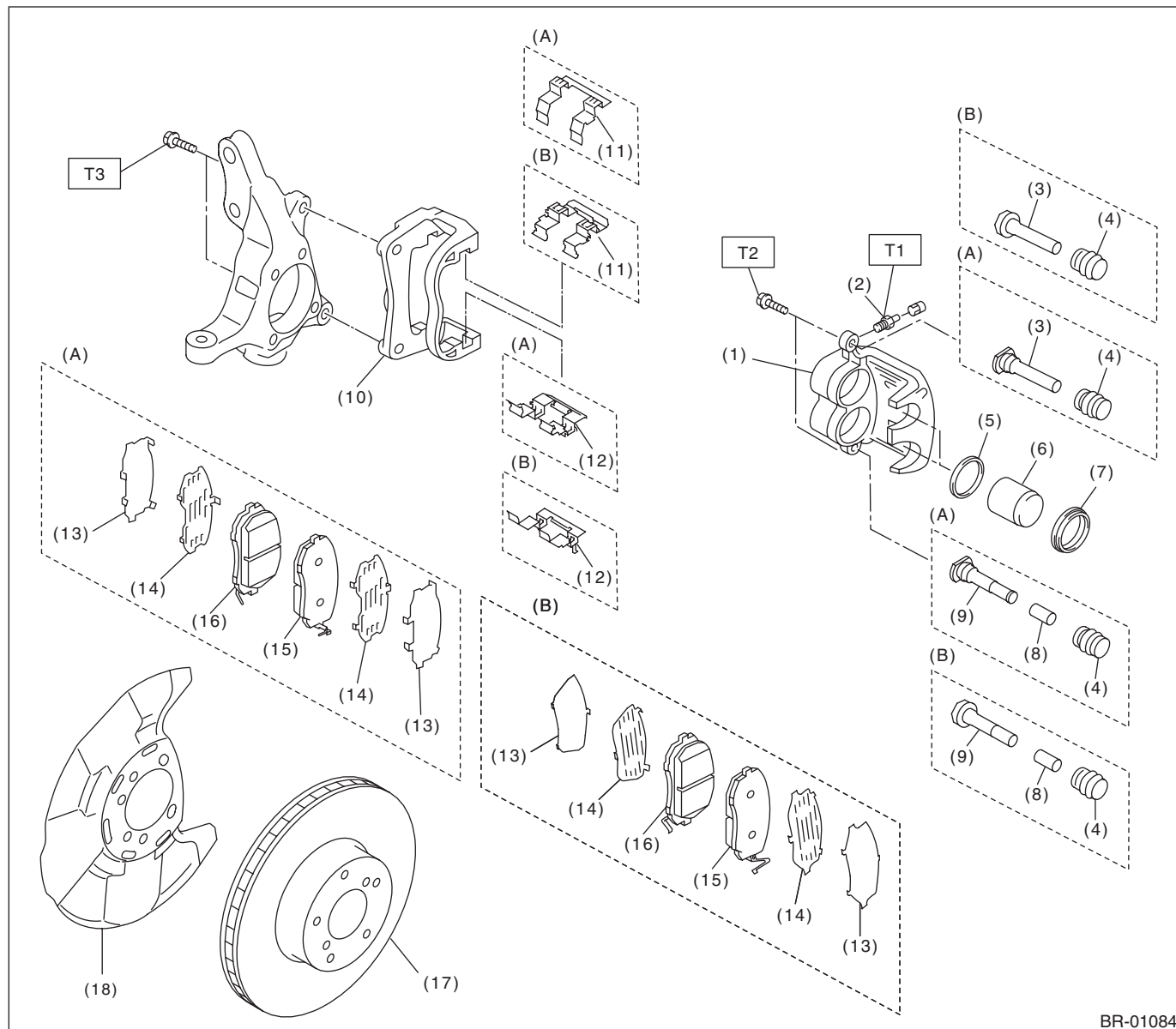
Brake pedal	Free play mm (in)	0.5 — 2 (0.020 — 0.079) [When pulling the brake pedal upward with a force of less than 10 N (1 kgf, 2 lbf)]
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B: COMPONENT

1. FRONT DISC BRAKE



BR-01084

(A) 16-inch type

(B) 17-inch type

(1) Caliper body

(2) Bleeder - screw

(3) Guide pin - front brake (black)

(4) Pin boot

(5) Piston seal

(6) Piston - disc brake

(7) Piston boot

(8) Lock pin - sleeve

(9) Lock pin - front brake (silver)

