

General Description

BRAKE

1. General Description

A: SPECIFICATION

NOTE:

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

1. FRONT DISC BRAKE

- Except for STI model

Item		Specification	
Size		17-inch	
Type		Floating 2-POT piston type Ventilated disc	
Effective cylinder diameter	mm (in)	42.8 × 2 (1.685 × 2)	
Pad size (Length × Width × Thickness)	mm (in)	130.0 × 53.5 × 11.0 (5.118 × 2.106 × 0.433)	
Pad thickness	mm (in)	Standard	11 (0.43)
		Limit	1.5 (0.059)
Effective disc diameter	mm (in)	261 (10.28)	
Rotor size (O.D. × Thickness)	mm (in)	30 × 316 (1.18 × 12.44)	
Disc thickness	mm (in)	Standard	30 (1.18)
		Limit	28 (1.10)
Disc runout	mm (in)	Standard	—
		Limit	0.05 (0.0020)
Clearance adjustment		Automatic adjustment	

- STI model

Item		Specification	
Size		17-inch	
Type		Opposed 4-POT piston type Ventilated disc (Brembo)	
Effective cylinder diameter	mm (in)	40.0 × 2, 46.0 × 2 (1.575 × 2, 1.811 × 2)	
Pad size (Length × Width × Thickness)	mm (in)	131.8 × 60.5 × 8.9 (5.189 × 2.382 × 0.35)	
Pad thickness	mm (in)	Standard	8.9 (0.35)
		Limit	1.2 (0.047)
Effective disc diameter	mm (in)	268 (10.55)	
Rotor size (O.D. × Thickness)	mm (in)	30 × 326 (1.18 × 12.83)	
Disc thickness	mm (in)	Standard	30 (1.18)
		Limit	28 (1.10)
Disc runout	mm (in)	Standard	—
		Limit	0.075 (0.0030)
Clearance adjustment		Automatic adjustment	

2. REAR DISC BRAKE

- Except for STI model

Item		Specification	
Size		15-inch	
Type		Floating 1-POT piston type Solid disc	
Effective cylinder diameter	mm (in)	38.1 (1.500)	
Pad size (Length × Width × Thickness)	mm (in)	92.0 × 33.0 × 9.0 (3.622 × 1.299 × 0.354)	
Pad thickness	mm (in)	Standard	9.0 (0.354)
		Limit	1.5 (0.059)
Effective disc diameter	mm (in)	250 (9.84)	
Rotor size (O.D. × Thickness)	mm (in)	10 × 286 (0.79 × 12.44)	
Disc thickness	mm (in)	Standard	10 (0.39)
		Limit	8.5 (0.335)
Disc runout	mm (in)	Standard	—
		Limit	0.05 (0.0020)
Clearance adjustment		Automatic adjustment	

- STI model

Item	Specification	
Size	17-inch	
Type	Opposed 2-POT piston type Ventilated disc (Brembo)	
Effective cylinder diameter	mm (in)	40.0 × 2 (1.575 × 2)
Pad size (Length × Width × Thickness)	mm (in)	76.8 × 45.0 × 9.0 (3.024 × 1.772 × 0.354)
Pad thickness	mm (in)	Standard9.0 (0.354)
		Limit1.2 (0.047)
Effective disc diameter	mm (in)	268 (10.55)
Rotor size (O.D. × Thickness)	mm (in)	20 × 316 (0.79 × 12.44)
Disc thickness	mm (in)	Standard20 (0.79)
		Limit18 (0.71)
Disc runout	mm (in)	Standard—
		Limit0.070 (0.0028)
Clearance adjustment	Automatic adjustment	

3. MASTER CYLINDER

Item		Specification
Type		Tandem
Effective diameter	mm (in)	25.40 (1.00)
Reservoir type		Sealed type
Brake fluid reservoir capacity	cm ³ (cu in)	240 (14.64)

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4. BRAKE BOOSTER

Item		Specification	
Type		Vacuum suspended	
Effective diameter mm (in)		208 + 229 (8.19 + 9.02)	
Brake fluid pressure		Brake pedal force N (kgf, lbf)	Fluid pressure kPa (kgf/cm ² , psi)
When engine is stopped		147 (15, 33)	471 (4.8, 68.3)
		294 (30, 66)	1,385 (14.1, 200.8)
When engine is running and vacuum pressure is at 66.7 kPa (500 mmHg, 19.69 inHg)		147 (15, 33)	4,880 (49.8, 707.6)
		294 (30, 66)	9,750 (99.4, 1413.7)

5. BRAKE LINE, BRAKE PEDAL AND BRAKE FLUID

CAUTION:

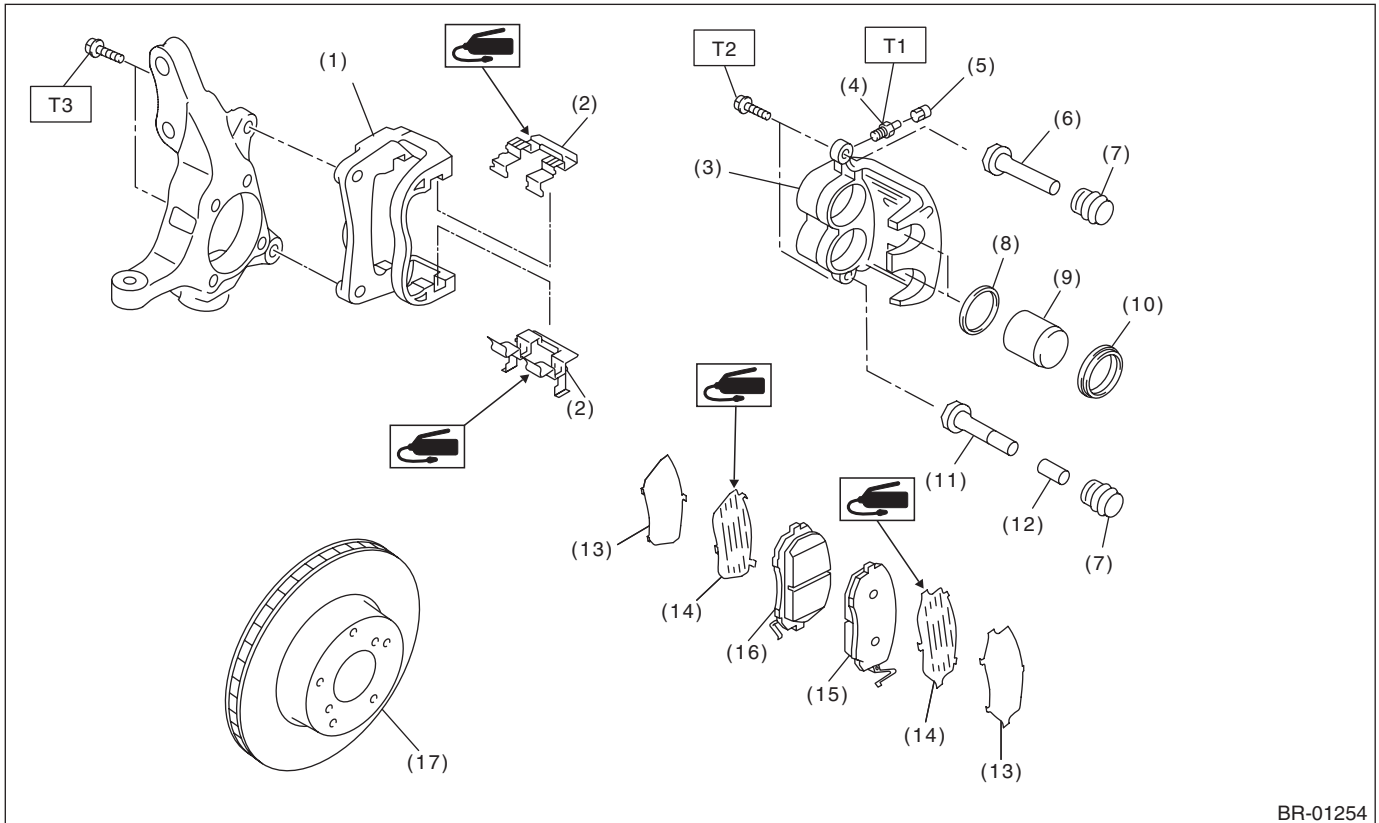
- **Avoid mixing brake fluid of different brands to prevent fluid performance from degrading.**
- **When filling with brake fluid, be careful not to allow any dust to enter the reservoir.**
- **Use new SUBARU genuine brake fluid when replacing or refilling the fluid.**

Item		Specification	
Brake line		Dual circuit system	
Brake pedal	Type	Suspended type	
	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)]	
Brake fluid		FMVSS No. 116, DOT3, or DOT4	

B: COMPONENT

1. FRONT DISC BRAKE

- Except for STI model



BR-01254

- (1) Support - front disc brake
- (2) Pad clip - front brake
- (3) Caliper body
- (4) Bleeder - screw
- (5) Cap - bleeder
- (6) Guide pin - front brake (black)
- (7) Pin boot
- (8) Piston seal

- (9) Piston - disc brake
- (10) Piston boot
- (11) Lock pin - front brake (silver)
- (12) Lock pin - bushing
- (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 (ventilated type)

Tightening torque: N·m (kgf·m, ft·lb)

T1: 8 (0.8, 5.9)

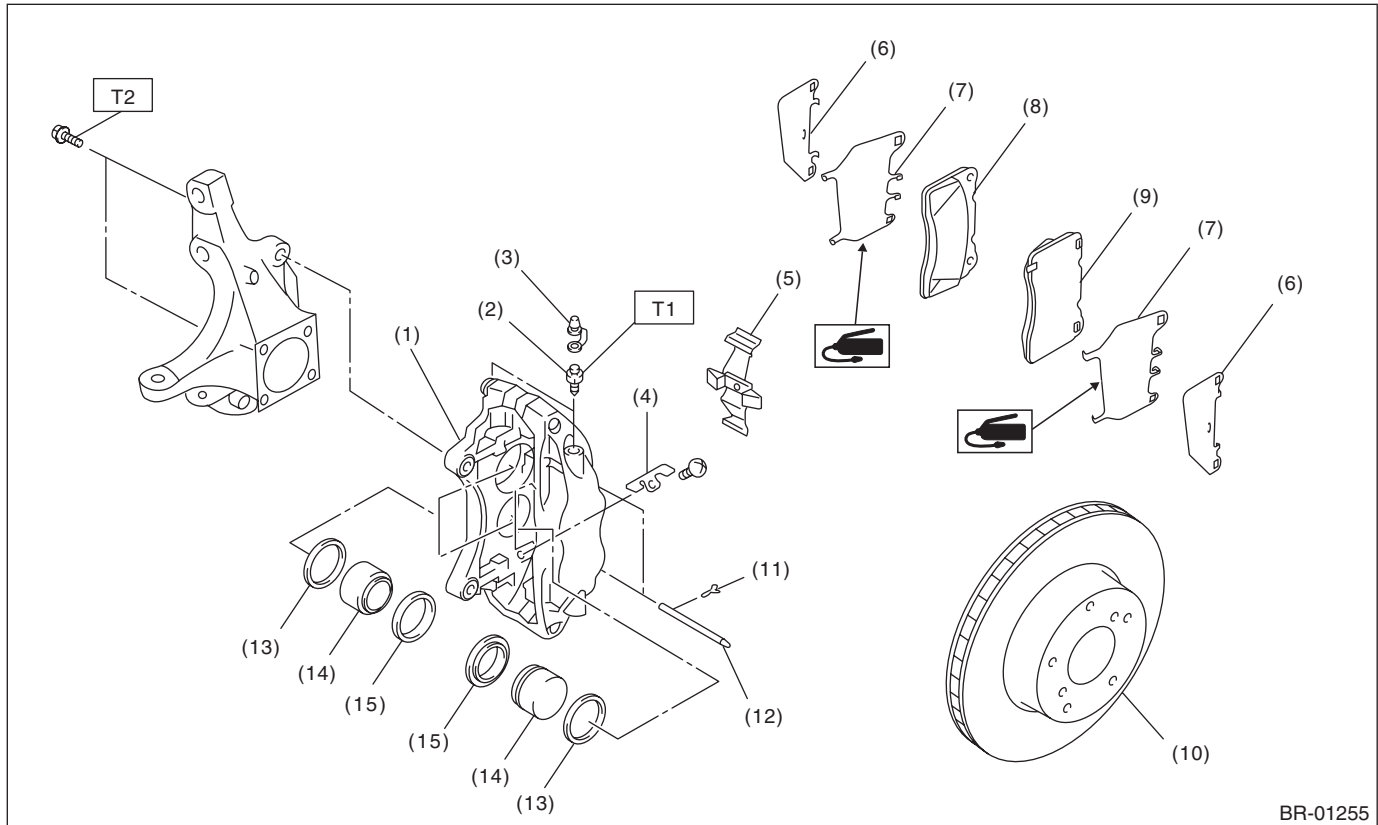
T2: 27 (2.8, 20.3)

