

General Description

BRAKE

1. General Description

A: SPECIFICATION

Model		Except for OUTBACK	OUTBACK
Front disc brake	Size	15-inch type	
	Type	Disc (Floating type, ventilated)	
	Effective disc diameter mm (in)	228 (8.98)	
	Disc thickness × Diameter mm (in)	24 × 277 (0.94 × 10.91)	
	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
Rear drum brake	Type	Drum (Leading/Trailing type)	—
	Effective drum inner diameter mm (in)	254 (10)	—
	Effective cylinder diameter mm (in)	19 (0.75)	—
	Lining dimensions (Length × Width × Thickness) mm (in)	243.8 × 40.0 × 4.5 (9.6 × 1.575 × 0.177)	—
	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, or DOT4	

General Description

BRAKE

NOTE:

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

Item		Specification	Limit
Front brake	Pad thickness	mm (in)	11 (0.43)
	Disc thickness	mm (in)	24 (0.94)
	Disc runout	mm (in)	—
Rear brake (disc type)	Pad thickness	mm (in)	9.0 (0.354)
	Disc thickness	mm (in)	10 (0.39)
	Disc runout	mm (in)	—
Rear brake (drum type)	Inside diameter	mm (in)	254 (10)
	Lining thickness	mm (in)	4.5 (0.177)
Rear brake (disc type)	Inside diameter	mm (in)	190 (7.48)
	Lining thickness	mm (in)	2.8 (0.11)
Parking brake	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)	6,003 (61, 871)
		294 (30, 66)	11,273 (115, 1,635)

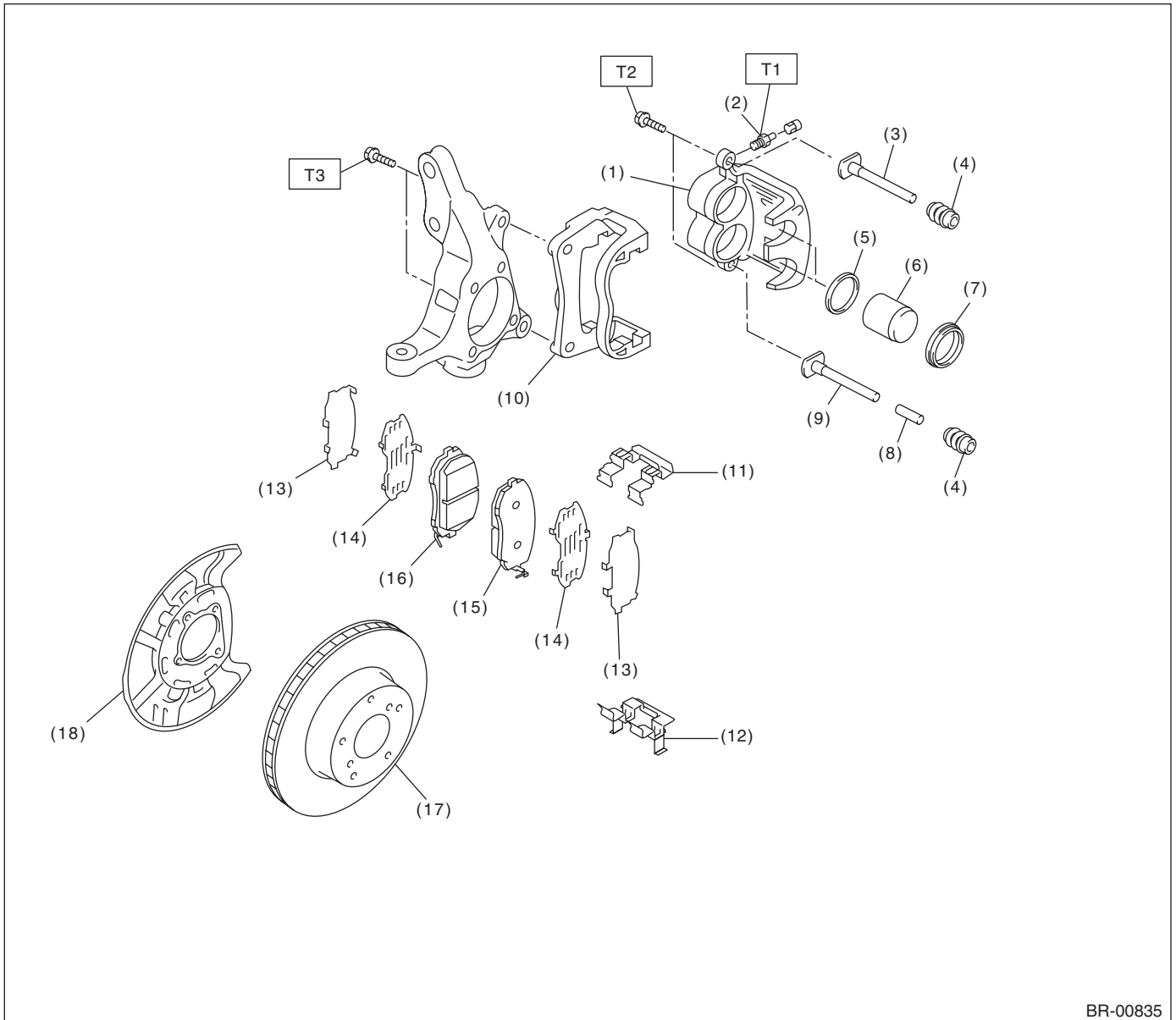
Brake pedal	Free play	mm (in)	0.5 — 2 (0.020 — 0.079) [When pulling the brake pedal upward with a force of less than 10 N (1 kgf, 2 lbf)]
-------------	-----------	---------	--

