

# General Description

CONTINUOUSLY VARIABLE TRANSMISSION

## 1. General Description

### A: SPECIFICATION

#### 1. TORQUE CONVERTER

Model	DOHC non-turbo
Type	Symmetric, 3-element, single stage, 2-phase torque converter
Stall torque ratio	2.07
Nominal mm (in)	236 (9.29)
Stall speed (at sea level)	2,000 — 2,700 (D range) 1,900 — 2,600 (R range)
One-way clutch	Sprag type one-way clutch

#### 2. OIL PUMP

Type		Internal gear pump
Driving method		Driven by chain
Number of teeth	Inner rotor	8
	Outer rotor	9

#### 3. TRANSMISSION CONTROL ELEMENT

Type	Forward continuously variable speed change, 1 reverse, planetary gear
Multi-plate clutch	1 set
Multi-plate brake	1 set

#### 4. TRANSMISSION GEAR RATIO

Forward	3.581 — 0.570
Rev	3.667

#### 5. PLATE

Number of forward clutch drive plates	3
Number of reverse brake drive plates	4

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#### 6. SELECTOR POSITION

P (Park)	Transmission neutral, output shaft locked, engine start enabled
R (Reverse)	Rev
N (Neutral)	Transmission neutral, engine start enabled
D (Drive)	Forward continuously variable speed change
M (manual mode) (paddle shift +side)	Manual gear change 1st → 2nd → 3rd → 4th → 5th → 6th
M (manual mode) (paddle shift -side)	Manual gear change 1st ← 2nd ← 3rd ← 4th ← 5th ← 6th

#### 7. HYDRAULIC CONTROL AND LUBRICATION

Type	Electronic hydraulic control (Gear ratio is changed by signals of vehicle speed and accelerator opening angle.)
Fluid	Specified fluid: SUBARU CVT OIL FOR LINEARTRONIC <b>CAUTION:</b> <b>Always use specified CVTF. Using other fluid will cause malfunction.</b>
Fluid capacity L (US qt, Imp qt)	12.19 — 12.69 (12.9 — 13.4, 10.7 — 11.2)
Lubrication system	Forced feed lubrication with oil pump

#### 8. COOLING AND HARNESS

Cooling system	Liquid-cooler incorporated in radiator
Inhibitor switch harness	16 poles
Transmission harness	12 poles

#### 9. TRANSFER

Transfer type	Multi-plate transfer (MP-T)
Number of transfer clutch drives & driven plates	5
Control method	Electronic hydraulic type
Reduction gear ratio	1.000 (43/43)

#### 10. REDUCTION GEAR RATIO

	Except for OUTBACK	OUTBACK
Front final reduction gear ratio	3.700	3.900

#### 11. RECOMMENDED GEAR OIL

Lubrication oil	GL-5 (75W-85)
Front differential oil capacity L (US qt, Imp qt)	1.3 — 1.4 (1.4 — 1.5, 1.1 — 1.2)

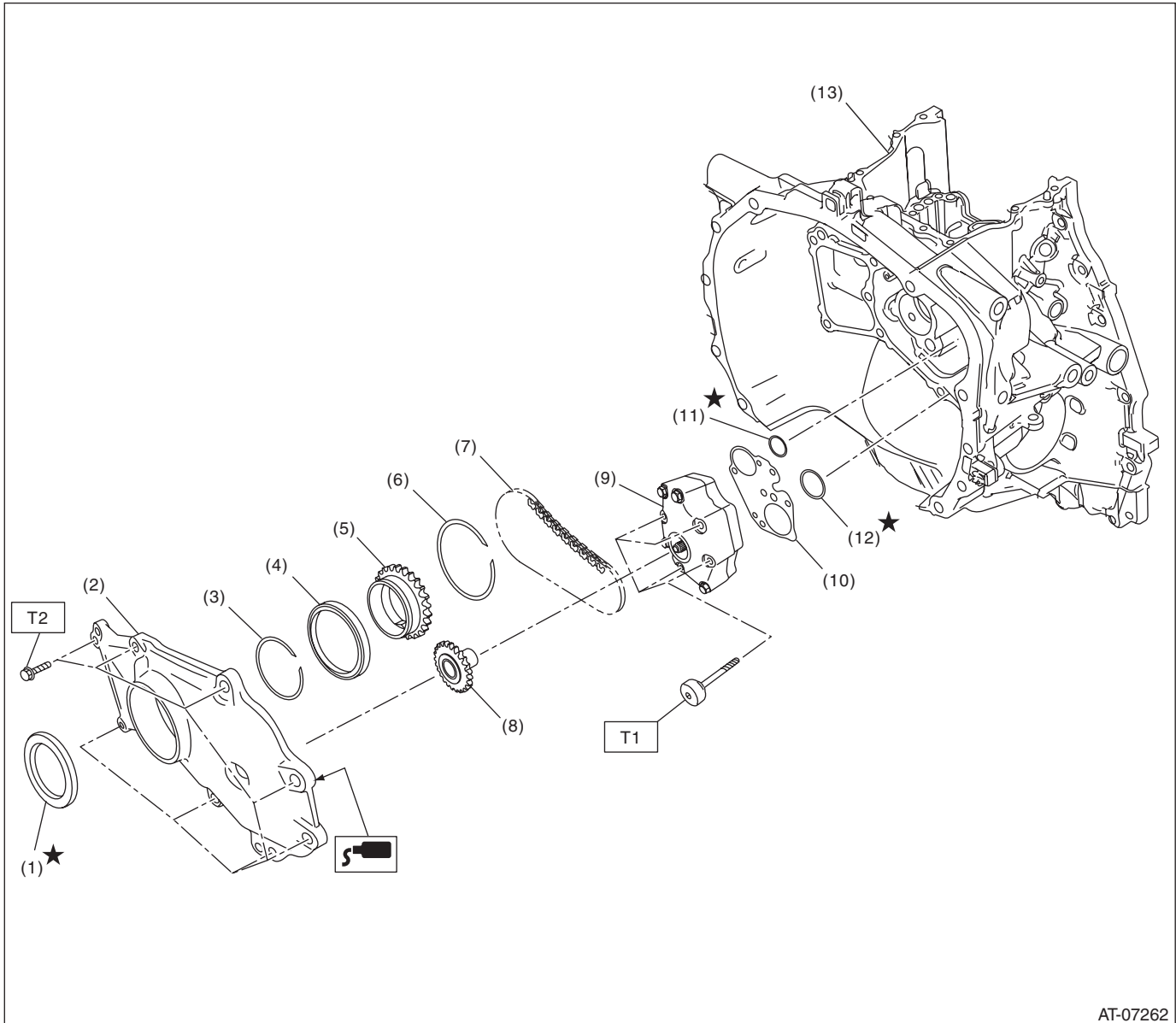


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(1) Drive plate	(13) Stud bolt	<b><i>Tightening torque: N·m (kgf-m, ft-lb)</i></b>
(2) Reinforcement drive plate	(14) O-ring	<b><i>T1: 18 (1.8, 13.3)</i></b>
(3) Torque converter ASSY	(15) O-ring	<b><i>T2: 22 (2.2, 16.2)</i></b>
(4) O-ring	(16) O-ring	<b><i>T3: 22.5 (2.3, 16.6)</i></b>
(5) Seal ring	(17) Gasket	<b><i>T4: 25 (2.5, 18.4)</i></b>
(6) O-ring	(18) Overflow drain plug	<b><i>T5: 35 (3.6, 25.8)</i></b>
(7) Front differential gear oil filler plug	(19) Gasket	<b><i>T6: 40 (4.1, 29.5)</i></b>
(8) O-ring	(20) Front differential gear oil drain plug	<b><i>T7: 41 (4.2, 30.2)</i></b>
(9) Air breather hose	(21) Converter case	<b><i>T8: 50 (5.1, 36.9)</i></b>
(10) Transmission radio ground cord	(22) Union screw	<b><i>T9: 70 (7.1, 51.6)</i></b>
(11) Transmission hanger	(23) Gasket	<b><i>T10: &lt;Ref. to CVT-157, INSTALLATION, Drive Plate.&gt;</i></b>
(12) O-ring	(24) CVTF cooler pipe COMPL	

## 2. OIL PUMP ASSY



AT-07262

- |                          |                     |
|--------------------------|---------------------|
| (1) Oil seal             | (7) Oil pump chain  |
| (2) Oil pump chain cover | (8) Driven sprocket |
| (3) Snap ring            | (9) Oil pump ASSY   |
| (4) Ball bearing         | (10) Plate          |
| (5) Drive sprocket       | (11) O-ring (small) |
| (6) Snap ring            | (12) O-ring (large) |

