

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	2.62	
Nominal	mm (in)	236 (9.29)
Stall speed (at sea level)	r/min	2,150 — 2,800 (D range) 1,950 — 2,550 (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	XV model	3.581 — 0.570
	Except for XV model	3.420 — 0.544
Rev	XV model	3.667
	Except for XV model	3.502

5. PLATE

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

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
L (Low)	Forward continuously variable speed change (engine brake)

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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 FLUID LINEARTRONIC II CAUTION: Always use specified CVTF. Using other fluid will cause malfunction.
Fluid capacity L (US qt, Imp qt)	11.68 — 12.18 (12.3 — 12.9, 10.3 — 10.7)
Lubrication system	Forced feed lubrication with oil pump

8. COOLING AND HARNESS

Cooling system	CVTF cooler (with warmer feature)
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	4
Control method	Electronic hydraulic type
Reduction gear ratio	1.000 (43/43)

10. REDUCTION GEAR RATIO

Front final reduction gear ratio	3.700
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11. RECOMMENDED GEAR OIL

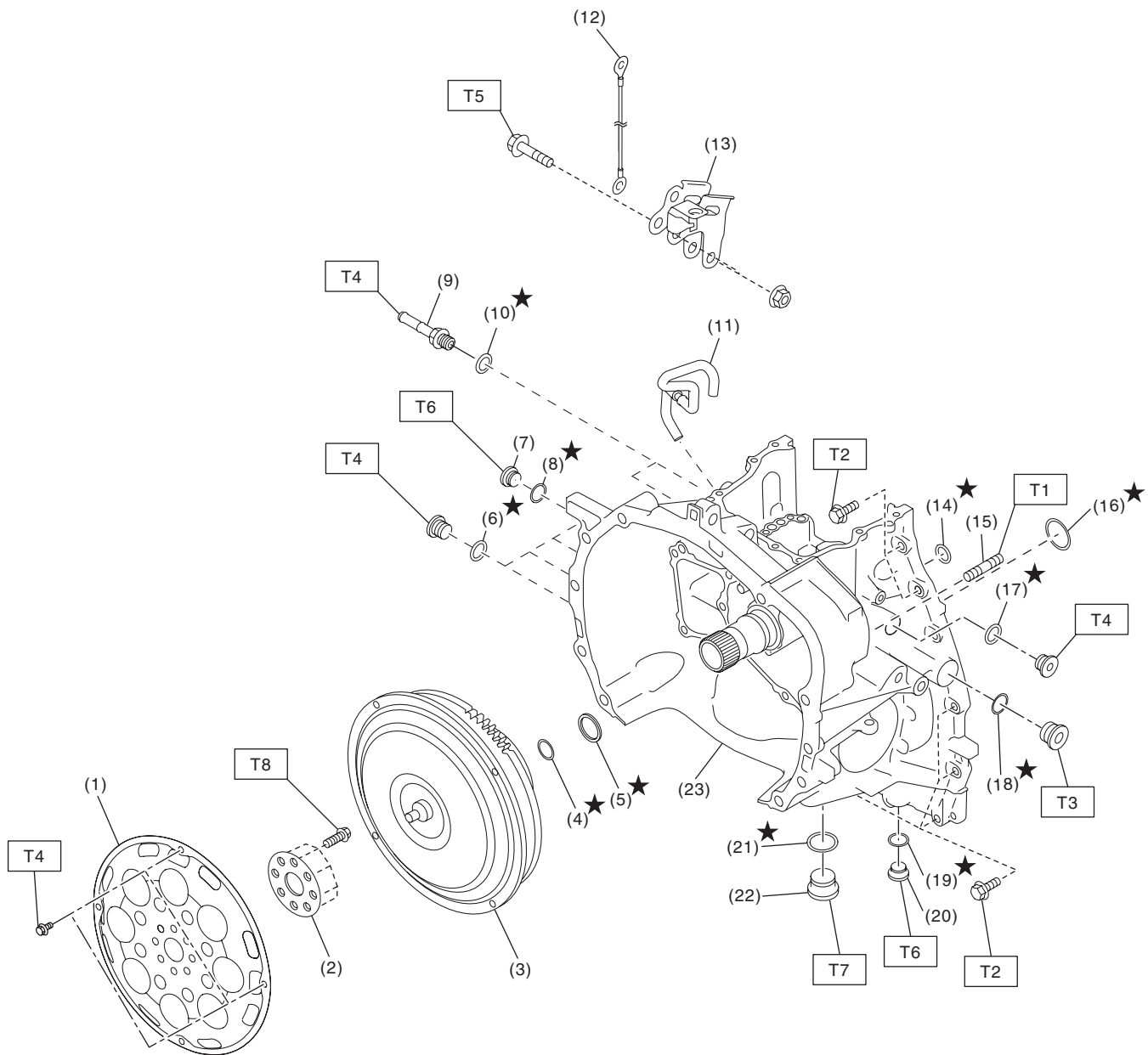
Lubrication oil	SUBARU GEAR OIL EXTRA MT or equivalent
Front differential oil capacity L (US qt, Imp qt)	1.14 — 1.24 (1.2 — 1.3, 1.0 — 1.1)

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B: COMPONENT

1. TORQUE CONVERTER ASSEMBLY AND CONVERTER CASE



CVT00638

General Description

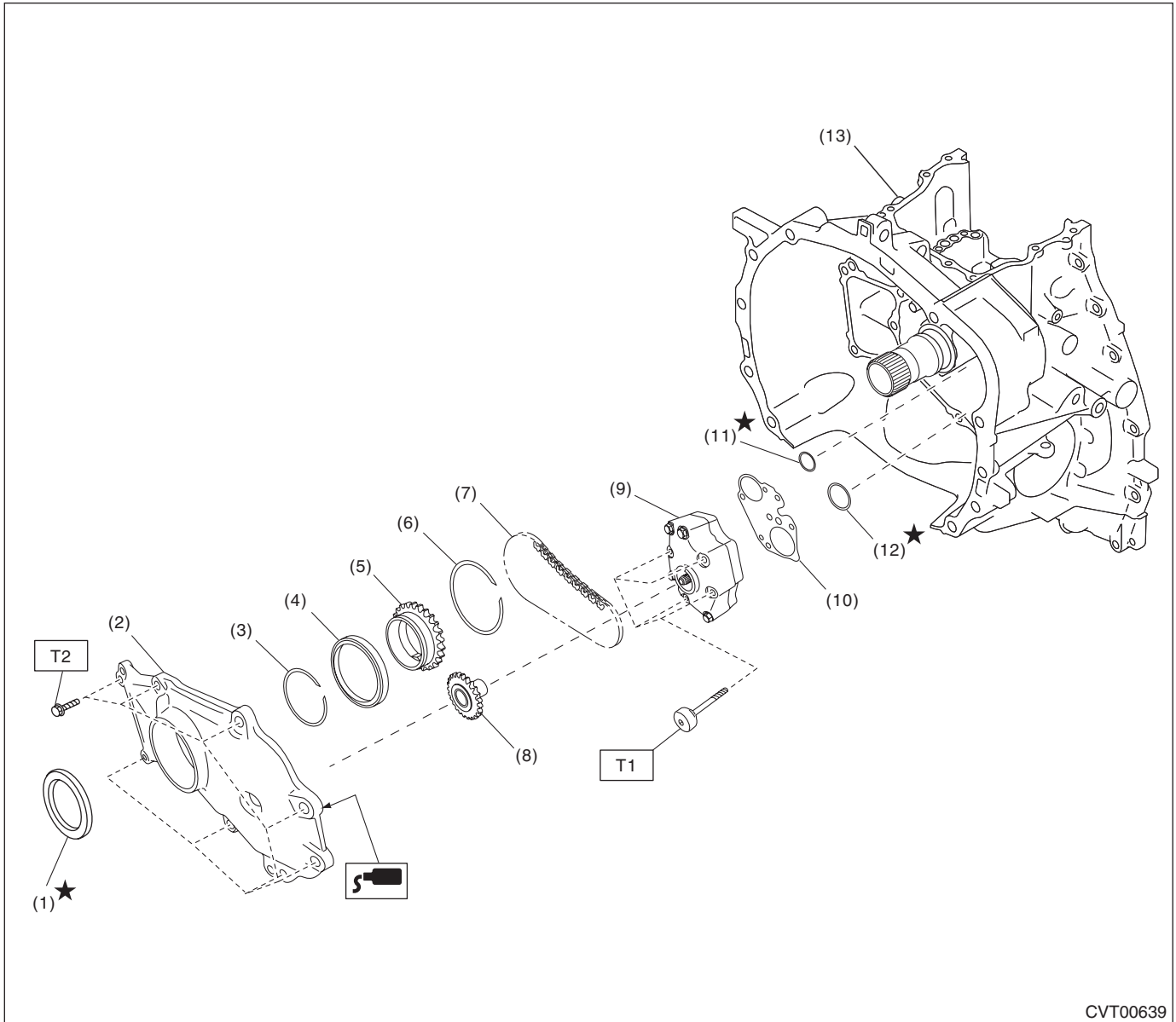
CONTINUOUSLY VARIABLE TRANSMISSION

(1) Drive plate	(13) Pitching stopper bracket	<i>Tightening torque: N·m (kgf-m, ft-lb)</i>
(2) Reinforcement drive plate	(14) O-ring	<i>T1: 18 (1.8, 13.3)</i>
(3) Torque converter ASSY	(15) Stud bolt	<i>T2: 22 (2.2, 16.2)</i>
(4) O-ring	(16) O-ring	<i>T3: 22.5 (2.3, 16.6)</i>
(5) Seal ring	(17) O-ring	<i>T4: 25 (2.5, 18.4)</i>
(6) O-ring	(18) O-ring	<i>T5: 41 (4.2, 30.2)</i>
(7) Front differential gear oil filler plug	(19) Gasket	<i>T6: 50 (5.1, 36.9)</i>
(8) O-ring	(20) Overflow drain plug	<i>T7: 70 (7.1, 51.6)</i>
(9) Oil cooler pipe	(21) Gasket	<i>T8: <Ref. to CVT(TR580)-163, INSTALLATION, Drive Plate.></i>
(10) O-ring	(22) Front differential gear oil drain plug	
(11) Air breather hose	(23) Converter case	
(12) Transmission radio ground cord		