General Description

BRAKE

B: COMPONENT

1. FRONT DISC BRAKE



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

- (9) Lock pin
- (10) Support
- (11) Pad clip upper
- (12) Pad clip lower
- (13) Outer shim
- (14) Inner shim
- (15) Pad (Outside)
- (16) Pad (Inside)

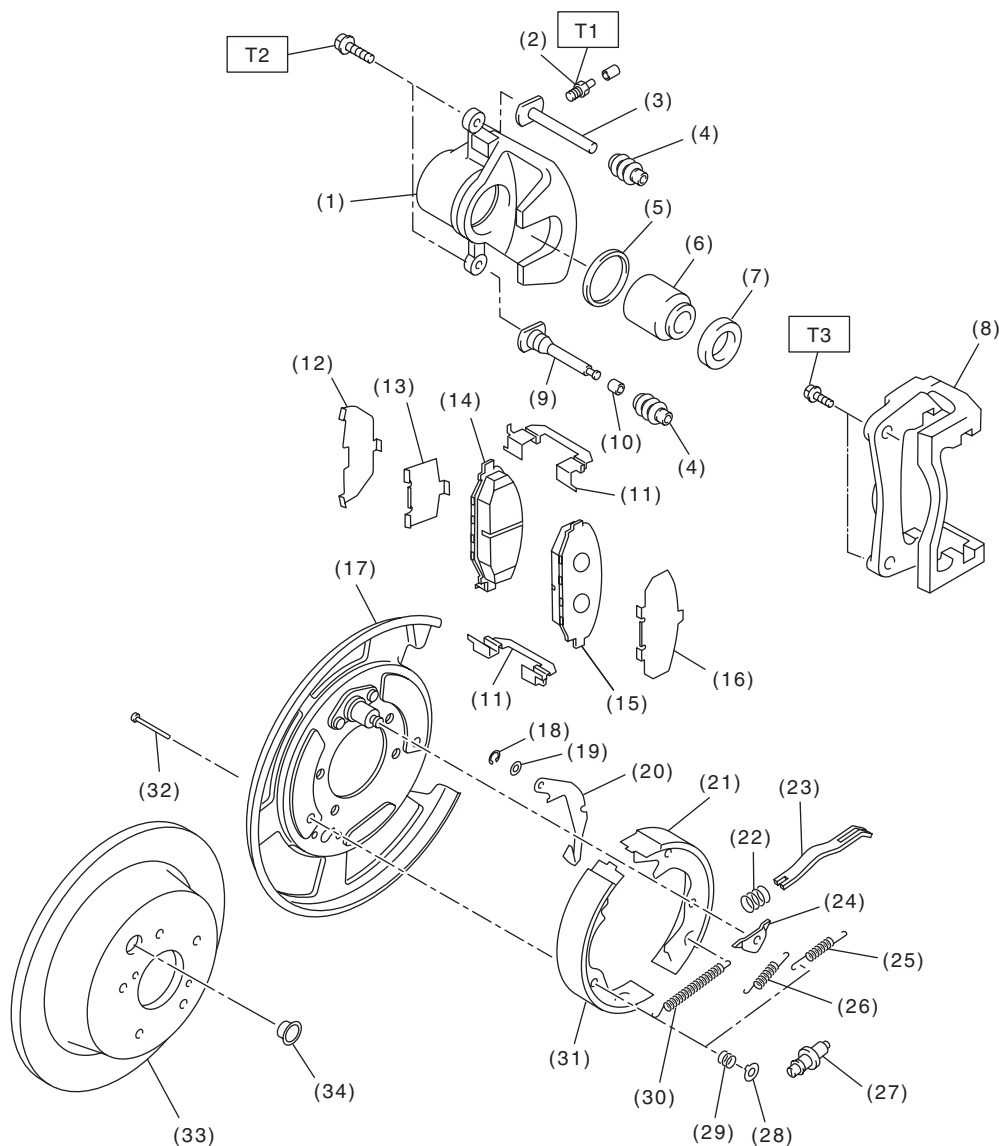
- (17) Disc rotor
- (18) Disc cover

Tightening torque: N·m (kgf-m, ft-lb)