- (13) Converter case

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

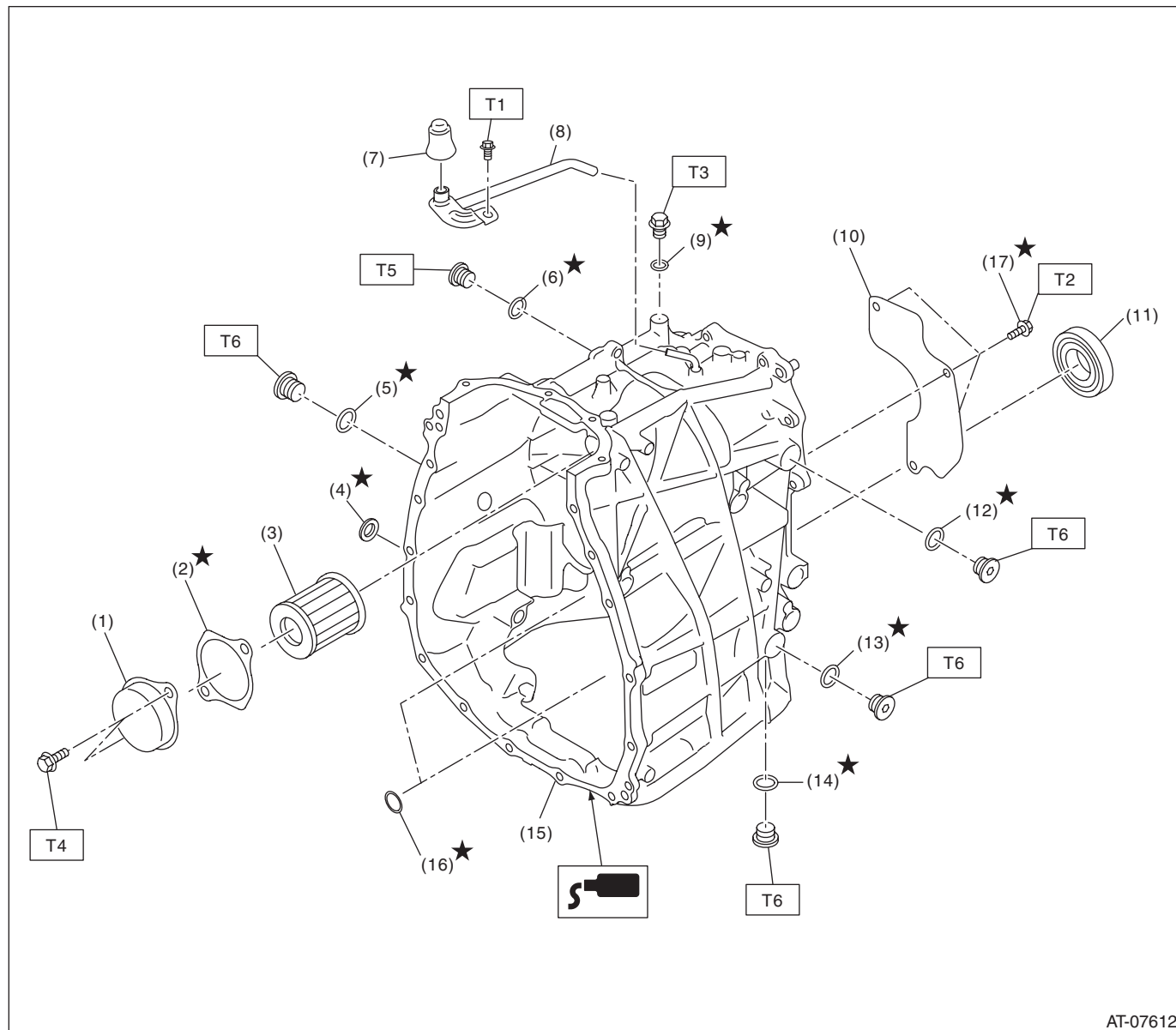
**T1: 8.5 (0.9, 6.3)**

**T2: 21 (2.1, 15.5)**

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### 3. TRANSMISSION CASE



AT-07612

- |                            |                              |
|----------------------------|------------------------------|
| (1) CVTF filter cover      | (10) Oil stopper plate       |
| (2) Gasket                 | (11) Ball bearing            |
| (3) CVTF filter            | (12) O-ring                  |
| (4) Oil seal               | (13) Gasket                  |
| (5) Gasket                 | (14) O-ring                  |
| (6) O-ring                 | (15) Transmission case       |
| (7) Air breather cap       | (16) Seal ring               |
| (8) Air breather hose ASSY | (17) Micro-encapsulated bolt |
| (9) O-ring                 |                              |

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

***T1: 5 (0.5, 3.7)***

***T2: 9 (0.9, 6.6)***

***T3: 13 (1.3, 9.6)***

***T4: 17 (1.7, 12.5)***

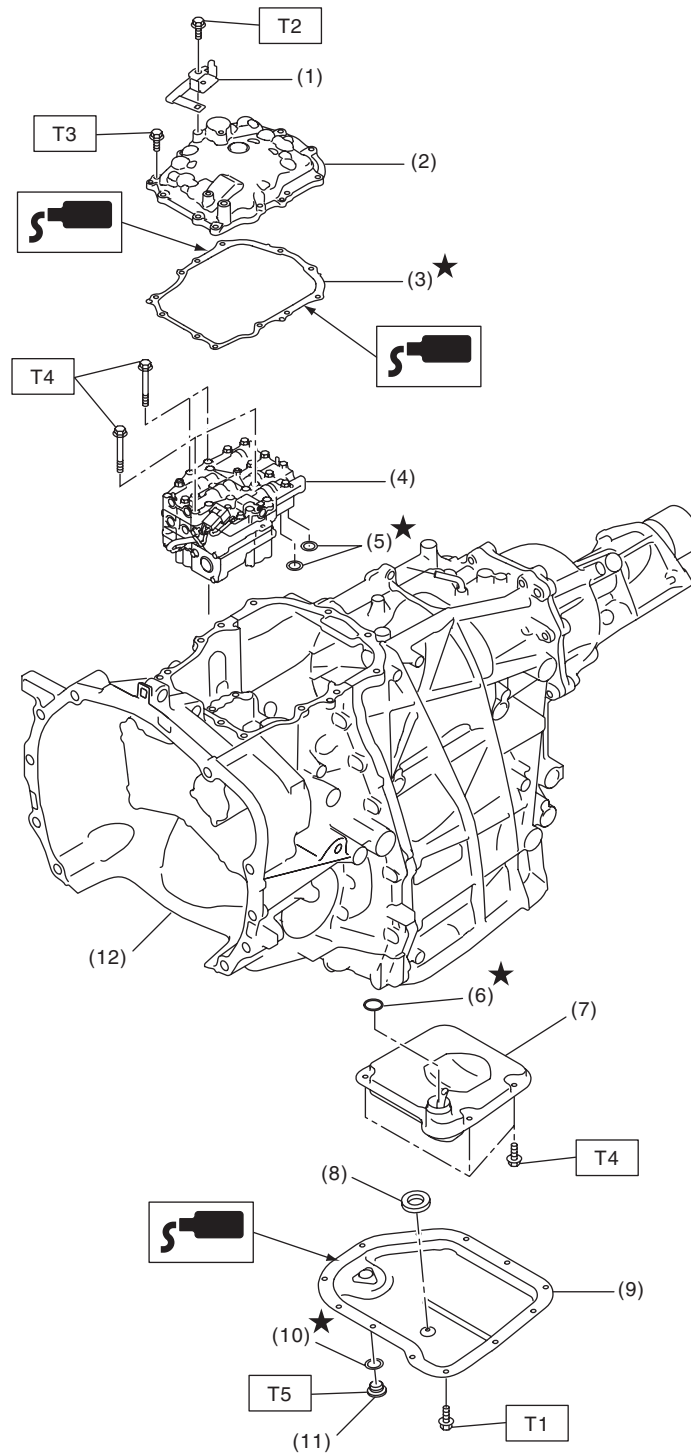
***T5: 25 (2.5, 18.4)***

***T6: 50 (5.1, 25.8)***

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CONTINUOUSLY VARIABLE TRANSMISSION

## 4. CONTROL VALVE BODY



AT-08199

- (1) Transmission harness stay
- (2) Valve cover
- (3) Gasket
- (4) Control valve body
- (5) O-ring
- (6) O-ring

- (7) Oil strainer
- (8) Magnet
- (9) Oil pan
- (10) Gasket
- (11) CVTF drain plug
- (12) Transmission ASSY

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

**T1: 5 (0.5, 3.7)**

**T2: 7 (0.7, 5.2)**

**T3: 8 (0.8, 5.9)**

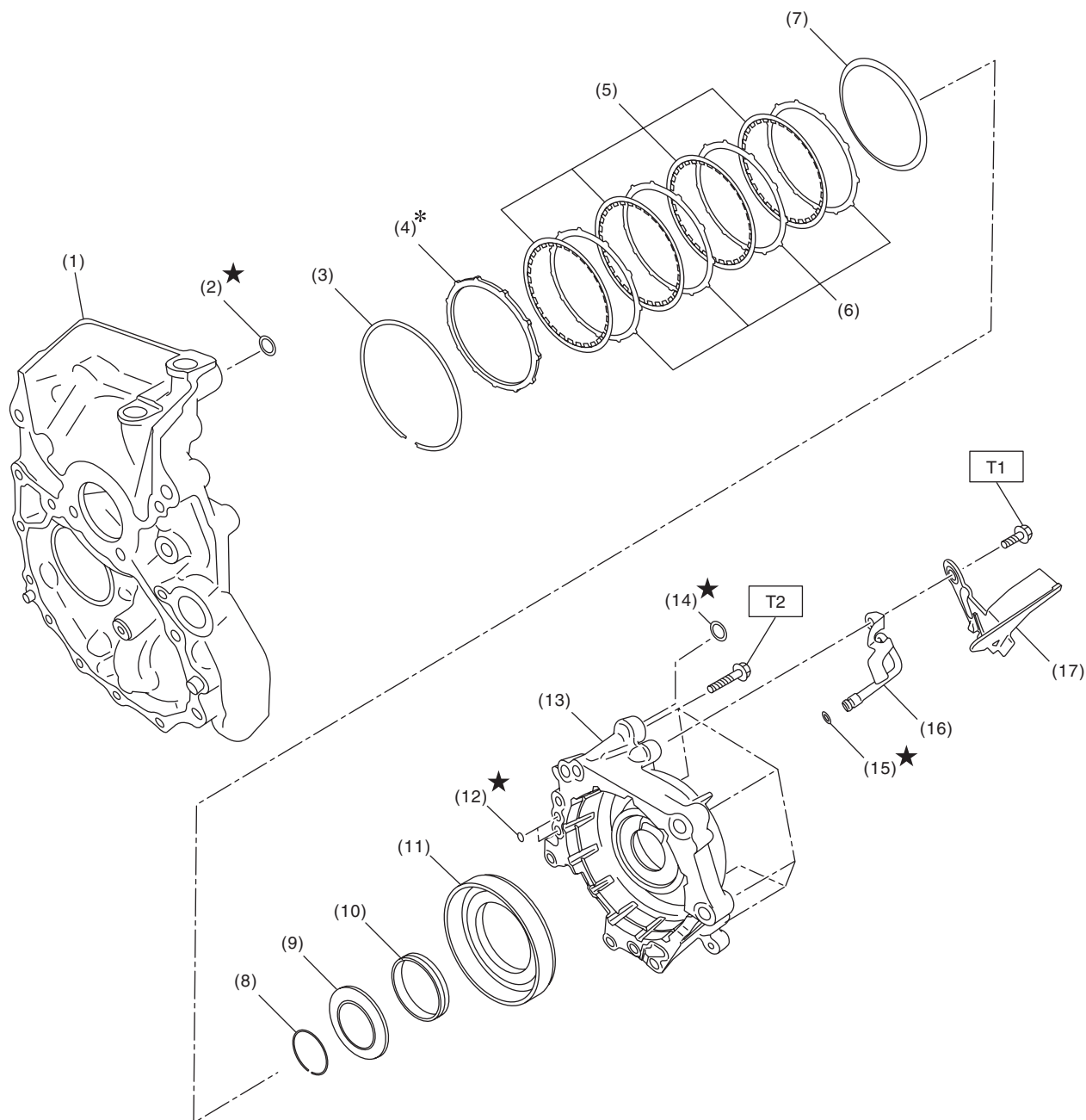
**T4: 9 (0.9, 6.6)**

**T5: 31 (3.2, 22.9)**

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### 5. REVERSE BRAKE ASSEMBLY



AT-07555

- (1) Drive pinion retainer
- (2) O-ring
- (3) Snap ring
- (4) Retaining plate
- (5) Drive plate
- (6) Driven plate
- (7) Dish plate

- (8) Snap ring
- (9) Spring retainer
- (10) Return spring
- (11) Reverse brake piston
- (12) O-ring
- (13) Reverse brake housing
- (14) O-ring

