

General Description

BRAKE

1. General Description

A: SPECIFICATION

Model		All models
Front disc brake	Size	16-inch type
	Type	Disc (Floating type, ventilated)
	Effective disc diameter mm (in)	244 (9.61)
	Disc thickness × Diameter mm (in)	24 × 294 (0.94 × 11.57)
	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)
	Clearance adjustment	Automatic adjustment
Rear disc brake	Size	15-inch type
	Type	Disc (Floating type, solid)
	Effective disc diameter mm (in)	250 (9.84)
	Disc thickness × Diameter mm (in)	10 × 286 (0.39 × 11.26)
	Effective cylinder diameter mm (in)	38.1 (1.500)
	Pad dimensions (Length × Width × Thickness) mm (in)	92.0 × 33.0 × 9.0 (3.622 × 1.299 × 0.354)
	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 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.		FMVSS No. 116, DOT3

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NOTE:

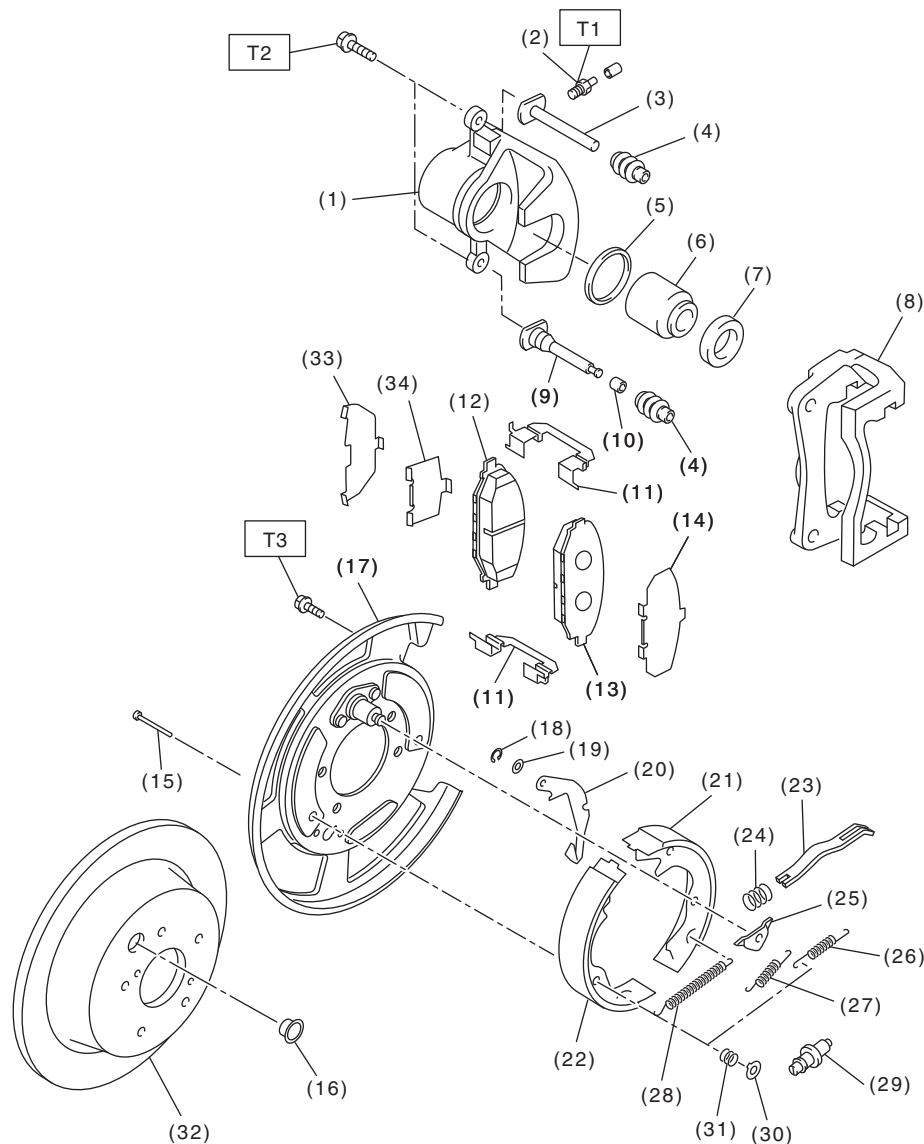
Refer to “PB” section for parking brake specifications. <Ref. to PB-2, SPECIFICATION, General Description.>