T1: 8 (0.8, 5.9)

T2: 27 (2.8, 19.9)

T3: 80 (8.2, 59)



BR-00836

- | | | |
|-----------------------|-------------------------------------|---|
| (1) Caliper body | (14) Inner pad | (27) Adjuster |
| (2) Air bleeder screw | (15) Outer pad | (28) Shoe hold-down cup |
| (3) Guide pin (black) | (16) Shim | (29) Shoe hold-down spring |
| (4) Pin boot | (17) Back plate | (30) Adjusting spring |
| (5) Piston seal | (18) Retainer | (31) Parking brake shoe (Primary) |
| (6) Piston | (19) Wave washer | (32) Shoe hold-down pin |
| (7) Piston boot | (20) Lever | (33) Disc rotor |
| (8) Support | (21) Parking brake shoe (Secondary) | (34) Adjusting hole cover |
| (9) Lock pin (silver) | (22) Strut spring | |
| (10) Bushing | (23) Strut | Tightening torque:N-m (kgf-m, ft-lb) |
| (11) Pad clip | (24) Shoe guide plate | T1: 8 (0.8, 5.9) |
| (12) Outer shim | (25) Secondary shoe return spring | T2: 27 (2.8, 19.9) |
| (13) Inner shim | (26) Primary shoe return spring | T3: 66 (6.7, 48.7) |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 8 (0.8, 5.9)

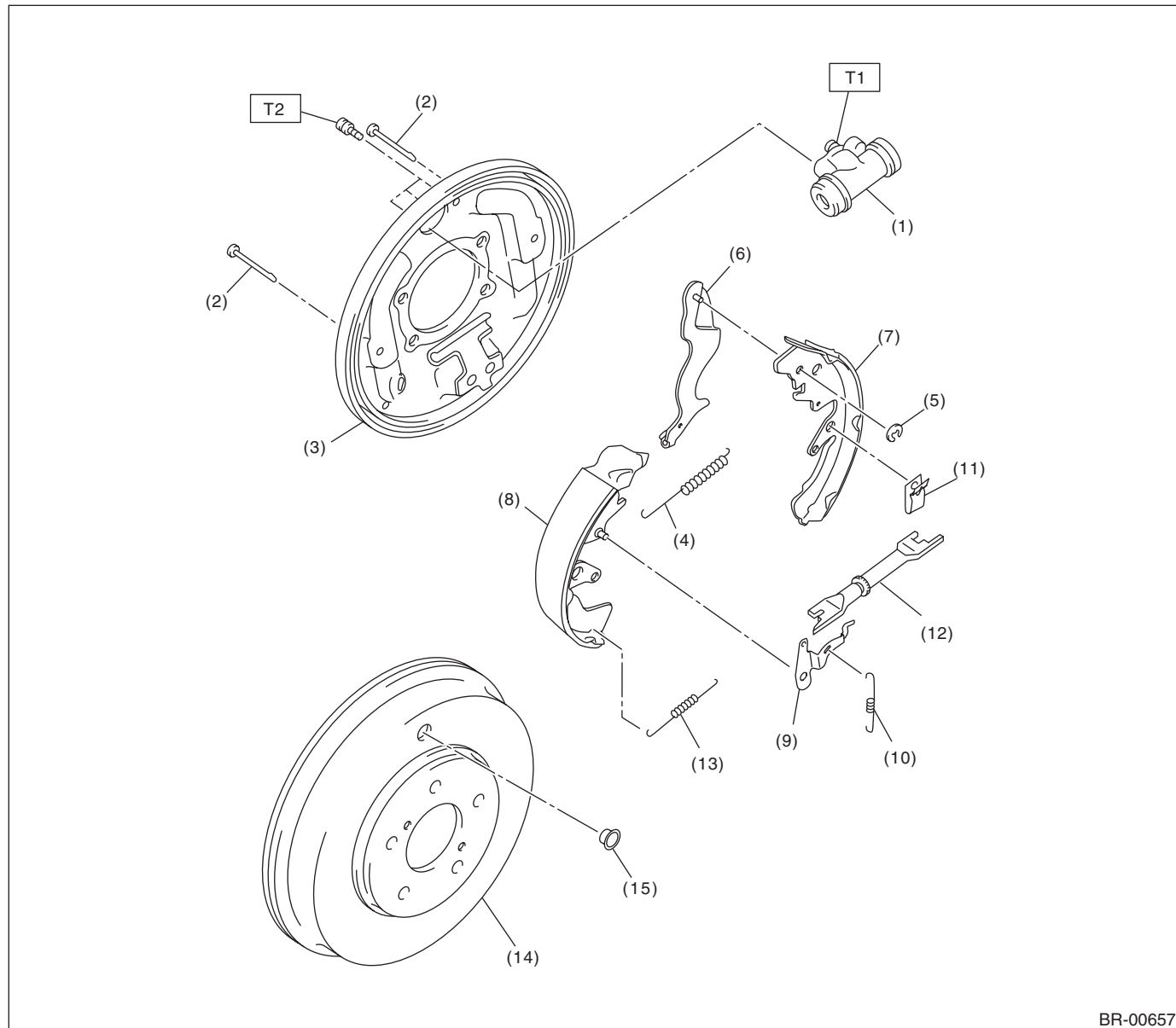
T2: 27 (2.8, 19.9)