T3: 80 (8.2, 59.0)

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- STI model



- | | |
|-----------------------------------|-----------------------------------|
| (1) Caliper body | (8) Pad - disc brake front inner |
| (2) Bleeder - screw | (9) Pad - disc brake front outer |
| (3) Cap - bleeder | (10) Disc rotor (ventilated type) |
| (4) Guide plate | (11) Clip - slide pin |
| (5) Cross spring | (12) Pin - disc brake |
| (6) Shim - disc brake front outer | (13) Piston seal |
| (7) Shim - disc brake front inner | (14) Piston - disc brake |

- (15) Piston boot

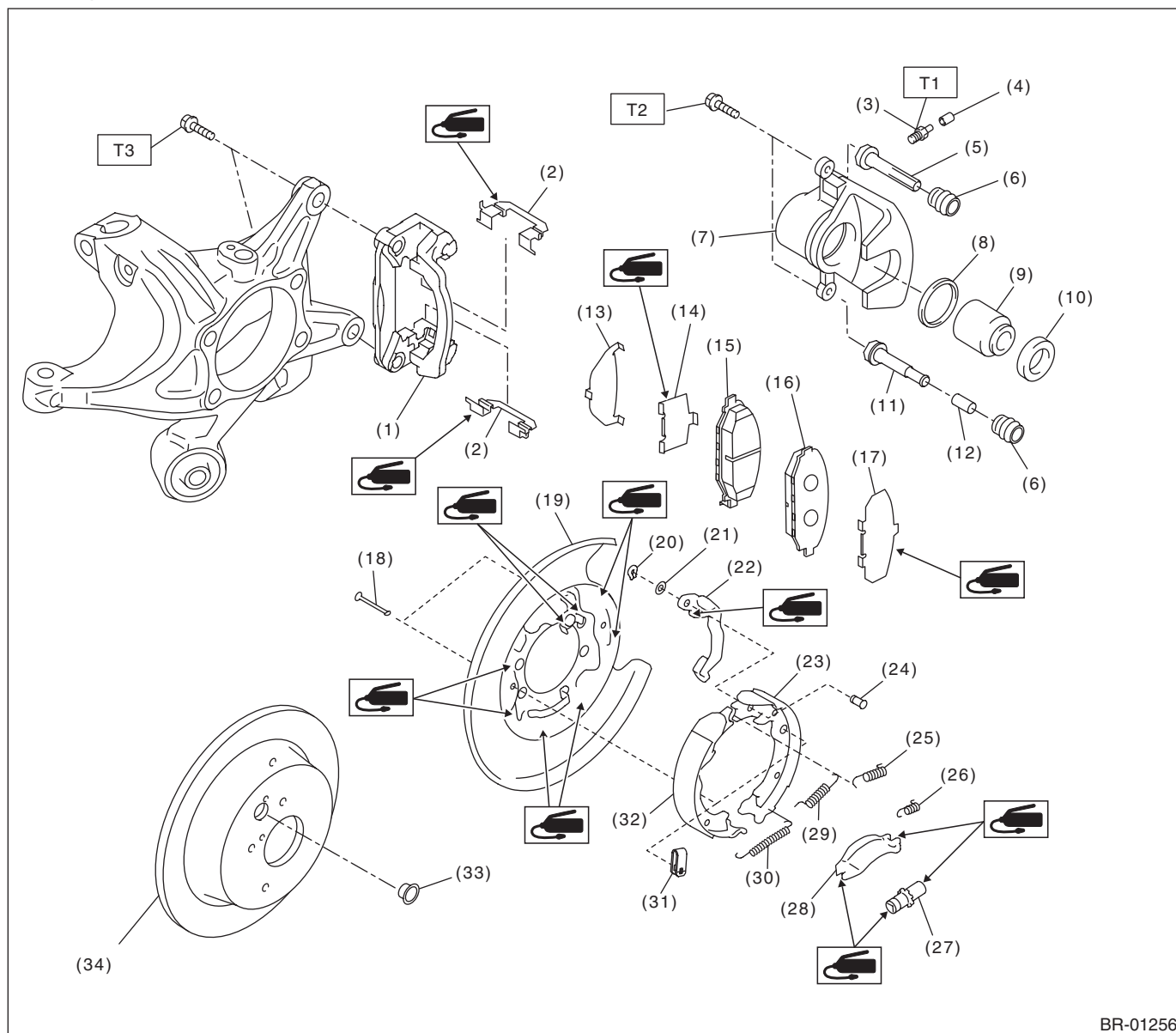
Tightening torque: N·m (kgf-m, ft-lb)

T1: 20 (2.0, 14.8)

T2: 155 (15.8, 114.3)

2. REAR DISC BRAKE

- Except for STI model



BR-01256

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

Tightening torque: N·m (kgf-m, ft-lb)

T1: 8 (0.8, 5.9)

