

General Description

BRAKE

1. General Description

A: SPECIFICATION

Size		16-inch type	17-inch type	
Front disc brake	Type	Disc (Floating type, ventilated)		
	Effective disc diameter	mm (in)	244 (4.61)	261 (10.28)
	Disc thickness × Diameter	mm (in)	24 × 294 (0.94 × 11.57)	30 × 316 (1.18 × 12.44)
	Effective cylinder diameter		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	16-inch type		
	Type	Disc (Floating type, solid)	Disc (Floating type, ventilated)	
	Effective disc diameter	mm (in)	250 (9.84)	255 (10.0)
	Disc thickness × Diameter	mm (in)	10 × 286 (0.39 × 11.26)	18 × 290 (0.71 × 11.42)
	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)	205 (12.51)	
Brake booster	Type	Vacuum suspended		
	Effective diameter	mm (in)	208 + 229 (8.19 + 9.02)	
Brake line		Dual circuit system		
Brake fluid	<p>CAUTION:</p> <ul style="list-style-type: none"> • 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. 			
		FMVSS No. 116, DOT3, or DOT4		

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NOTE:

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

Contents		Specification	Service limit
Front brake	Pad thickness mm (in)	16-inch type	11 (0.43)
		17-inch type	11 (0.43)
	Disc thickness mm (in)	16-inch type	24 (0.94)
		17-inch type	30 (1.18)
Disc runout mm (in)		—	0.05 (0.0020)
Rear brake (disc type)	Pad thickness mm (in)	Solid disc	9.0 (0.354)
		Ventilated disc	11 (0.43)
	Disc thickness mm (in)	Solid disc	10 (0.39)
		Ventilated disc	18 (0.71)
Disc runout mm (in)		—	0.05 (0.0020)
Parking brake	Inside diameter mm (in)	190 (7.48)	191 (7.52)
	Lining thickness mm (in)	2.8 (0.11)	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)	533 (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)

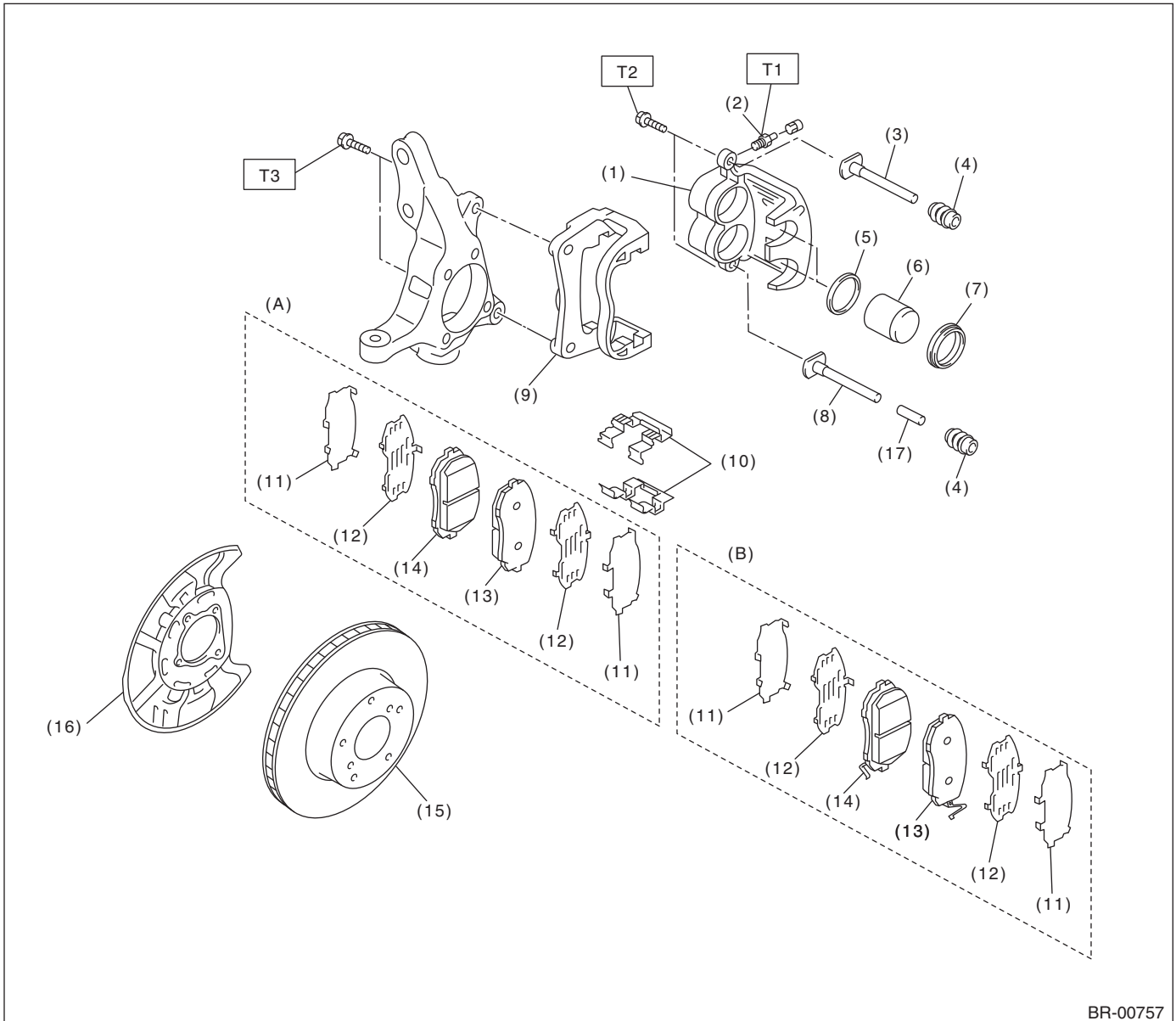
Brake pedal	Free play mm (in)	2 — 5 (0.079 — 0.197) [When pulling the brake pedal upward with a force of less than 10 N (1 kgf, 2 lbf)]
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B: COMPONENT