T3: 66 (6.7, 48.7)

General Description

BRAKE

3. REAR DRUM BRAKE



BR-00657

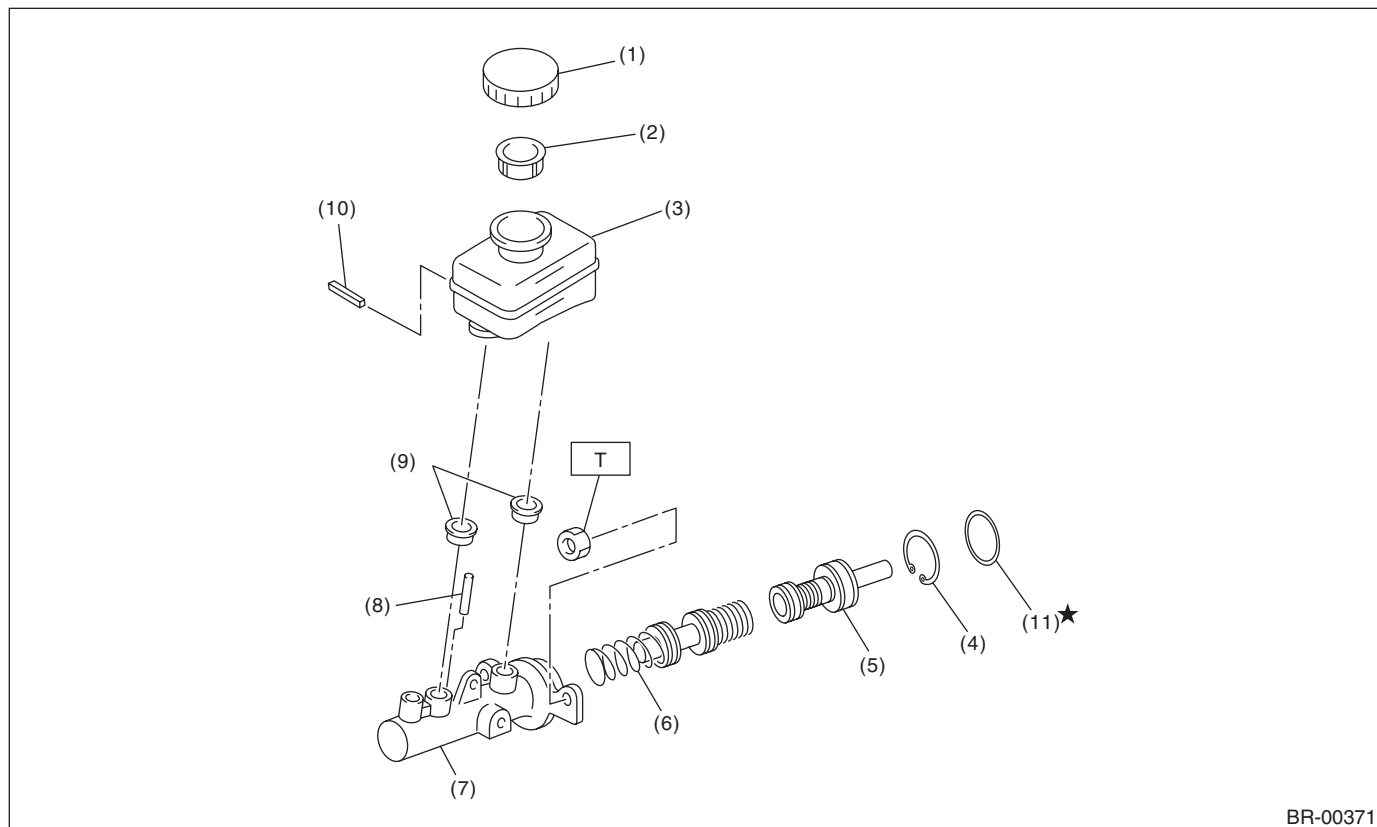
- | | | |
|------------------------------|-------------------------------|---------------------------|
| (1) Wheel cylinder ASSY | (8) Brake shoe (Leading) | (15) Adjusting hole cover |
| (2) Pin | (9) Adjusting lever | |
| (3) Back plate | (10) Adjusting spring | |
| (4) Upper shoe return spring | (11) Shoe hold-down spring | |
| (5) Retainer | (12) Adjuster | |
| (6) Parking brake lever | (13) Lower shoe return spring | |
| (7) Brake shoe (Trailing) | (14) Drum | |