(10) Support - front disc brake

(11) Pad clip - upper

(12) Pad clip - lower

(13) Shim - disc brake front outer

(14) Shim - disc brake front inner

(15) Pad - disc brake front outer

(16) Pad - disc brake front inner

(17) Disc rotor

(18) Back plate - front brake

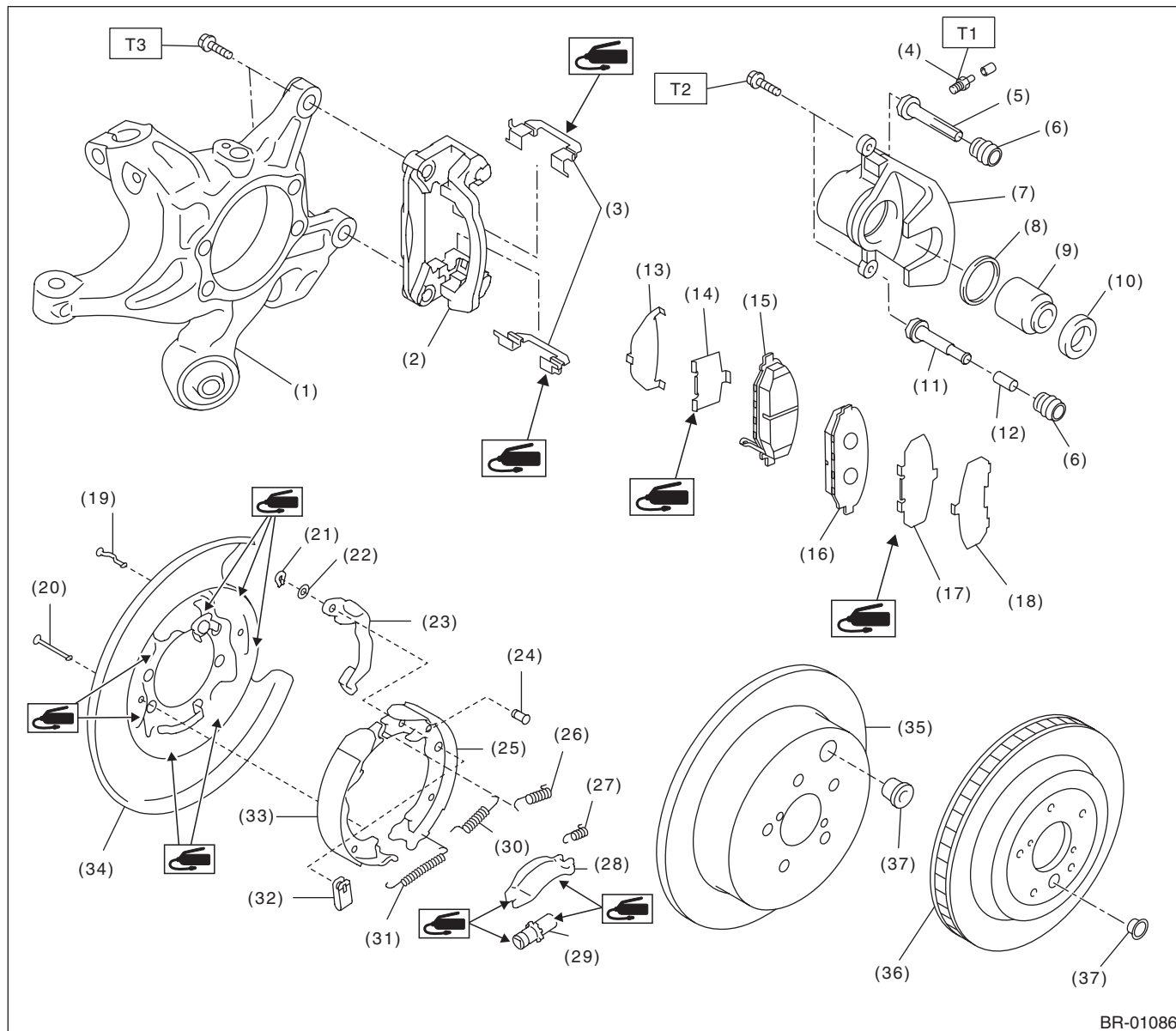
Tightening torque: N-m (kgf-m, ft-lb)

T1: 8 (0.82, 5.9)

T2: 27 (2.75, 19.9)

T3: 80 (8.16, 59.0)

2. REAR DISC BRAKE



BR-01086

- | | | |
|-------------------------------------|-------------------------------------|-----------------------------------|
| (1) Housing ASSY - rear axle | (15) Pad - disc brake rear inner | (29) Adjuster ASSY - rear brake |
| (2) Support - rear disc brake | (16) Pad - disc brake rear outer | (30) Spring - primary shoe return |
| (3) Pad clip - rear brake | (17) Shim - disc brake rear inner | (31) Spring - adjuster |
| (4) Bleeder - screw | (18) Shim - disc brake rear outer | (32) Cup - shoe hold-down |
| (5) Guide pin - rear brake (black) | (19) Pin - secondary shoe hold-down | (33) Parking brake shoe (primary) |
| (6) Pin boot | (20) Pin - primary shoe hold-down | (34) Back plate - rear brake |
| (7) Caliper body | (21) Retainer - rear brake | (35) Disc rotor (solid type) |
| (8) Piston seal | (22) Spring washer - rear brake | (36) Disc rotor (ventilated type) |
| (9) Piston - disc brake | (23) Parking lever - rear | (37) Adjusting hole cover |
| (10) Piston boot | (24) Pin - parking lever | |
| (11) Lock pin - rear brake (silver) | (25) Parking brake shoe (secondary) | |
| (12) Lock pin - sleeve | (26) Spring - secondary shoe return | |
| (13) Shim - disc brake rear outer | (27) Spring - strut | |
| (14) Shim - disc brake rear inner | (28) Strut - brake | |

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

T1: 8 (0.82, 5.9)