- (15) O-ring
- (16) Lubrication pipe
- (17) Oil guide

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

**T1: 16 (1.6, 11.8)**

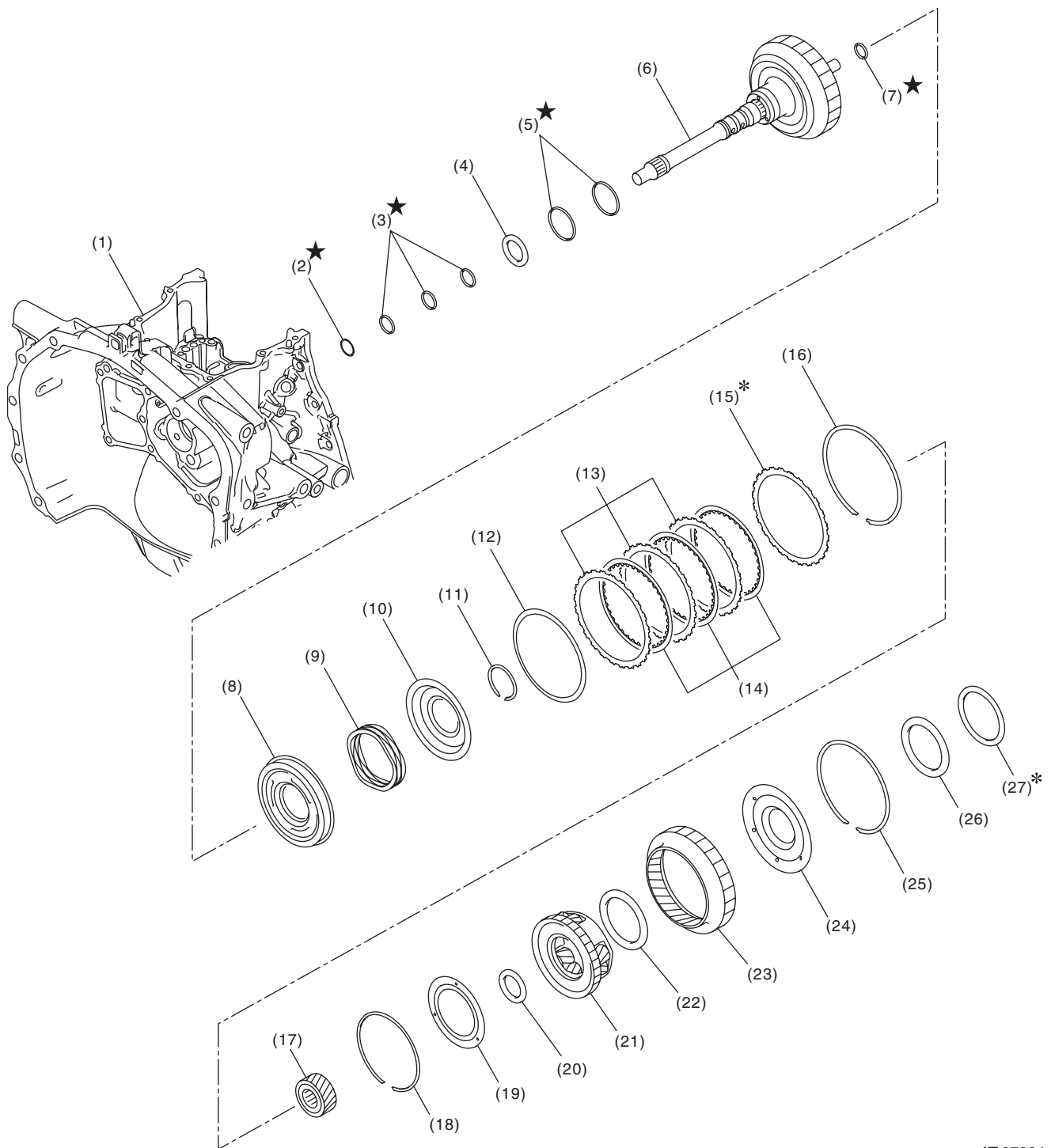
**T2: 37 (3.8, 27.3)**



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## 6. FORWARD CLUTCH ASSEMBLY



AT-07264

## General Description

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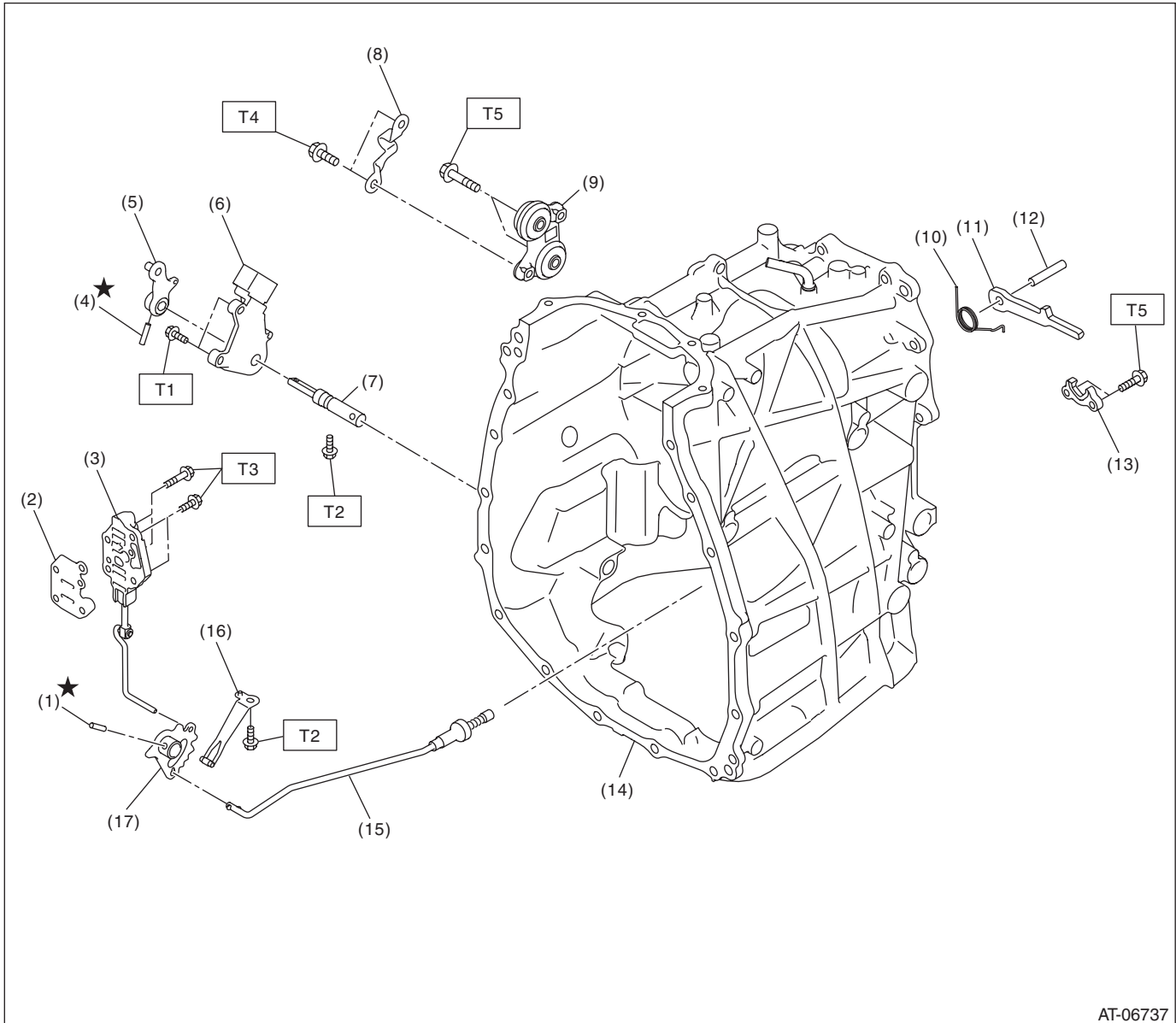
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(1) Converter case	(10) Chamber COMPL	(19) Balance oil guide
(2) O-ring	(11) Snap ring	(20) Thrust bearing
(3) Seal ring	(12) Dish plate	(21) Planetary carrier ASSY
(4) Thrust bearing	(13) Driven plate	(22) Thrust bearing
(5) Seal ring	(14) Drive plate	(23) Internal gear
(6) Forward clutch drum ASSY	(15) Retaining plate	(24) Thrust gear plate
(7) Seal ring	(16) Snap ring	(25) Snap ring
(8) Forward clutch piston	(17) Sun gear	(26) Thrust bearing
(9) Return spring	(18) Snap ring	(27) Washer

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## 7. TRANSMISSION CONTROL DEVICE



AT-06737

- |                       |                        |
|-----------------------|------------------------|
| (1) Spring pin        | (10) Return spring     |
| (2) Separator plate   | (11) Parking pawl      |
| (3) Manual valve ASSY | (12) Shaft             |
| (4) Spring pin        | (13) Parking support   |
| (5) Shifter arm       | (14) Transmission case |
| (6) Inhibitor switch  | (15) Parking rod       |
| (7) Shifter arm shaft | (16) Detent spring     |
| (8) Cable bracket     | (17) Manual plate      |
| (9) Plate ASSY        |                        |