1. FRONT DISC BRAKE



BR-00757

(A) 16-inch type

(B) 17-inch type

- (1) Caliper body
- (2) Air bleeder screw
- (3) Guide pin (Black)
- (4) Pin boot
- (5) Piston seal
- (6) Piston
- (7) Piston boot
- (8) Lock pin (Silver)

- (9) Support
- (10) Pad clip
- (11) Outer shim
- (12) Inner shim
- (13) Pad (Outside)
- (14) Pad (Inside)
- (15) Disc rotor

(16) Disc cover

(17) Bushing

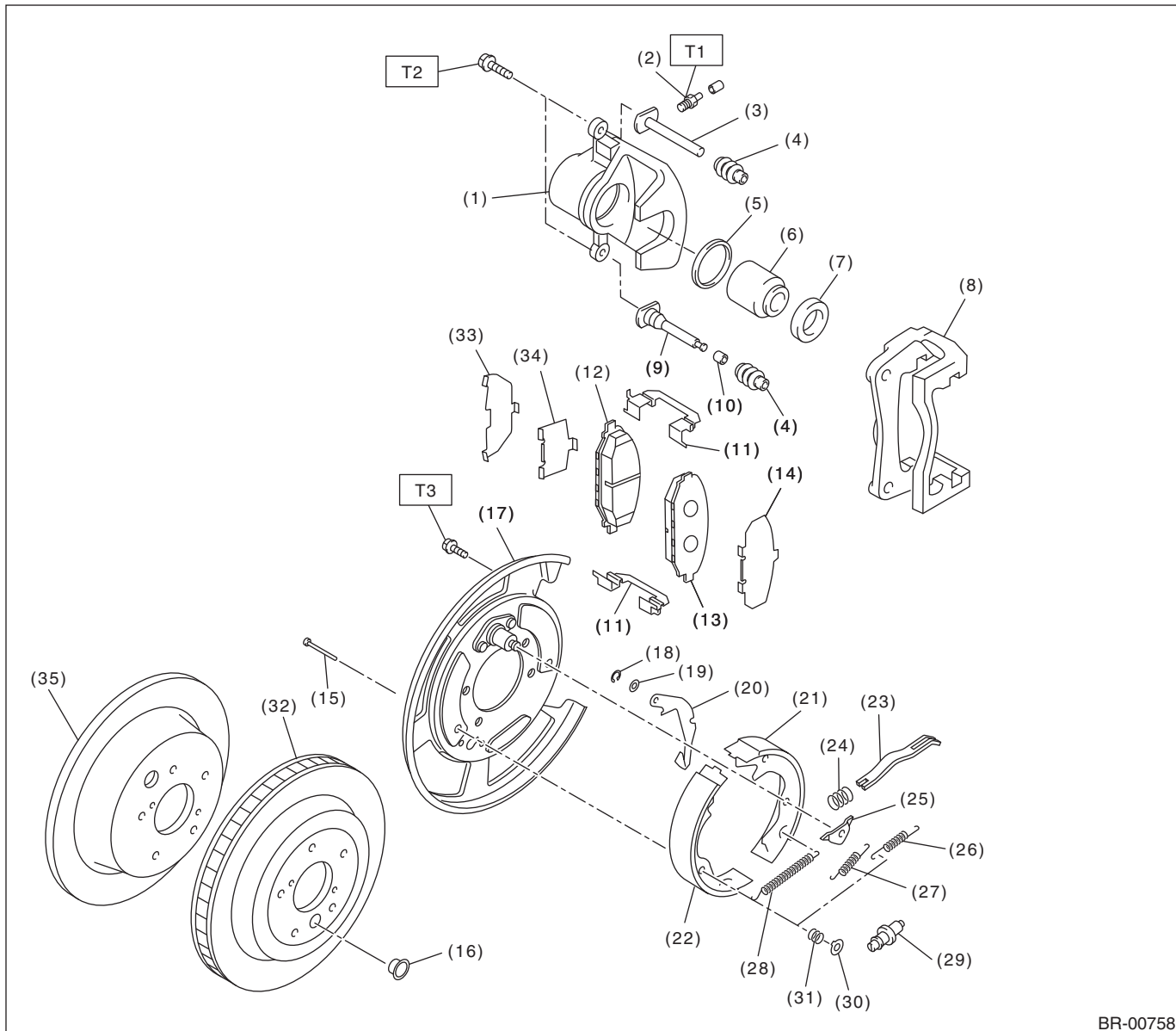
Tightening torque: N·m (kgf·m, ft·lb)

