

General Description

CONTINUOUSLY VARIABLE TRANSMISSION

1. General Description

A: SPECIFICATION

1. TORQUE CONVERTER

| | |
|----------------------------|--|
| Model | 2.5 L SOHC 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) | 2,400 — 3,100 |
| One-way clutch | Sprague 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 sets |
| Multi-plate brake | 1 sets |

4. TRANSMISSION GEAR RATIO

| | |
|---------|---------------|
| Forward | 3.525 — 0.558 |
| Rev | 2.358 |

5. PLATE

| | |
|---------------------------------------|---|
| Number of input clutch drive plates | 5 |
| Number of forward clutch drive plates | 6 |
| Number of reverse brake drive plates | 5 |

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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 (speed changed by signals of vehicle speed and accelerator opening angle) |
| Fluid | SUBARU CVT OIL FOR LINEARTRONIC (specified fluid) or equivalent CAUTION: Always use specified CVTF or equivalent. Using other fluid except for specified or equivalent will cause malfunction. |
| Fluid capacity ℓ (US qt, Imp qt) | 12.0 — 12.5 (12.7 — 13.2, 10.6 — 11.0) |
| Lubrication system | Forced feed lubrication with oil pump |

8. COOLING AND HARNESS

| | |
|--------------------------|--|
| Cooling system | Liquid-cooler incorporated in radiator |
| Inhibitor switch harness | 12 poles |
| Transmission harness | 20 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 (37/37) |

10. REDUCTION GEAR RATIO

| Model | Except for OUTBACK | OUTBACK |
|----------------------------------|--------------------|---------|
| Front final reduction gear ratio | 3.700 | 3.900 |

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11.RECOMMENDED GEAR OIL

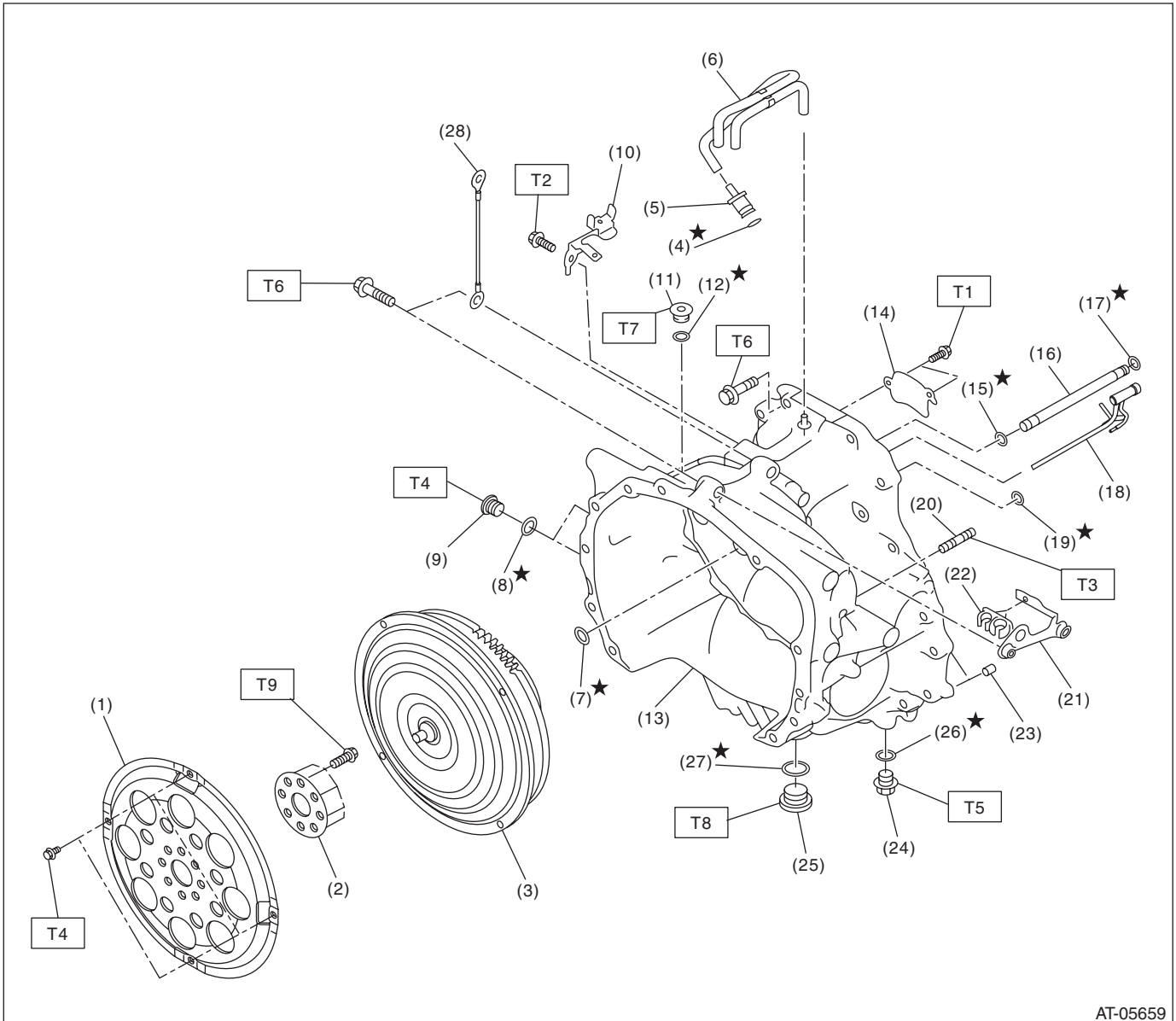
| | |
|--|--|
| <p>Lubrication oil</p> | <div style="text-align: center;"> </div> <p>(1) Item (2) Front differential gear oil (3) API standard (4) SAE viscosity No. and applicable temperature</p> |
| <p>Front differential oil capacity \varnothing (US qt, Imp qt)</p> | <p>1.3 — 1.5 (1.4 — 1.6, 1.1 — 1.3)</p> |

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B: COMPONENT

1. TORQUE CONVERTER ASSEMBLY AND CONVERTER CASE



AT-05659

General Description

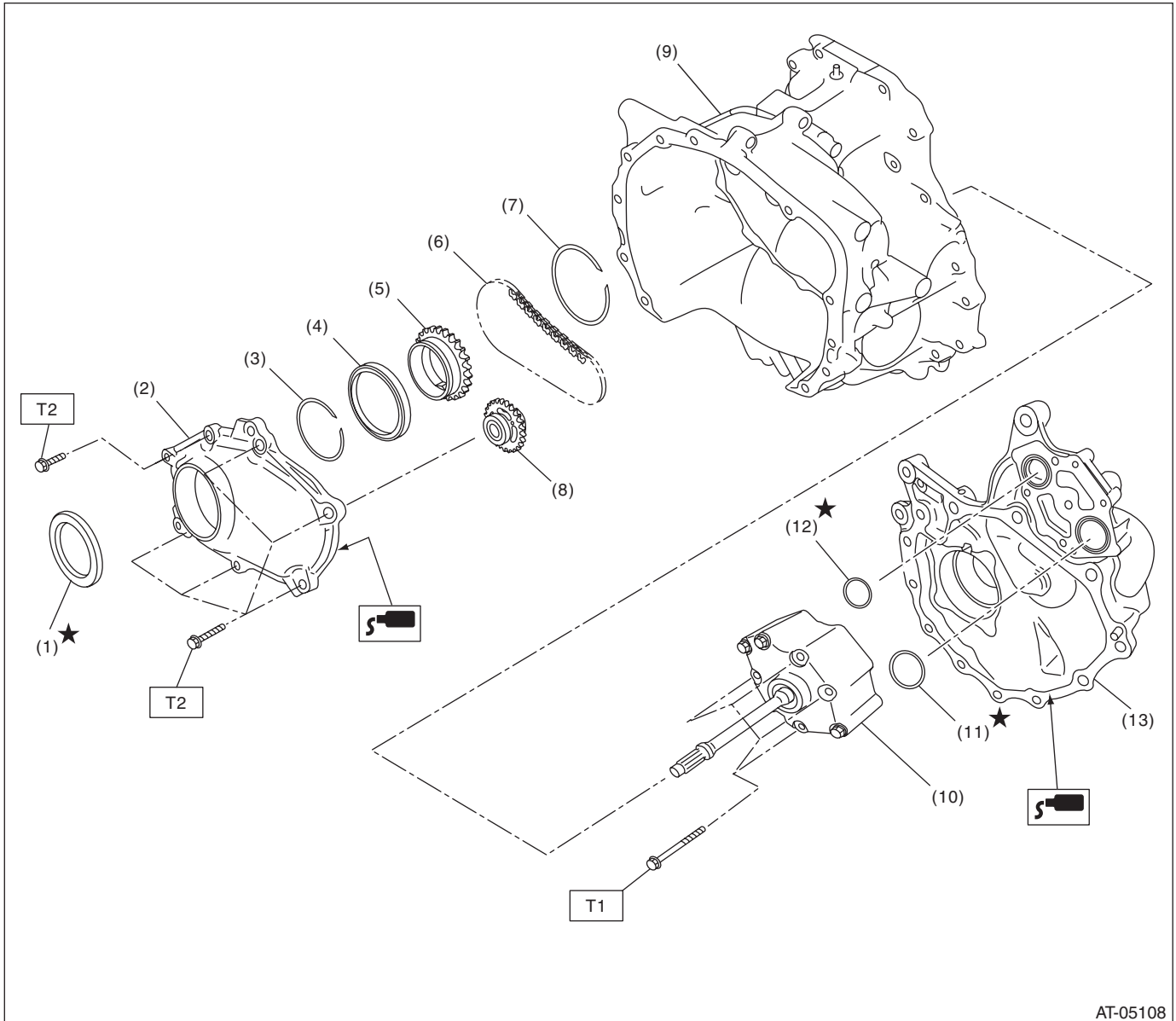
CONTINUOUSLY VARIABLE TRANSMISSION

| | | |
|--------------------------------|---|--|
| (1) Drive plate | (14) Oil stopper plate | (27) Gasket |
| (2) Reinforcement drive plate | (15) O-ring | (28) Transmission radio ground cord |
| (3) Torque converter ASSY | (16) Lubrication pipe | |
| (4) O-ring | (17) O-ring | <hr/> |
| (5) Oil charge pipe cap | (18) Lubrication pipe | Tightening torque:N·m (kgf-m, ft-lb) |
| (6) Air breather hose ASSY | (19) O-ring | T1: 9 (0.9, 6.6) |
| (7) O-ring | (20) Stud bolt | T2: 16 (1.6, 11.8) |
| (8) O-ring | (21) Transmission hanger | T3: 18 (1.8, 13.3) |
| (9) PLUG | (22) Clip | T4: 25 (2.5, 18.4) |
| (10) Transmission harness stay | (23) Straight pin | T5: 35 (3.6, 25.8) |
| (11) Plug | (24) Overflow drain plug | T6: 41 (4.2, 30.2) |
| (12) O-ring | (25) Front differential gear oil drain plug | T7: 50 (5.1, 36.9) |
| (13) Converter case | (26) Gasket | T8: 70 (7.1, 51.6) |
| | | T9: <Ref. to CVT-132, INSTALLATION, Drive Plate.> |