Contents				Standard	Limit
Front brake	Pad thickness	mm (in)	All models	11 (0.43)	1.5 (0.059)
	Disc thickness	mm (in)	All models	24 (0.94)	22 (0.87)
	Disc runout	mm (in)		—	0.05 (0.0020)
Rear brake	Pad thickness	mm (in)	All models	9.0 (0.354)	1.5 (0.059)
	Disc thickness	mm (in)	All models	10 (0.39)	8.5 (0.335)
	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)
	Lever stroke	7 — 8 notches/200 N (20 kgf, 45 lbf)			

		Brake pedal force N (kgf, lbf)	Fluid pressure kPa (kgf/cm ² , psi)
			All models
Brake booster	Brake fluid pressure with engine stopped	147 (15, 33)	545 (6, 79)
		294 (30, 66)	1,564 (16, 227)
	Brake fluid pressure with engine running and vacuum pressure at 66.7 kPa (500 mmHg, 19.69 inHg)	147 (15, 33)	6,400 (65, 928)
		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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2. REAR DISC BRAKE



BR-00656

(1) Caliper body	(15) Shoe hold-down pin	(27) Primary shoe return spring (blue)
(2) Air bleeder screw	(16) Adjusting hole cover	(28) Adjusting spring
(3) Guide pin (black)	(17) Back plate	(29) Adjuster
(4) Pin boot	(18) Retainer	(30) Shoe hold-down cup
(5) Piston seal	(19) Wave washer	(31) Shoe hold-down spring
(6) Piston	(20) Lever	(32) Disc rotor
(7) Piston boot	(21) Parking brake shoe (secondary)	(33) Outer shim
(8) Support	(22) Parking brake shoe (primary)	(34) Inner shim
(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 (yellow)	
(13) Outer pad		
(14) Shim		

Tightening torque: N·m (kgf-m, ft-lb)

T1: 8 (0.8, 5.8)