T1: 8 (0.8, 5.9)

T2: 27 (2.8, 19.9)

T3: 120 (12.2, 88.5)

2. REAR DISC BRAKE



BR-00758

- | | | |
|-----------------------|-------------------------------------|-----------------------------------|
| (1) Caliper body | (15) Shoe hold-down pin | (29) Adjuster |
| (2) Air bleeder screw | (16) Adjusting hole cover | (30) Shoe hold-down cup |
| (3) Guide pin (Black) | (17) Back plate | (31) Shoe hold-down spring |
| (4) Pin boot | (18) Retainer | (32) Disc rotor (Ventilated type) |
| (5) Piston seal | (19) Wave washer | (33) Outer shim |
| (6) Piston | (20) Lever | (34) Inner shim |
| (7) Piston boot | (21) Parking brake shoe (Secondary) | (35) Disc rotor (Solid type) |
| (8) Support | (22) Parking brake shoe (Primary) | |
| (9) Lock pin (Silver) | (23) Strut | |
| (10) Bushing | (24) Strut spring | |
| (11) Pad clip | (25) Shoe guide plate | |
| (12) Inner pad | (26) Secondary shoe return spring | |
| (13) Outer pad | (27) Primary shoe return spring | |
| (14) Shim | (28) Adjusting spring | |

Tightening torque: N·m (kgf·m, ft·lb)

T1: 8 (0.8, 5.9)