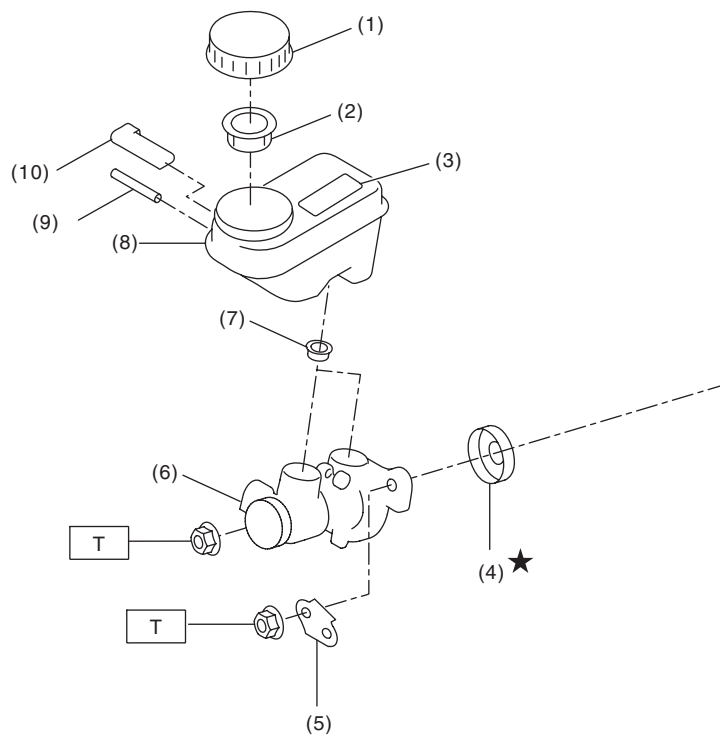
T2: 27 (2.75, 19.9)

T3: 66 (6.73, 48.7)

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3. MASTER CYLINDER



BR-01046

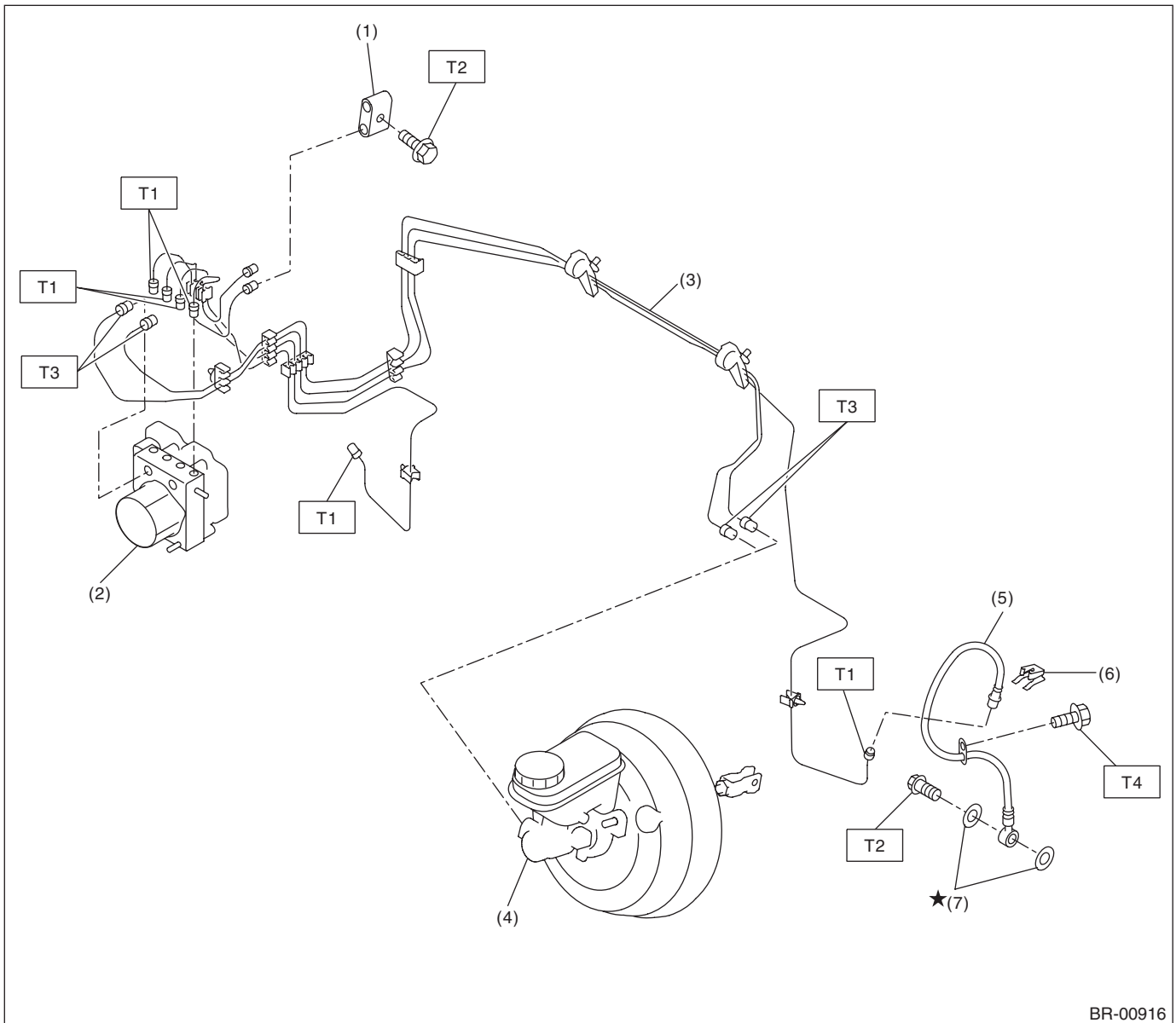
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|--|------------------------|
| (1) Cap - reservoir tank | (6) Cylinder body ASSY |
| (2) Filter - master cylinder | (7) Seal |
| (3) Caution label (model with caution label) | (8) Reservoir tank |
| (4) Seal sub ASSY | (9) Pin |
| (5) Bracket - master cylinder | (10) Level - indicator |