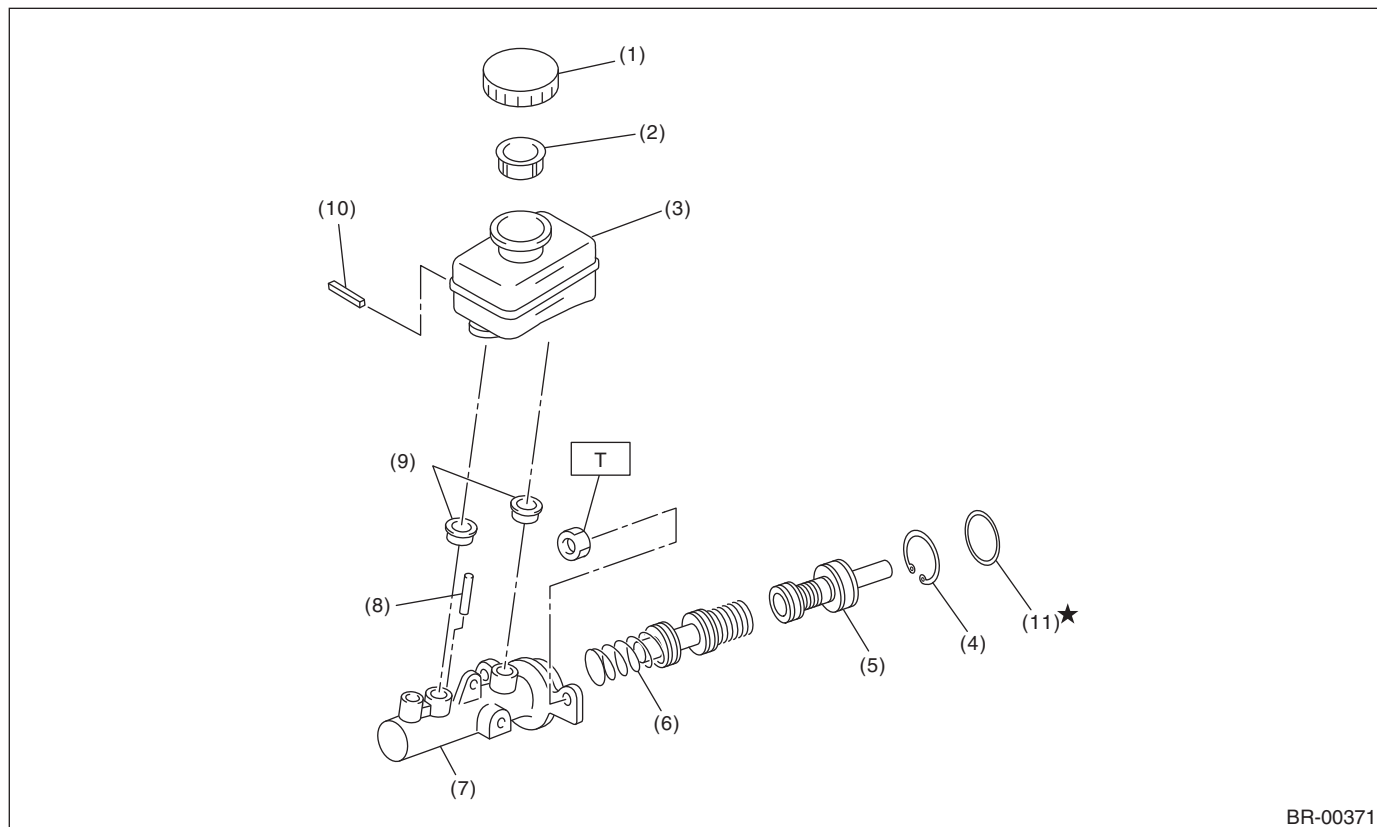
T2: 27 (2.8, 19.9)

T3: 66 (6.7, 48.7)