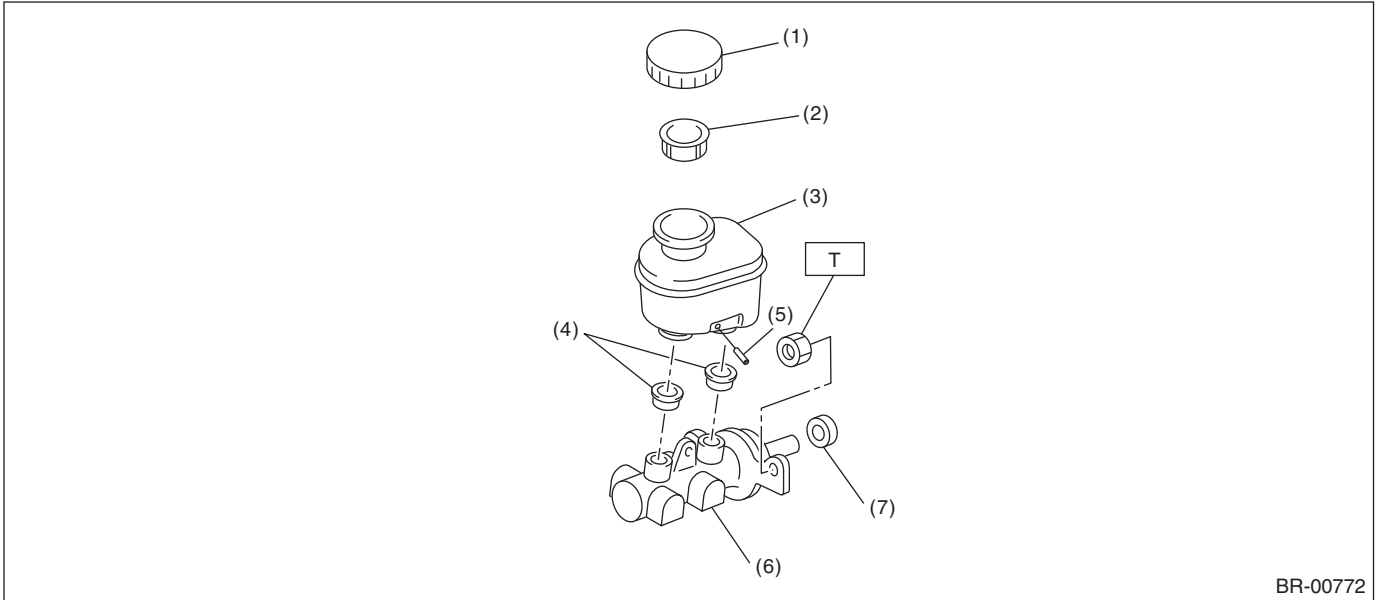
T2: 27 (2.8, 19.9)

T3: 66 (6.7, 48.7)