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CONTINUOUSLY VARIABLE TRANSMISSION

2. OIL PUMP ASSY



AT-05108

- (1) Oil seal
- (2) Oil pump chain cover
- (3) Snap ring
- (4) Ball bearing
- (5) Drive sprocket
- (6) Oil pump chain

- (7) Snap ring
- (8) Driven sprocket
- (9) Converter case
- (10) Oil pump ASSY
- (11) O-ring (large)
- (12) O-ring (small)

- (13) Drive pinion retainer

Tightening torque: N·m (kgf·m, ft·lb)

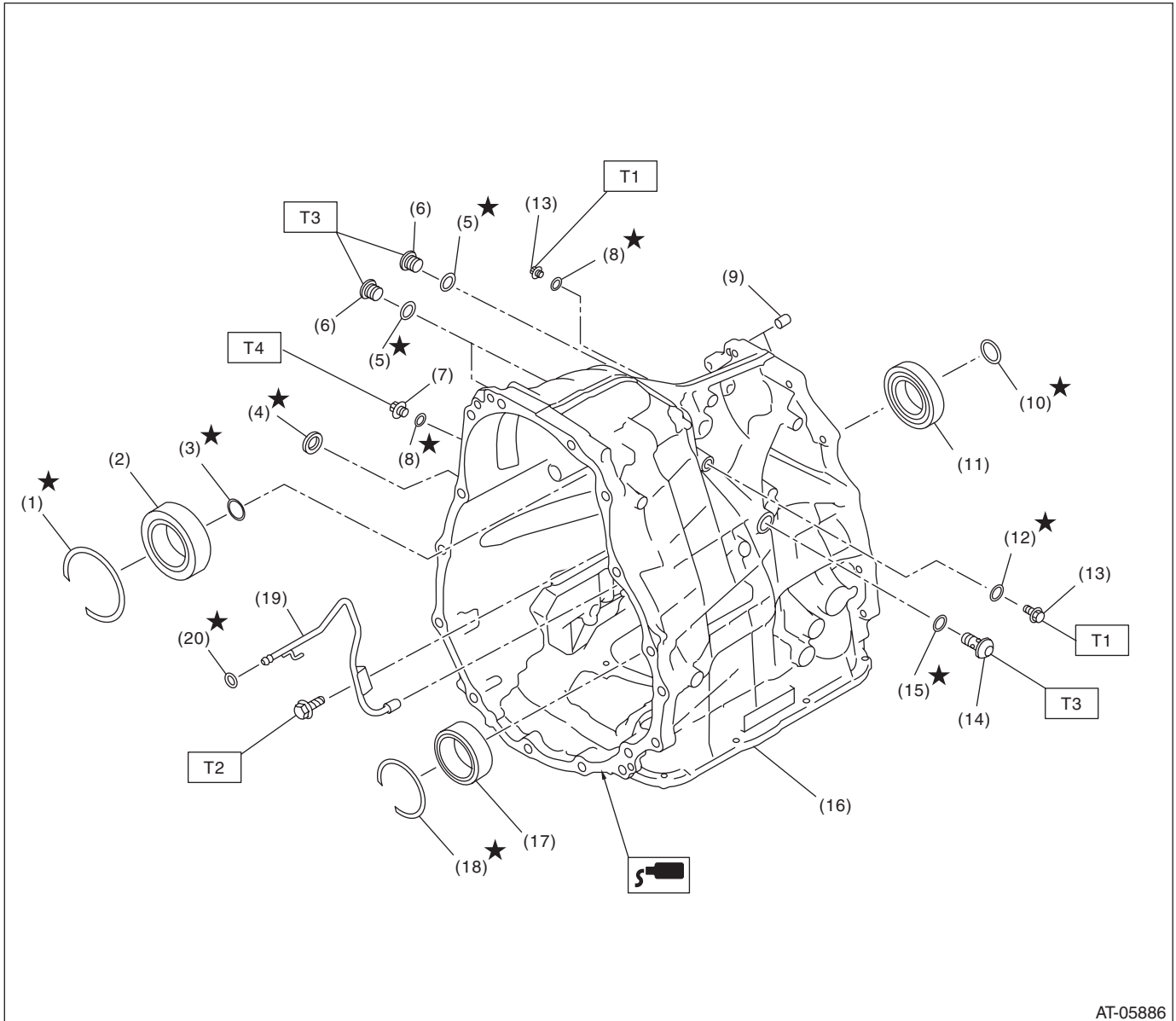
T1: 8.5 (0.9, 6.3)

T2: 24 (2.4, 17.7)

General Description

CONTINUOUSLY VARIABLE TRANSMISSION

3. TRANSMISSION CASE



AT-05886

- | | | |
|--------------------|------------------------|-----------------------|
| (1) Snap ring | (10) Seal ring | (19) Lubrication pipe |
| (2) Roller bearing | (11) Ball bearing | (20) O-ring |
| (3) Seal ring | (12) O-ring | |
| (4) Oil seal | (13) Plug | |
| (5) O-ring | (14) Plug | |
| (6) Plug | (15) O-ring | |
| (7) Plug | (16) Transmission case | |
| (8) O-ring | (17) Roller bearing | |
| (9) Straight pin | (18) Snap ring | |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 13 (1.3, 9.6)

T2: 16 (1.6, 11.8)

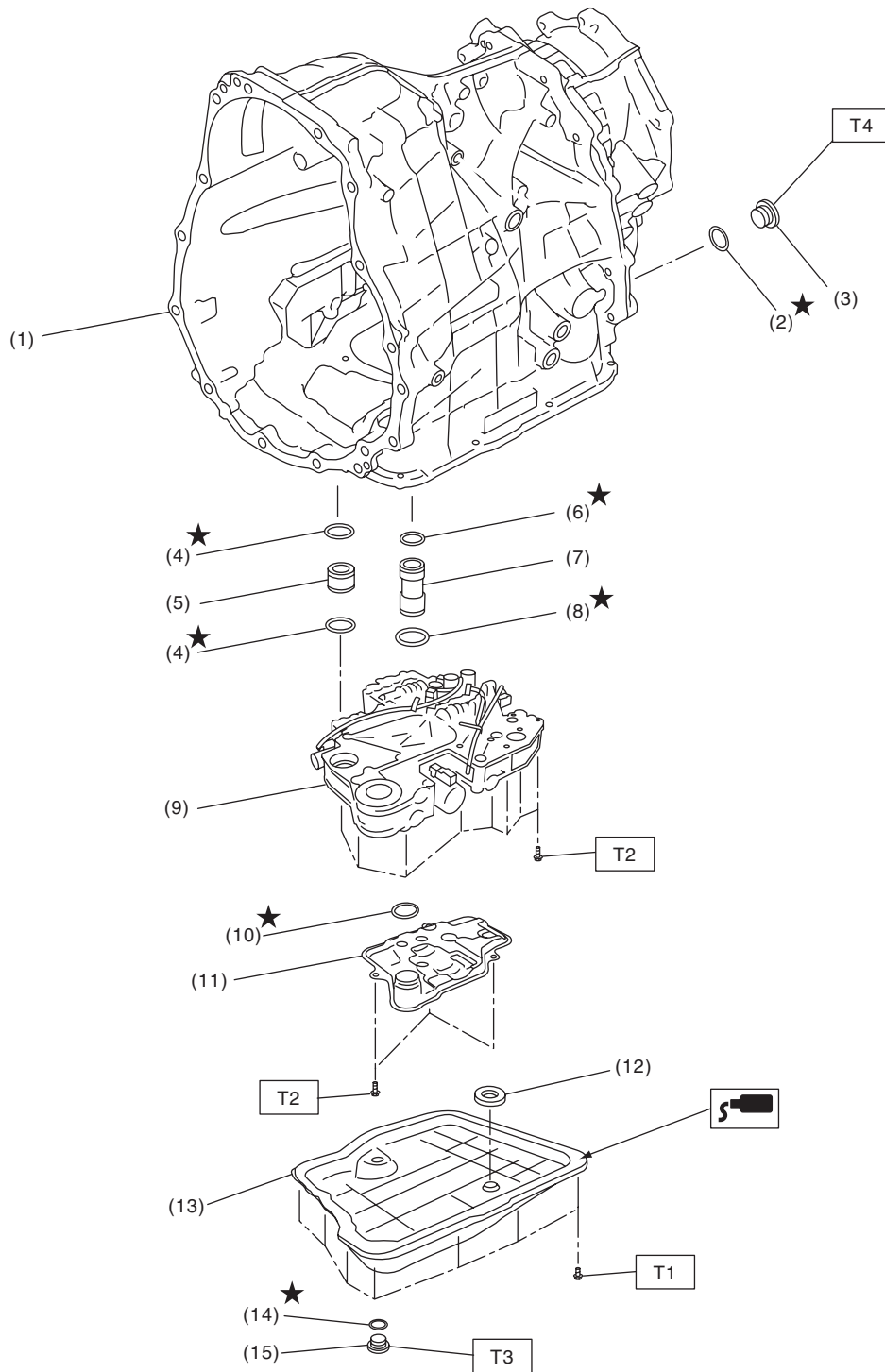
T3: 25 (2.5, 18.4)

T4: 35 (3.6, 25.8)

General Description

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4. CONTROL VALVE BODY



AT-05110

- (1) Transmission case
- (2) Gasket
- (3) Filler plug
- (4) O-ring
- (5) Pressure pipe
- (6) O-ring (small)
- (7) CVTF pipe