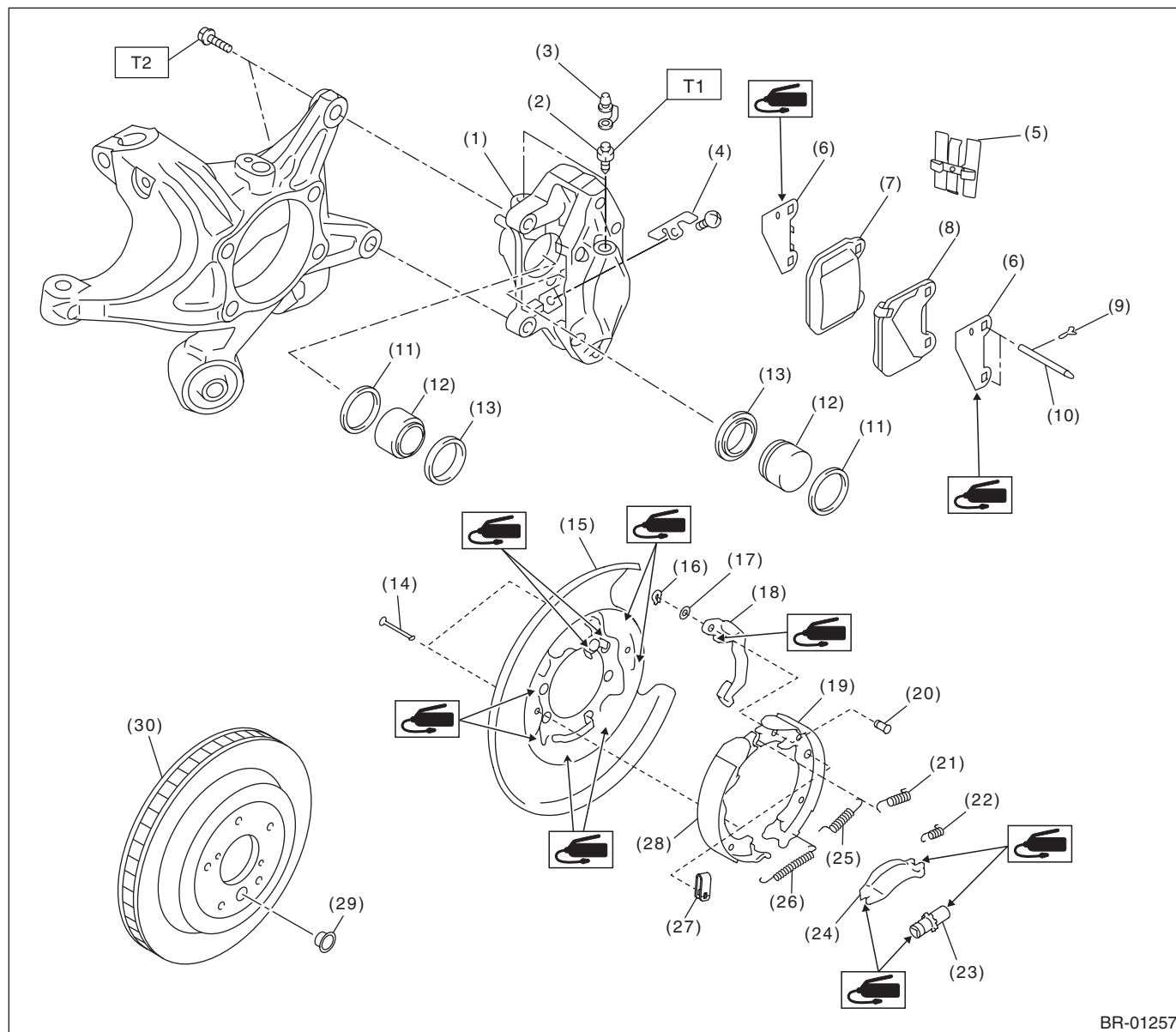
T2: 27 (2.8, 19.9)

T3: 66 (6.7, 48.7)

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• STI model



BR-01257

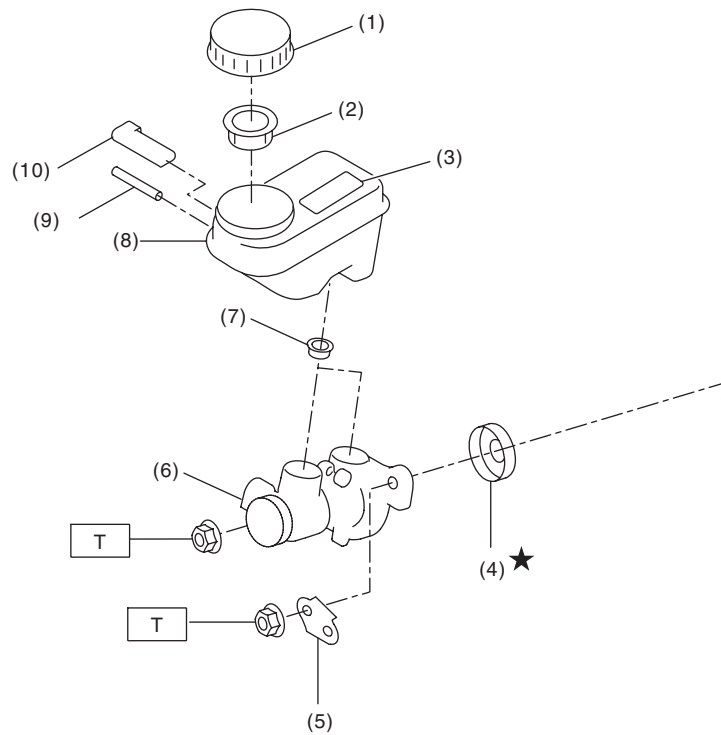
- | | | |
|--|-------------------------------------|-----------------------------------|
| (1) Caliper body | (13) Piston boot | (25) Spring - primary shoe return |
| (2) Bleeder - screw | (14) Pin - shoe hold-down | (26) Spring - adjuster |
| (3) Cap - bleeder | (15) Back plate - rear brake | (27) Spring - shoe clamp |
| (4) Guide plate | (16) Retainer - rear brake | (28) Parking brake shoe (primary) |
| (5) Cross spring | (17) Spring washer - rear brake | (29) Adjusting hole cover |
| (6) Shim - disc brake rear outer and inner | (18) Parking lever - rear | (30) Disc rotor (solid type) |
| (7) Pad - disc brake rear inner | (19) Parking brake shoe (secondary) | |
| (8) Pad - disc brake rear outer | (20) Pin - parking lever | |
| (9) Clip - slide pin | (21) Spring - secondary shoe return | |
| (10) Pin - disc brake | (22) Spring - strut | |
| (11) Piston seal | (23) Adjuster ASSY - rear brake | |
| (12) Piston - disc brake | (24) Spring - strut | |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 20 (2.0, 14.8)

T2: 65 (6.6, 47.9)

3. MASTER CYLINDER



BR-01046

- | | |
|--|------------------------|
| (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 |