Tightening torque: N·m (kgf-m, ft-lb)

T: 13 (1.33, 9.6)

4. FRONT BRAKE PIPES AND HOSES

- Models without EyeSight



BR-00916

- | | |
|---|----------------------------|
| (1) Connector - two-way | (5) Front brake hose RH/LH |
| (2) VDC control module and hydraulic control unit (VDCCM&H/U) | (6) Clamp |
| (3) Front brake pipe ASSY | (7) Gasket |
| (4) Master cylinder ASSY | |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 15 (1.53, 11.1)

T2: 18 (1.84, 13.3)

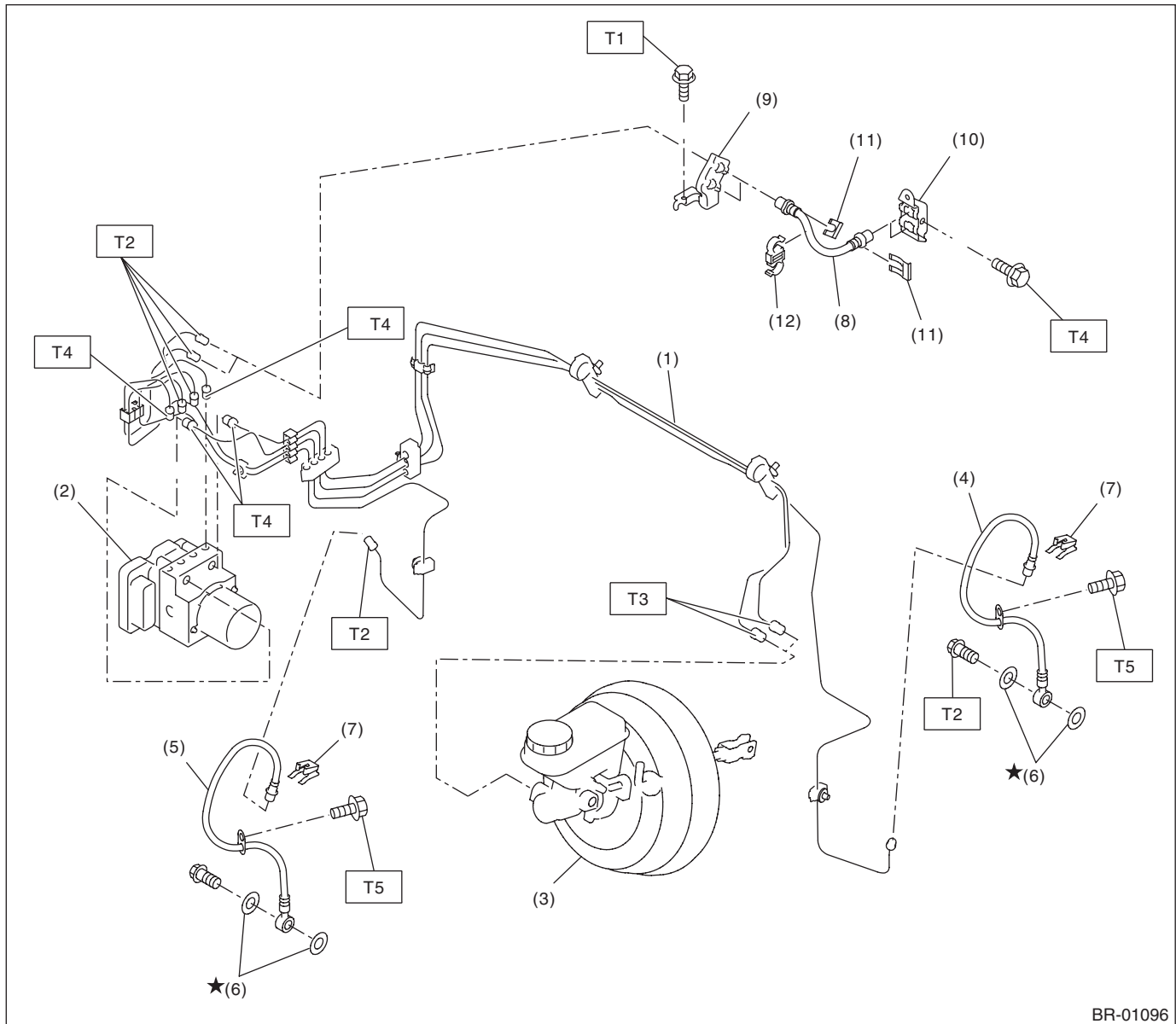
T3: 19 (1.94, 14.0)

T4: 33 (3.36, 24.3)

General Description

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• Models with EyeSight



BR-01096

- | | |
|---|---------------------|
| (1) Front brake pipe ASSY | (7) Clamp |
| (2) VDC control module and hydraulic control unit (VDCCM&H/U) | (8) Brake hose ASSY |
| (3) Master cylinder ASSY | (9) Bracket |
| (4) Front brake hose RH | (10) Bracket |
| (5) Front brake hose LH | (11) Clip |
| (6) Gasket | (12) Clamp |