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3. MASTER CYLINDER



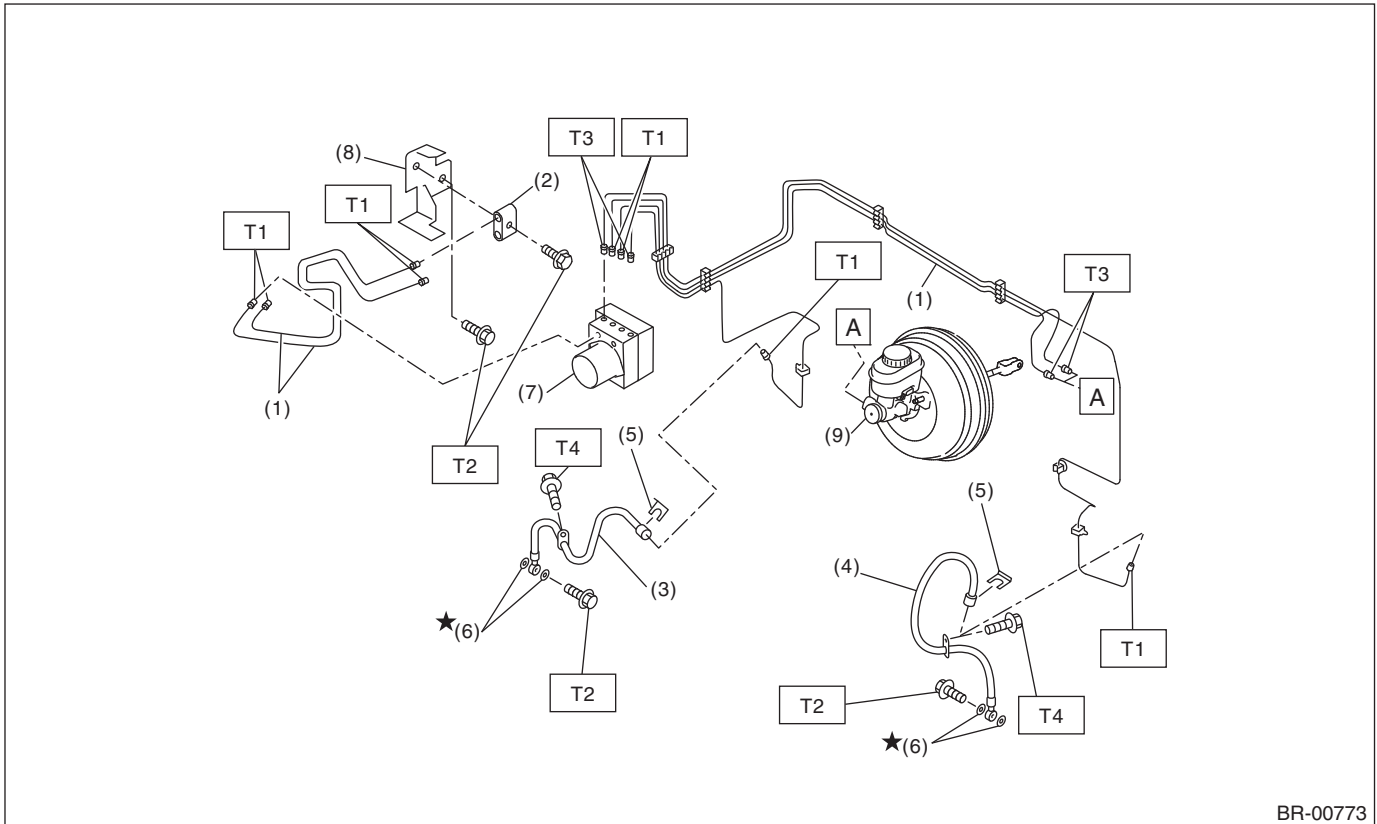
BR-00772

- | | |
|--------------------|------------------------|
| (1) Cap | (5) Pin |
| (2) Filter | (6) Cylinder body ASSY |
| (3) Reservoir tank | (7) Seal sub ASSY |
| (4) Seal | |

Tightening torque: N·m (kgf·m, ft·lb)

T: 13 (1.3, 9.6)

4. FRONT BRAKE PIPES AND HOSES



- (1) Front brake pipe ASSY
- (2) Two-way connector
- (3) Front brake hose RH
- (4) Front brake hose LH
- (5) Clamp

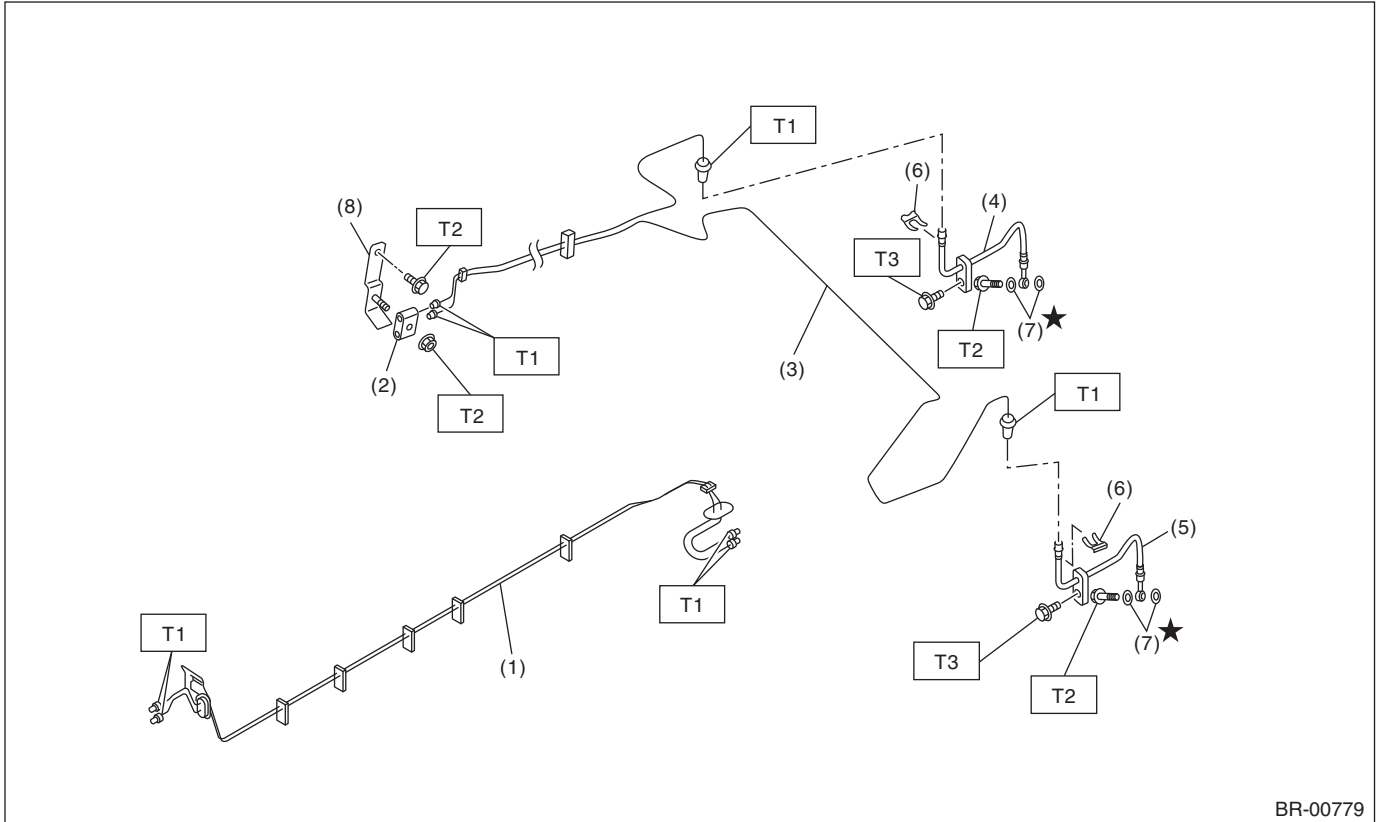
- (6) Gasket
- (7) VDC control module and hydraulic control unit (VDCCM&H/U)
- (8) Bracket
- (9) Master cylinder