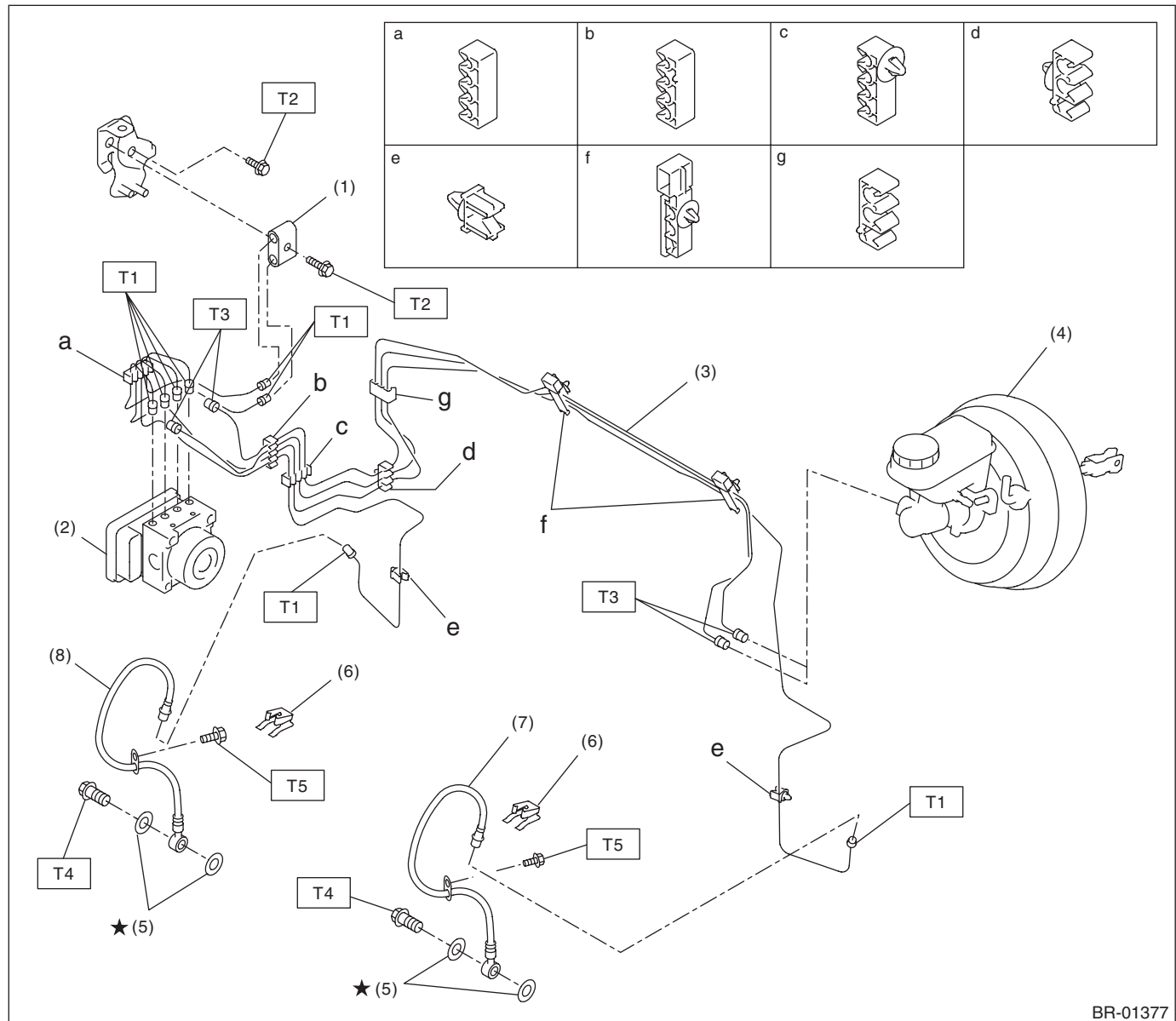
Tightening torque: N·m (kgf-m, ft-lb)

T: 13 (1.3, 9.6)

General Description

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4. FRONT BRAKE PIPES AND HOSES



BR-01377

- | | |
|---|-------------------------|
| (1) Connector - two-way | (5) Gasket |
| (2) VDC control module and hydraulic control unit (VDCCM&H/U) | (6) Clamp |
| (3) Front brake pipe ASSY | (7) Front brake hose LH |
| (4) Master cylinder ASSY | (8) Front brake hose RH |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 15 (1.5, 11.1)