Tightening torque: N·m (kgf·m, ft·lb)

T1: 8 (0.8, 5.9)

T2: 9 (0.9, 6.6)

4. 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

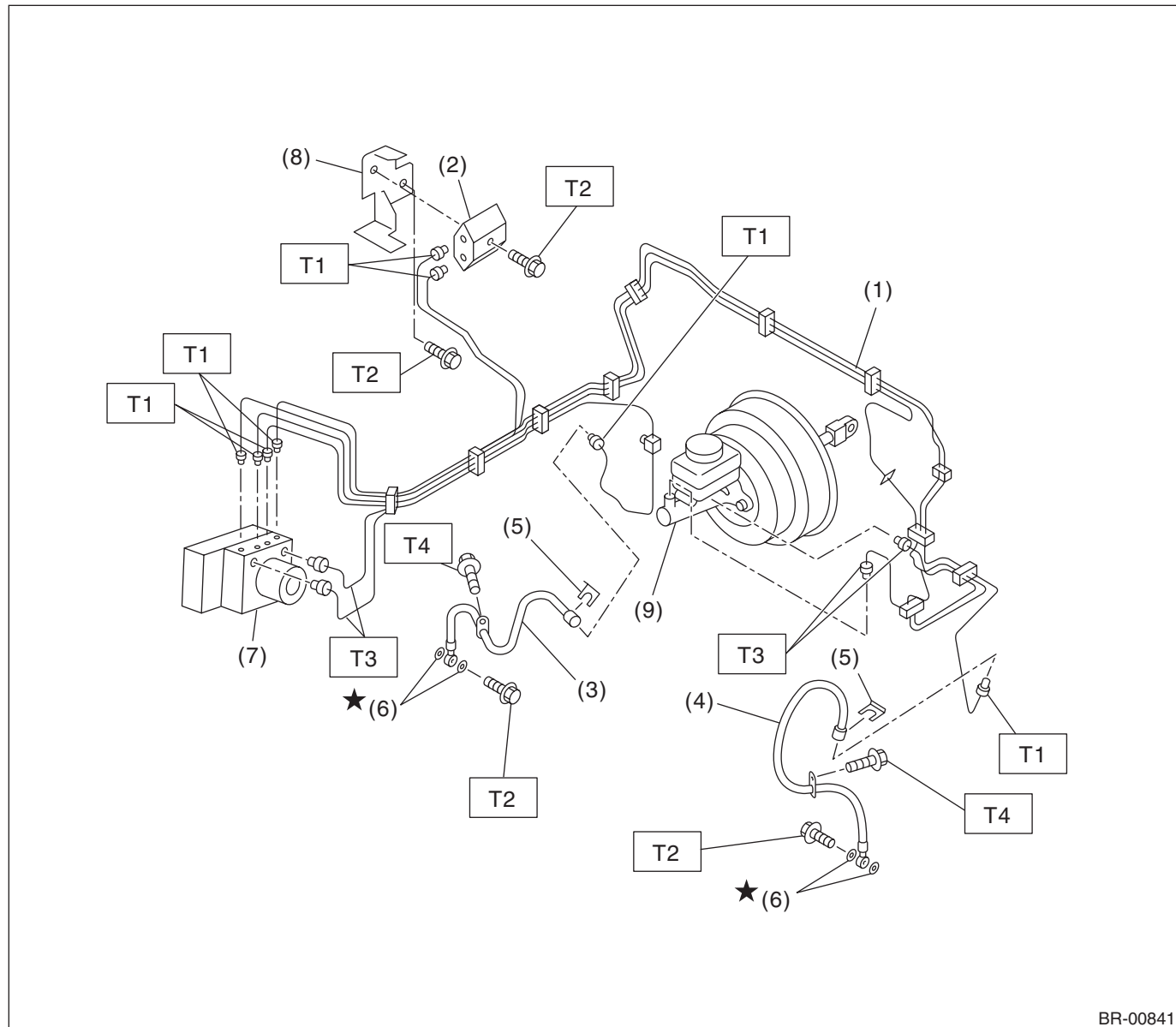
- (11) O-ring

Tightening torque: N-m (kgf-m, ft-lb)
T: 13 (1.3, 9.6)

General Description

BRAKE

5. FRONT BRAKE PIPES AND HOSES



- | | |
|---------------------------|---|
| (1) Front brake pipe ASSY | (6) Gasket |
| (2) Two-way connector | (7) VDC control module and 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)