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3. MASTER CYLINDER



- (1) Cap
- (2) Filter
- (3) Reservoir tank
- (4) C-ring
- (5) Primary piston

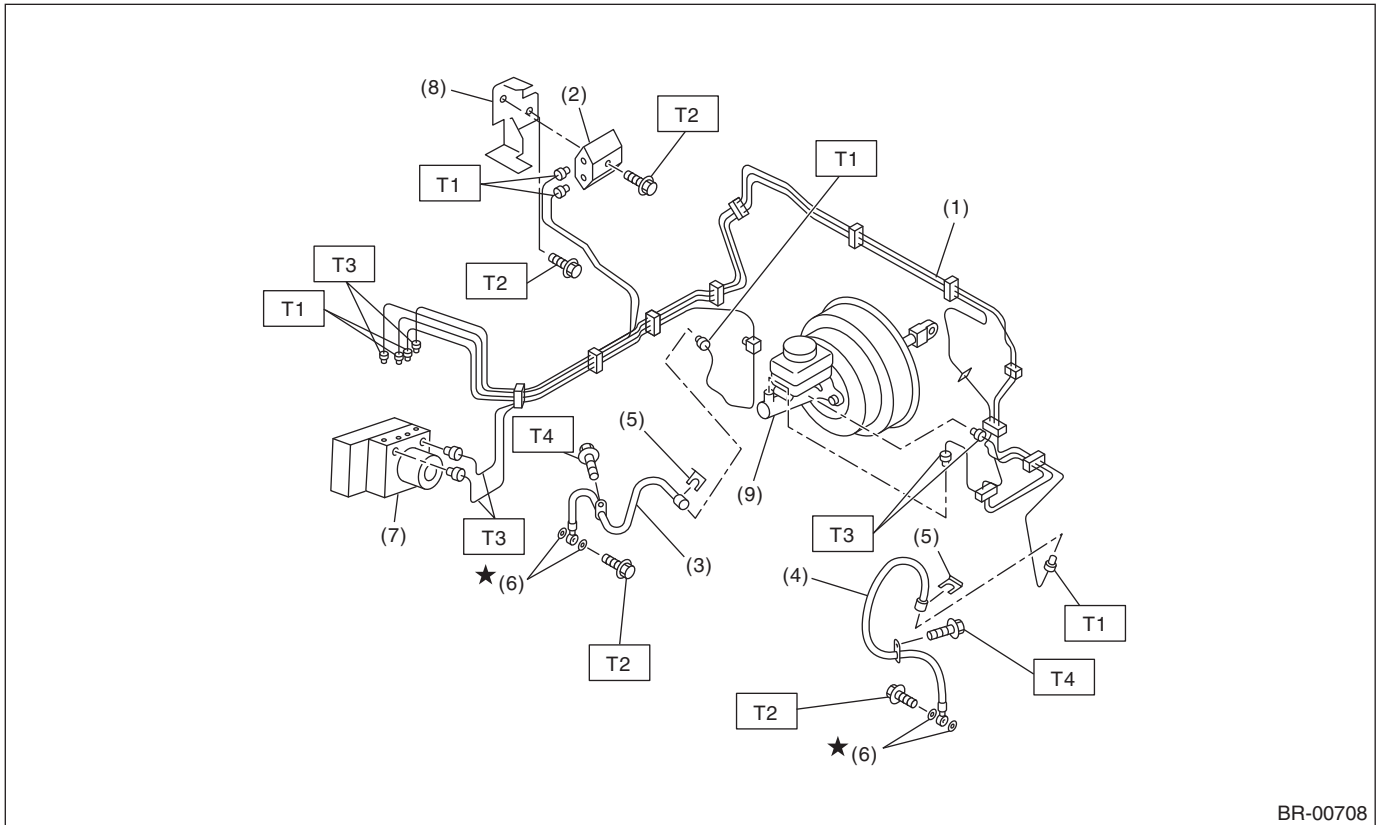
- (6) Secondary piston
- (7) Cylinder body
- (8) Cylinder pin
- (9) Seal
- (10) Pin

- (11) O-ring

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 | (6) Gasket |
| (2) Two-way connector | (7) VDC control module & hydraulic control unit (VDCCM&H/U) |
| (3) Front brake hose RH | (8) Bracket |
| (4) Front brake hose LH | (9) Master cylinder |
| (5) Clamp | |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 15 (1.5, 10.8)

T2: 18 (1.8, 13.0)