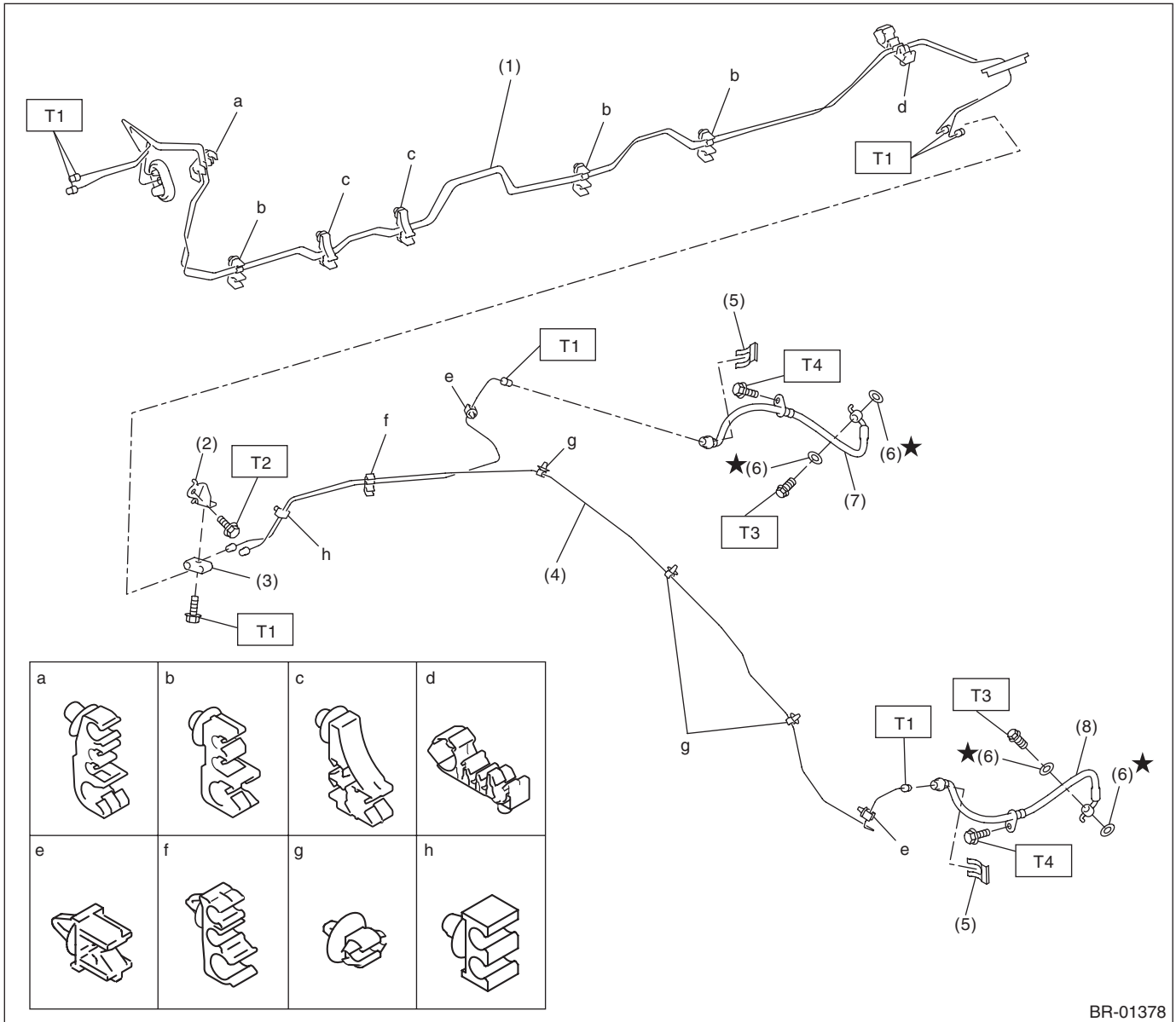
T2: 18 (1.8, 13.3)

T3: 19 (1.9, 14.0)

T4: 26 (2.7, 19.2)

T5: 33 (3.4, 24.3)

5. CENTER AND REAR BRAKE PIPES AND HOSES



BR-01378

- | | |
|----------------------------|------------------------|
| (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 (1.5, 11.1)

T2: 18 (1.8, 13.3)

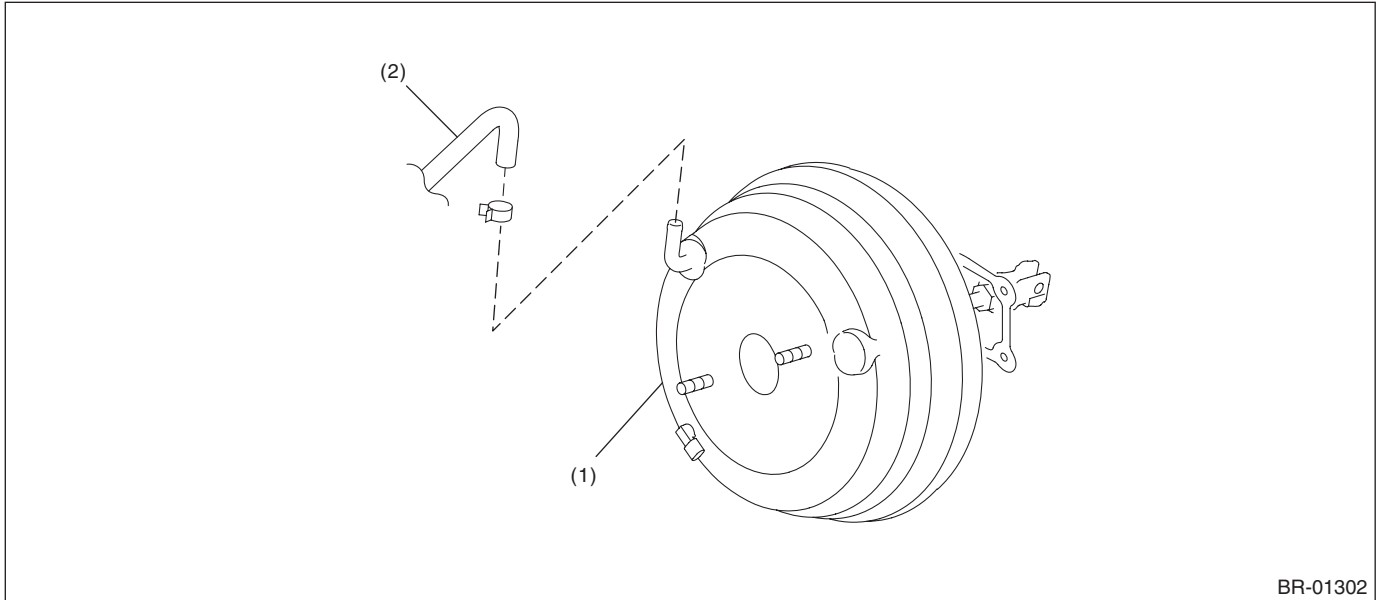
T3: 26 (2.7, 19.2)

T4: 33 (3.4, 24.3)