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CONTINUOUSLY VARIABLE TRANSMISSION

2. OIL PUMP ASSY



- | | |
|--------------------------|---------------------|
| (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)

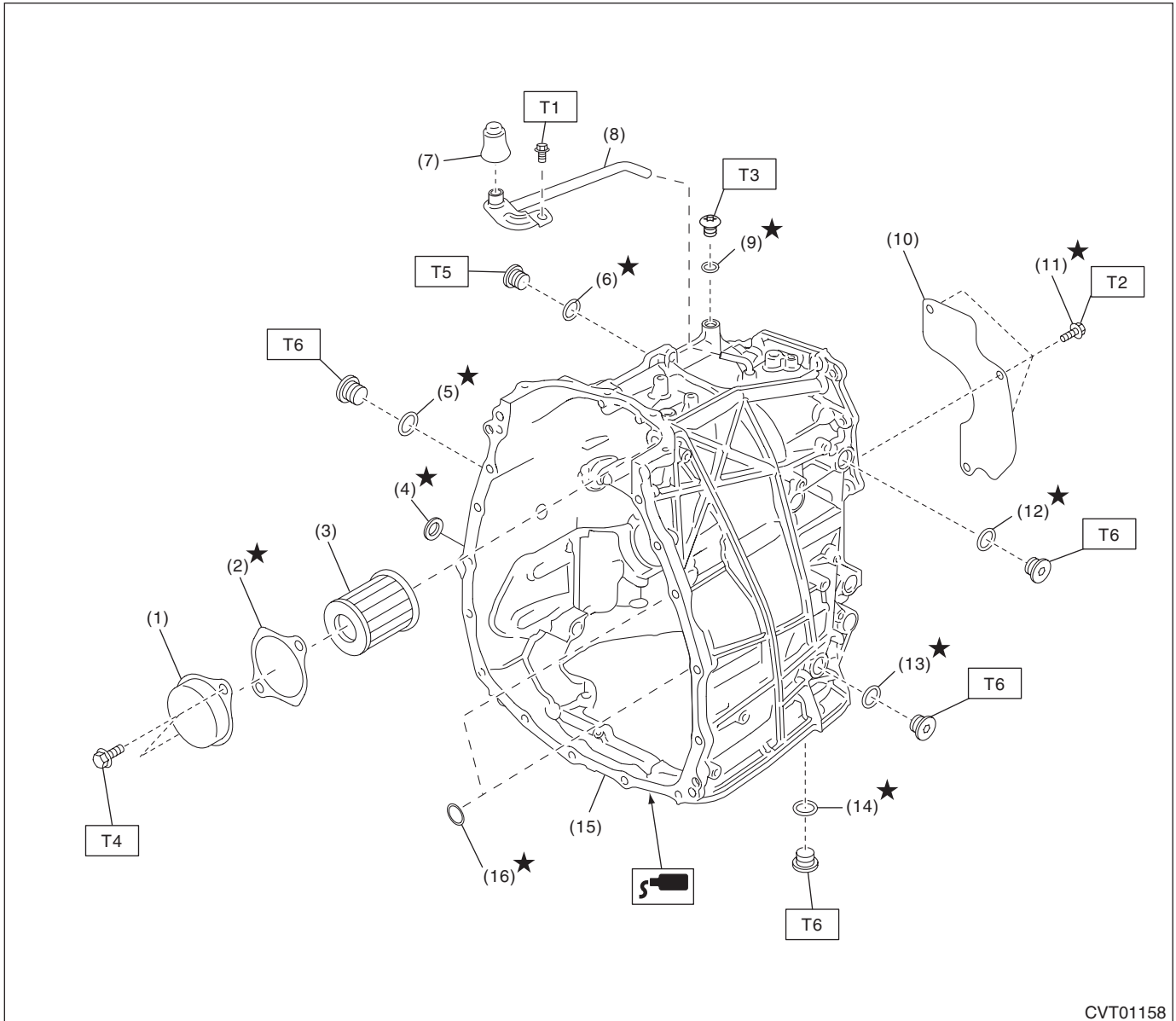
T1: 8.5 (0.9, 6.3)

T2: 21 (2.1, 15.5)

General Description

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3. TRANSMISSION CASE



CVT01158

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

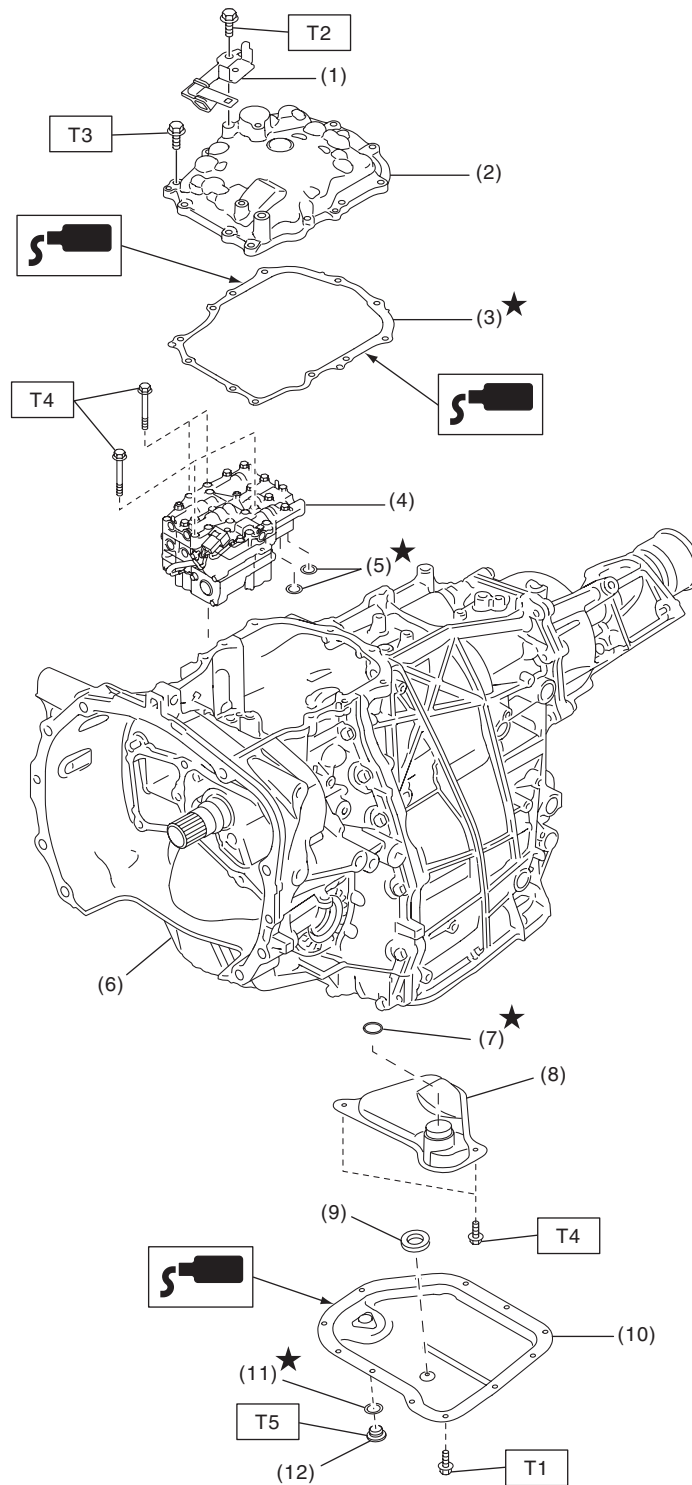
T5: 25 (2.5, 18.4)

T6: 50 (5.1, 25.8)

General Description

CONTINUOUSLY VARIABLE TRANSMISSION

4. CONTROL VALVE BODY



CVT01159

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

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

Tightening torque: N·m (kgf-m, ft-lb)

T1: 5 (0.5, 3.7)

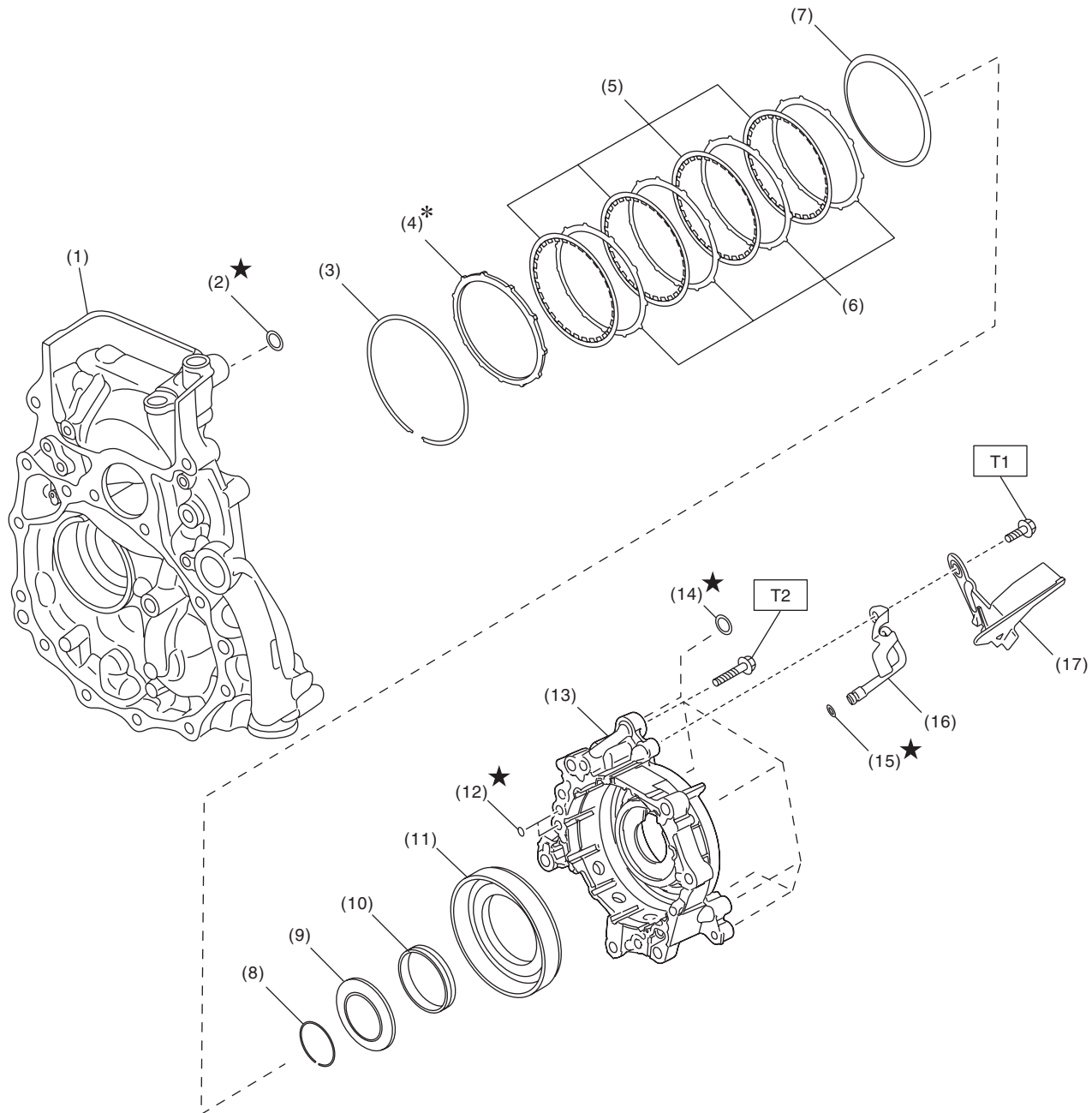
T2: 7 (0.7, 5.2)