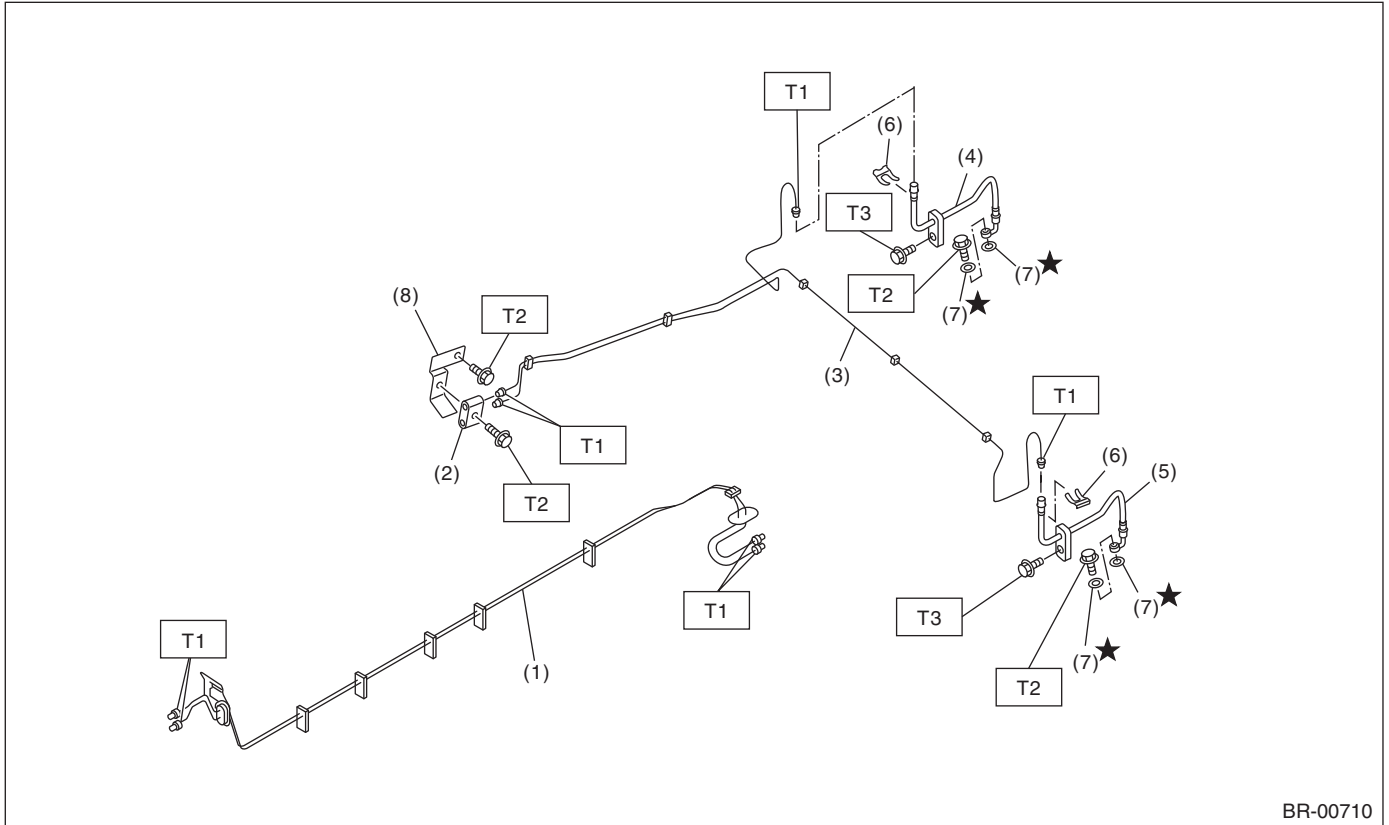
T3: 19 (1.9, 14.0)

T4: 33 (3.4, 24.3)

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5. CENTER AND REAR BRAKE PIPES AND HOSES



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

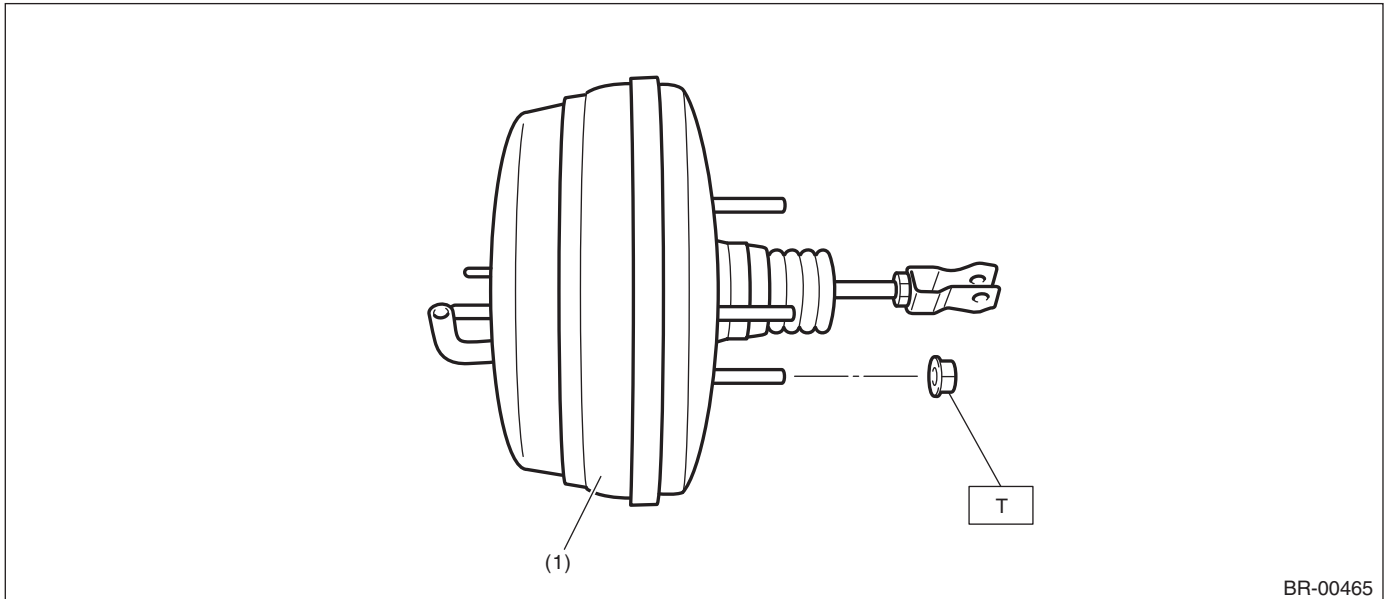
Tightening torque: N·m (kgf-m, ft-lb)