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6. BRAKE BOOSTER

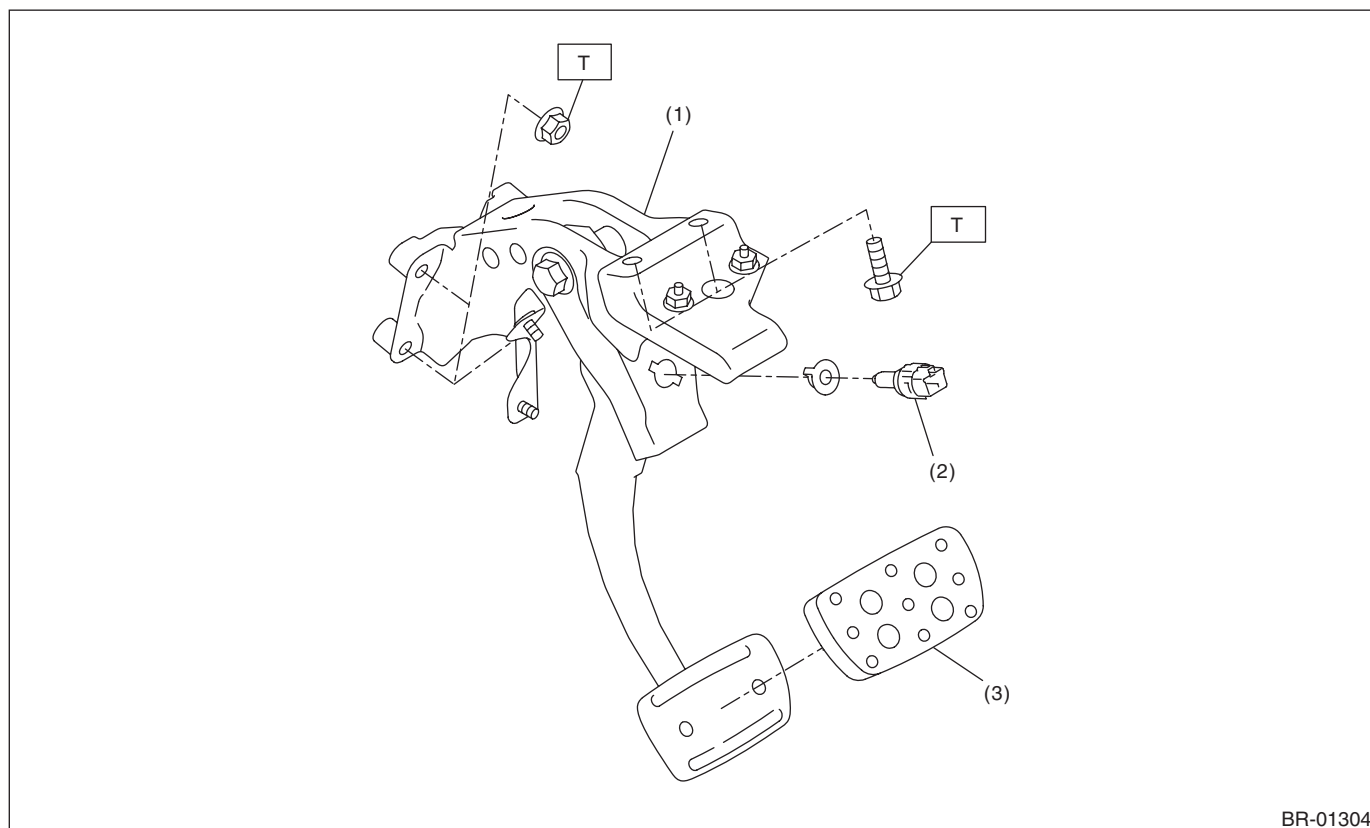


(1) Vacuum booster ASSY

(2) Vacuum hose

7. BRAKE PEDAL

- AT model



BR-01304

- (1) Brake pedal ASSY
(2) Stop light switch

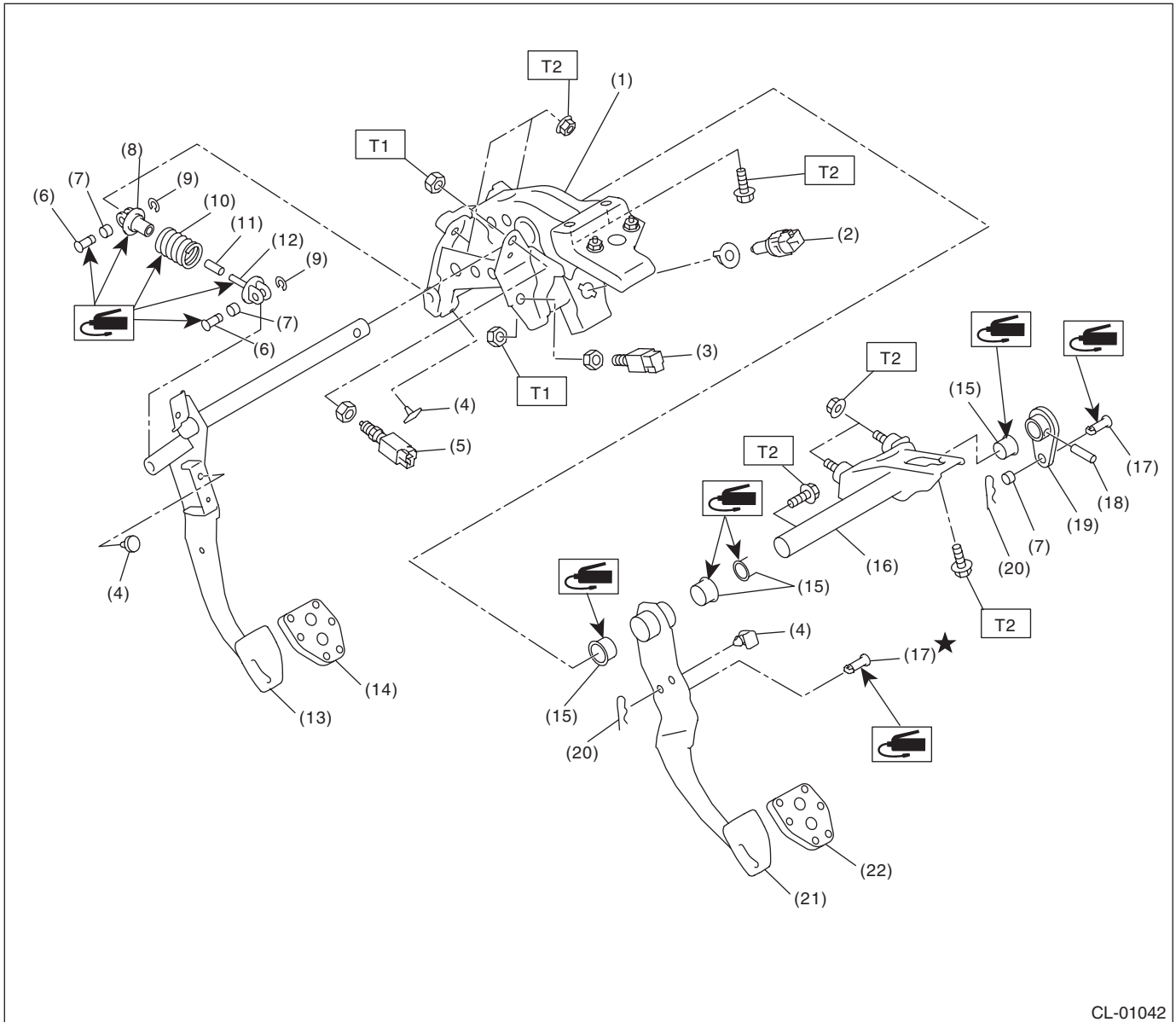
- (3) Pad - brake pedal (sport type)