T3: 8 (0.8, 5.9)

T4: 9 (0.9, 6.6)

T5: 31 (3.2, 22.9)

5. REVERSE BRAKE ASSEMBLY



CVT00661

- (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)

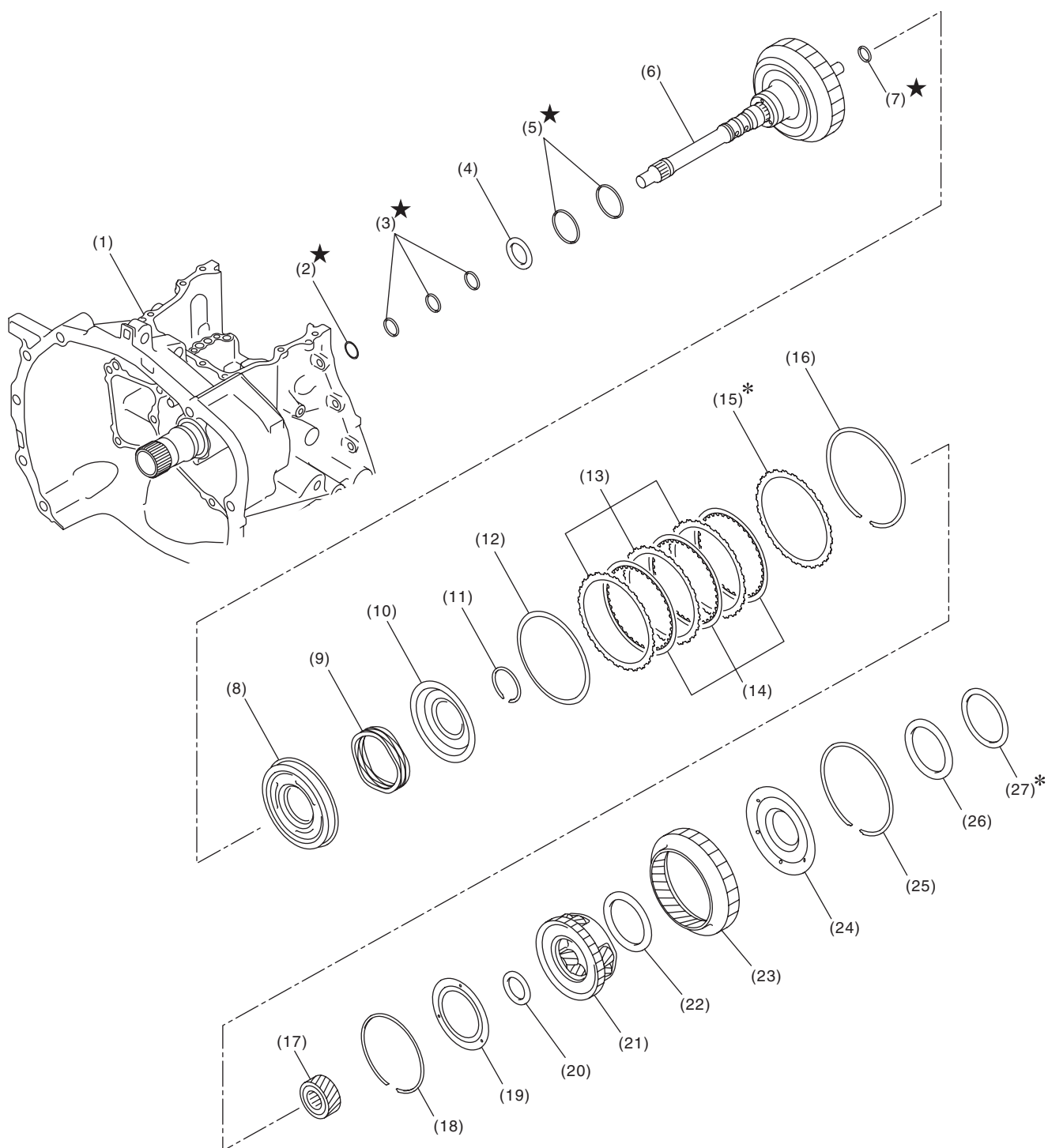
T1: 16 (1.6, 11.8)

T2: 37 (3.8, 27.3)

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6. FORWARD CLUTCH ASSEMBLY



AT-08298

General Description

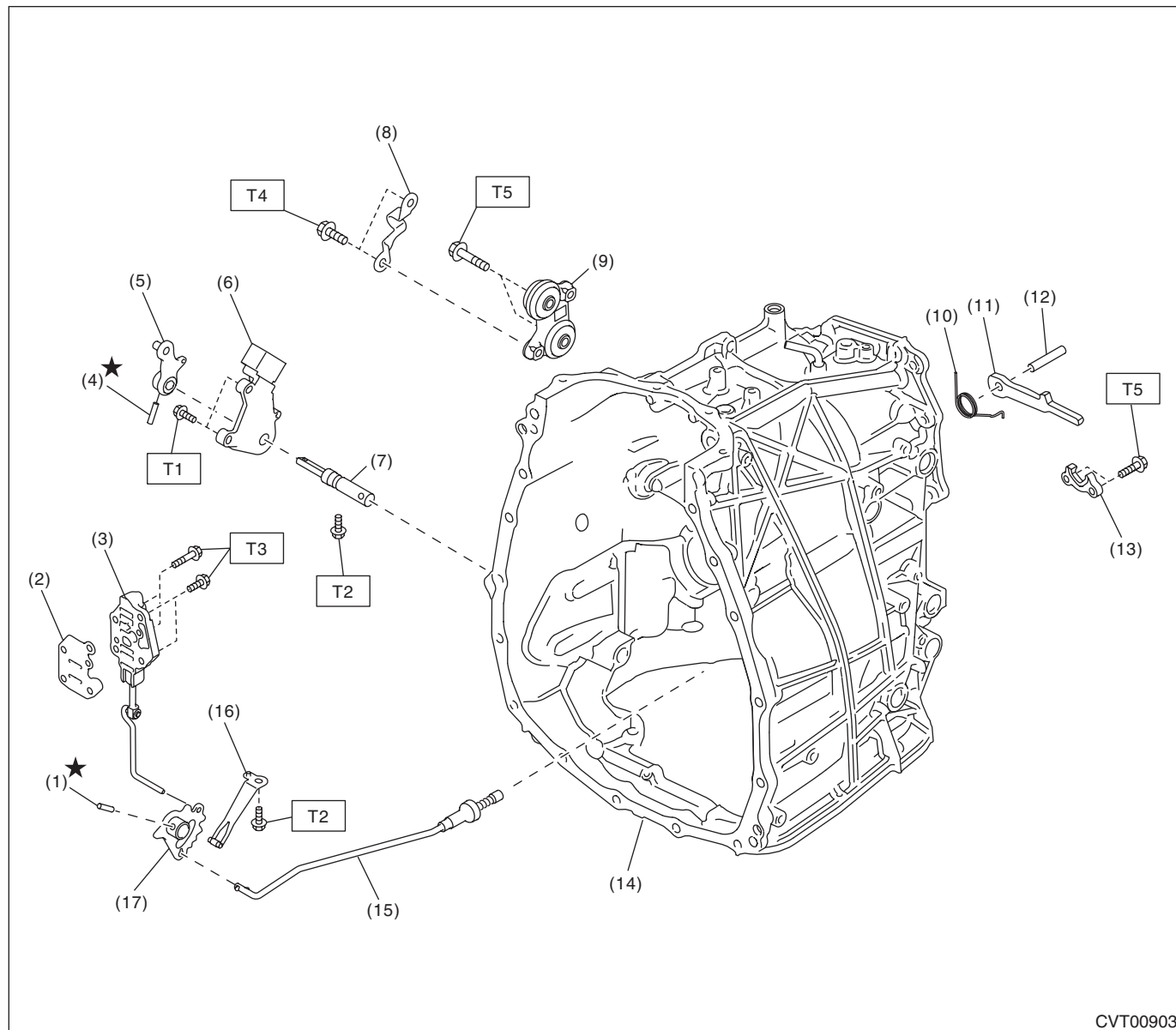
CONTINUOUSLY VARIABLE TRANSMISSION

(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



CVT00903

- | | |
|-----------------------|------------------------|
| (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)