- (8) O-ring (large)
- (9) Control valve body
- (10) O-ring
- (11) Oil strainer
- (12) Magnet
- (13) Oil pan
- (14) Gasket

- (15) CVTF drain plug

Tightening torque: N·m (kgf·m, ft·lb)

T1: 5 (0.5, 3.7)

T2: 9 (0.9, 6.6)

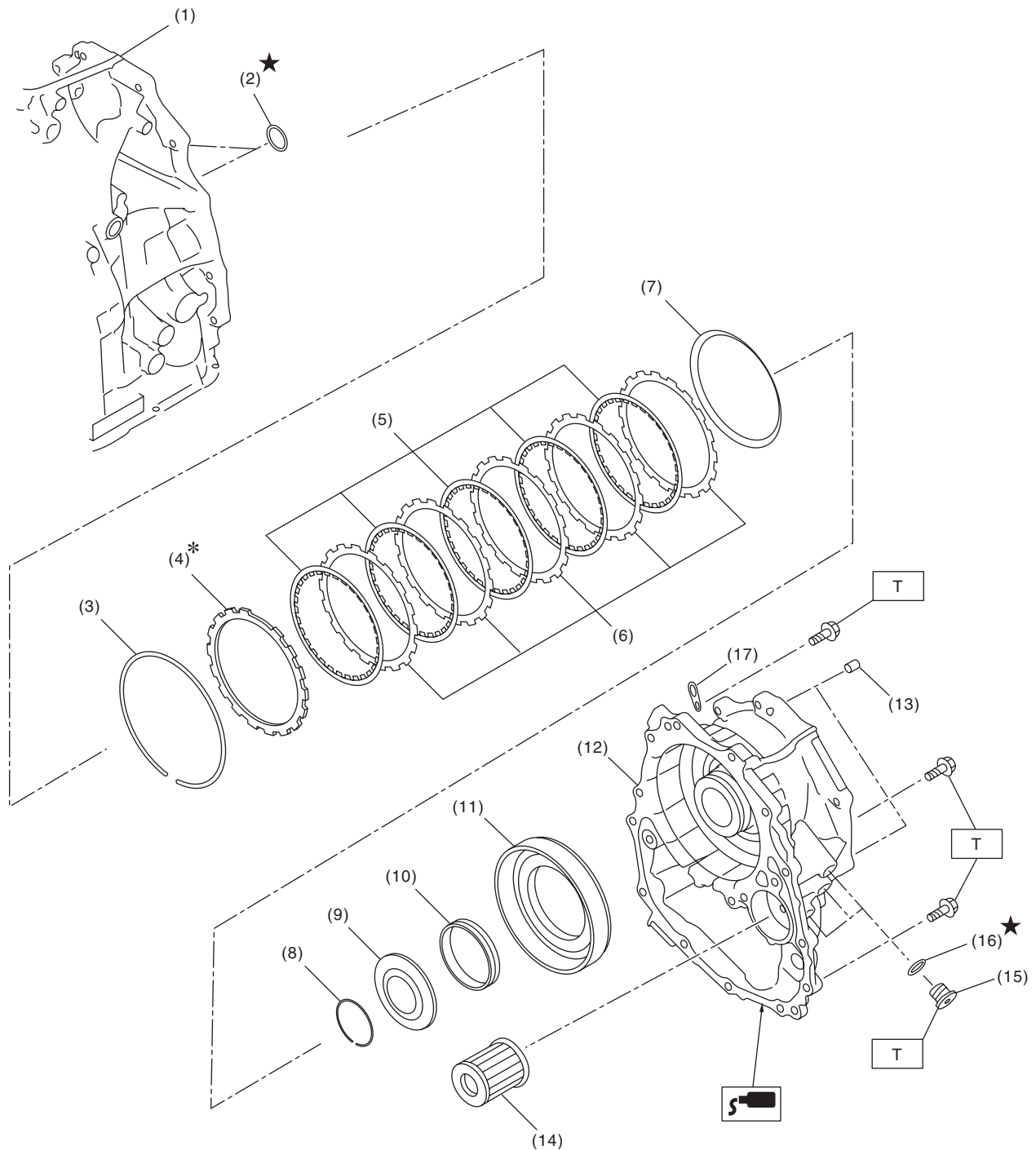
T3: 20 (2.0, 14.8)

T4: 50 (5.1, 36.9)

General Description

CONTINUOUSLY VARIABLE TRANSMISSION

5. REVERSE BRAKE ASSEMBLY AND INTERMEDIATE CASE



AT-05897

- (1) Transmission case
- (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) Intermediate case
- (13) Straight pin
- (14) CVTF filter

- (15) Plug
- (16) O-ring
- (17) Transmission hanger

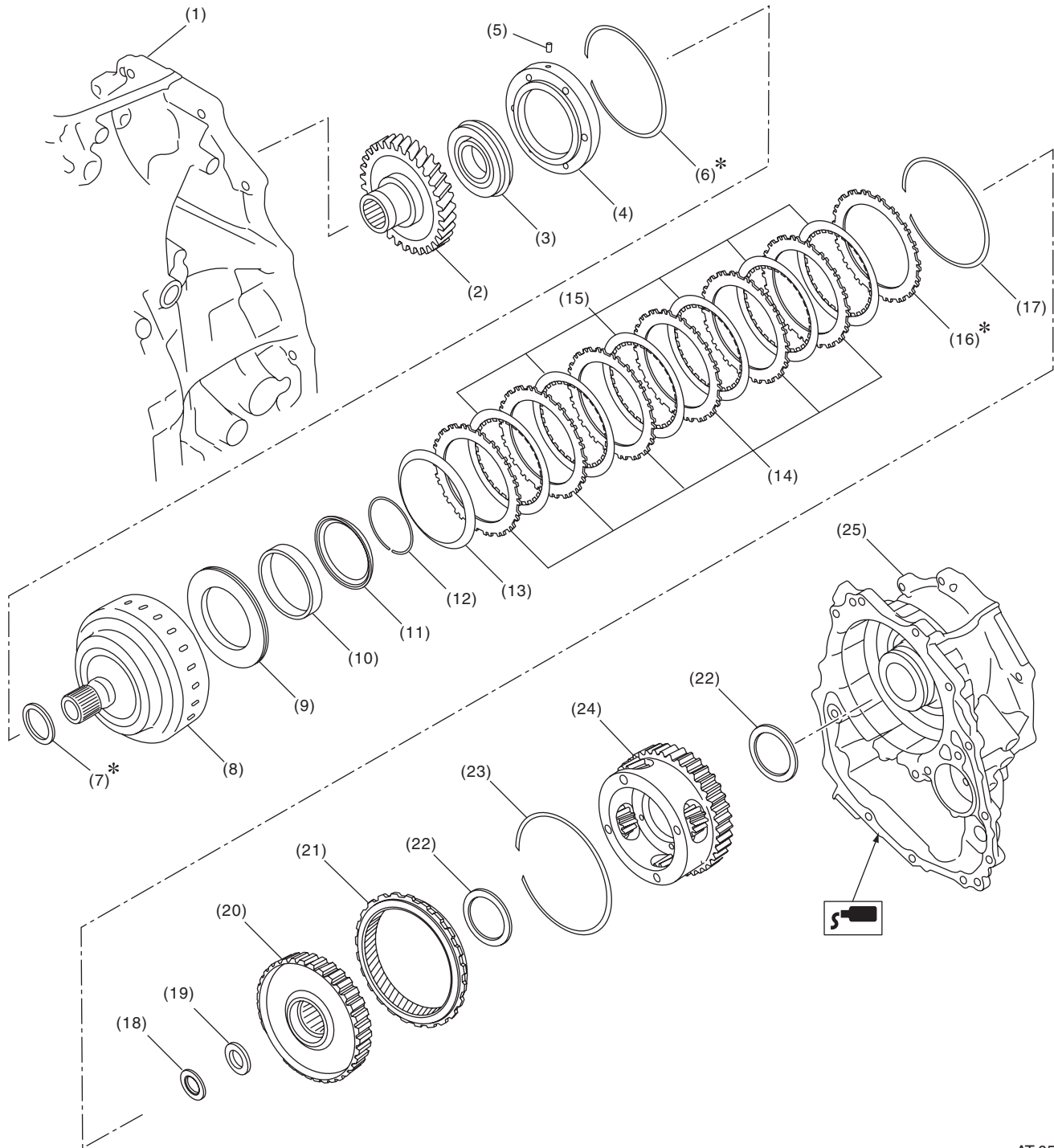
Tightening torque: N·m (kgf-m, ft-lb)

T: 25 (2.5, 18.4)