T1: 15 (1.5, 10.8)

T2: 18 (1.8, 13.0)

T3: 33 (3.4, 24.3)

6. BRAKE BOOSTER



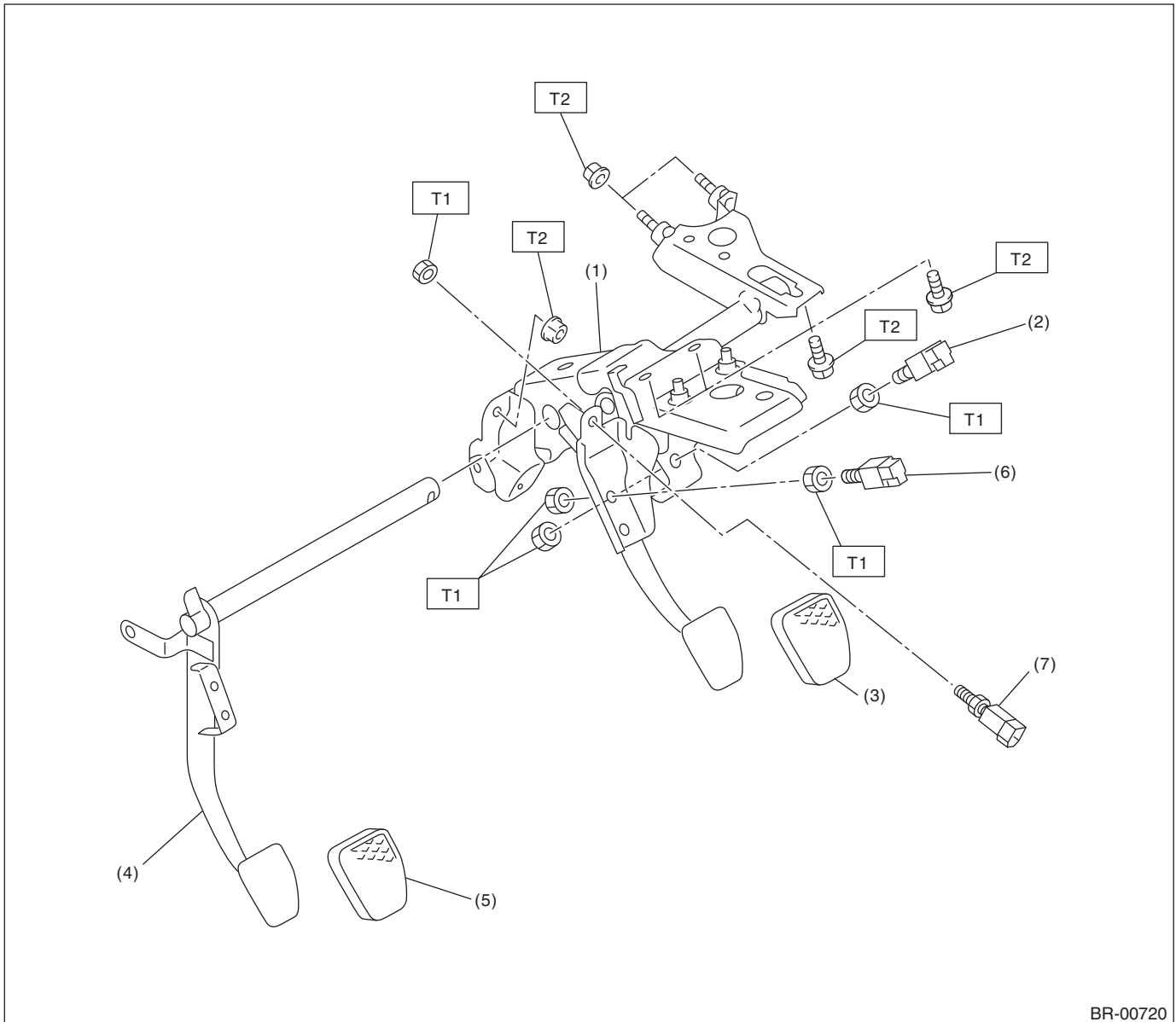
- (1) Brake booster

Tightening torque: N·m (kgf-m, ft-lb)

T: 18 (1.8, 13.0)

7. BRAKE PEDAL

- MT model



BR-00720

- | | |
|-----------------------|------------------------------------|
| (1) Brake pedal ASSY | (5) Clutch pedal pad |
| (2) Stop light switch | (6) Clutch switch (cruise control) |
| (3) Brake pedal pad | (7) Clutch switch (clutch start) |
| (4) Clutch pedal | |