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

***T1: 5 (0.5, 3.7)***

***T2: 7 (0.7, 5.2)***

***T3: 9 (0.9, 6.6)***

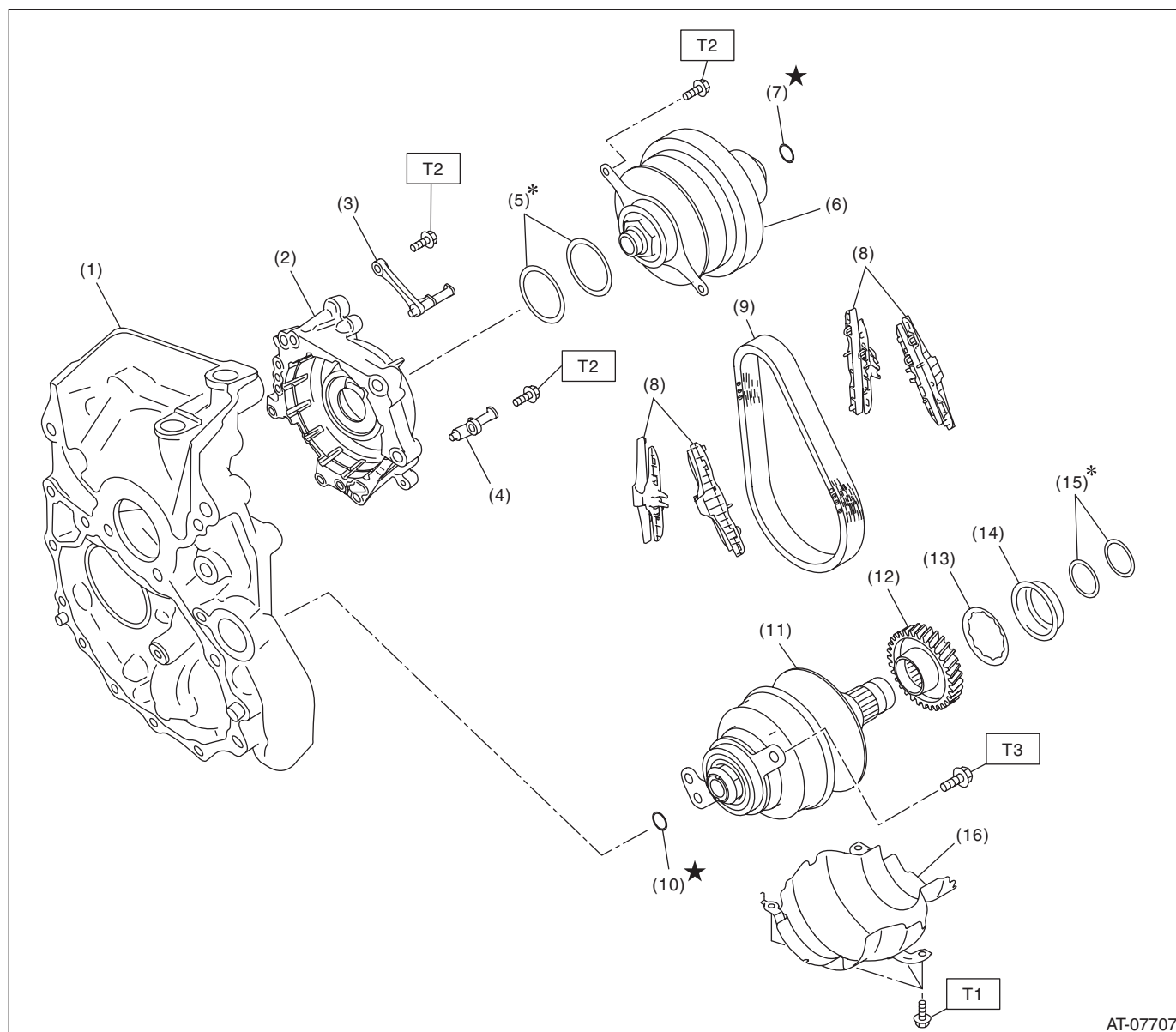
***T4: 18 (1.8, 13.3)***

***T5: 25 (2.5, 18.4)***

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## CONTINUOUSLY VARIABLE TRANSMISSION

### 8. PRIMARY PULLEY, SECONDARY PULLEY & VARIATOR CHAIN AND REDUCTION DRIVE GEAR



- (1) Drive pinion retainer
- (2) Reverse brake housing
- (3) Support rod
- (4) Lubrication pipe
- (5) Primary pulley shim
- (6) Primary pulley ASSY
- (7) Seal ring

- (8) Chain guide
- (9) Variator chain
- (10) Seal ring
- (11) Secondary pulley ASSY
- (12) Reduction drive gear
- (13) Dish plate
- (14) Spring retainer

- (15) Reduction gear shim
- (16) Oil baffle

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

**T1: 16 (1.6, 11.8)**

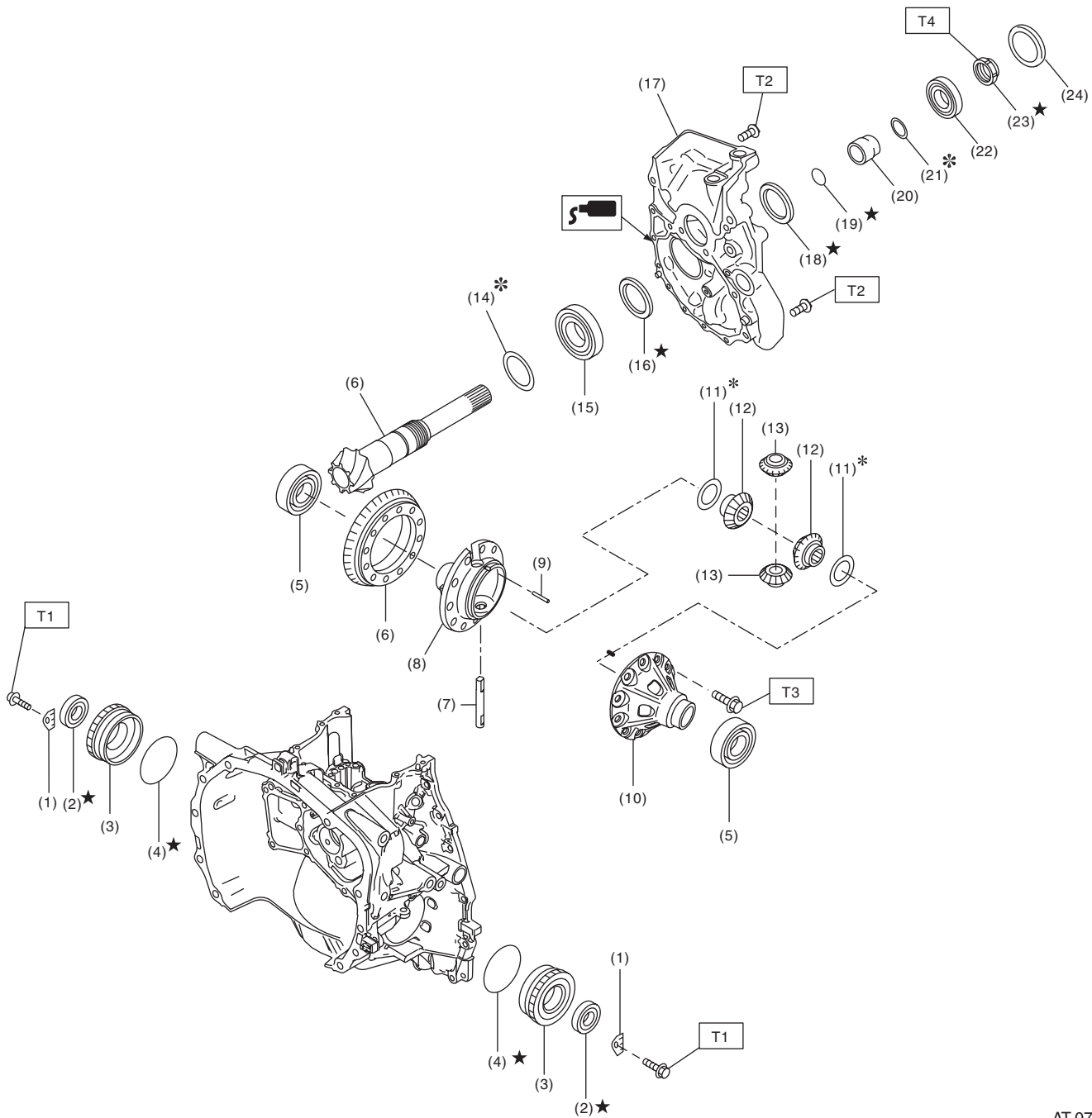
**T2: 21 (2.1, 15.5)**

**T3: 67.5 (6.9, 49.8)**

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## 9. FRONT DIFFERENTIAL GEAR



AT-07275

## General Description

### CONTINUOUSLY VARIABLE TRANSMISSION

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(1) Lock plate	(11) Washer	(21) Drive pinion washer
(2) Oil seal	(12) Differential bevel gear	(22) Taper roller bearing
(3) Differential side retainer	(13) Differential bevel pinion	(23) Lock nut
(4) O-ring	(14) Drive pinion shim	(24) Plug
(5) Taper roller bearing	(15) Taper roller bearing	
(6) Drive pinion gear set	(16) Oil seal	
(7) Pinion shaft	(17) Drive pinion retainer	
(8) Differential case RH	(18) Oil seal	
(9) Straight pin	(19) O-ring	
(10) Differential case LH	(20) Drive pinion spacer	

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

***T1: 25 (2.5, 18.4)***

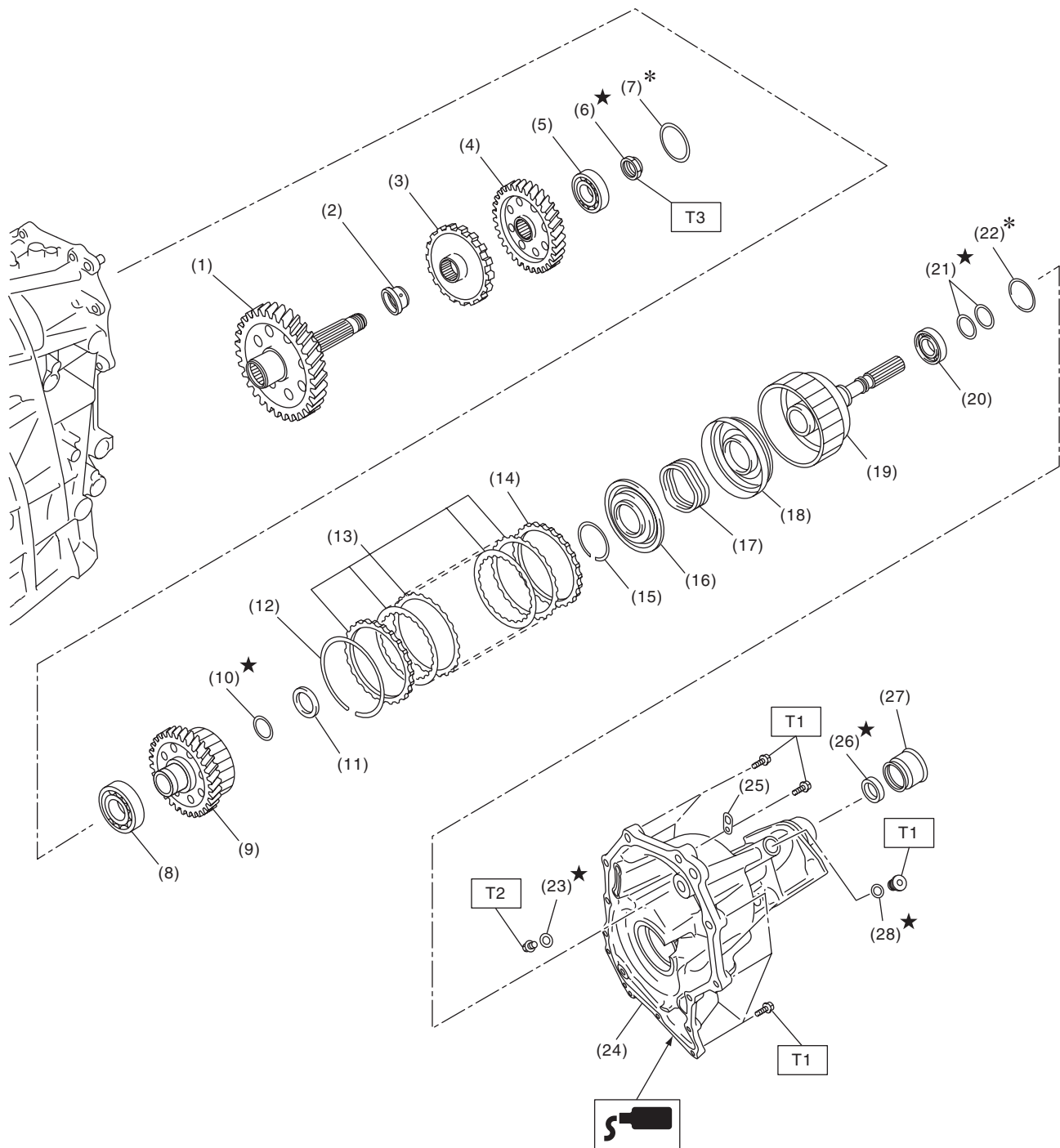
***T2: 43 (4.4, 31.7)***

***T3: 64 (6.5, 47.2)***

***T4: <Ref. to CVT-280, ASSEMBLY,  
Drive Pinion Shaft Assembly.>***

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### 10. TRANSFER AND EXTENSION CASE