General Description

CONTINUOUSLY VARIABLE TRANSMISSION

6. FORWARD CLUTCH ASSEMBLY AND REDUCTION DRIVEN GEAR



AT-05887

General Description

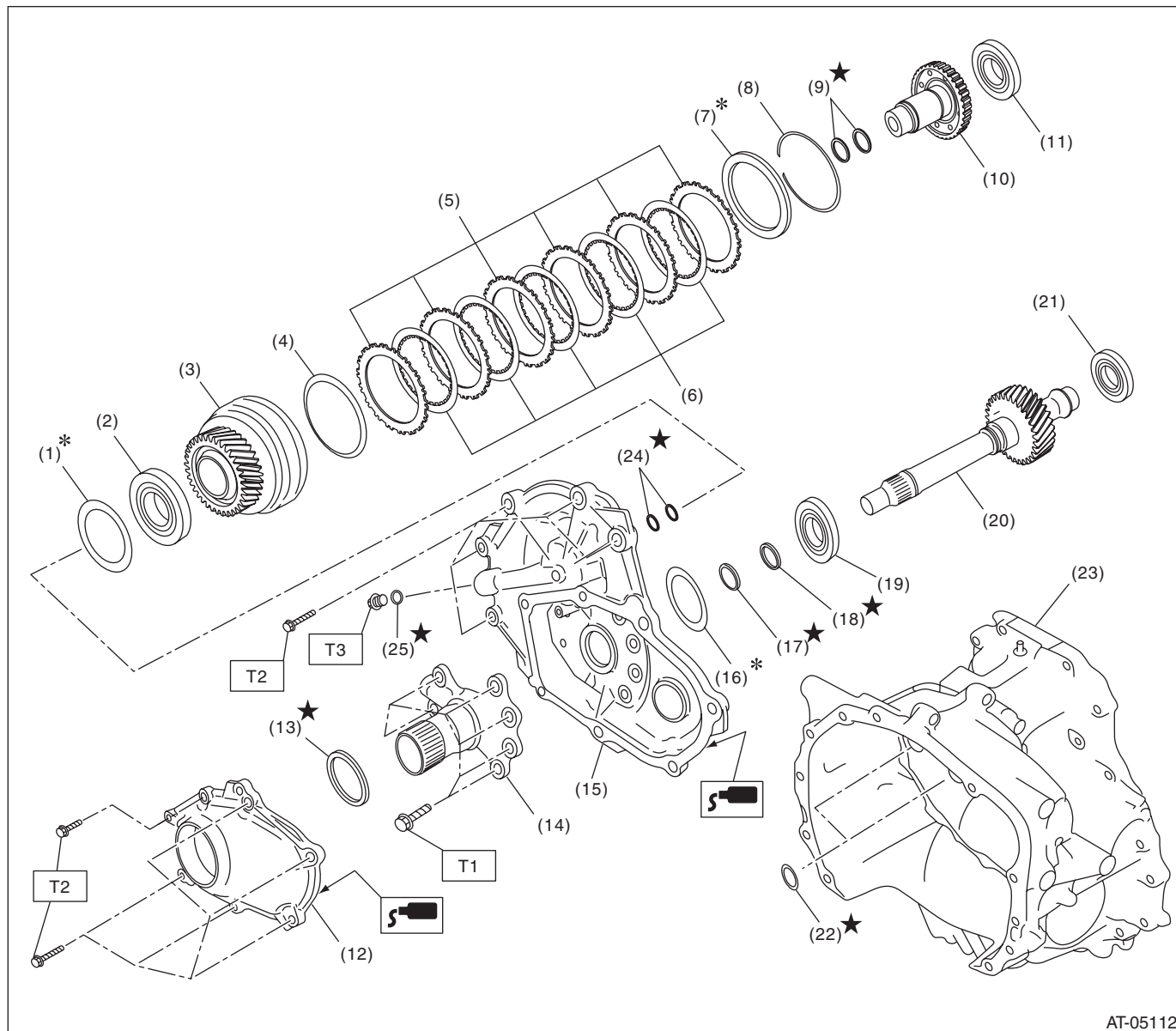
CONTINUOUSLY VARIABLE TRANSMISSION

- | | | |
|------------------------------------|-------------------------------------|-----------------------------|
| (1) Transmission case | (10) Return spring | (18) Thrust needle bearing |
| (2) Reduction driven gear | (11) Forward clutch piston retainer | (19) Washer |
| (3) Ball bearing | (12) Snap ring | (20) Sun gear ASSY |
| (4) Reduction driven gear retainer | (13) Dish plate | (21) Internal gear |
| (5) Straight pin | (14) Driven plate | (22) Thrust needle bearing |
| (6) Snap ring | (15) Drive plate | (23) Snap ring |
| (7) Washer | (16) Retaining plate | (24) Planetary carrier ASSY |
| (8) Forward clutch drum | (17) Snap ring | (25) Intermediate case |
| (9) Forward clutch piston | | |

General Description

CONTINUOUSLY VARIABLE TRANSMISSION

7. FRONT REDUCTION DRIVE GEAR AND FRONT REDUCTION DRIVEN GEAR



- (1) Shim
- (2) Ball bearing
- (3) Front reduction driven gear
- (4) Dish plate
- (5) Driven plate
- (6) Drive plate
- (7) Retaining plate
- (8) Snap ring
- (9) Seal ring
- (10) Front reduction driven shaft

- (11) Ball bearing
- (12) Oil pump chain cover
- (13) Seal ring
- (14) Center support COMPL
- (15) Converter case cover
- (16) Shim
- (17) O-ring
- (18) Seal ring
- (19) Ball bearing
- (20) Front reduction drive gear

- (21) Ball bearing
- (22) O-ring
- (23) Converter case
- (24) Seal ring
- (25) O-ring

Tightening torque: N·m (kgf·m, ft·lb)

T1: 21.5 (2.2, 15.9)

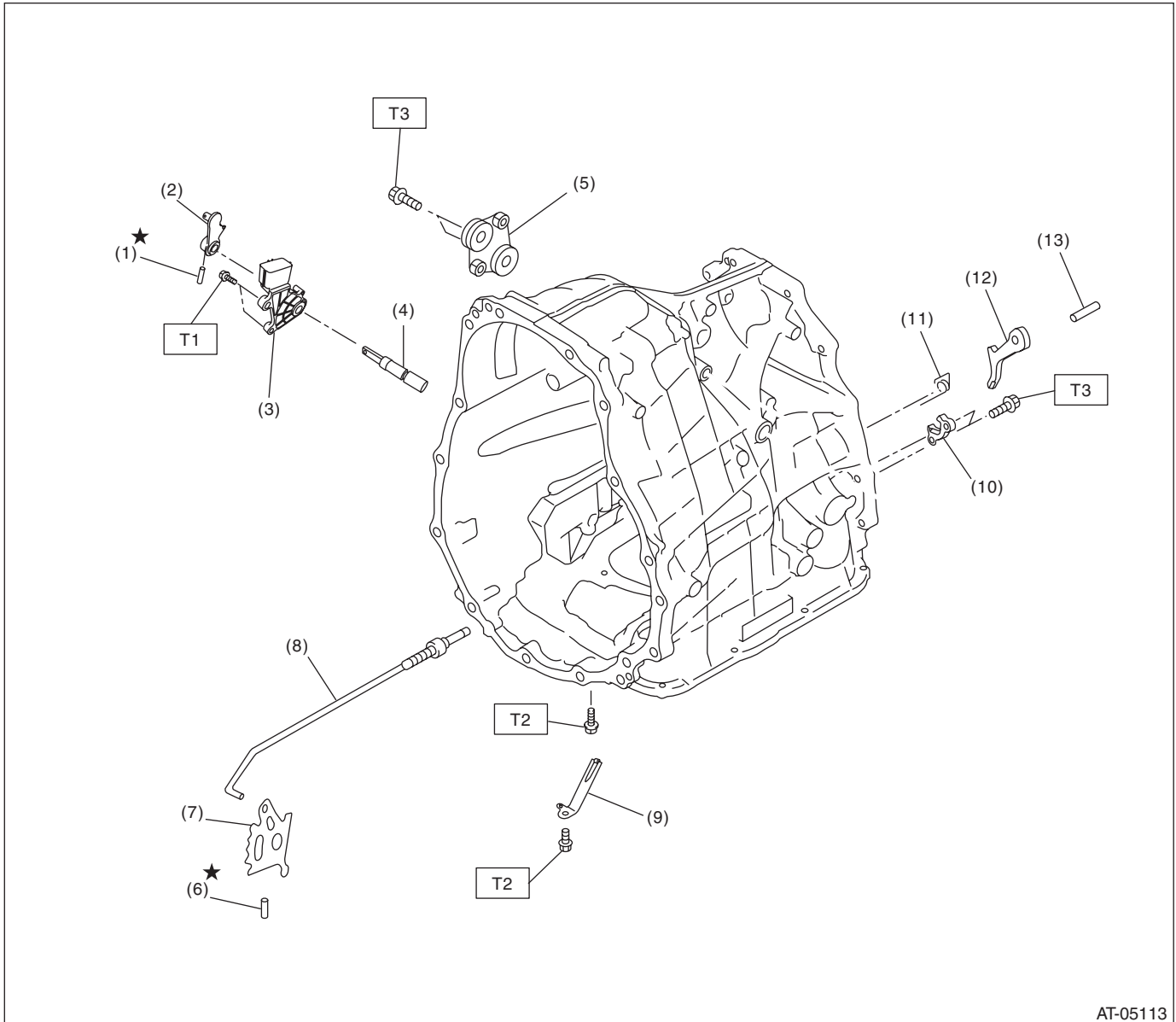
T2: 24 (2.4, 17.7)

T3: 25 (2.5, 18.4)

General Description

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8. TRANSMISSION CONTROL DEVICE



AT-05113

- (1) Spring pin
- (2) Shifter arm
- (3) Inhibitor switch
- (4) Shifter arm shaft
- (5) Plate ASSY
- (6) Spring pin

- (7) Manual plate
- (8) Parking rod
- (9) Detent spring
- (10) Parking support
- (11) Return spring
- (12) Parking pawl

- (13) Shaft

Tightening torque: N·m (kgf·m, ft·lb)

T1: 5 (0.5, 3.7)