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

T1: 7.5 (0.76, 5.5)

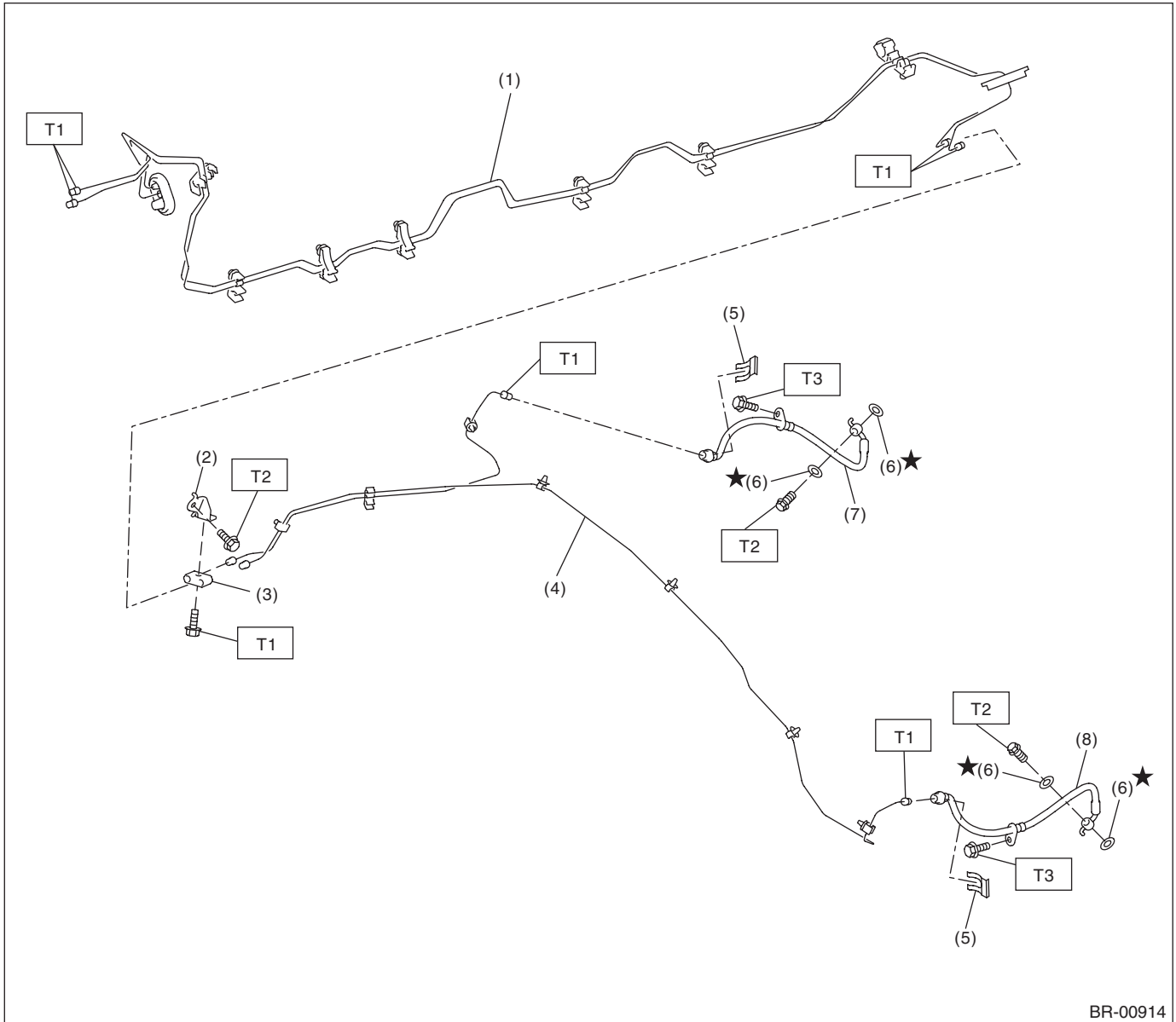
T2: 15 (1.53, 11.1)

T3: 18 (1.84, 13.3)

T4: 19 (1.94, 14.0)

T5: 33 (3.36, 24.3)

5. CENTER AND REAR BRAKE PIPES AND HOSES



- | | |
|----------------------------|------------------------|
| (1) Center brake pipe ASSY | (5) Clamp |
| (2) Bracket | (6) Gasket |
| (3) Connector | (7) Rear brake hose RH |
| (4) Rear brake pipe ASSY | (8) Rear brake hose LH |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 15 (1.53, 11.1)