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)
T4:	33 (3.4, 24.3)

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5. CENTER AND REAR BRAKE PIPES AND HOSES



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

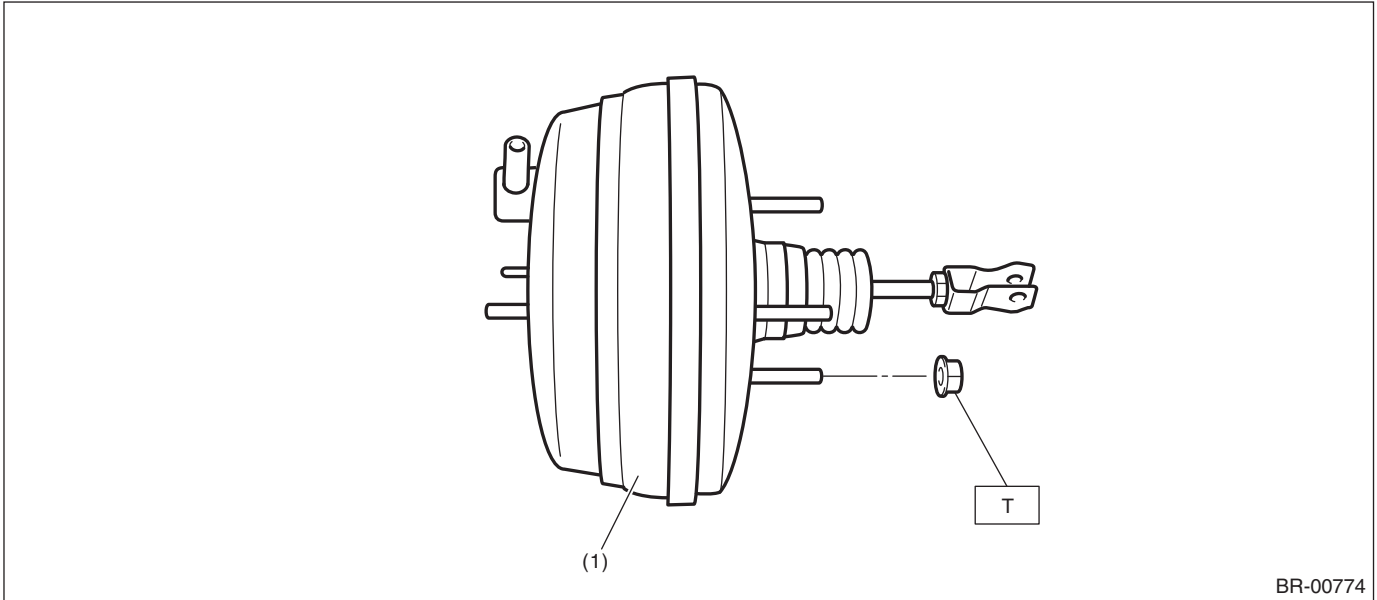
Tightening torque: N·m (kgf·m, ft·lb)

T1: 15 (1.5, 11.1)

T2: 18 (1.8, 13.3)

T3: 33 (3.4, 24.3)

6. BRAKE BOOSTER



BR-00774

(1) Brake booster

Tightening torque: N·m (kgf·m, ft·lb)