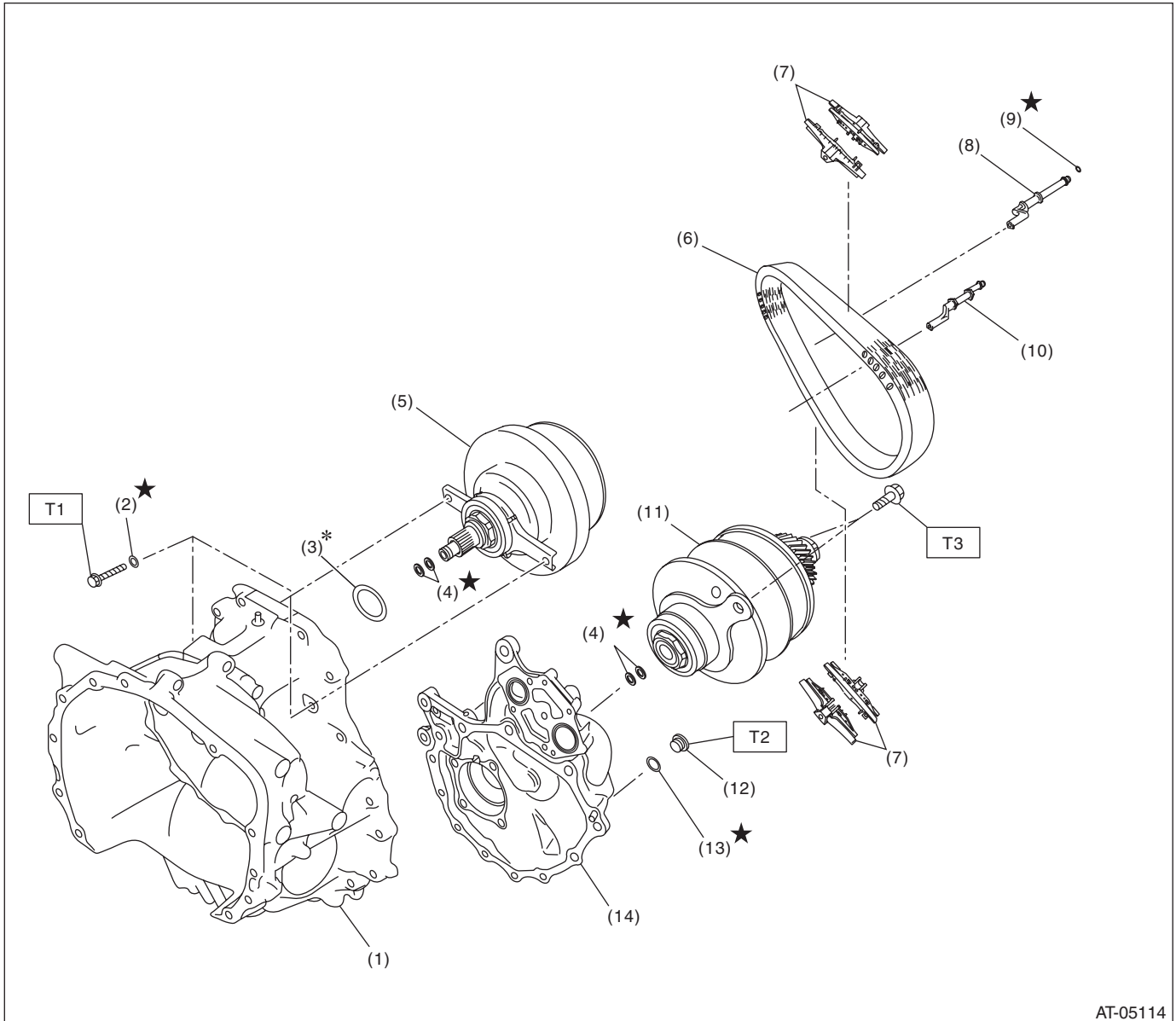
T2: 7 (0.7, 5.2)

T3: 25 (2.5, 18.4)

General Description

CONTINUOUSLY VARIABLE TRANSMISSION

9. PRIMARY PULLEY, SECONDARY PULLEY AND VARIATOR CHAIN



- | | | |
|-------------------------|----------------------------|----------------------------|
| (1) Converter case | (8) Lubrication pipe | (14) Drive pinion retainer |
| (2) Seal washer | (9) O-ring | |
| (3) Shim | (10) Support rod | |
| (4) Seal ring | (11) Secondary pulley ASSY | |
| (5) Primary pulley ASSY | (12) PLUG | |
| (6) Variator chain | (13) O-ring | |
| (7) Chain guide | | |

Tightening torque: N·m (kgf·m, ft·lb)

T1: 21 (2.1, 15.5)

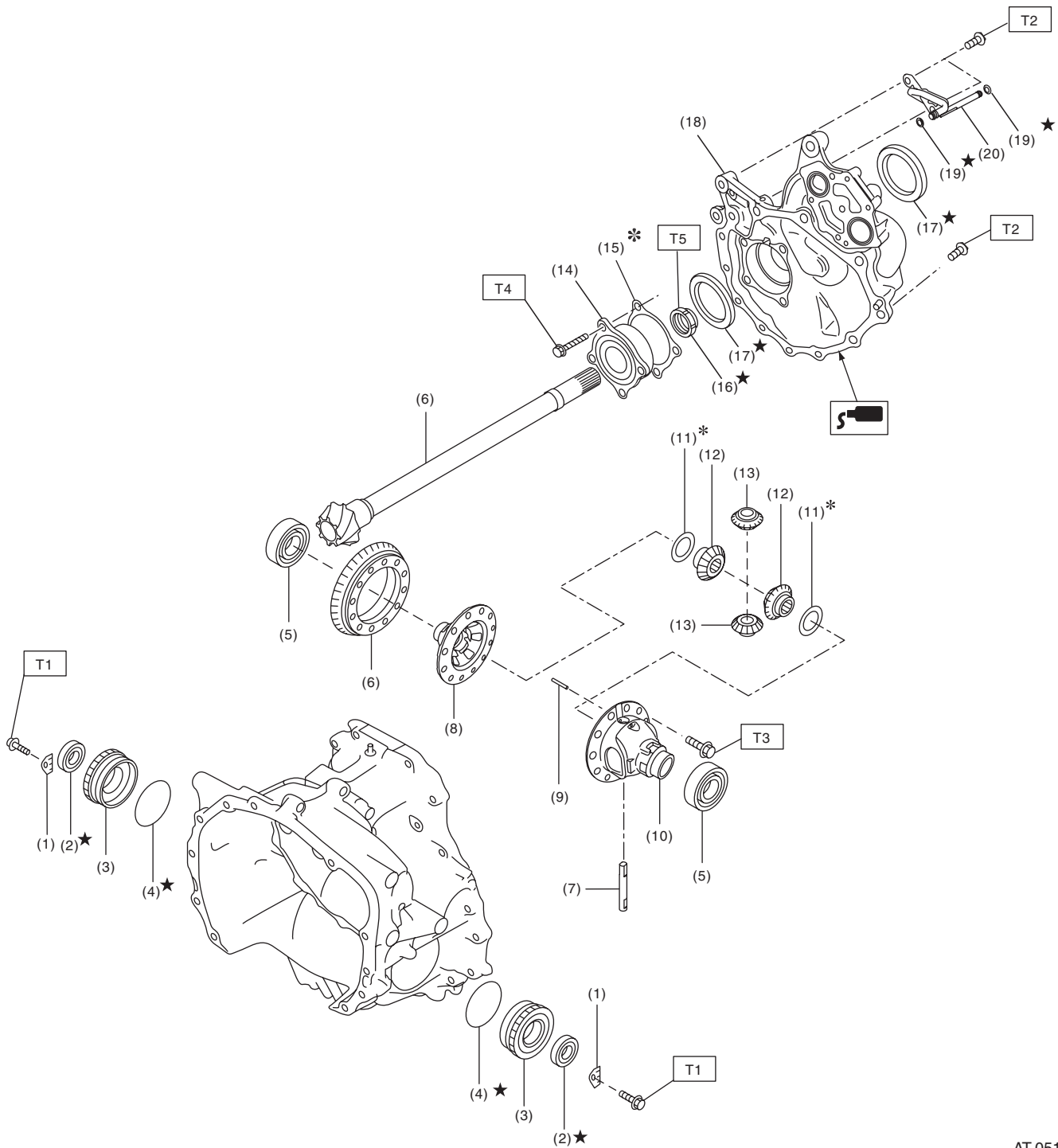
T2: 25 (2.5, 18.4)

T3: 33 (3.4, 24.3)

General Description

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10.FRONT DIFFERENTIAL GEAR



AT-05115

General Description

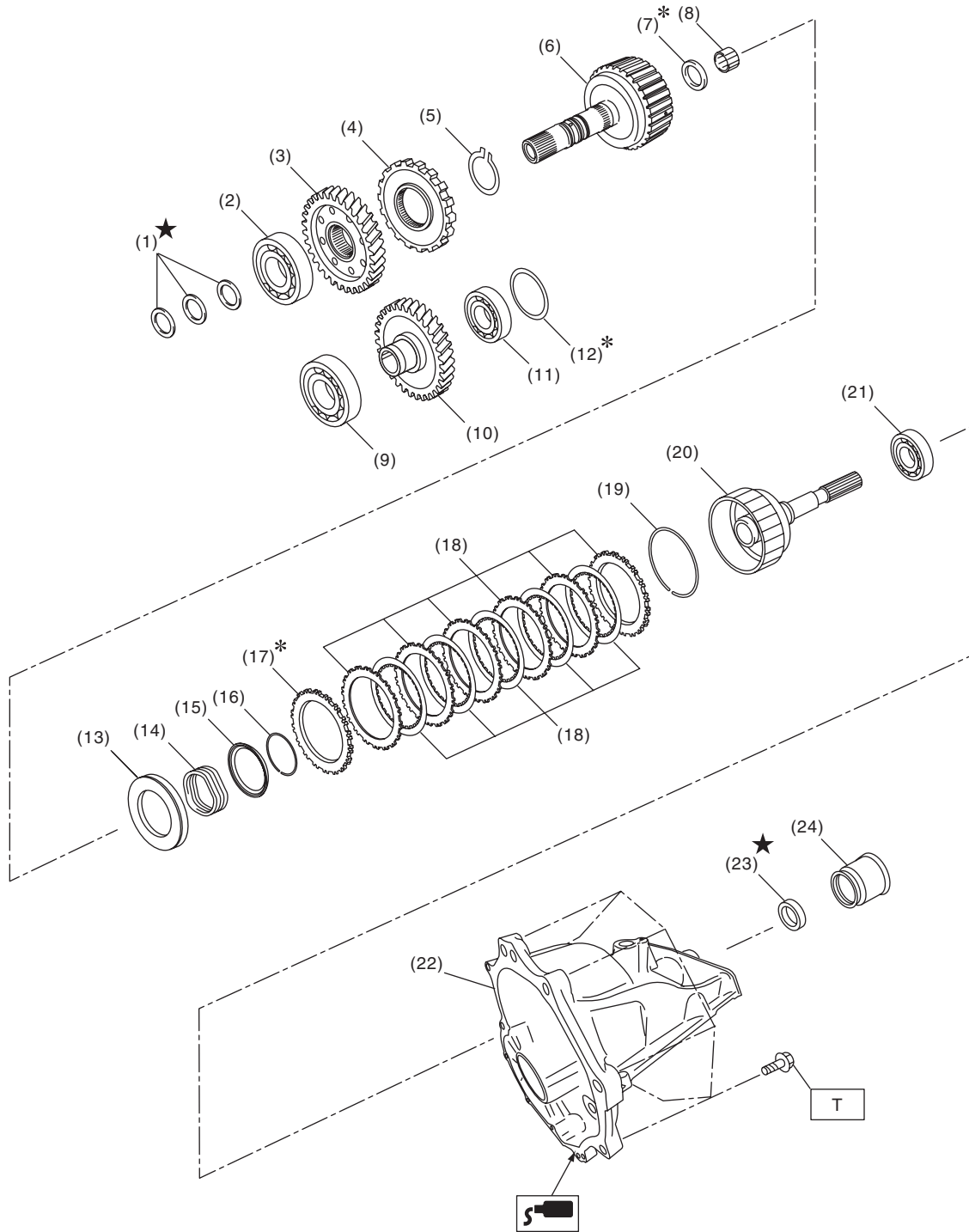
CONTINUOUSLY VARIABLE TRANSMISSION

| | | |
|--------------------------------|--------------------------------|--|
| (1) Lock plate | (10) Differential case LH | (19) O-ring |
| (2) Oil seal | (11) Washer | (20) Lubrication pipe |
| (3) Differential side retainer | (12) Differential bevel gear | |
| (4) O-ring | (13) Differential bevel pinion | <hr/> |
| (5) Taper roller bearing | (14) Taper roller bearing | Tightening torque:N·m (kgf-m, ft-lb) |
| (6) Drive pinion gear set | (15) Shim | T1: 25 (2.5, 18.4) |
| (7) Pinion shaft | (16) Lock nut | T2: 43 (4.4, 31.7) |
| | | T3: <Ref. to CVT-270, DIFFERENTIAL CASE ASSY, ASSEMBLY, Front Differential Assembly.> |
| (8) Differential case RH | (17) Oil seal | T4: 70 (7.1, 51.6) |
| (9) Straight pin | (18) Drive pinion retainer | T5: 130 (13.3, 95.9) |