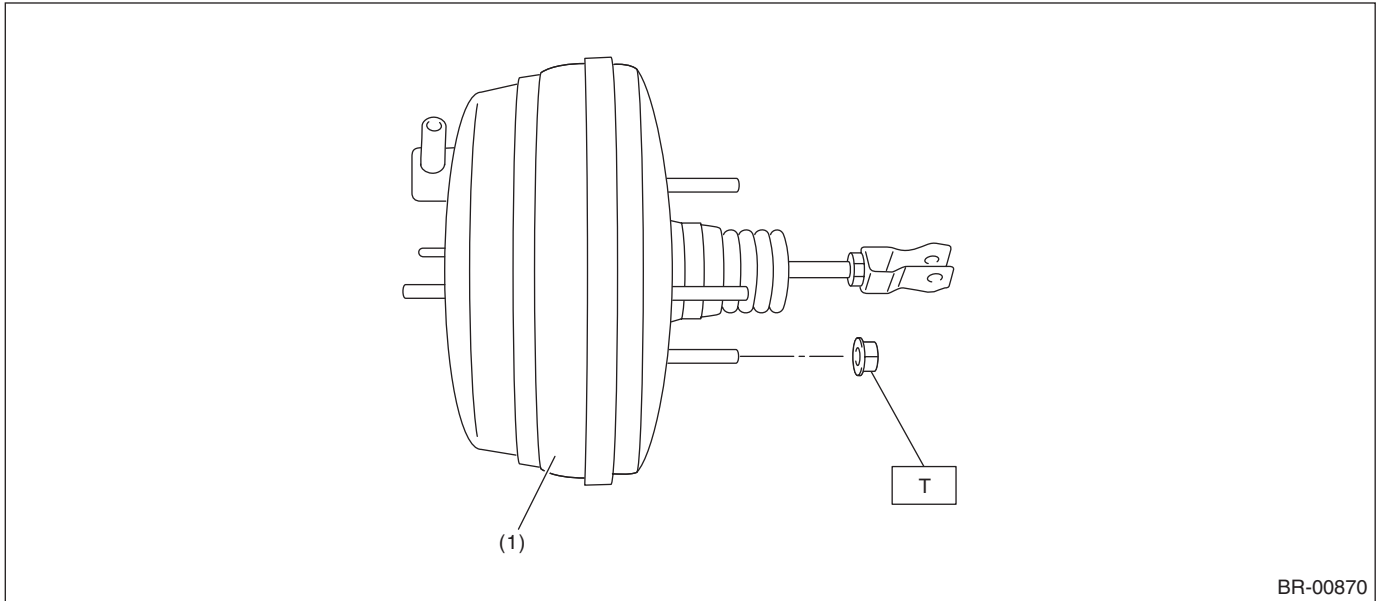
T2: 18 (1.84, 13.3)

T3: 33 (3.36, 24.3)

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6. BRAKE BOOSTER



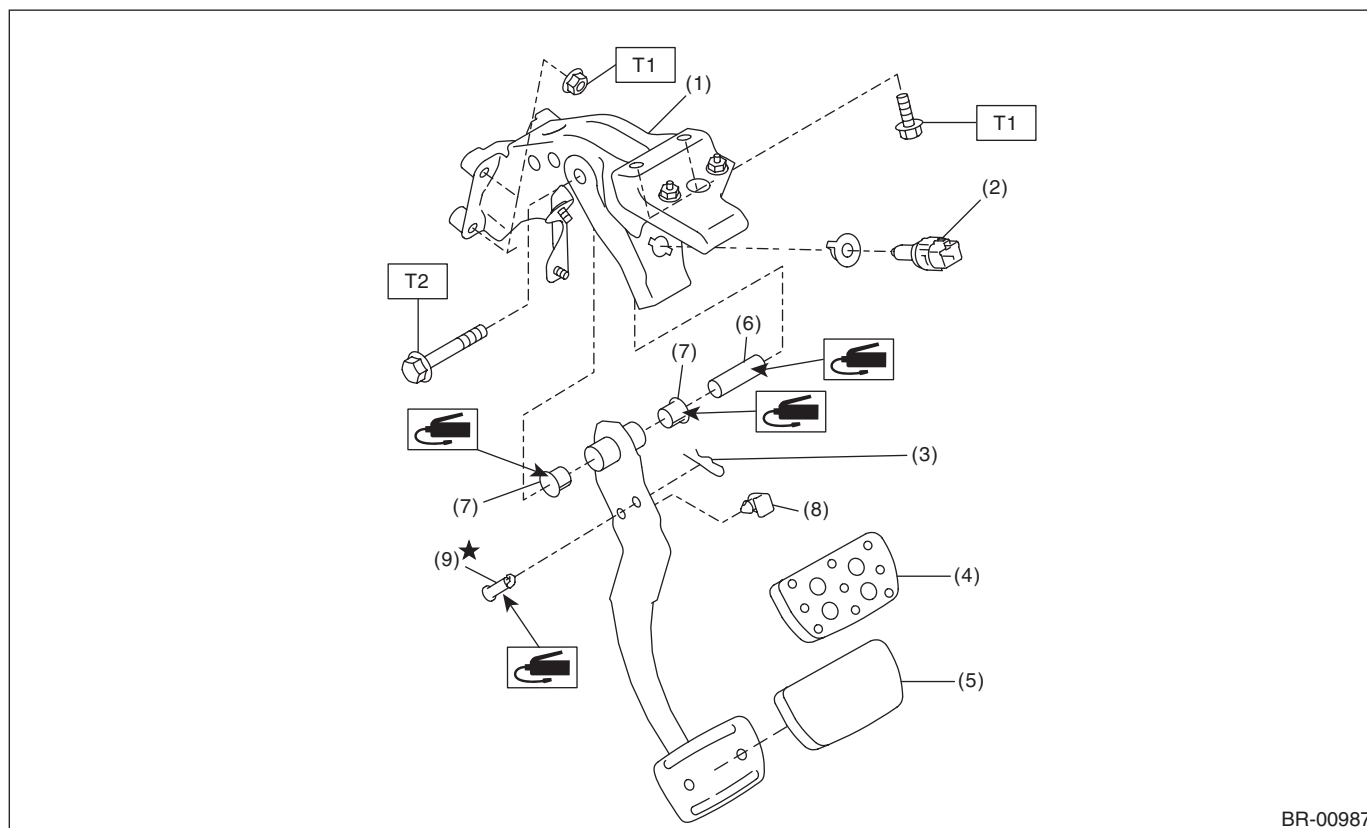
(1) Vacuum booster ASSY

Tightening torque: N·m (kgf-m, ft-lb)