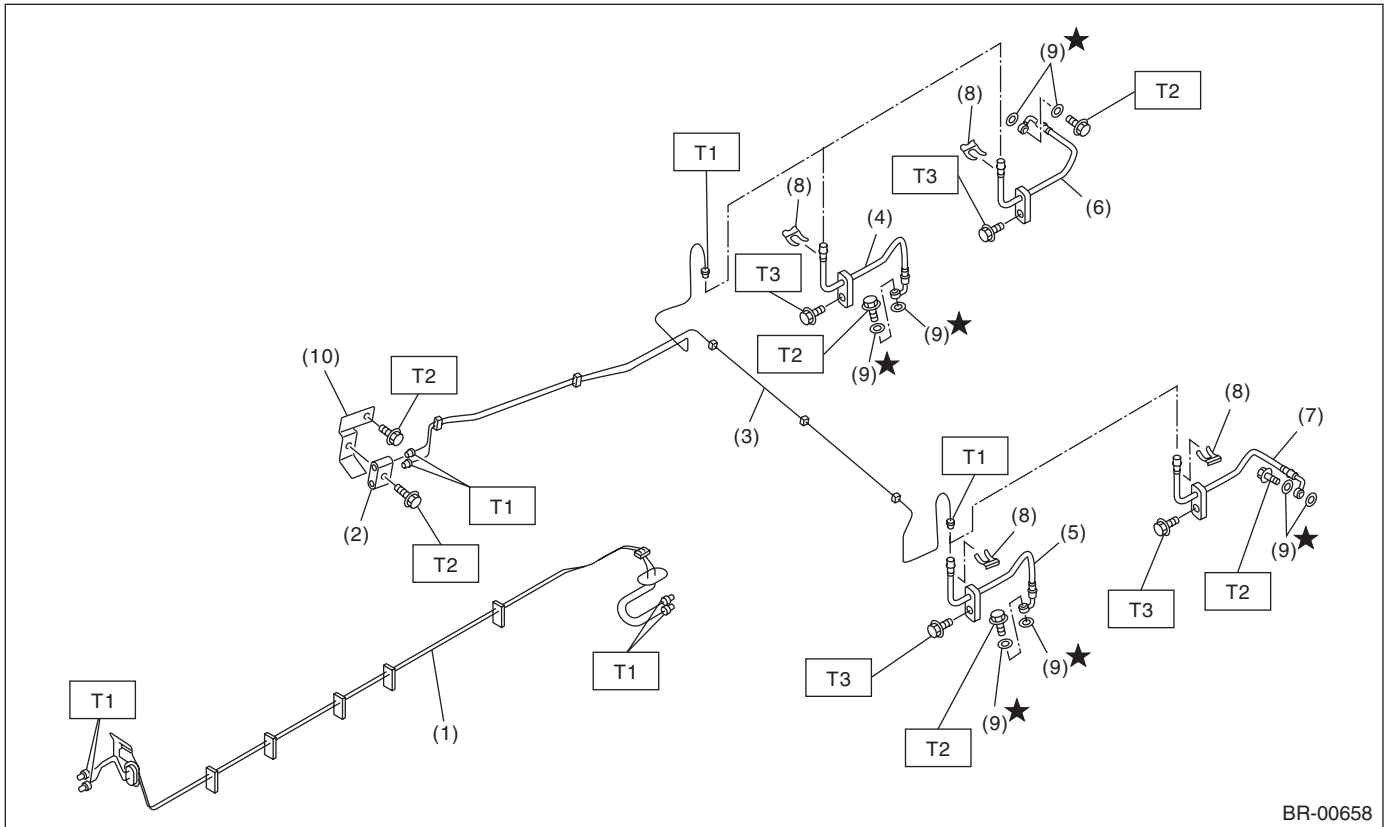
T1: 15 (1.5, 11.1)

T2: 18 (1.8, 13.3)

T3: 19 (1.9, 14)

T4: 33 (3.4, 24.3)

6. CENTER AND REAR BRAKE PIPES AND HOSES



BR-00658

- | | |
|---|---|
| (1) Center brake pipe ASSY | (6) Rear brake hose RH (Drum brake model) |
| (2) Two-way connector | (7) Rear brake hose LH (Drum brake model) |
| (3) Rear brake pipe ASSY | (8) Clamp |
| (4) Rear brake hose RH (Disc brake model) | (9) Gasket |
| (5) Rear brake hose LH (Disc brake model) | (10) Bracket |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 15 (1.5, 11.1)