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CONTINUOUSLY VARIABLE TRANSMISSION

11. TRANSFER AND EXTENSION CASE



AT-06119

General Description

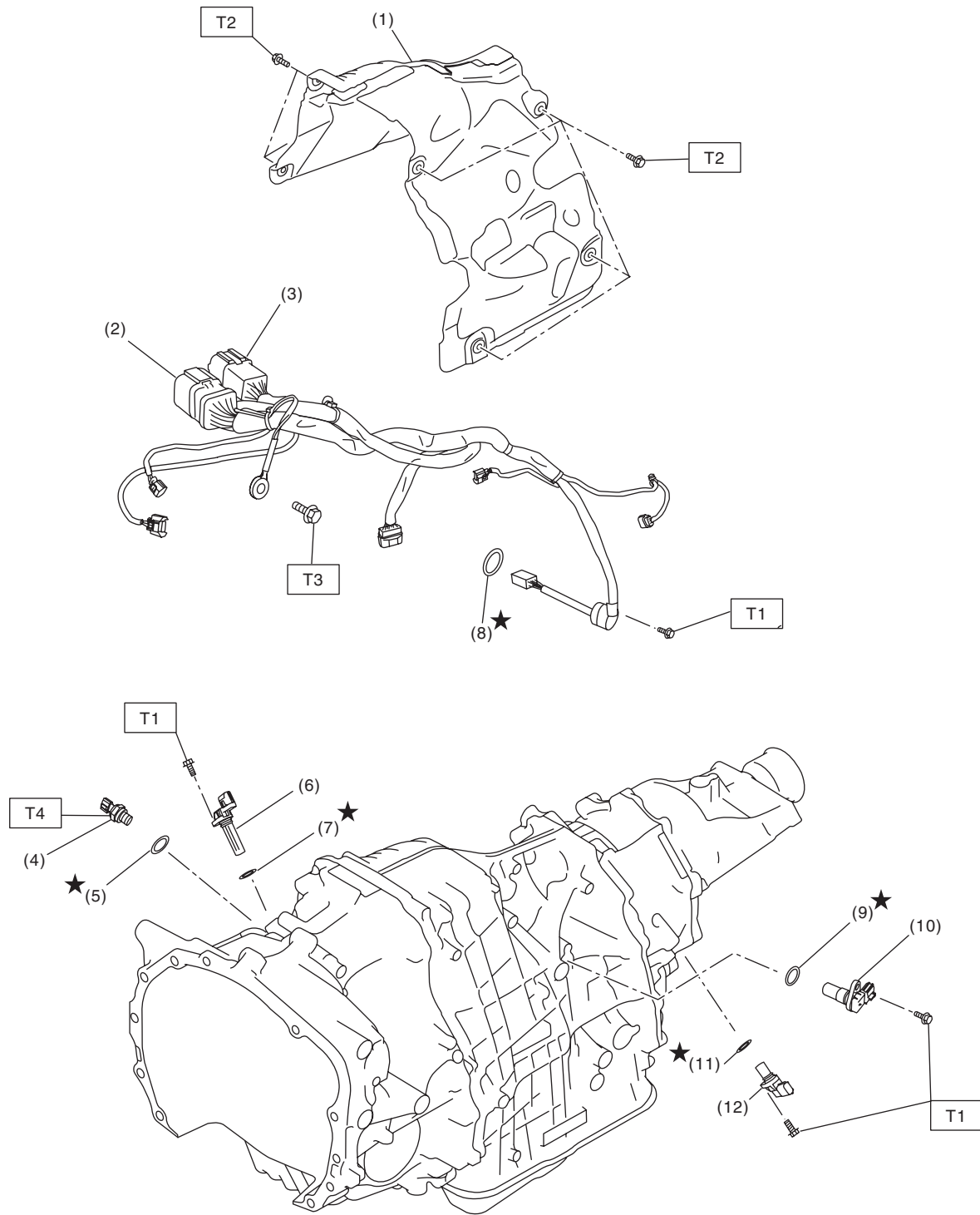
CONTINUOUSLY VARIABLE TRANSMISSION

| | | |
|--------------------------------|-------------------------------------|--|
| (1) Seal ring | (10) Transfer reduction driven gear | (19) Snap ring |
| (2) Ball bearing | (11) Ball bearing | (20) Rear drive shaft |
| (3) Transfer drive gear | (12) Shim | (21) Ball bearing |
| (4) Parking gear | (13) Transfer piston | (22) Extension case |
| (5) Snap ring | (14) Return spring | (23) Oil seal |
| (6) Reduction drive gear shaft | (15) Transfer piston seal | (24) Dust cover |
| (7) Thrust needle bearing | (16) Snap ring | |
| (8) Needle bearing | (17) Pressure plate | <hr/> <i>Tightening torque:N·m (kgf-m, ft-lb)</i> |
| (9) Ball bearing | (18) Transfer clutch plate set | <i>T: 25 (2.5, 18.4)</i> <hr/> |

General Description

CONTINUOUSLY VARIABLE TRANSMISSION

12. TRANSMISSION HARNESS AND SENSOR



AT-06127

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

Tightening torque: N·m (kgf·m, ft·lb)

T1: 5 (0.5, 3.7)

T2: 8 (0.8, 5.9)

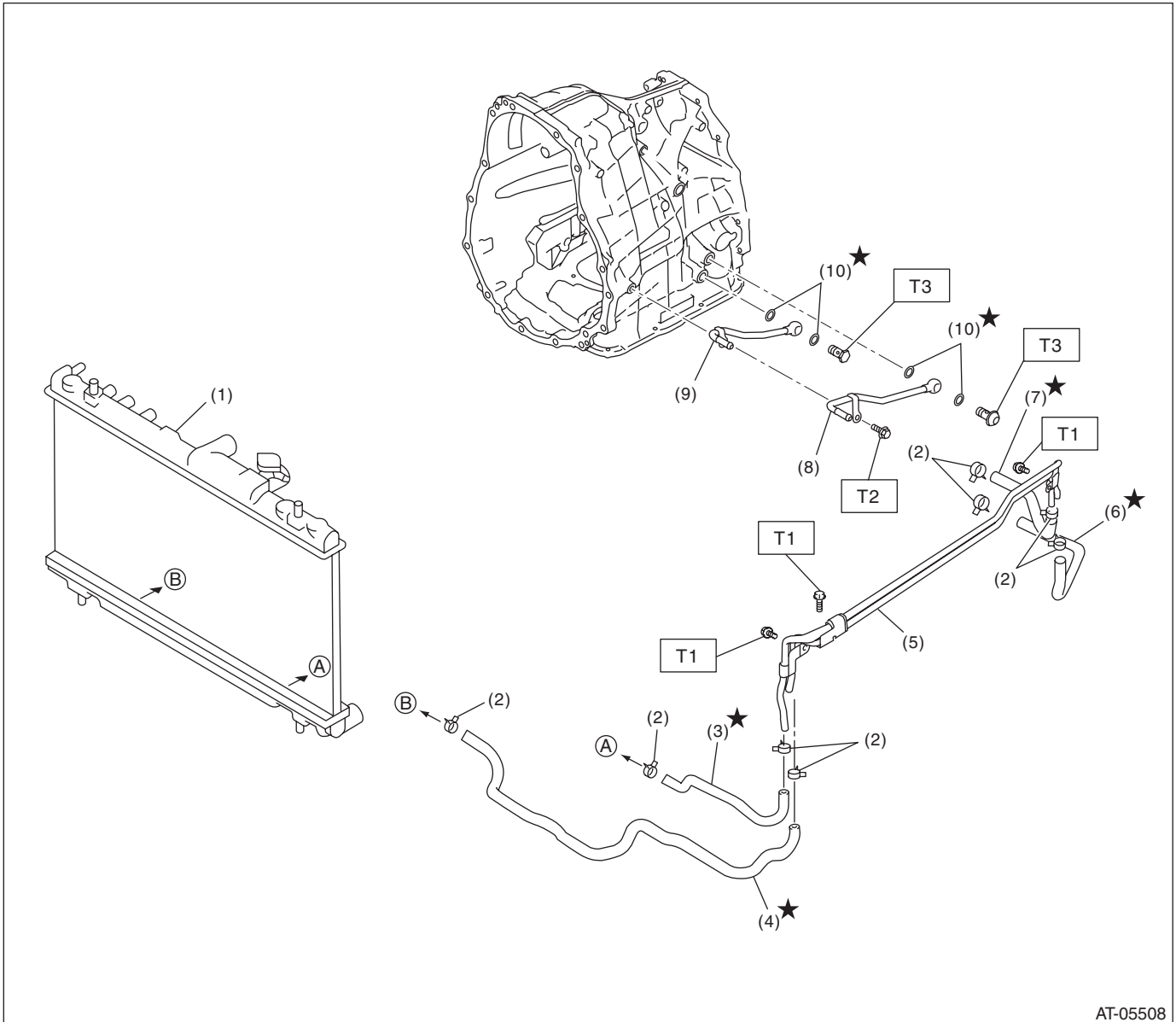
T3: 16 (1.6, 11.8)