Tightening torque: N·m (kgf-m, ft-lb)

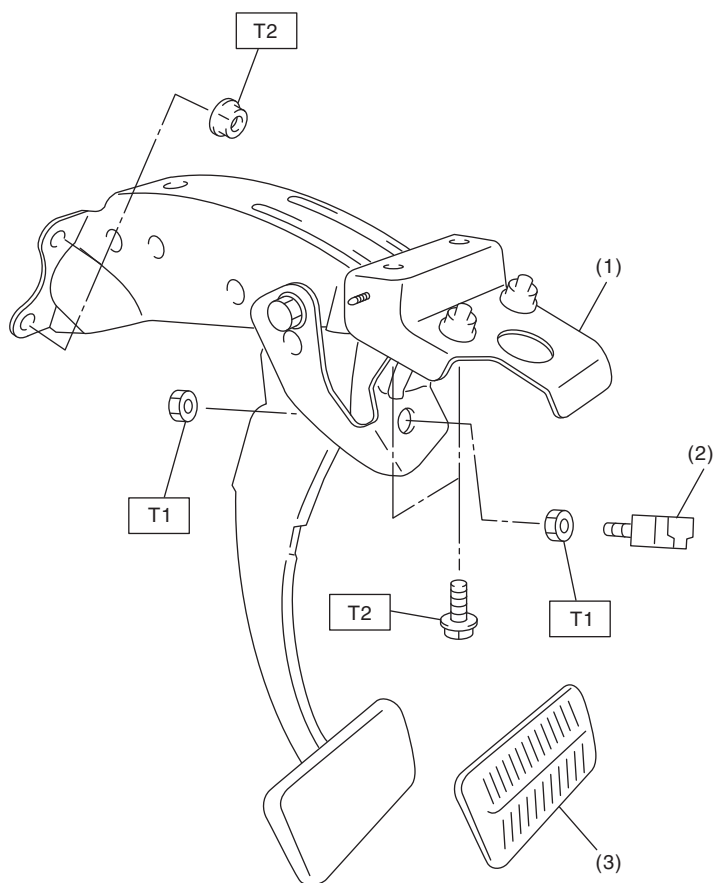
T1: 8 (0.8, 5.8)

T2: 18 (1.8, 13.0)

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- AT model



BR-00580

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

- (3) Brake pedal pad

Tightening torque: N·m (kgf-m, ft-lb)

T1: 8 (0.8, 5.8)

T2: 18 (1.8, 13.0)

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.

D: PREPARATION TOOL**1. GENERAL TOOL**

TOOL NAME	REMARKS
Snap ring pliers	Used for removing and installing snap rings.