CVT00401

## General Description

### CONTINUOUSLY VARIABLE TRANSMISSION

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(1) Reduction driven gear COMPL	(12) Snap ring	(23) Gasket
(2) Collar	(13) Transfer clutch plate set	(24) Extension case
(3) Parking gear	(14) Pressure plate	(25) Transmission hanger
(4) Transfer drive gear	(15) Snap ring	(26) Oil seal
(5) Ball bearing	(16) Transfer clutch piston seal	(27) Dust cover
(6) Lock nut	(17) Transfer clutch piston return spring	(28) O-ring
(7) Transfer drive gear shim	(18) Transfer clutch piston	
(8) Ball bearing	(19) Rear drive shaft	
(9) Transfer driven gear	(20) Ball bearing	
(10) Seal ring	(21) Seal ring	
(11) Thrust bearing	(22) Transfer driven gear shim	

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

***T1: 25 (2.5, 18.4)***

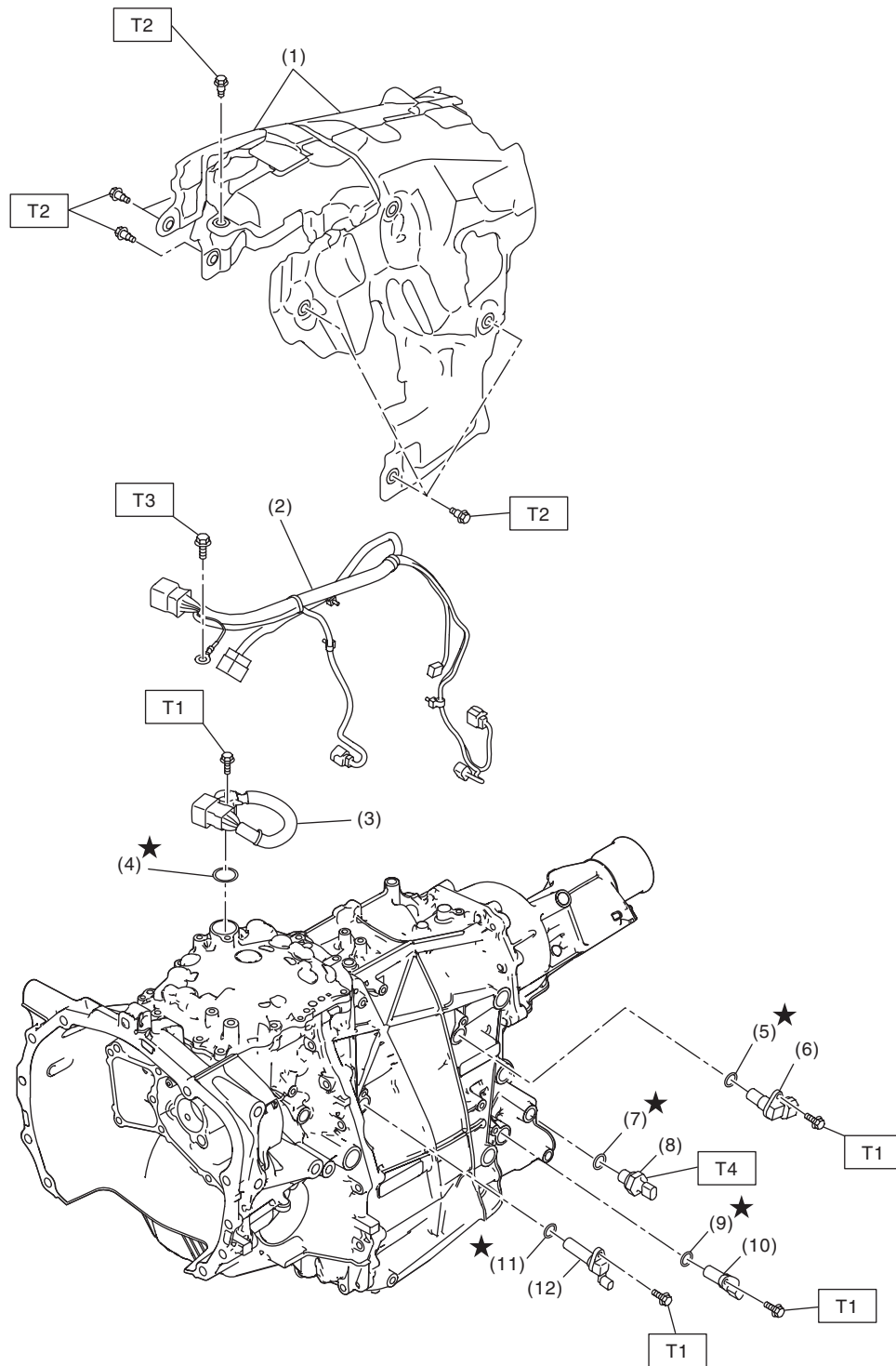
***T2: 35 (3.6, 25.8)***

***T3: 95 (9.7, 70.1)***

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## 11.TRANSMISSION HARNESS AND SENSOR



CVT00331

- |                             |                               |
|-----------------------------|-------------------------------|
| (1) Transmission case cover | (7) O-ring                    |
| (2) Inhibitor harness       | (8) Secondary pressure sensor |
| (3) Transmission harness    | (9) O-ring                    |
| (4) O-ring                  | (10) Secondary speed sensor   |
| (5) O-ring                  | (11) O-ring                   |
| (6) Primary speed sensor    | (12) Turbine speed sensor     |