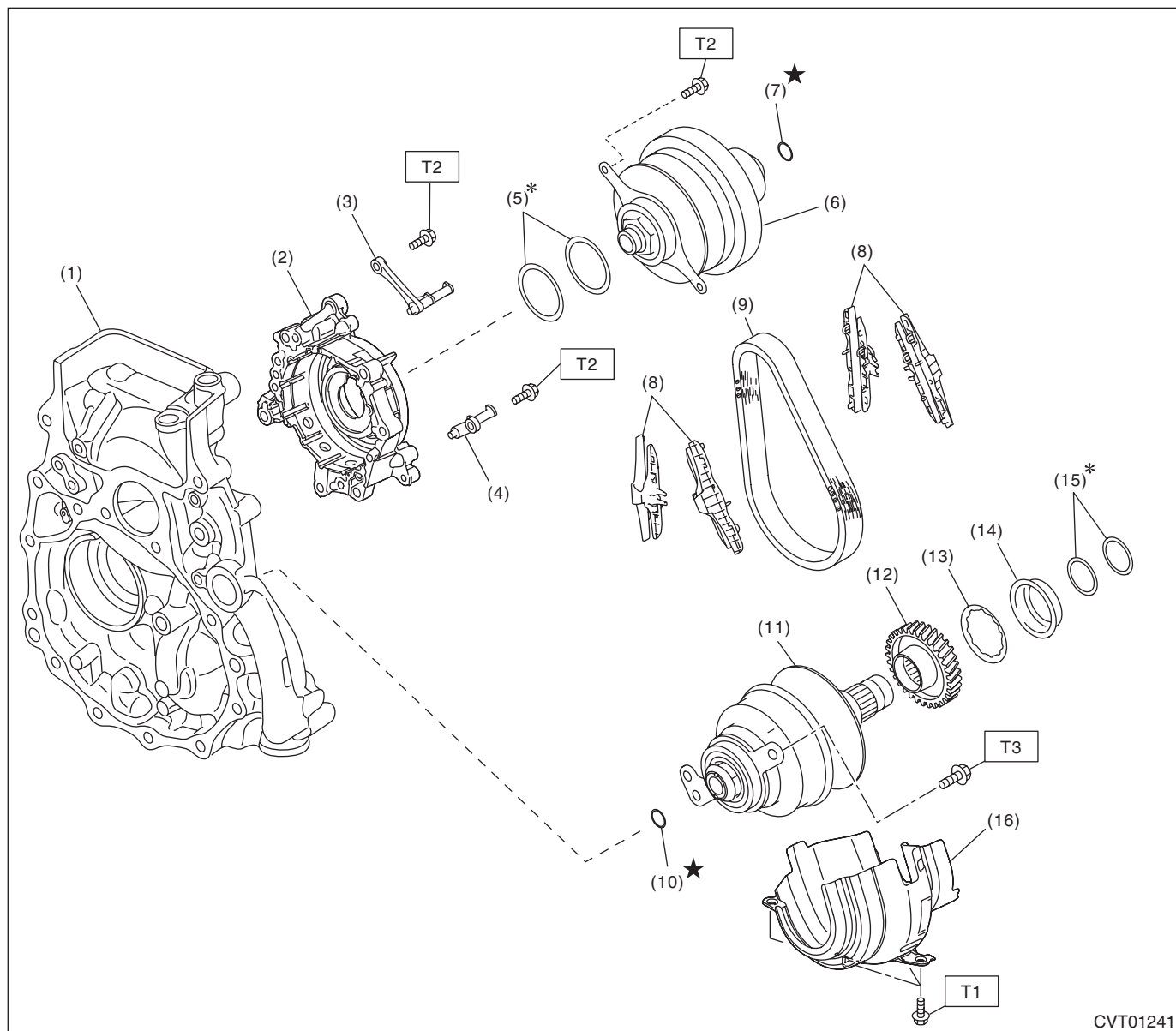
T4: 18 (1.8, 13.3)

T5: 25 (2.5, 18.4)

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



CVT01241

- | | | |
|---------------------------|----------------------------|--------------------------|
| (1) Drive pinion retainer | (8) Chain guide | (15) Reduction gear shim |
| (2) Reverse brake housing | (9) Variator chain | (16) Oil baffle |
| (3) Support rod | (10) Seal ring | |
| (4) Lubrication pipe | (11) Secondary pulley ASSY | |
| (5) Primary pulley shim | (12) Reduction drive gear | |
| (6) Primary pulley ASSY | (13) Dish plate | |
| (7) Seal ring | (14) Spring retainer | |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 16 (1.6, 11.8)

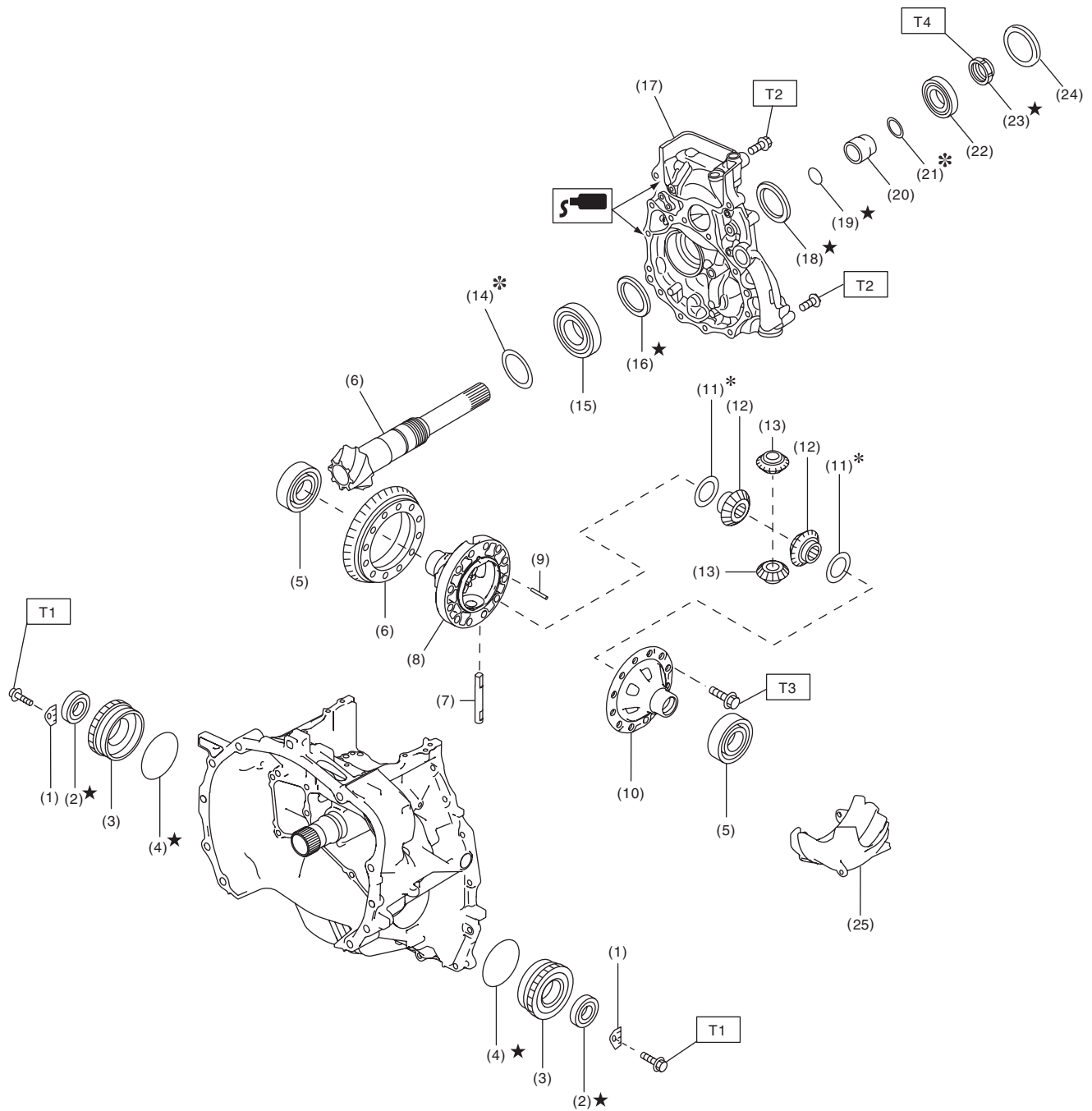
T2: 21 (2.1, 15.5)

T3: 67.5 (6.9, 49.8)