T4: 39 (4.0, 28.8)

General Description

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13.CVTF COOLER PIPE AND HOSE



AT-05508

- | | |
|---------------------------|----------------------|
| (1) Radiator | (6) CVTF outlet hose |
| (2) Clip | (7) CVTF inlet hose |
| (3) Outlet hose | (8) CVTF outlet pipe |
| (4) Inlet hose | (9) CVTF inlet pipe |
| (5) CVTF cooler pipe ASSY | (10) Gasket |

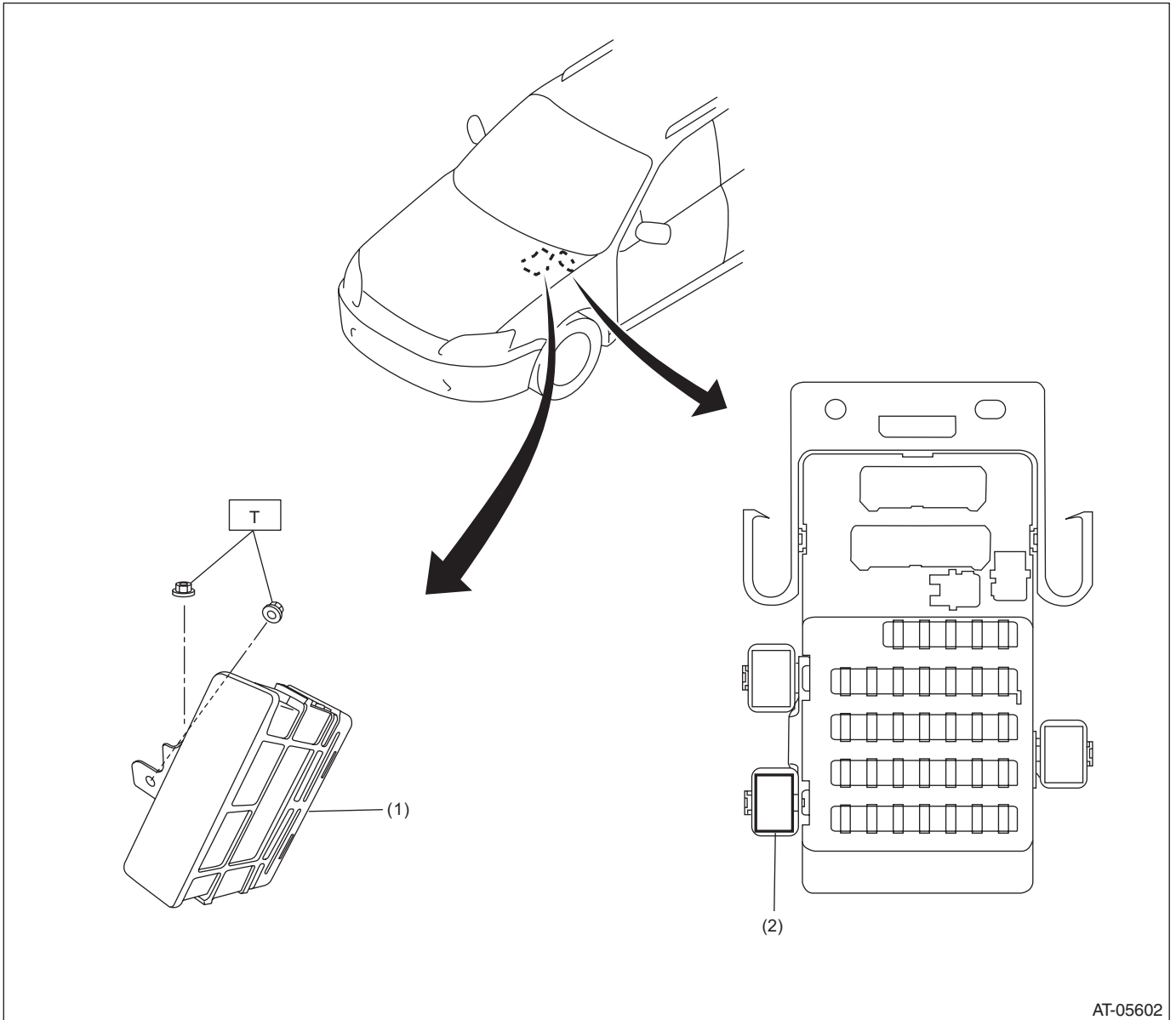
Tightening torque: N·m (kgf·m, ft·lb)

T1: 7.5 (0.76, 5.5)

T2: 16 (1.6, 11.8)

T3: 40 (4.1, 29.5)

14. TRANSMISSION CONTROL MODULE



AT-05602

(1) Transmission control module (TCM)

(2) Relay

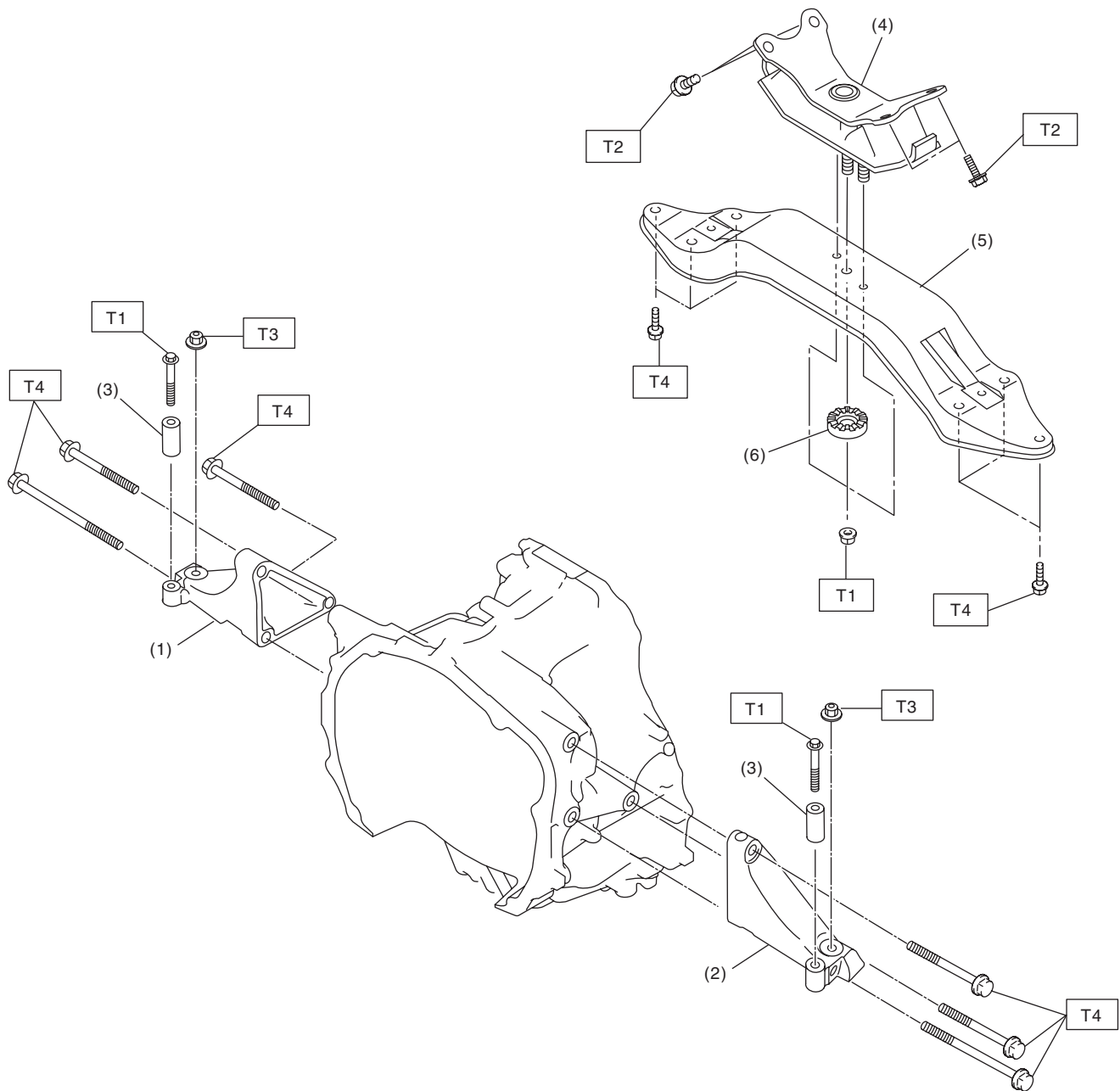
Tightening torque: N·m (kgf·m, ft·lb)

T: 7.5 (0.75, 5.5)

General Description

CONTINUOUSLY VARIABLE TRANSMISSION

15. TRANSMISSION MOUNTING



AT-05603

- | | |
|--|-----------------------------------|
| (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, 33.2)

T3: 45 (4.6, 51.6)

T4: 75 (7.6, 55.3)

CVT-24

General Description

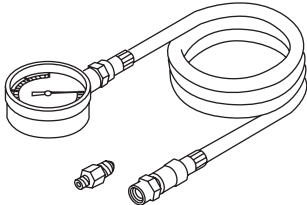
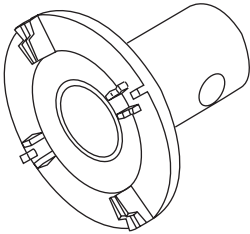
CONTINUOUSLY VARIABLE TRANSMISSION

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 oil pan 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 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.