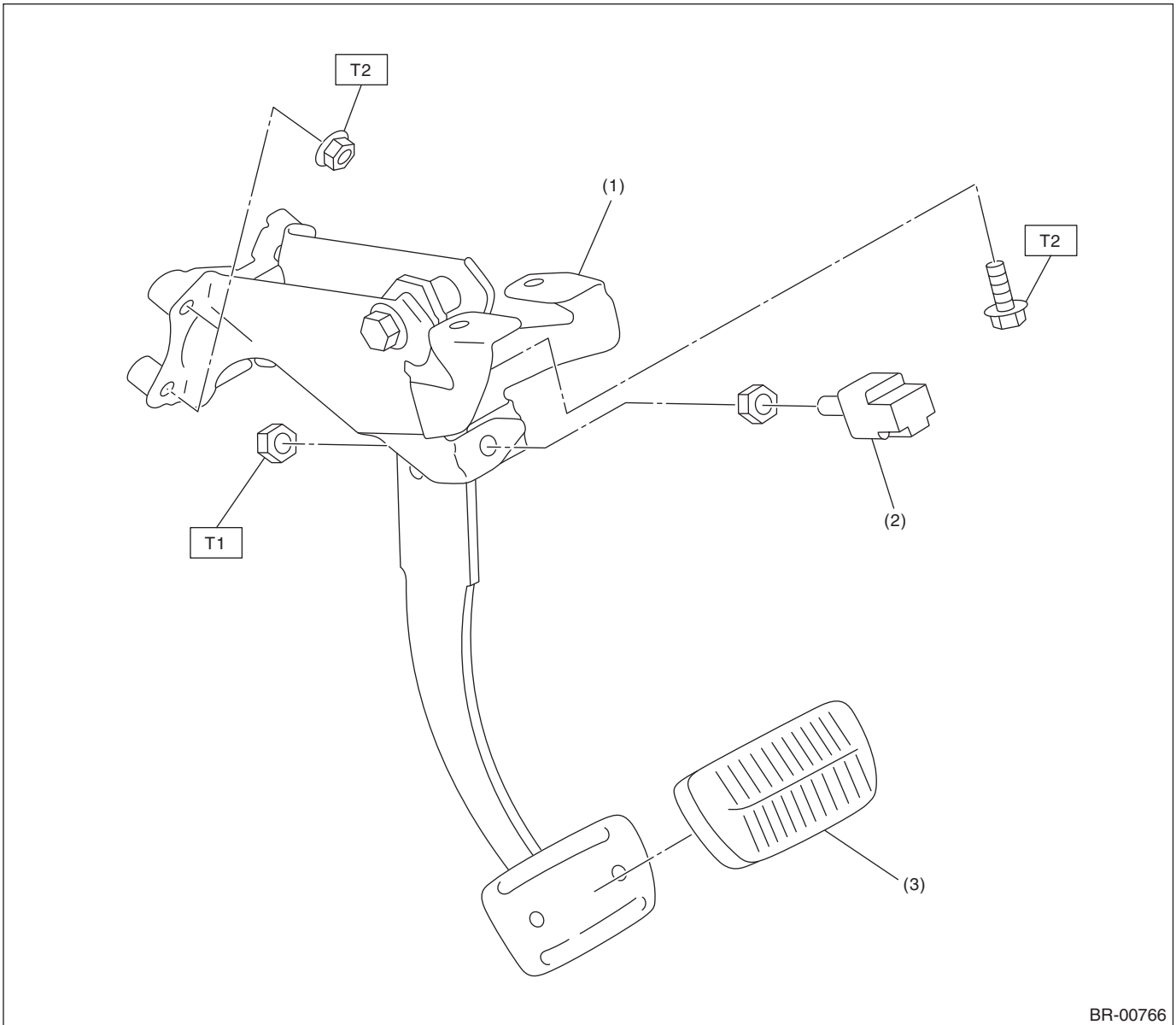
T: 18 (1.8, 13.3)

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7. BRAKE PEDAL

- AT model



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

- (3) Brake pedal pad

Tightening torque: N·m (kgf·m, ft·lb)