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9. FRONT DIFFERENTIAL GEAR



CVT00664

General Description

CONTINUOUSLY VARIABLE TRANSMISSION

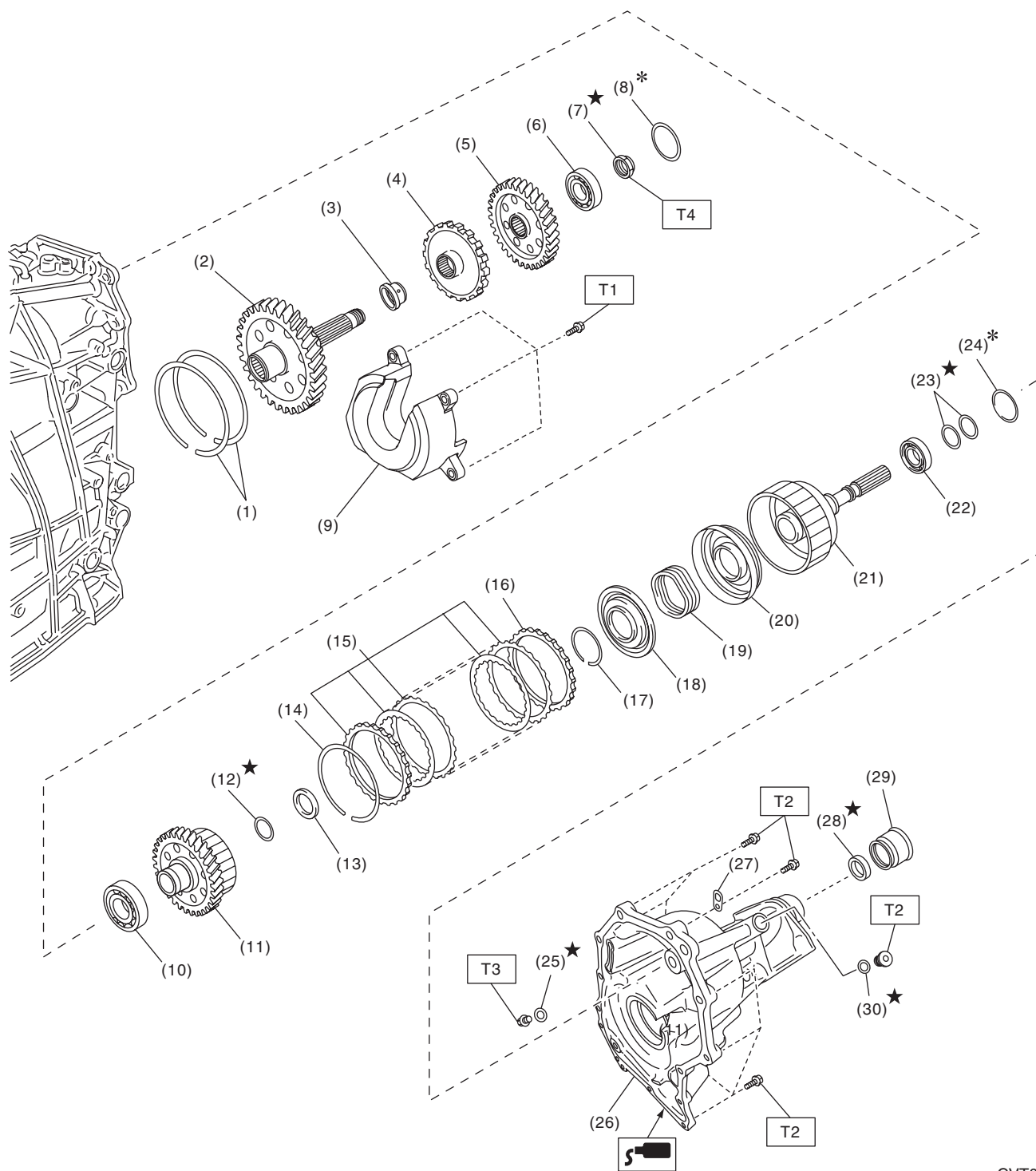
(1) Lock plate	(11) Washer	(21) Drive pinion washer
(2) Oil seal	(12) Differential bevel gear	(22) Taper roller bearing
(3) Differential side retainer	(13) Differential bevel pinion	(23) Lock nut
(4) O-ring	(14) Drive pinion shim	(24) Plug
(5) Taper roller bearing	(15) Taper roller bearing	(25) Oil baffle
(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	

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(TR580)-287,
ASSEMBLY, Drive Pinion Shaft
Assembly.>**

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10.TRANSFER AND EXTENSION CASE



CVT00905

General Description

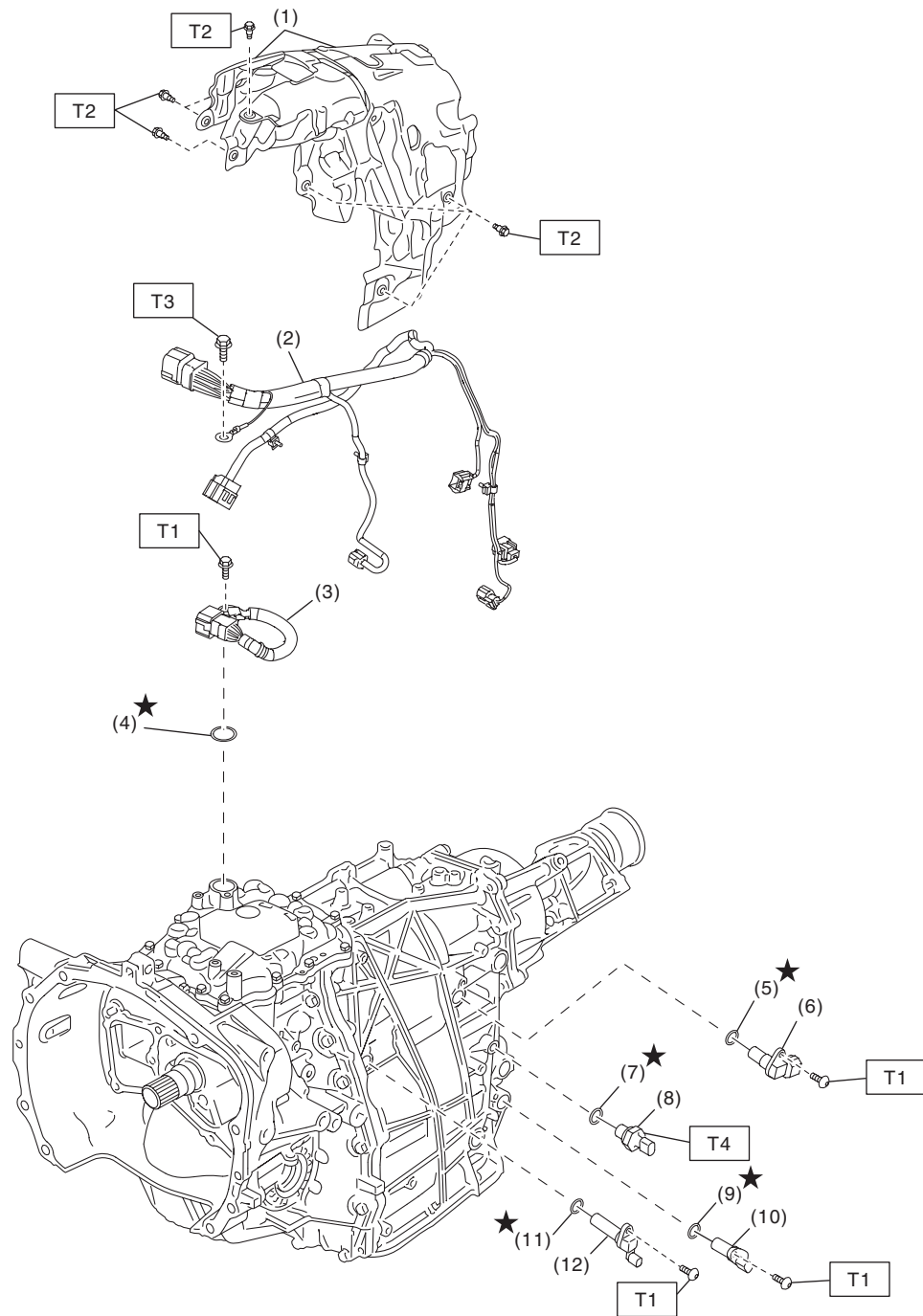
CONTINUOUSLY VARIABLE TRANSMISSION

(1) Snap ring (XV model)	(13) Thrust bearing	(25) Gasket
(2) Reduction driven gear COMPL	(14) Snap ring	(26) Extension case
(3) Collar	(15) Transfer clutch plate set	(27) Transmission hanger
(4) Parking gear	(16) Pressure plate	(28) Oil seal
(5) Transfer drive gear	(17) Snap ring	(29) Dust cover
(6) Ball bearing	(18) Transfer clutch piston seal	(30) O-ring
(7) Lock nut	(19) Transfer clutch piston return spring	
(8) Transfer drive gear shim	(20) Transfer clutch piston	<i>Tightening torque: N·m (kgf-m, ft-lb)</i>
(9) Spacer oil	(21) Rear drive shaft	<i>T1: 17 (1.7, 12.5)</i>
(10) Ball bearing	(22) Ball bearing	<i>T2: 25 (2.5, 18.4)</i>
(11) Transfer driven gear	(23) Seal ring	<i>T3: 35 (3.6, 25.8)</i>
(12) Seal ring	(24) Transfer driven gear shim	<i>T4: 95 (9.7, 70.1)</i>

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11.TRANSMISSION HARNESS AND SENSOR



CVT01201

- | | |
|-----------------------------|-------------------------------|
| (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)

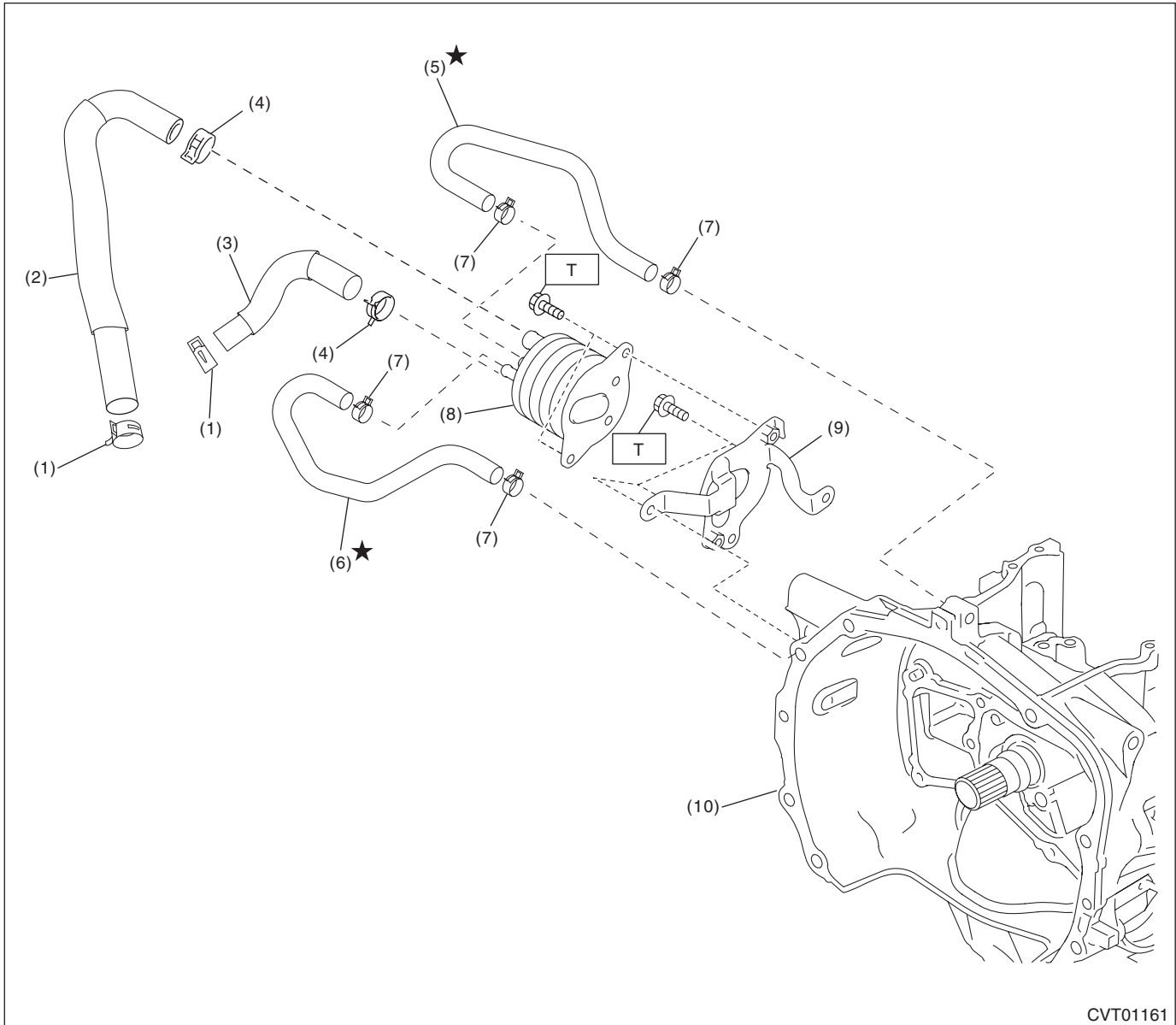
T1: 7 (0.7, 3.7)