T: 18 (1.84, 13.3)

7. BRAKE PEDAL

- CVT model



BR-00987

- | | |
|-------------------------------------|---------------------|
| (1) Brake pedal ASSY | (6) Spacer - pedal |
| (2) Switch - stop light | (7) Bushing - pedal |
| (3) Snap pin | (8) Stopper - pedal |
| (4) Pad - brake pedal (sport type) | (9) Clevis pin |
| (5) Pad - brake pedal (normal type) | |

Tightening torque: N·m (kgf-m, ft-lb)

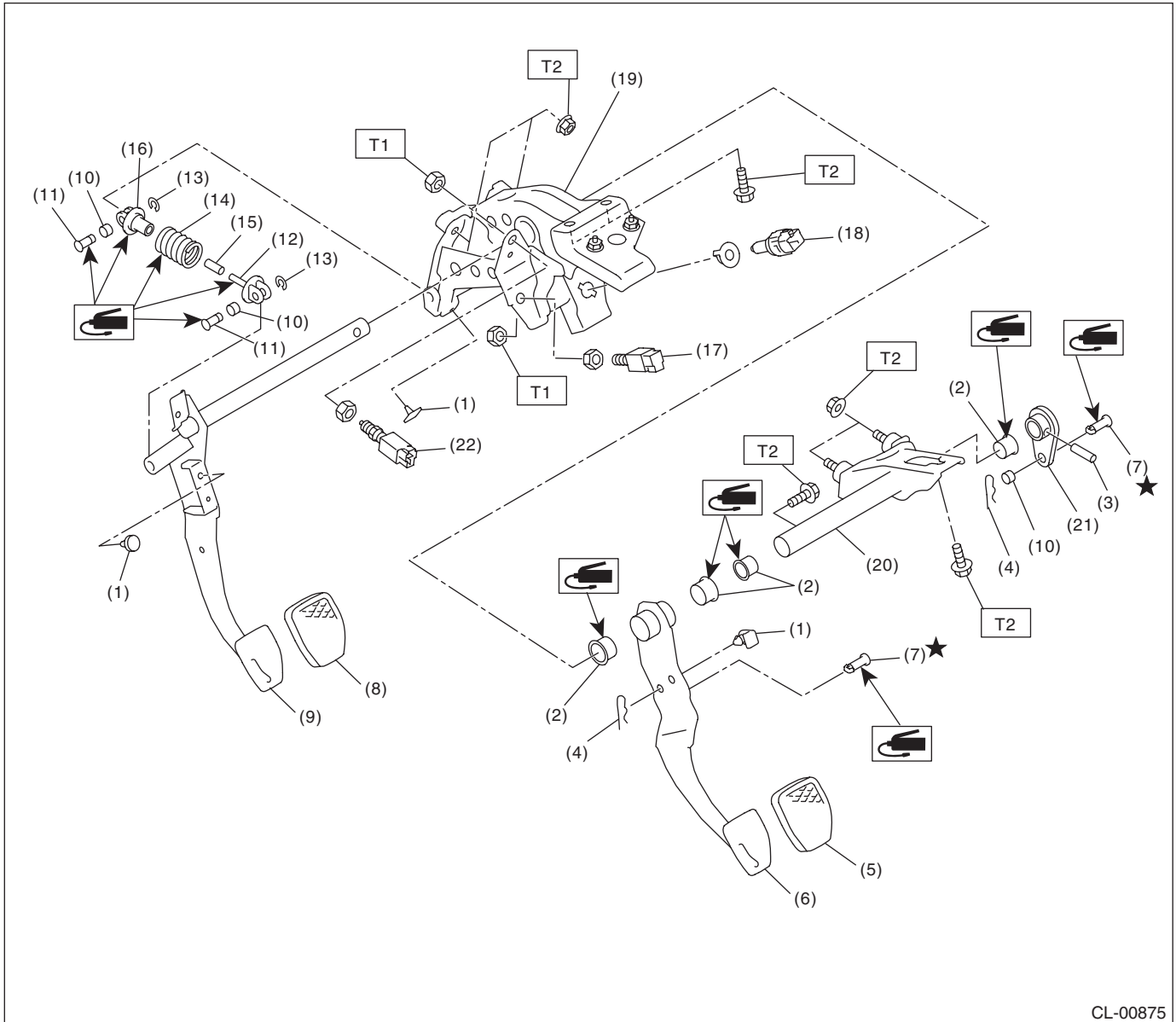
T1: 18 (1.84, 13.3)

T2: 30 (3.06, 22.1)