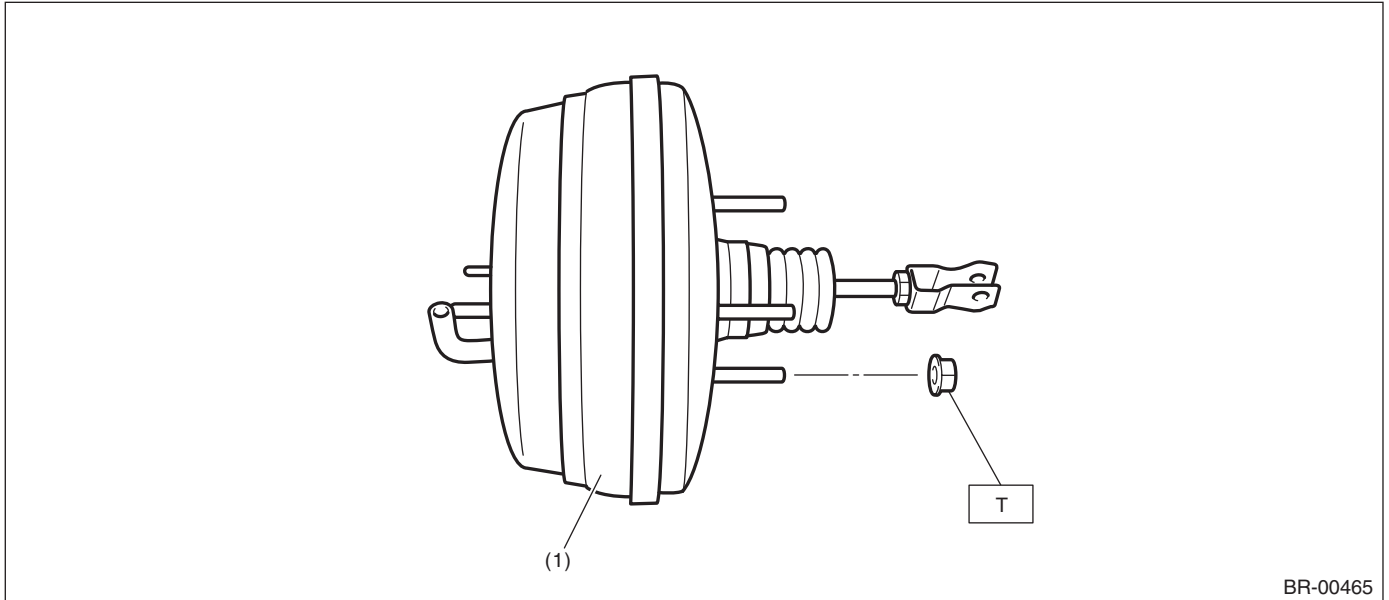
T2: 18 (1.8, 13.3)

T3: 33 (3.4, 24.3)