T2: 8 (0.8, 5.9)

T3: 14 (1.4, 10.3)

T4: 39 (4.0, 28.8)

12.CVTF COOLER (WITH WARMER FEATURE)



CVT01161

- | | |
|--------------------------------|---------------------------------------|
| (1) Hose clamp | (6) CVTF cooler outlet hose |
| (2) Engine coolant outlet hose | (7) Hose clamp |
| (3) Engine coolant inlet hose | (8) CVTF cooler (with warmer feature) |
| (4) Hose clamp | (9) CVTF cooler bracket |
| (5) CVTF cooler inlet hose | (10) Converter case |

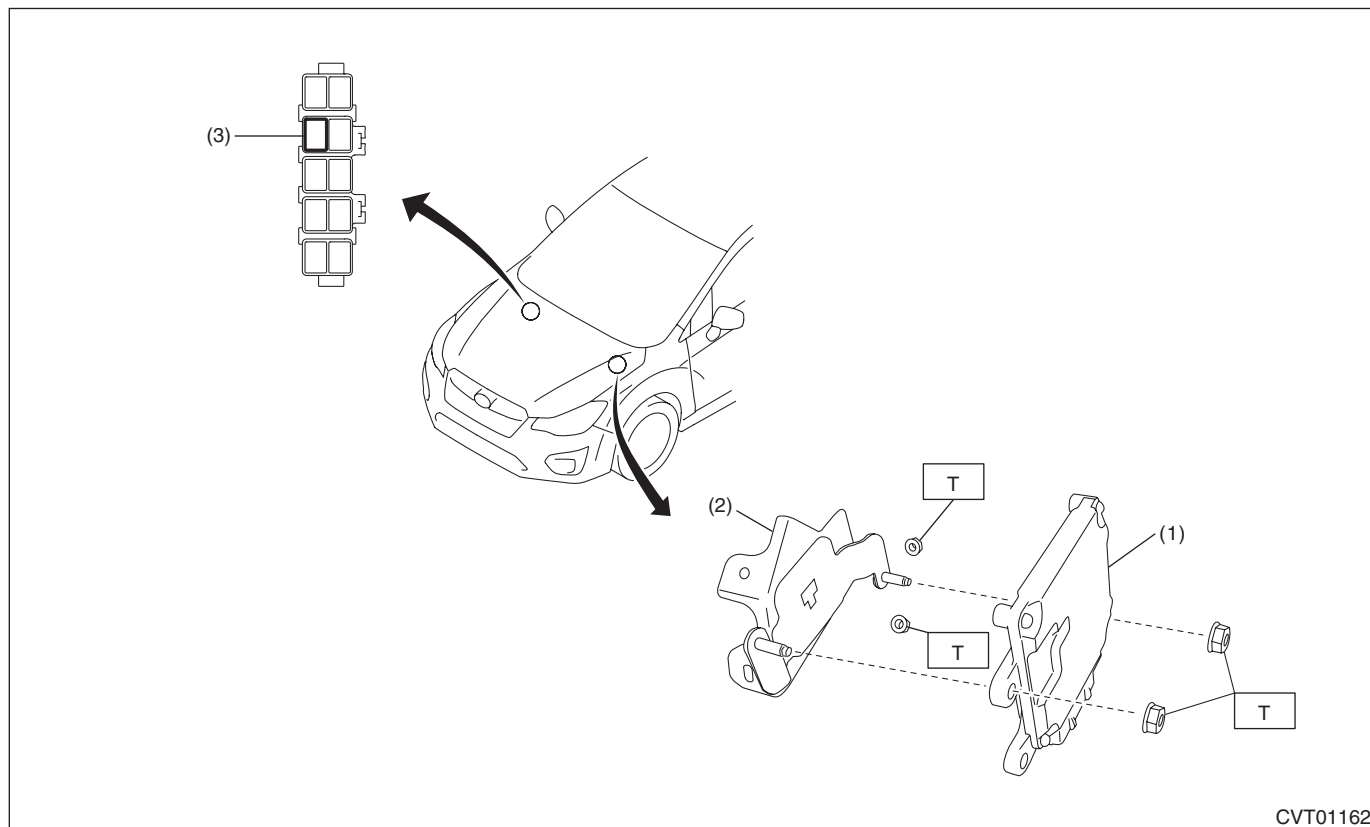
Tightening torque: N·m (kgf-m, ft-lb)

T: 23 (2.3, 17.0)

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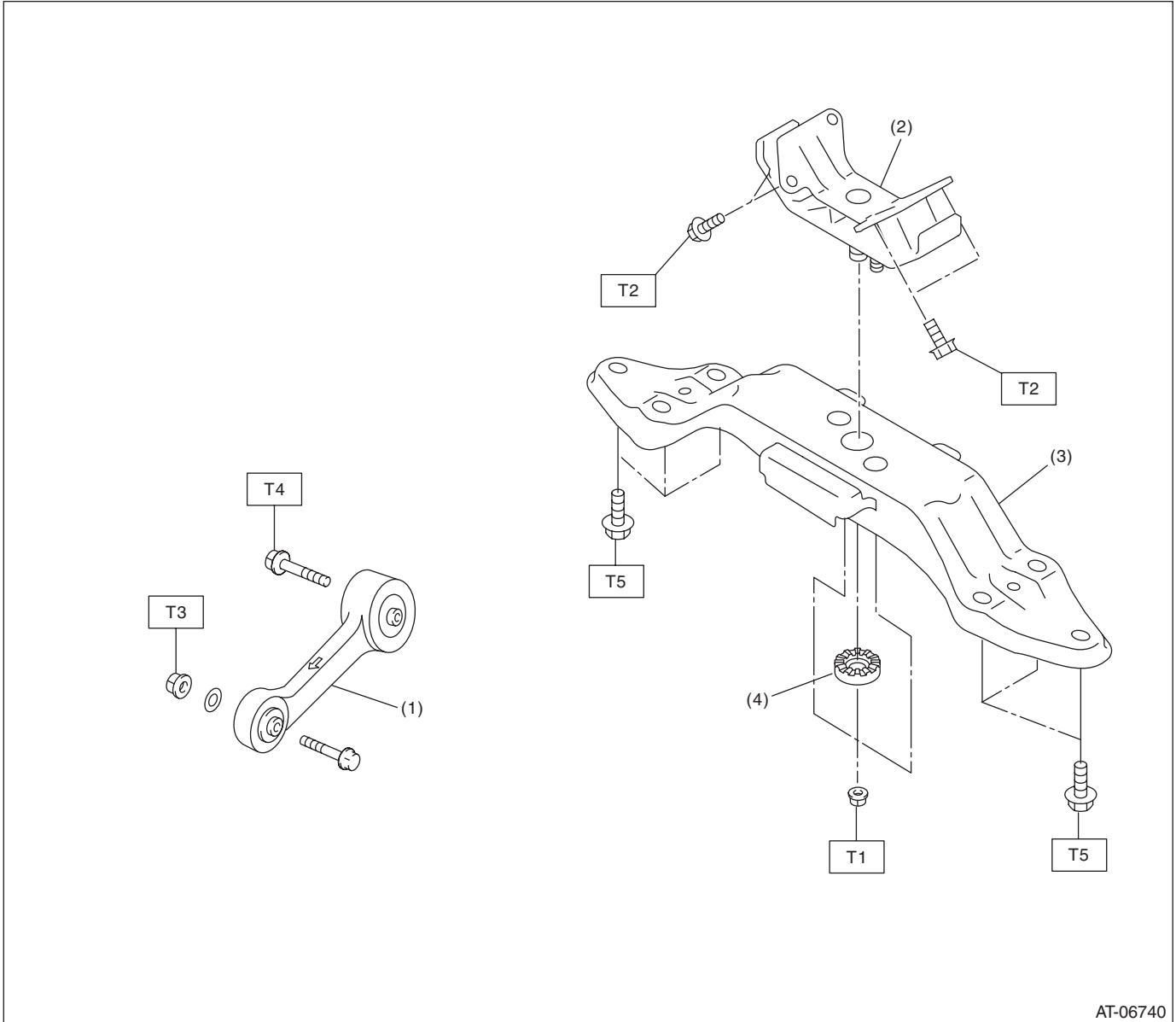
13.TRANSMISSION CONTROL MODULE



- (1) Transmission control module (TCM) (3) Relay
(2) TCM bracket

Tightening torque: N·m (kgf-m, ft-lb)
T: 7.5 (0.8, 5.5)

14.TRANSMISSION MOUNTING



AT-06740

- | | |
|-------------------------|-----------------------------------|
| (1) Pitching stopper | (3) Transmission rear crossmember |
| (2) Rear cushion rubber | (4) Stopper |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 35 (3.6, 25.8)