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

**T1: 7 (0.7, 3.7)**

**T2: 8 (0.8, 5.9)**

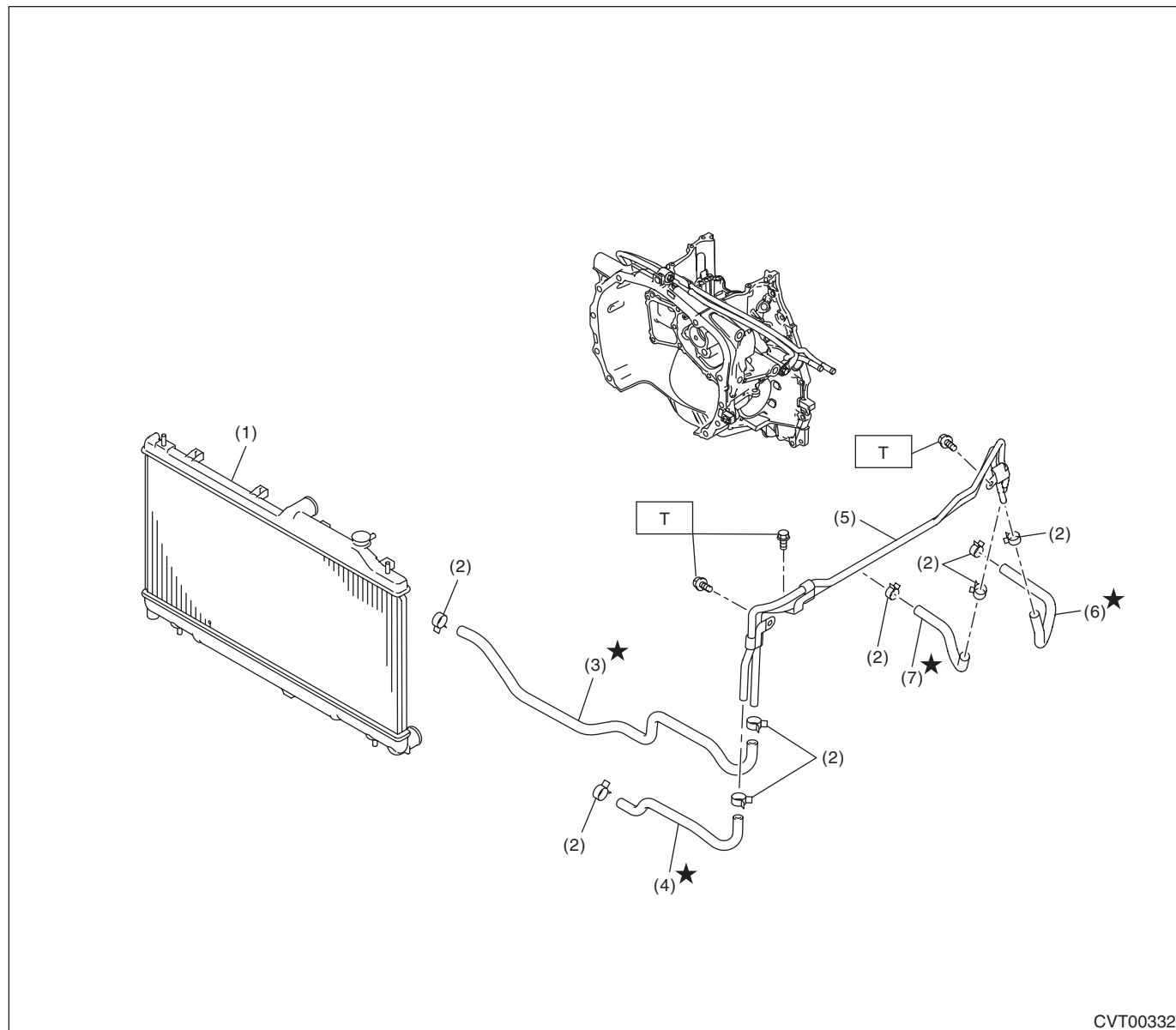
**T3: 14 (1.4, 10.3)**

**T4: 39 (4.0, 28.8)**

# General Description

## CONTINUOUSLY VARIABLE TRANSMISSION

### 12.CVTF COOLER PIPE AND HOSE



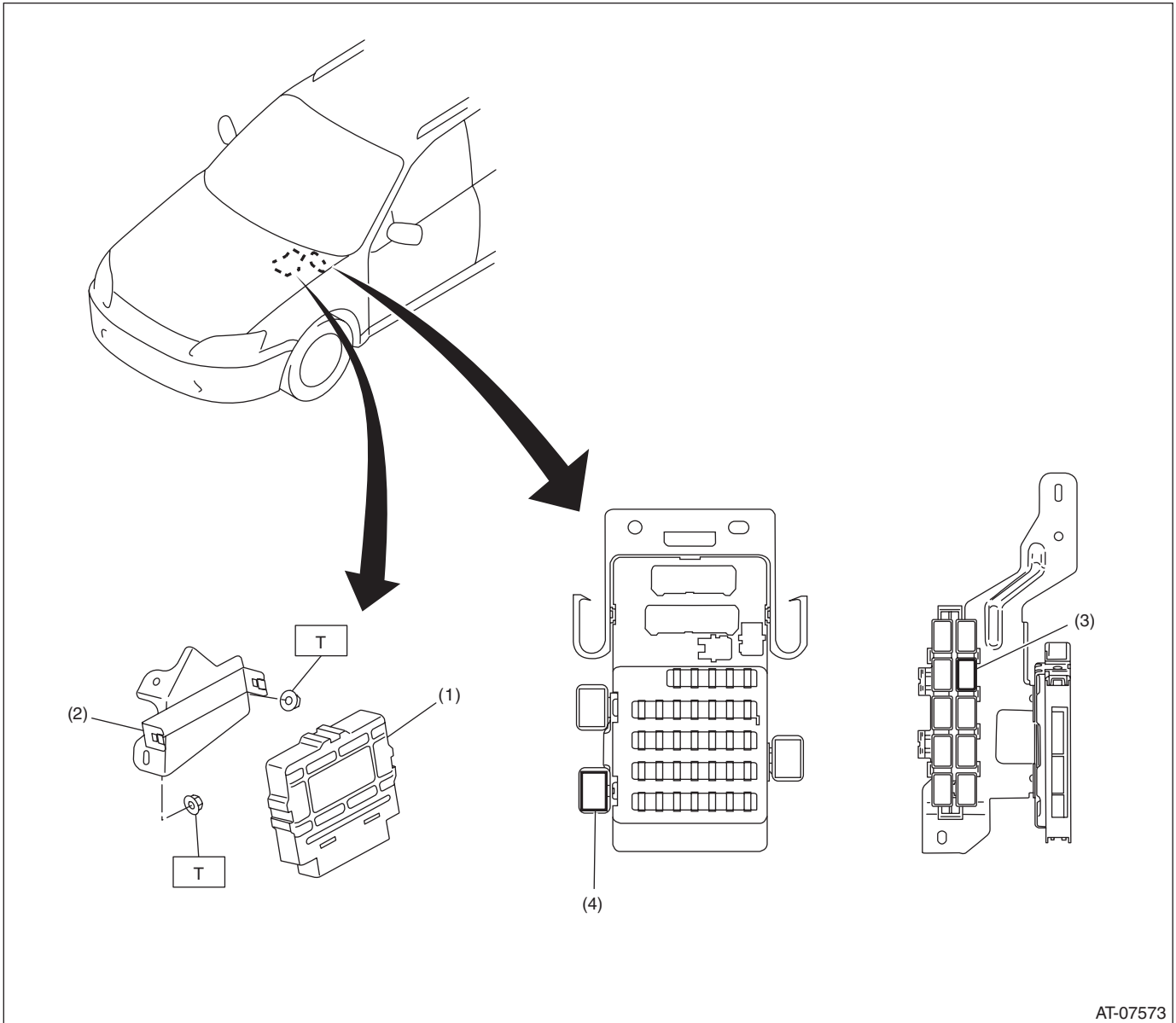
CVT00332

- |                               |                           |
|-------------------------------|---------------------------|
| (1) Radiator                  | (5) CVTF cooler pipe ASSY |
| (2) CVTF hose clip            | (6) CVTF CVT outlet hose  |
| (3) CVTF radiator inlet hose  | (7) CVTF CVT inlet hose   |
| (4) CVTF radiator outlet hose |                           |

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

**T: 7.5 (0.8, 5.5)**

## 13.TRANSMISSION CONTROL MODULE



AT-07573

(1) Transmission control module (TCM)

(2) TCM bracket

(3) Relay (model with push button ignition switch)

(4) Relay (model without push button ignition switch)

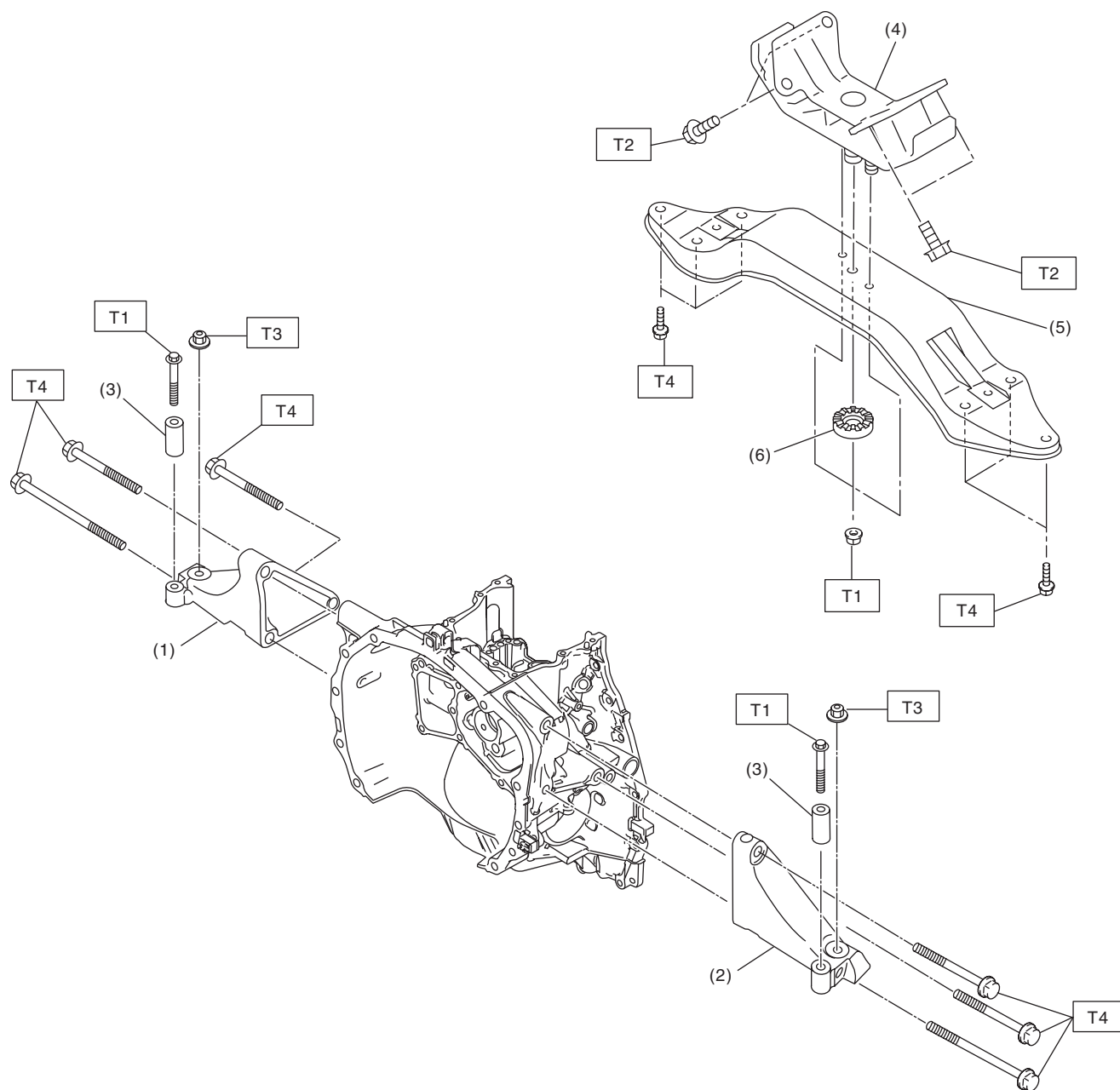
**Tightening torque: N·m (kgf-m, ft-lb)**

**T: 7.5 (0.8, 5.5)**

# General Description

## CONTINUOUSLY VARIABLE TRANSMISSION

### 14.TRANSMISSION MOUNTING



AT-07537

- |  |                                   |
|--|-----------------------------------|
| (1) Transmission mounting bracket (RH) | (4) Rear cushion rubber           |
| (2) Transmission mounting bracket (LH) | (5) Transmission rear crossmember |
| (3) Collar                             | (6) Stopper                       |

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

**T1: 35 (3.6, 25.8)**

**T2: 40 (4.1, 29.5)**

**T3: 45 (4.6, 33.2)**

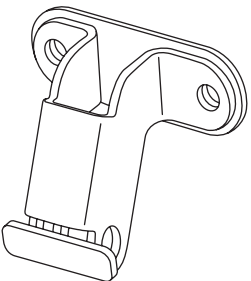
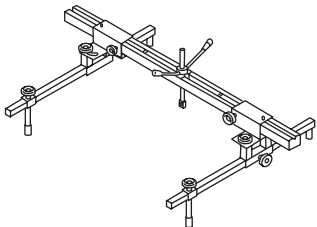
**T4: 75 (7.6, 55.3)**

## C: CAUTION

- Wear appropriate work clothing, including a cap, protective goggles and protective shoes when performing any work.
- Remove contamination including dirt and corrosion before removal, installation or disassembly.
- Keep the disassembled parts in order and protect them from dust and dirt.
- Do not place the valve cover with its inner side facing up until it is installed, to prevent intrusion of foreign matter into the control valve body.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly and replacement.
- When disassembling the case and other light alloy parts, use a plastic hammer to force it apart. Do not pry apart with screwdrivers or other tools.
- Vehicle components are extremely hot after driving. Be wary of receiving burns from heated parts.
- Use SUBARU genuine CVTF and recommended grease. Do not mix CVTF, grease etc. of different grades or manufacturers.
- Be sure to tighten bolts and nuts to the specified torque.
- Place lifts, shop jacks or rigid racks at specified locations.
- Apply CVTF onto sliding or revolving surfaces before installation.
- Replace deformed or damaged snap rings with new parts.
- Before installing O-rings or oil seals, apply sufficient amount of CVTF or gear oil to appropriate locations in order to avoid damage and deformation.
- Be careful not to incorrectly install or fail to install O-rings, snap rings and other such parts.
- Before securing a part on a vise, place cushioning material such as wood blocks, aluminum plate, or cloth between the part and the vise.
- Avoid damaging the mating surface of the case.
- Before applying liquid gasket, completely remove the old liquid gasket.
- After removing the sensors, breather hose and plugs, plug the holes to avoid foreign materials intruding as necessary.
- During disassembly or assembly, be sure to use nylon gloves or paper towels. Do not use cloth gloves or waste cloth.