General Description

BRAKE

7. BRAKE BOOSTER



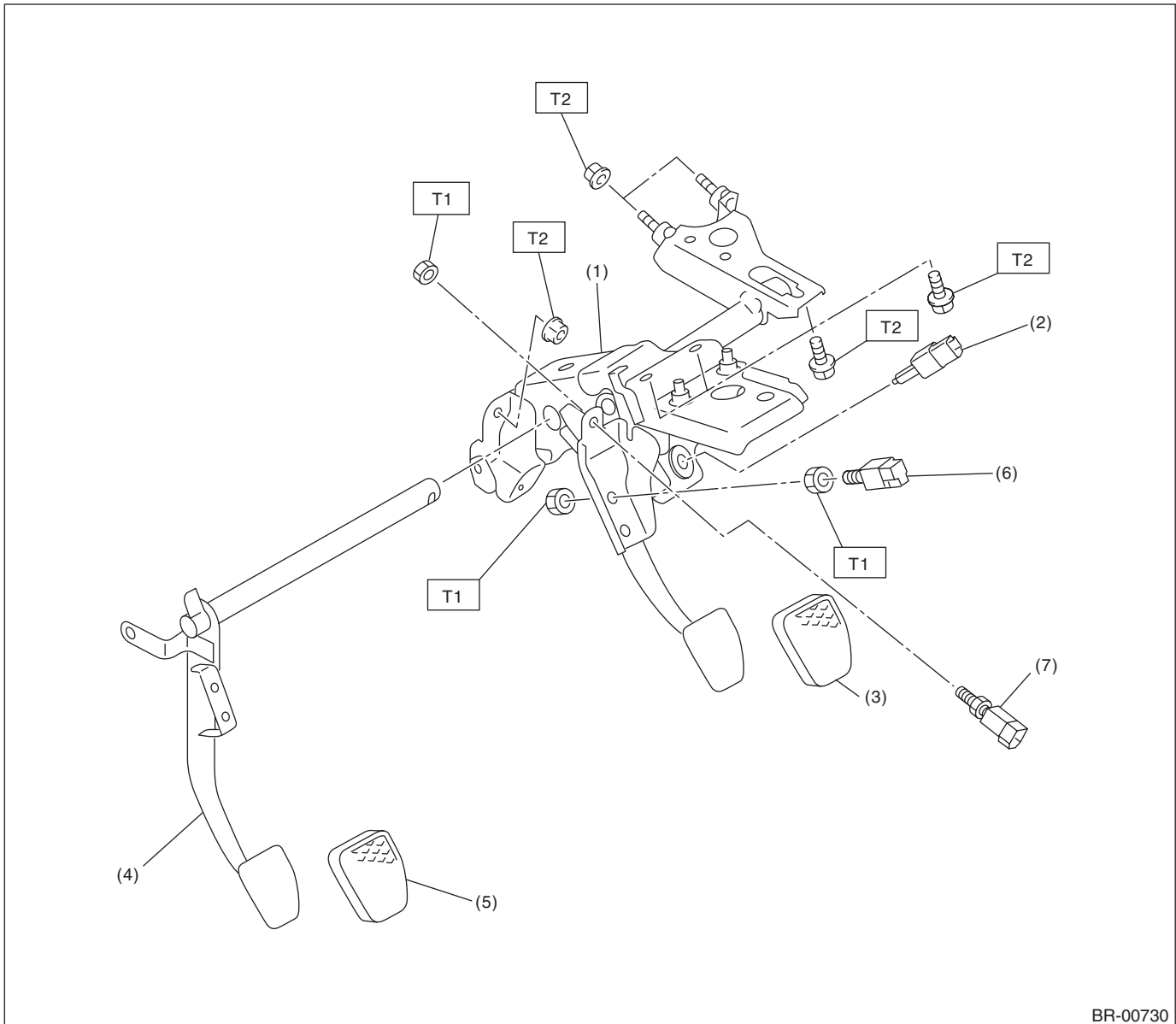
(1) Brake booster

Tightening torque: N·m (kgf-m, ft-lb)

T: 18 (1.8, 13.3)

8. BRAKE PEDAL

- MT model



- (1) Brake pedal ASSY
- (2) Stop light switch
- (3) Brake pedal pad
- (4) Clutch pedal

- (5) Clutch pedal pad
- (6) Clutch switch (cruise control)
- (7) Clutch switch (clutch start)

Tightening torque: N·m (kgf-m, ft-lb)

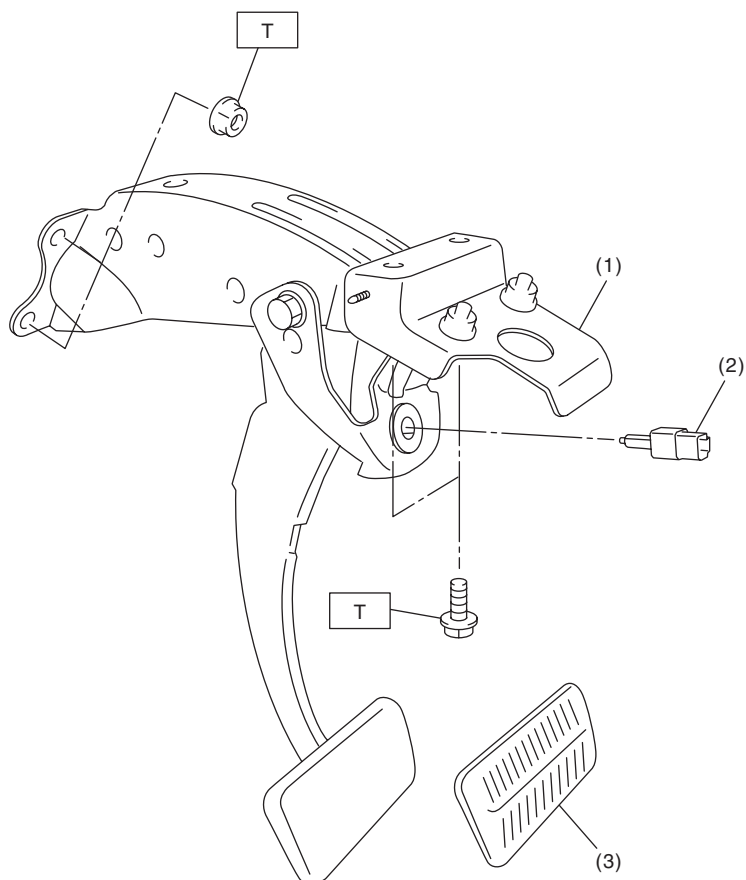
T1: 8 (0.8, 5.8)

T2: 18 (1.8, 13.3)

General Description

BRAKE

- AT model



BR-00659

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

- (3) Brake pedal pad

Tightening torque: N·m (kgf-m, ft-lb)

T: 18 (1.8, 13.3)

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.