T2: 40 (4.1, 29.5)

T3: 50 (5.1, 36.9)

T4: 58 (5.9, 42.8)

T5: 70 (7.1, 51.6)

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C: CAUTION

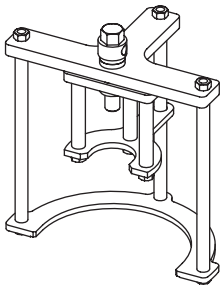
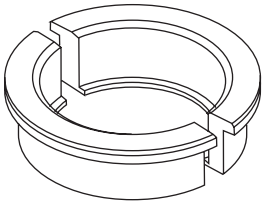
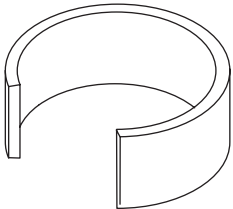
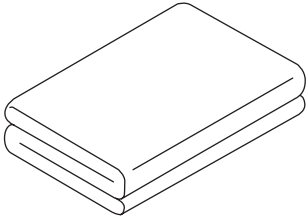
- Remove contamination including dirt and corrosion before removal, installation or disassembly.
- Keep the disassembled parts in order and protect them from dust and dirt.
- Do not place the valve cover with its inner side facing up until it is installed, to prevent intrusion of foreign matter into 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.
- 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 and clean the area.
- 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.
- Be careful of handling the oil seal, O-ring and gasket. If the contact surface of them is damaged, oil leakage may occur.
- When replacing the taper roller bearing, replace the outer race and inner race as a set.
- When replacing the hypoid gear, replace the hypoid gear and drive pinion shaft as a set.
- Replace the bolts if the seating surface or the thread surface is excessively rusted.

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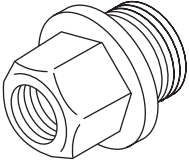
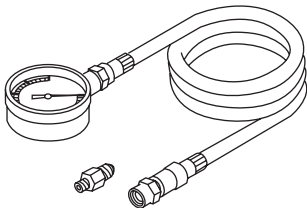
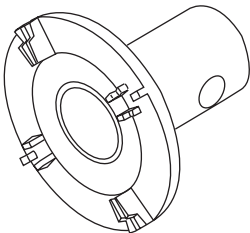
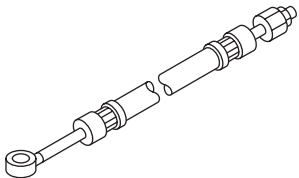
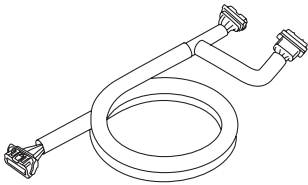
D: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST18769AA010</p>	18769AA010	EXPANDER PULLEY	Used for removing and installing the secondary pulley assembly.
 <p>ST18767AA010</p>	18767AA010	BEARING REMOVER	Used for removing the ball bearing of transfer clutch assembly.
 <p>ST18762AA010</p>	18762AA010	COMPRESSOR SPECIAL TOOL	Used for removing and installing snap ring of forward clutch assembly.
 <p>ST18761AA010</p>	18761AA010	SHEET SPECIAL TOOL	<ul style="list-style-type: none"> • Used for removing and installing control valve body. • Used for removing and installing valve cover. • Used for removing and installing transmission harness.

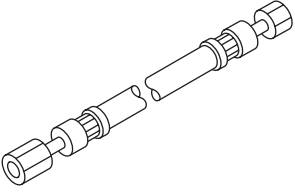
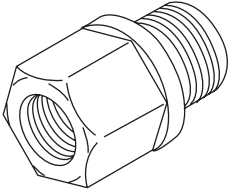
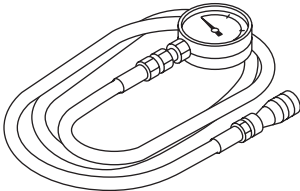
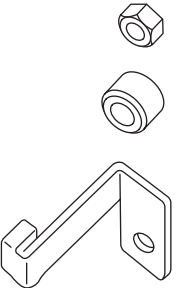
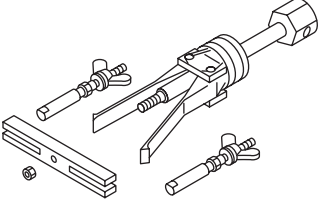
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ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST18681AA010</p>	18681AA010	PRESSURE GAUGE ADAPTER	Used for measuring the secondary pressure (line pressure). NOTE: Used together with the genuine O-ring (part No. 806916050).
 <p>ST18801AA000</p>	18801AA000	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. NOTE: Used with genuine union screw (Part No. 801914010) and gasket (Part No. 803914060).
 <p>ST18460AA040</p>	18460AA040 (Newly adopted tool)	CHECK BOARD	Used for measuring the check board TCM terminal voltage.

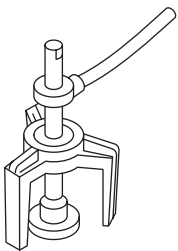
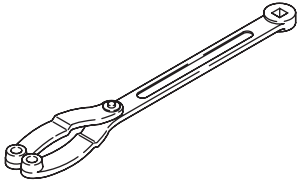
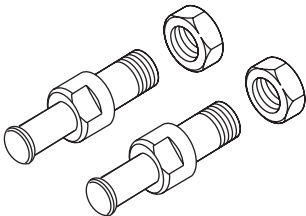
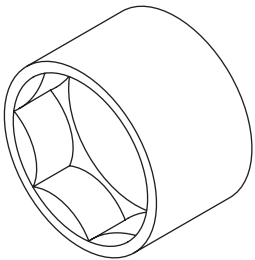
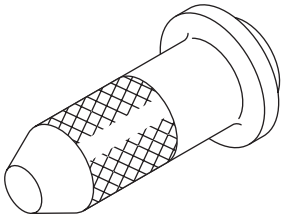
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST34099AC010	34099AC010	ADAPTER HOSE A	Used for measuring the transfer clutch hydraulic pressure.
 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"> Used for removing and installing transmission assembly to engine. Used for preventing the torque converter from dropping off.
 ST-398527700	398527700	PULLER ASSY	<ul style="list-style-type: none"> Used for removing the extension case oil seal. Used for removing the bearing outer race of the drive pinion shaft.

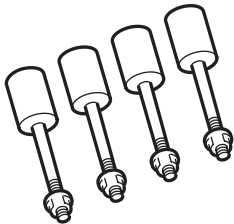
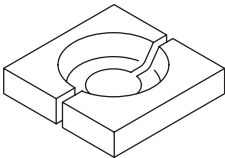
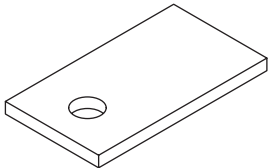
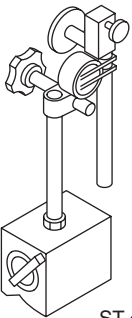
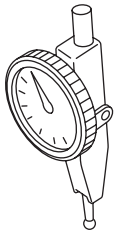
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST-398673600	398673600	COMPRESSOR	Used for removing and installing snap ring of forward clutch assembly.
 ST18355AA000	18355AA000	PULLEY WRENCH	<ul style="list-style-type: none"> • Used for removing and installing the lock nut of reduction driven gear. • Used together with PIN SET (18334AA000).
 ST18334AA000	18334AA000	PIN SET	<ul style="list-style-type: none"> • Used for removing and installing the lock nut of reduction driven gear. • Used together with PULLEY WRENCH (18355AA000).
 ST-499987003	499987003	SOCKET WRENCH (35)	Used for removing and installing the lock nut of reduction driven gear.
 ST-498057300	498057300	OIL SEAL INSTALLER	Used for installing the extension case oil seal.

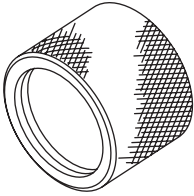
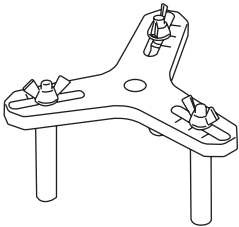
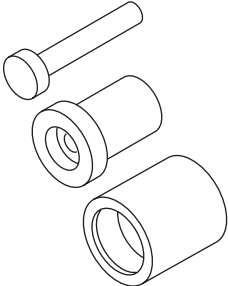
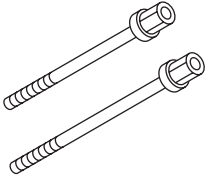
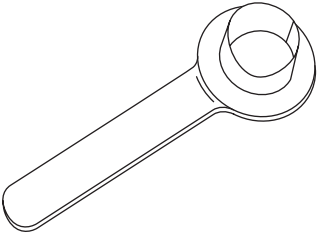
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST18632AA000</p>	18632AA000	STAND ASSY	Used for disassembling and assembling the transmission.
 <p>ST-498515500</p>	498515500	REMOVER	Used for removing the bearing inner race of the drive pinion shaft.
 <p>ST-498255400</p>	498255400	PLATE	Used for measuring the backlash of hypoid gear.
 <p>ST-498247001</p>	498247001	MAGNET BASE	<ul style="list-style-type: none"> • Used for measuring the backlash of differential bevel pinion gear. • Used for measuring the backlash of hypoid gear. • Used together with DIAL GAUGE (498247100).
 <p>ST-498247100</p>	498247100	DIAL GAUGE	<ul style="list-style-type: none"> • Used for measuring the backlash of differential bevel pinion gear. • Used for measuring the backlash of hypoid gear. • Used together with DIAL GAUGE (498247101).