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• MT model



CL-00875

- | | |
|-----------------------|--------------------------|
| (1) Stopper | (10) Bushing C |
| (2) Bushing | (11) Clutch clevis pin |
| (3) Spring pin | (12) Assist rod A |
| (4) Snap pin | (13) Clip |
| (5) Pad - brake pedal | (14) Assist spring |
| (6) Brake pedal | (15) Assist bushing |
| (7) Clevis pin | (16) Assist rod B |
| (8) Clutch pedal pad | (17) Clutch switch |
| (9) Clutch pedal | (18) Switch - stop light |

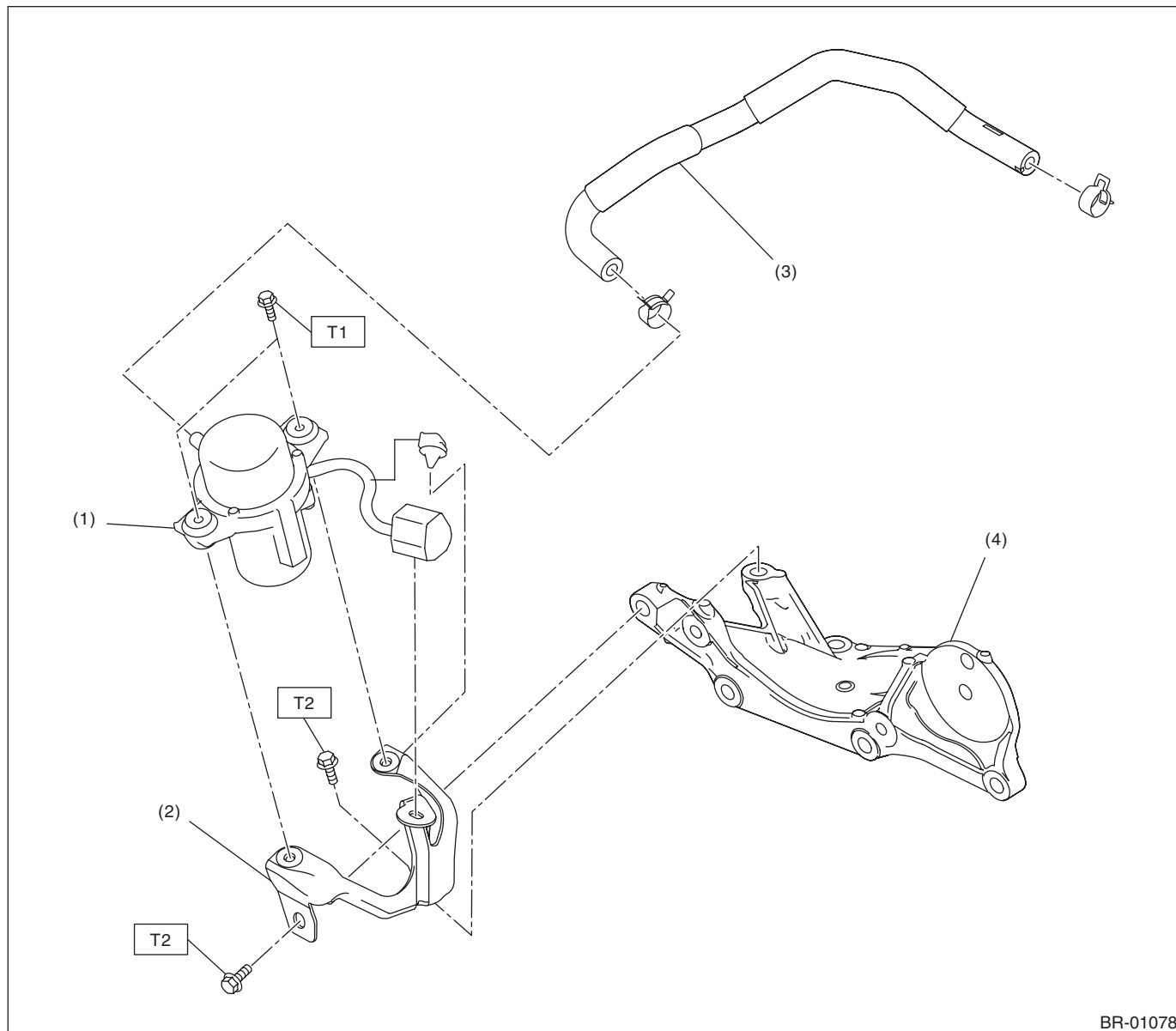
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|-------------------------------------|
| (19) Pedal bracket |
| (20) Clutch master cylinder bracket |
| (21) Lever |
| (22) Clutch start switch |

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

T1: 8 (0.82, 5.9)

T2: 18 (1.84, 13.3)

8. BRAKE VACUUM PUMP



- | | |
|---------------------------------|-------------------------|
| (1) Vacuum pump ASSY | (3) Vacuum hose COMPL |
| (2) Bracket COMPL - vacuum pump | (4) Bracket - generator |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 7.5 (0.76, 5.5)

T2: 19 (1.9, 14.0)

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C: CAUTION

- Wear appropriate work clothing, including a helmet, protective goggles and protective shoes when performing any work.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly and replacement.
- Use SUBARU genuine grease etc. or equivalent. Do not mix grease etc. of different grades or manufacturers.
- Before securing a part on a vise, place cushioning material such as wood blocks, aluminum plate, or cloth between the part and the vise.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or rigid racks at the specified points.