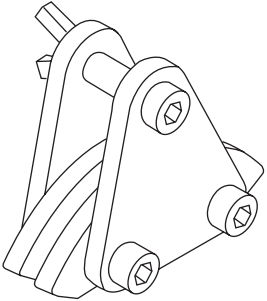
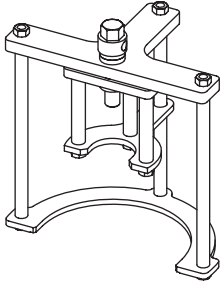
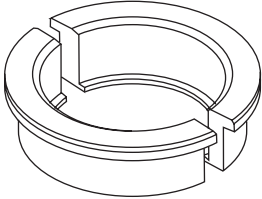
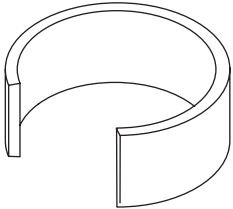
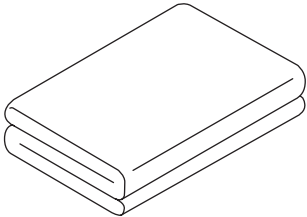
## D: PREPARATION TOOL

### 1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST41099AJ130</p>	41099AJ130	SPECIAL TOOL FB	Used for holding and balancing the engine unit.
 <p>ST99099AJ000</p>	99099AJ000	ENGINE HANGER	<ul style="list-style-type: none"> <li>• Used for removing and installing the automatic transmission assembly.</li> <li>• Used together with CHAIN BALANCER (99099AJ010).</li> </ul>

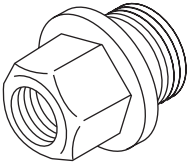
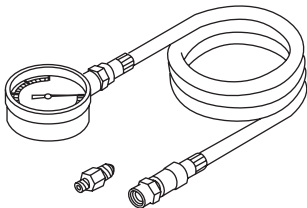
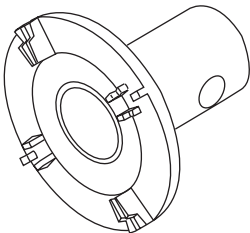
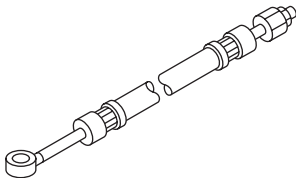
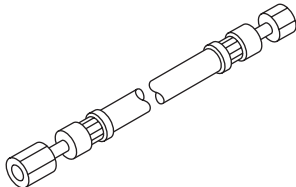
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ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST99099AJ010	99099AJ010	CHAIN BALANCER	<ul style="list-style-type: none"> <li>Used for removing and installing the automatic transmission assembly.</li> <li>Used together with ENGINE HANGER (99099AJ000).</li> </ul>
 ST18769AA010	18769AA010	EXPANDER PULLEY	Used for removing and installing the secondary pulley assembly.
 ST18767AA010	18767AA010	BEARING REMOVER	Used for removing the ball bearing of transfer clutch assembly.
 ST18762AA010	18762AA010	COMPRESSOR SPECIAL TOOL	Used for removing and installing snap ring of forward clutch assembly.
 ST18761AA010	18761AA010	SHEET SPECIAL TOOL	<ul style="list-style-type: none"> <li>Used for removing and installing control valve body.</li> <li>Used for removing and installing valve cover.</li> <li>Used for removing and installing transmission harness.</li> </ul>

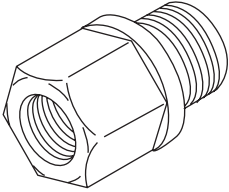
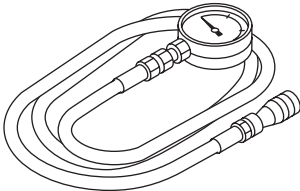
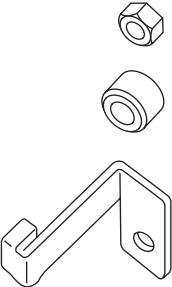
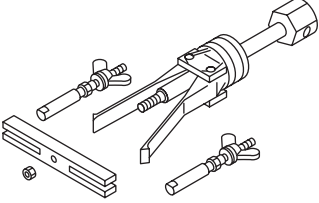
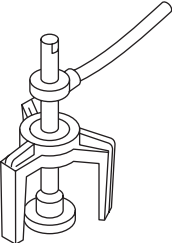
# General Description

CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST18681AA010</p>	18681AA010	PRESSURE GAUGE ADAPTER	Used for measuring the secondary pressure (line pressure). <b>NOTE:</b> Used together with the genuine O-ring (part No. 806916050).
 <p>ST18801AA000</p>	18801AA000	OIL PRESSURE GAUGE ASSY	Used for measuring the secondary pressure (line pressure).
 <p>ST18658AA020</p>	18658AA020	WRENCH COMPL RETAINER	Used for removing and installing the differential side retainer.
 <p>ST34099AC020</p>	34099AC020	ADAPTER HOSE B	Used for measuring the transfer clutch hydraulic pressure. <b>NOTE:</b> Used with genuine union screw (Part No. 801914010) and gasket (Part No. 803914060).
 <p>ST34099AC010</p>	34099AC010	ADAPTER HOSE A	Used for measuring the transfer clutch hydraulic pressure.

# General Description

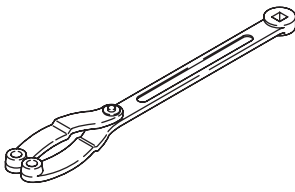
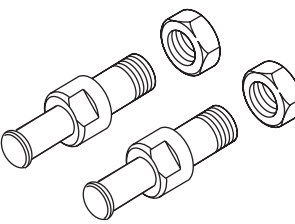
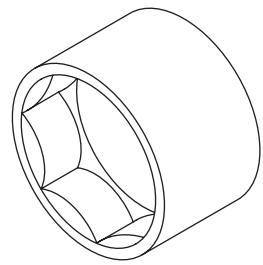
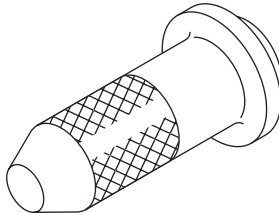
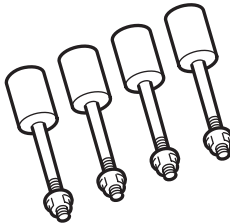
## CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST18681AA000	18681AA000	PRESSURE GAUGE ADAPTER	Used for measuring the transfer clutch hydraulic pressure. NOTE: Used together with the genuine O-ring (part No. 806911080).
 ST-498575400	498575400	OIL PRESSURE GAUGE ASSY	Used for measuring the transfer clutch hydraulic pressure.
 ST-498277200	498277200	STOPPER SET	<ul style="list-style-type: none"> <li>• Used for removing and installing transmission assembly to engine.</li> <li>• Used for preventing the torque converter from dropping off.</li> </ul>
 ST-398527700	398527700	PULLER ASSY	<ul style="list-style-type: none"> <li>• Used for removing the extension case oil seal.</li> <li>• Used for removing the bearing outer race of the drive pinion shaft.</li> </ul>
 ST-398673600	398673600	COMPRESSOR	Used for removing and installing snap ring of forward clutch assembly.



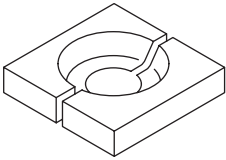
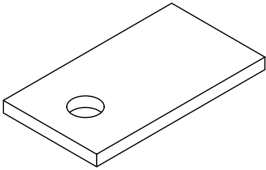
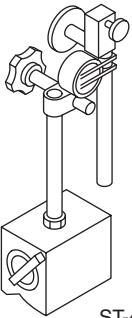
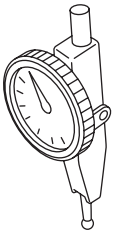
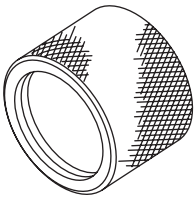
# General Description

## CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST18355AA000</p>	18355AA000	PULLEY WRENCH	<ul style="list-style-type: none"> <li>Used for removing and installing the lock nut of reduction driven gear.</li> <li>Used together with PIN SET (18334AA000).</li> </ul>
 <p>ST18334AA000</p>	18334AA000	PIN SET	<ul style="list-style-type: none"> <li>Used for removing and installing the lock nut of reduction driven gear.</li> <li>Used together with PULLEY WRENCH (18355AA000).</li> </ul>
 <p>ST-499987003</p>	499987003	SOCKET WRENCH (35)	Used for removing and installing the lock nut of reduction driven gear.
 <p>ST-498057300</p>	498057300	OIL SEAL INSTALLER	Used for installing the extension case oil seal.
 <p>ST18632AA000</p>	18632AA000	STAND ASSY	Used for disassembling and assembling the transmission.

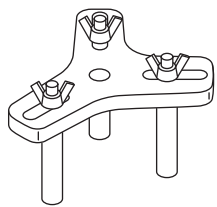
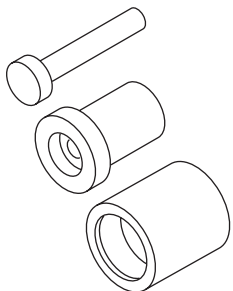
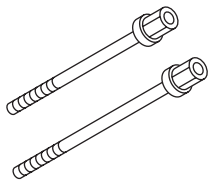
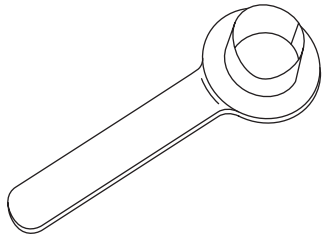
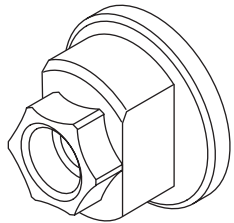
## General Description

### CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST-498515500	498515500	REMOVER	Used for removing the bearing inner race of the drive pinion shaft.
 ST-498255400	498255400	PLATE	Used for measuring the backlash of hypoid gear.
 ST-498247001	498247001	MAGNET BASE	<ul style="list-style-type: none"> <li>• Used for measuring the backlash of differential bevel pinion gear.</li> <li>• Used for measuring the backlash of hypoid gear.</li> <li>• Used together with DIAL GAUGE (498247100).</li> </ul>
 ST-498247100	498247100	DIAL GAUGE	<ul style="list-style-type: none"> <li>• Used for measuring the backlash of differential bevel pinion gear.</li> <li>• Used for measuring the backlash of hypoid gear.</li> <li>• Used together with DIAL GAUGE (498247101).</li> </ul>
 ST18675AA000	18675AA000	DIFFERENTIAL SIDE OIL SEAL INSTALLER	Used for installing the differential side retainer oil seal.