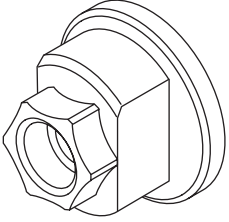
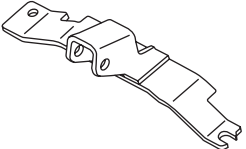
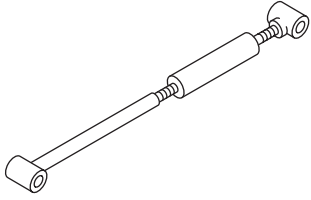
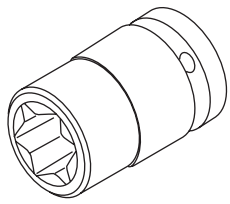
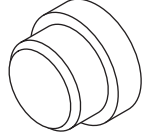
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST18675AA000	18675AA000	DIFFERENTIAL SIDE OIL SEAL INSTALLER	Used for installing the differential side retainer oil seal.
 ST18762AA001	18762AA001	COMPRESSOR SPECIAL TOOL	<ul style="list-style-type: none"> • Used for disassembling and installing the multi-plate clutch piston. • COMPRESSOR SPECIAL TOOL (18762AA000) can also be used.
 ST-927720000	927720000	HOUSING BUSH- ING INSTALLER AND REMOVER	<ul style="list-style-type: none"> • Used for installing the oil seal. • Use BUSHING SHAFT (927880000).
 ST18763AA000	18763AA000	COMPRESSOR SHAFT	Used for measuring the backlash of hypoid gear.
 ST28399SA010	28399SA010	OIL SEAL PROTEC- TOR	Used for protecting oil seal when installing front drive shaft.

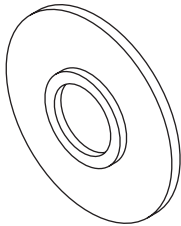
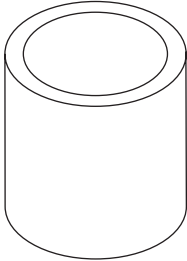
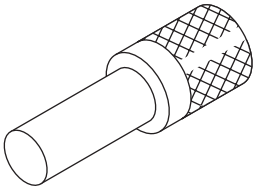
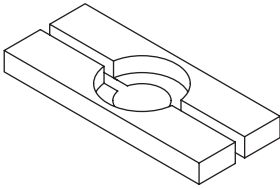
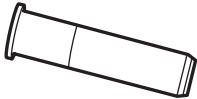
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST-498937110</p>	498937110	HOLDER	<ul style="list-style-type: none"> Used for removing and installing the drive pinion lock nut. Used as a holder to rotate gear when checking tooth contact.
 <p>ST41099AA012</p>	41099AA012 (Newly adopted tool)	ENGINE SUPPORT BRACKET	Used for supporting the engine.
 <p>ST41099AA020</p>	41099AA020	ENGINE SUPPORT	Used for supporting the engine.
 <p>ST18270KA020</p>	18270KA020	SOCKET (E20)	<ul style="list-style-type: none"> Used for removing and installing the hypoid driven gear. Used for removing and installing the drive pinion shaft retainer.
 <p>ST-398497701</p>	398497701	SEAT	Used for removing and installing the bearing.

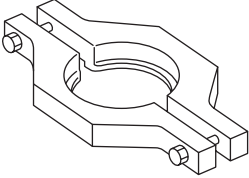

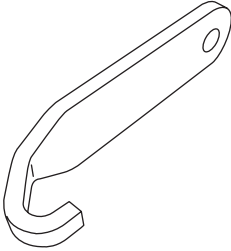
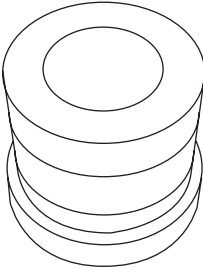
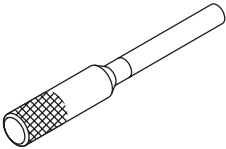
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-398177700</p>	398177700	INSTALLER	<ul style="list-style-type: none"> • Used for installing the ball bearing. • Used for installing the parking gear. • Used for installing the bearing outer race. • Used for installing the plug.
 <p style="text-align: center;">ST28499TC010</p>	28499TC010	PRESS SNAP RING	Used for installing the bearing outer race of drive pinion shaft.
 <p style="text-align: center;">ST-899864100</p>	899864100	REMOVER	<ul style="list-style-type: none"> • Used for removing and installing the ball bearing. • Used for removing the parking gear and transfer drive gear. • Used for removing the bearing inner race of the front differential.
 <p style="text-align: center;">ST-498077000</p>	498077000	REMOVER	Used for removing the bearing inner race of the front differential.
 <p style="text-align: center;">ST18657AA010</p>	18657AA010	INSTALLER	Used for installing the oil seal at shifter arm shaft portion.

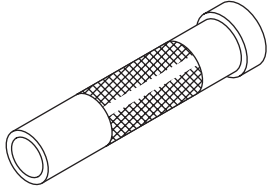
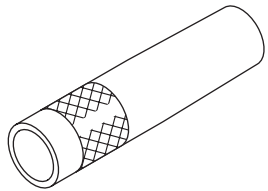
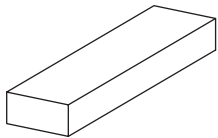
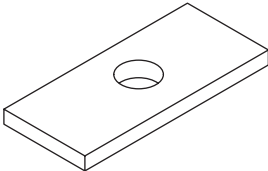
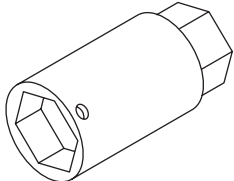
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST-498077600</p>	498077600	REMOVER	Used for removing the ball bearing of drive sprocket.
 <p>ST18720AA000</p>	18723AA000	REMOVER	Used for removing the ball bearing of transfer clutch assembly.
 <p>ST-498497300</p>	498497300	CRANKSHAFT STOPPER	Used for stopping the drive plate rotation when removing and installing the drive plate.
 <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.

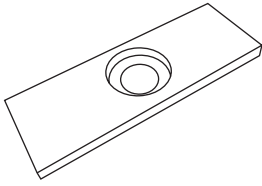
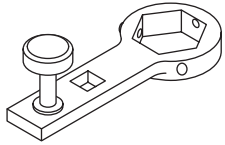
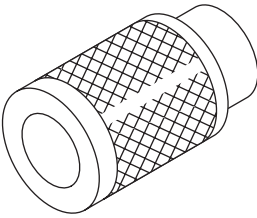
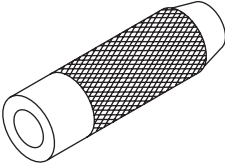
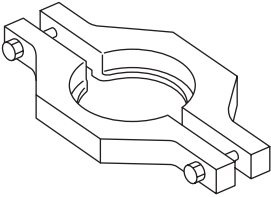
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-499277100</p>	499277100	BUSHING 1-2 INSTALLER	<ul style="list-style-type: none"> • Used for installing the ball bearing. • Used for installing the bearing inner race.
 <p style="text-align: center;">ST-499277200</p>	499277200	INSTALLER	Used for installing the ball bearing of the transfer clutch assembly.
 <p style="text-align: center;">ST-499575400</p>	499575400	GAUGE	Used for measuring height of end play.
 <p style="text-align: center;">ST-499575500</p>	499575500	GAUGE	Used for measuring height of end play.
 <p style="text-align: center;">ST-499787500</p>	499787500	ADAPTER	<ul style="list-style-type: none"> • Used for removing and installing the drive pinion shaft lock nut. • Used for measuring the preload of the drive pinion shaft. • Used for measuring the backlash of hypoid gear.

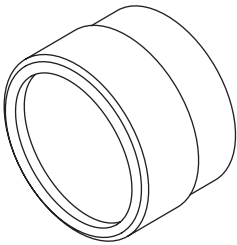
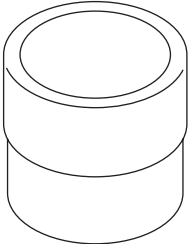
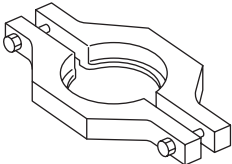
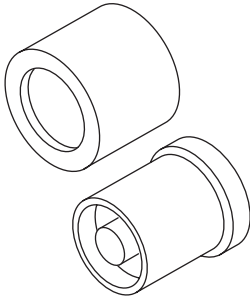
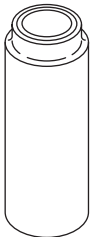
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST-499575600	499575600	GAUGE	Used for measuring height of end play.
 ST-499787700	499787700	WRENCH	<ul style="list-style-type: none"> • Used for removing and installing the drive pinion shaft lock nut. • Used for measuring the preload of the drive pinion shaft. • Used for measuring the backlash of hypoid gear.
 ST-499757002	499757002	INSTALLER	<ul style="list-style-type: none"> • Used for removing the bearing of reduction driven gear. • Used for installing the parking gear. • Used for installing the transfer drive gear.
 ST-899580100	899580100	INSTALLER	<ul style="list-style-type: none"> • Used for installing the collar of reduction driven gear. • Used for installing the ball bearing of the transfer driven gear. • Used for installing the bearing inner race of drive pinion shaft.
 ST-498077300	498077300	REMOVER	Used for installing the ball bearing of reduction driven gear.

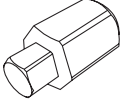
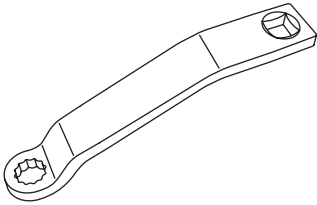
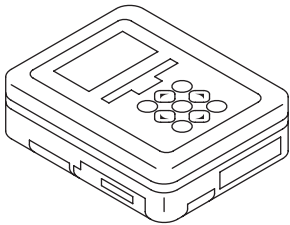
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST-499755502	499755502	PRESS SNAP RING	Used for installing the drive sprocket ball bearing.
 ST-499755602	499755602	PRESS SNAP RING	<ul style="list-style-type: none"> Used for installing the oil seal. Used for installing the plug.
 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.
 ST-927130000	927130000	EXTENSION DRIVE SHAFT	Used for installing the bearing inner race of drive pinion shaft.

General Description

CONTINUOUSLY VARIABLE TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST18270AA040	18270AA040	SOCKET	Used for removing and installing the transfer clutch pressure test plug.
 ST73099SG000	73099SG000	SPECIAL TOOL CONDENSER	Used for installing the transfer clutch pressure test plug.
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for setting of each function and trouble-shooting for electrical system. NOTE: For detailed operation procedures of Subaru Select Monitor III, refer to "PC application help for Subaru Select Monitor".

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.
Angle gauge	Used for installing the drive plate.