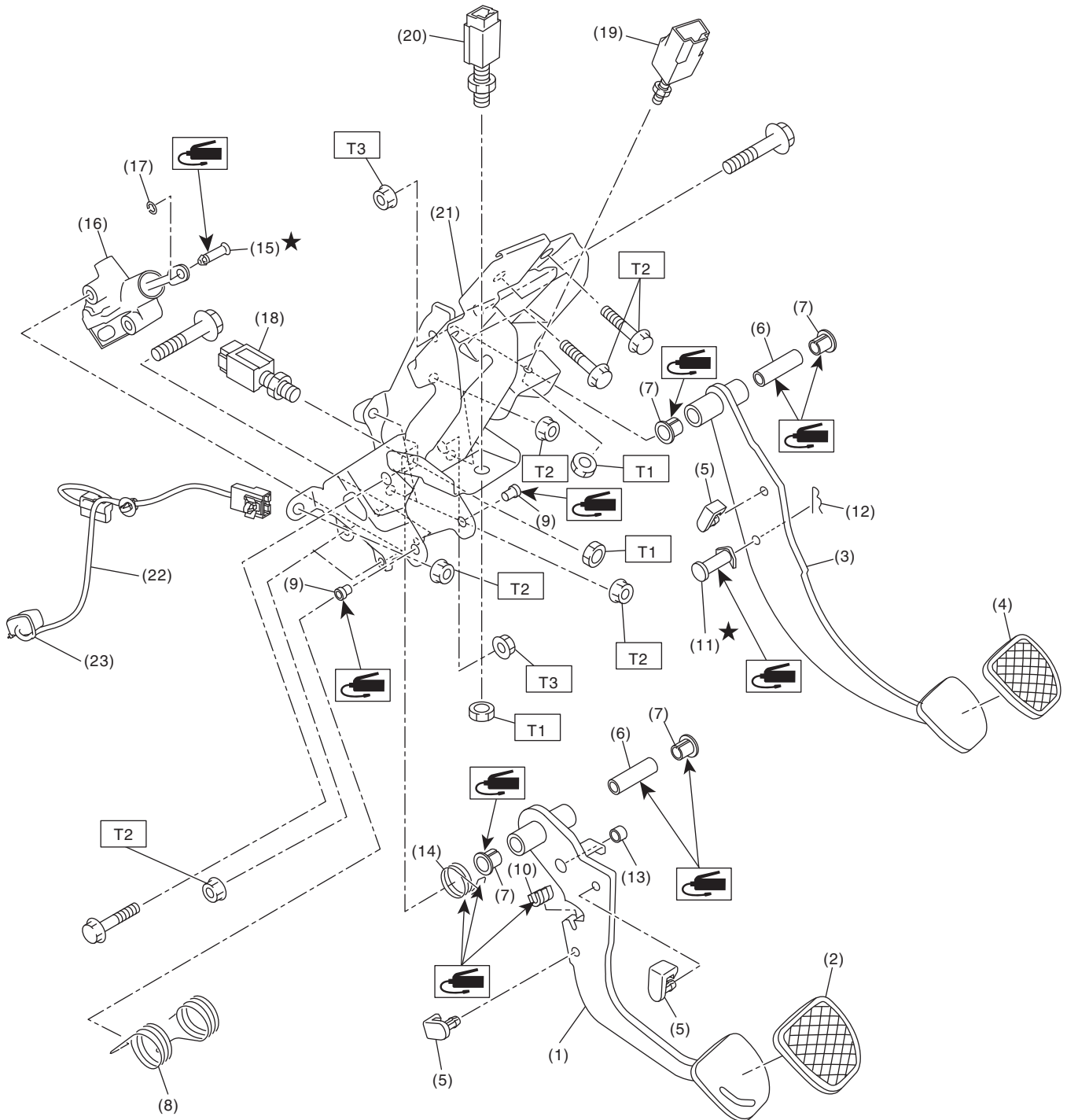
T1: 8 (0.8, 5.9)

T2: 18 (1.8, 13.3)

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- MT model



CL-00760

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(1) Clutch pedal	(11) Clevis pin	(21) Pedal bracket
(2) Clutch pedal pad	(12) Snap pin	(22) Sensor harness
(3) Brake pedal	(13) Bush A	(23) Band
(4) Brake pedal pad	(14) Assist spring	
(5) Stopper	(15) Clevis pin	
(6) Spacer	(16) Master cylinder ASSY	
(7) Bushing	(17) Clip	
(8) Torsion spring	(18) Clutch switch (clutch start)	
(9) Assist bushing	(19) Stop and brake switch	
(10) Torsion spring bush	(20) Clutch switch (cruise control)	

Tightening torque:N·m (kgf-m, ft-lb)**T1: 8 (0.8, 5.9)****T2: 18 (1.8, 13.3)****T3: 30 (3.1, 22.1)**

C: CAUTION

- Wear appropriate work clothing, including a cap, 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 in 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.