Tightening torque: N·m (kgf-m, ft-lb)
T: 18 (1.8, 13.3)

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• MT model



CL-01042

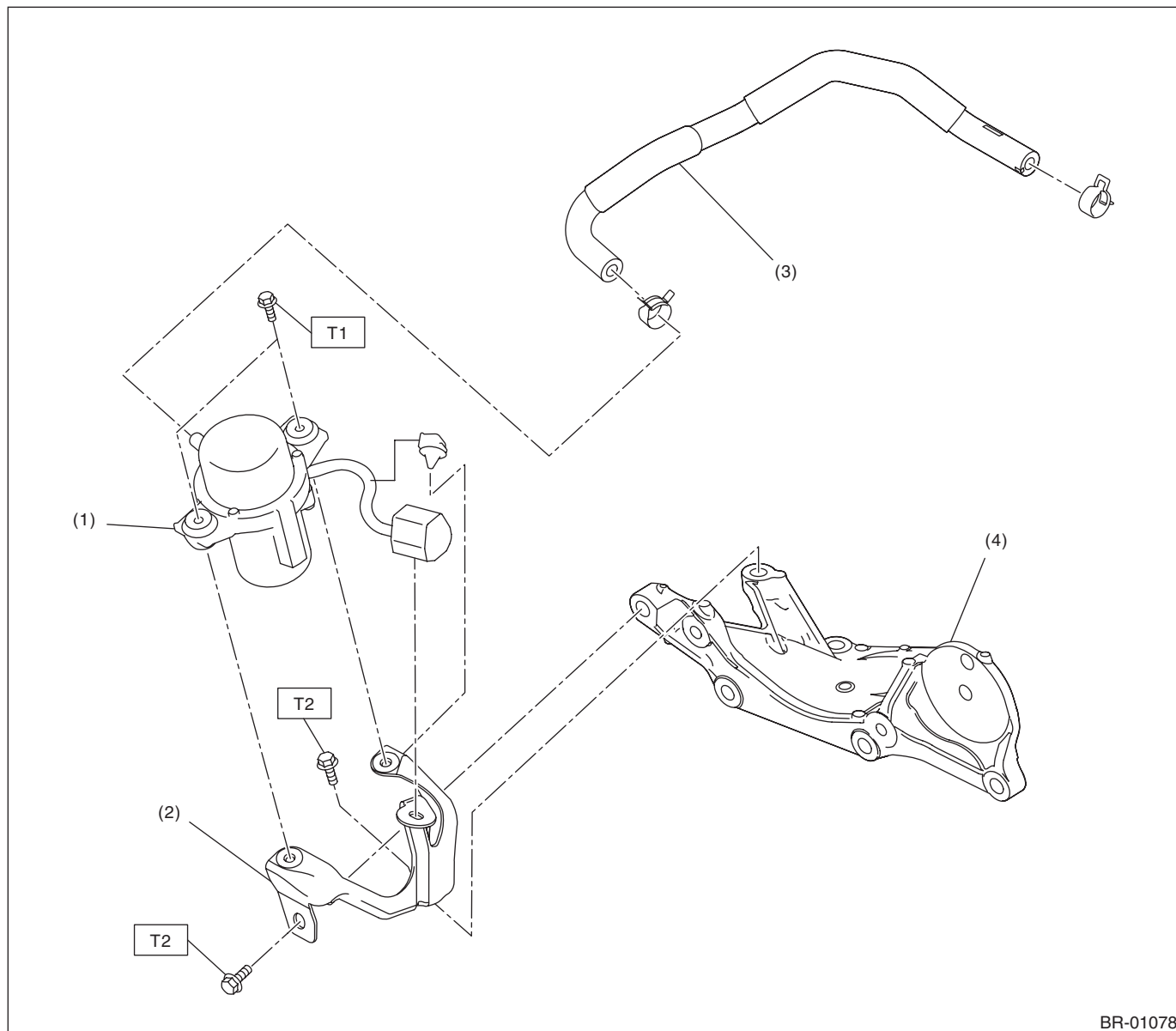
(1) Pedal bracket	(10) Assist spring	(19) Lever
(2) Stop light switch	(11) Assist bushing	(20) Snap pin
(3) Clutch switch	(12) Assist rod A	(21) Brake pedal
(4) Stopper	(13) Clutch pedal	(22) Pad - brake pedal (sport type)
(5) Clutch start switch	(14) Pad - clutch pedal (sport type)	
(6) Clutch clevis pin	(15) Bushing	
(7) Bushing C	(16) Clutch master cylinder bracket	
(8) Assist rod B	(17) Clevis pin	
(9) Clip	(18) Spring pin	

Tightening torque: N·m (kgf·m, ft·lb)

T1: 8 (0.8, 5.9)

T2: 18 (1.8, 13.3)

8. BRAKE VACUUM PUMP



BR-01078

- | | |
|---------------------------------|-------------------------|
| (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: 6.4 (0.7, 4.7)

T2: 19 (1.9, 14.0)

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C: CAUTION

- When performing any work, always wear work clothes, a work cap and protective shoes. Additionally, wear a helmet, protective goggles, etc. if necessary.
- When performing a repair, identify the cause of trouble and avoid unnecessary removal, disassembly and replacement.
- Some vehicle components are extremely hot immediately after driving. Be wary of receiving burns from heated parts.
- Use SUBARU genuine grease, the recommended or equivalent. Do not mix grease etc. of different grades or manufacturers.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Always use the jack-up point when the shop jacks or rigid racks are used to support the vehicle.
- Apply grease onto sliding or revolving surfaces before installation.
- Be sure that the surface of brake disc, brake pad or brake shoe is free from grease or oil.
- Remove contamination including dirt and corrosion before removal, installation, disassembly or assembly.
- Do not secure a part in a vise directly. Place cushioning materials such as wood blocks, aluminum plates, or waste cloth between the part and the vise.