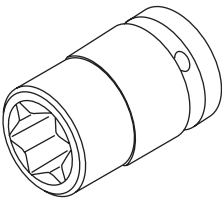
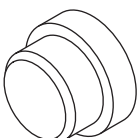
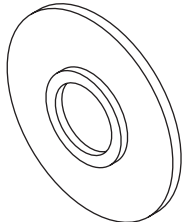
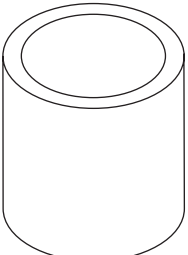
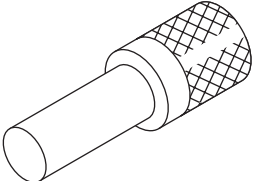
# General Description

CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST18762AA000</p>	18762AA000	COMPRESSOR SPECIAL TOOL	Used for disassembling and installing the multi-plate clutch piston.
 <p>ST-927720000</p>	927720000	HOUSING BUSH- ING INSTALLER AND REMOVER	<ul style="list-style-type: none"> <li>• Used for installing the oil seal.</li> <li>• Use BUSHING SHAFT (927880000).</li> </ul>
 <p>ST18763AA000</p>	18763AA000	COMPRESSOR SHAFT	Used for measuring the backlash of hypoid gear.
 <p>ST28399SA010</p>	28399SA010	OIL SEAL PROTEC- TOR	Used for protecting oil seal when installing front drive shaft.
 <p>ST-498937110</p>	498937110	HOLDER	<ul style="list-style-type: none"> <li>• Used for removing and installing the drive pinion lock nut.</li> <li>• Used as a holder to rotate gear when checking tooth contact.</li> </ul>

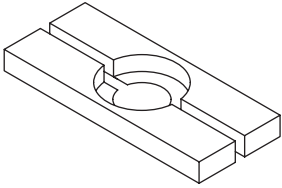
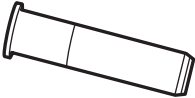
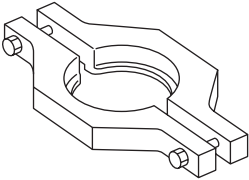
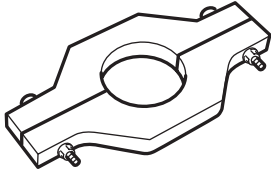
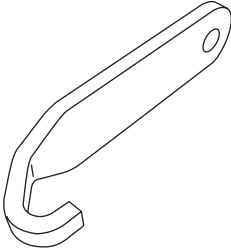
## General Description

### CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST18270KA020	18270KA020	SOCKET (E20)	<ul style="list-style-type: none"> <li>• Used for removing and installing the hypoid driven gear.</li> <li>• Used for removing and installing the drive pinion shaft retainer.</li> </ul>
 ST-398497701	398497701	SEAT	Used for removing and installing the bearing.
 ST-398177700	398177700	INSTALLER	<ul style="list-style-type: none"> <li>• Used for installing the ball bearing.</li> <li>• Used for installing the parking gear.</li> <li>• Used for installing the bearing outer race.</li> <li>• Used for installing the plug.</li> </ul>
 ST28499TC010	28499TC010	PRESS SNAP RING	Used for installing the bearing outer race of drive pinion shaft.
 ST-899864100	899864100	REMOVER	<ul style="list-style-type: none"> <li>• Used for removing and installing the ball bearing.</li> <li>• Used for removing the parking gear and transfer drive gear.</li> <li>• Used for removing the bearing inner race of the front differential.</li> </ul>

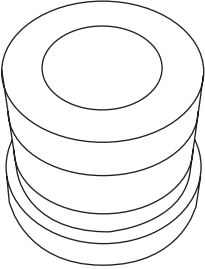
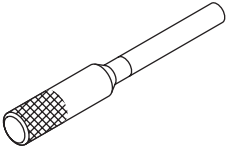
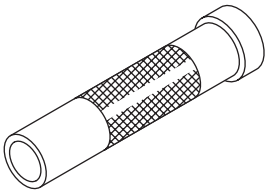
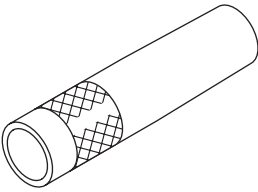
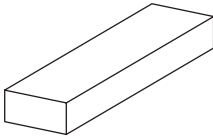
# General Description

CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST-498077000	498077000	REMOVER	Used for removing the bearing inner race of the front differential.
 ST18657AA010	18657AA010	INSTALLER	Used for installing the oil seal at shifter arm shaft portion.
 ST-498077600	498077600	REMOVER	Used for removing the ball bearing of drive sprocket.
 ST18723AA000	18723AA000	REMOVER	Used for removing the ball bearing of transfer clutch assembly.
 ST-498497300	498497300	CRANKSHAFT STOPPER	Used for stopping the drive plate rotation when removing and installing the drive plate.

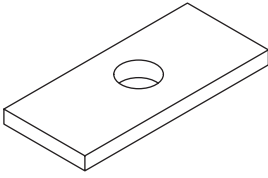
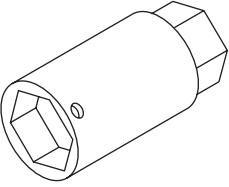
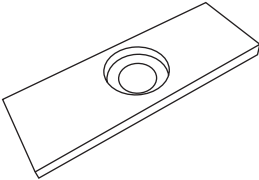
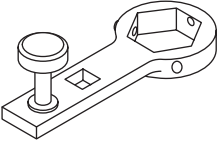
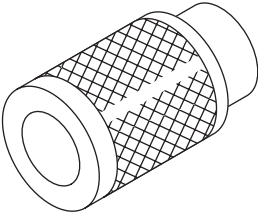
# General Description

## CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST-399513600</p>	399513600	INSTALLER	Used for removing the ball bearing of drive sprocket.
 <p>ST-499267300</p>	499267300	STOPPER PIN	Used for adjusting the inhibitor switch.
 <p>ST-499277100</p>	499277100	BUSHING 1-2 INSTALLER	<ul style="list-style-type: none"> <li>• Used for installing the bearing of the transmission case.</li> <li>• Used for installing the ball bearing.</li> <li>• Used for installing the bearing inner race.</li> </ul>
 <p>ST-499277200</p>	499277200	INSTALLER	Used for installing the ball bearing of the transfer clutch assembly.
 <p>ST-499575400</p>	499575400	GAUGE	Used for measuring height of end play.

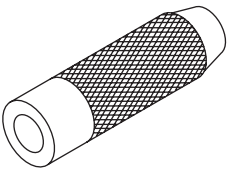
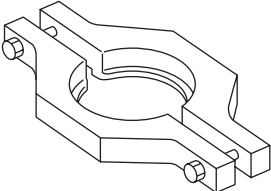
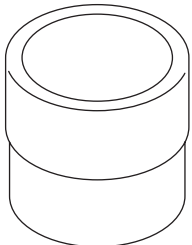
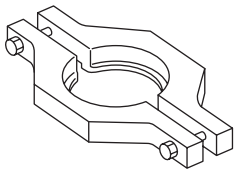
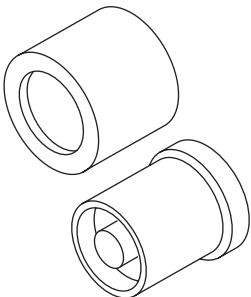
# General Description

## CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST-499575500</p>	499575500	GAUGE	Used for measuring height of end play.
 <p>ST-499787500</p>	499787500	ADAPTER	<ul style="list-style-type: none"> <li>• Used for removing and installing the drive pinion shaft lock nut.</li> <li>• Used for measuring the preload of the drive pinion shaft.</li> <li>• Used for measuring the backlash of hypoid gear.</li> </ul>
 <p>ST-499575600</p>	499575600	GAUGE	Used for measuring height of end play.
 <p>ST-499787700</p>	499787700	WRENCH	<ul style="list-style-type: none"> <li>• Used for removing and installing the drive pinion shaft lock nut.</li> <li>• Used for measuring the preload of the drive pinion shaft.</li> <li>• Used for measuring the backlash of hypoid gear.</li> </ul>
 <p>ST-499757002</p>	499757002	INSTALLER	<ul style="list-style-type: none"> <li>• Used for removing the bearing of reduction driven gear.</li> <li>• Used for installing the parking gear.</li> <li>• Used for installing the transfer drive gear.</li> </ul>

# General Description


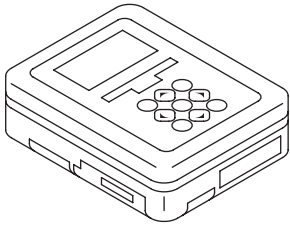
## CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST-899580100	899580100	INSTALLER	<ul style="list-style-type: none"> <li>• Used for installing the collar of reduction driven gear.</li> <li>• Used for installing the ball bearing of the transfer driven gear.</li> <li>• Used for installing the bearing inner race of drive pinion shaft.</li> </ul>
 ST-498077300	498077300	REMOVER	Used for installing the ball bearing of reduction driven gear.
 ST-499755602	499755602	PRESS SNAP RING	<ul style="list-style-type: none"> <li>• Used for installing the oil seal.</li> <li>• Used for installing the ball bearing and roller bearing.</li> <li>• Used for installing the plug.</li> </ul>
 ST-498077400	498077400	REMOVER	Used for removing the ball bearing of transfer driven gear.
 ST20099AE020	20099AE020	INSTALLER	Used for installing the bearing outer race of drive pinion shaft.



# General Description

CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST-927130000</p>	927130000	EXTENSION DRIVE SHAFT	Used for installing the bearing inner race of drive pinion shaft.
 <p>ST1B022XU0</p>	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system.

## 2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.
Thickness gauge	Used for measuring the clearance in reverse brake, forward clutch and transfer clutch.
Caliper	Used for measuring the dimension.
Spring scale	Used for measuring the starting torque of the drive pinion.
TORX® bit T70	Used for removing and installing differential gear oil drain plug.
Straight pin remover	Used for removing and installing the straight pin.
Push/pull gauge	Used for measuring clutch clearance.
Chain sling	Used for removing and installing transmission. <ul style="list-style-type: none"> <li>• Length: 0.8 — 1 m (2.6 — 3.3 ft)</li> <li>• Load capacity: 1.2 t (2,646 lb) or more</li> <li>• Diameter: 6 mm (0.24 in) or 6.3 mm (0.25 in)</li> <li>• Chain external width: 23.5 mm (0.93 in) or less</li> <li>• Chain internal width: 8.5 mm (0.33 in) or more</li> </ul>
Screw shackle	Used for removing and installing transmission. <ul style="list-style-type: none"> <li>• Load capacity: 250 kg (551 lb) or more</li> <li>• Use two pieces.</li> </ul>
Angle gauge	Used for installing the drive plate.