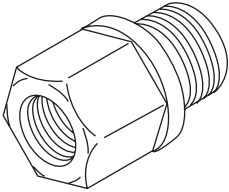
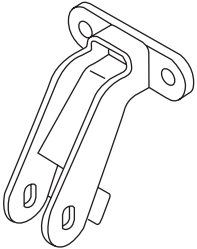
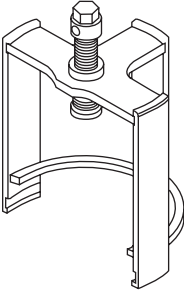
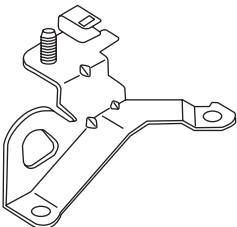
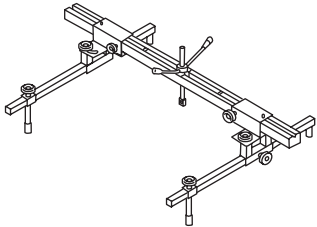
D: PREPARATION TOOL

1. SPECIAL TOOL

| ILLUSTRATION | TOOL NUMBER | DESCRIPTION | REMARKS |
|---|-------------|-------------------------|--|
|  ST18801AA000 | 18801AA000 | OIL PRESSURE GAUGE ASSY | Used for measuring the secondary hydraulic pressure (line pressure). |
|  ST18658AA020 | 18658AA020 | WRENCH COMPL RETAINER | Used for removing and installing the differential side retainer. |

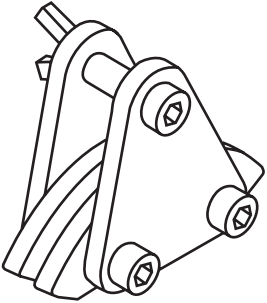
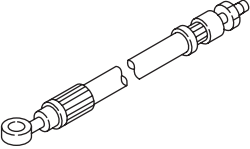
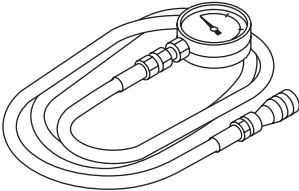
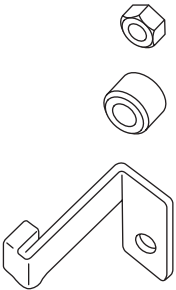
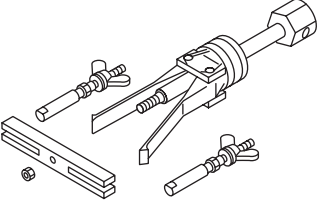
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| ILLUSTRATION | TOOL NUMBER | DESCRIPTION | REMARKS |
|---|-------------------------------------|------------------------|--|
|  <p style="text-align: center;">ST18681AA000</p> | 18681AA000 | PRESSURE GAUGE ADAPTER | Used for measuring oil pressure. NOTE: Used together with the genuine O-ring (part No. 806911080). |
|  <p style="text-align: center;">ST41099AJ000</p> | 41099AJ000 | SPECIAL TOOL H4 | Used for holding and balancing the engine unit. |
|  <p style="text-align: center;">ST18769AA000</p> | 18769AA000 | EXPANDER PULLEY | Used for removing and installing the secondary pulley assembly. |
|  <p style="text-align: center;">ST10004AA180</p> | 10004AA180 (SUBARU genuine part) | ENGINE HANGER REAR | Used for removing and installing the automatic transmission assembly. (ENGINE HANGER REAR for turbo model) |
|  <p style="text-align: center;">ST99099AJ000</p> | 99099AJ000 | ENGINE HANGER | <ul style="list-style-type: none"> • Used for removing and installing the automatic transmission assembly. • Used together with CHAIN BALANCER (99099AJ010). |

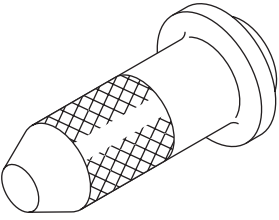
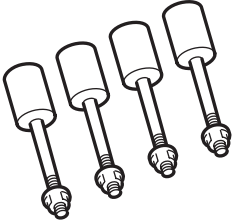
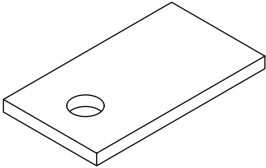
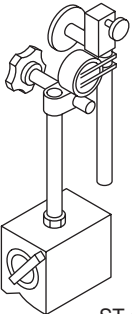
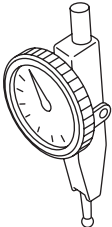
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

| ILLUSTRATION | TOOL NUMBER | DESCRIPTION | REMARKS |
|---|-------------|--------------------------|--|
|  <p data-bbox="331 516 472 541">ST99099AJ010</p> | 99099AJ010 | CHAIN BALANCER | <ul data-bbox="976 201 1489 317" style="list-style-type: none"> • Used for removing and installing the automatic transmission assembly. • Used together with ENGINE HANGER (99099AJ000). |
|  <p data-bbox="337 869 467 892">ST-498897700</p> | 498897700 | OIL PRESSURE ADAPTER SET | Used for measuring the secondary pressure (line pressure) and transfer clutch hydraulic pressure. |
|  <p data-bbox="337 1220 467 1243">ST-498575400</p> | 498575400 | OIL PRESSURE GAUGE ASSY | Used for measuring the transfer clutch hydraulic pressure. |
|  <p data-bbox="337 1570 467 1593">ST-498277200</p> | 498277200 | STOPPER SET | <ul data-bbox="976 1253 1489 1369" style="list-style-type: none"> • Used for removing and installing automatic transmission assembly to engine. • Used for preventing the torque converter from dropping off. |
|  <p data-bbox="337 1923 467 1946">ST-398527700</p> | 398527700 | PULLER ASSY | <ul data-bbox="976 1604 1489 1808" style="list-style-type: none"> • Used for removing the extension case oil seal. • Used for removing the roller bearing of the primary pulley and secondary pulley. • Used for removing the bearing of reduction driven gear. • Used for removing the differential side retainer bearing outer race. |

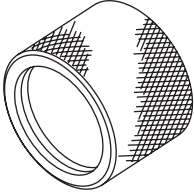
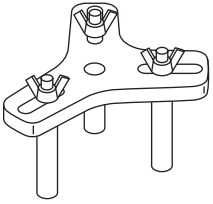

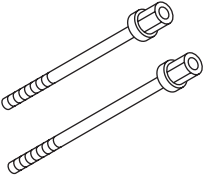
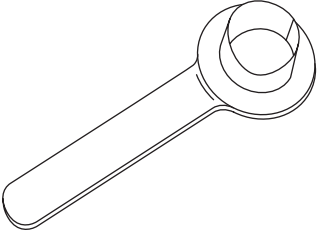
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

| ILLUSTRATION | TOOL NUMBER | DESCRIPTION | REMARKS |
|---|-------------|-----------------------|---|
|  <p style="text-align: center;">ST-498057300</p> | 498057300 | INSTALLER | Used for installing the extension case oil seal. |
|  <p style="text-align: center;">ST18632AA000</p> | 18632AA000 | TRANSMISSION STAND | Used for disassembling and assembling the transmission. |
|  <p style="text-align: center;">ST-498255400</p> | 498255400 | PLATE | Used for measuring the backlash of hypoid gear. |
|  <p style="text-align: center;">ST-498247001</p> | 498247001 | MAGNET BASE | <ul style="list-style-type: none"> • Used for measuring the backlash of hypoid gear. • Used together with DIAL GAUGE (498247100). |
|  <p style="text-align: center;">ST-498247100</p> | 498247100 | DIAL GAUGE | <ul style="list-style-type: none"> • Used for measuring the backlash of hypoid gear. • Used together with DIAL GAUGE (498247101). |

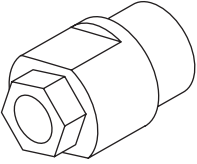
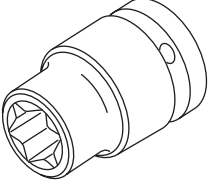
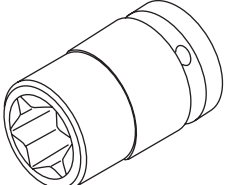
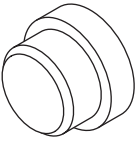
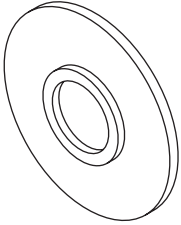
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

| ILLUSTRATION | TOOL NUMBER | DESCRIPTION | REMARKS |
|---|-------------|--|---|
|  <p data-bbox="326 520 467 543">ST18675AA000</p> | 18675AA000 | DIFFERENTIAL SIDE OIL SEAL INSTALLER | Used for installing the differential side retainer oil seal. |
|  <p data-bbox="326 873 467 896">ST18762AA000</p> | 18762AA000 | COMPRESSOR SPECIAL TOOL | Used for disassembling multi-plate clutch for shift transmission. |
|  <p data-bbox="326 1226 467 1249">ST18765AA000</p> | 18765AA000 | COMPRESSOR SUPPORT | Used for disassembling multi-plate clutch for shift transmission. |
|  <p data-bbox="326 1579 467 1602">ST18763AA000</p> | 18763AA000 | COMPRESSOR SHAFT | Used for disassembling multi-plate clutch for shift transmission. |
|  <p data-bbox="326 1923 467 1946">ST28399SA010</p> | 28399SA010 | OIL SEAL PROTEC- TOR | Used for protecting oil seal when installing front drive shaft. |

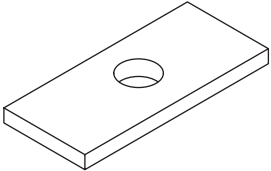
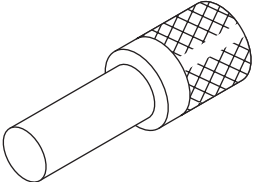
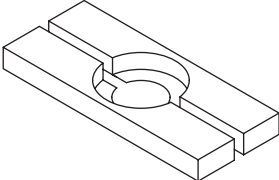
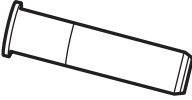
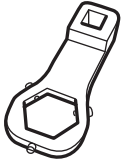
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

| ILLUSTRATION | TOOL NUMBER | DESCRIPTION | REMARKS |
|---|-------------|--------------|---|
|  <p style="text-align: center;">ST18667AA010</p> | 18667AA010 | HOLDER | <ul style="list-style-type: none"> • Used for removing and installing the drive pinion lock nut. • Used as a handle to rotate gear when checking tooth contact. |
|  <p style="text-align: center;">ST18270KA010</p> | 18270KA010 | SOCKET (E16) | Used for removing and installing the center support COMPL. |
|  <p style="text-align: center;">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 style="text-align: center;">ST-398497701</p> | 398497701 | SEAT | Used for removing and installing the ball bearing. |
|  <p style="text-align: center;">ST-398177700</p> | 398177700 | INSTALLER | Used for removing and installing the ball bearing and tapered roller bearing. |

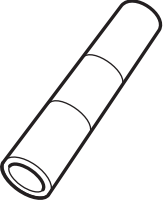

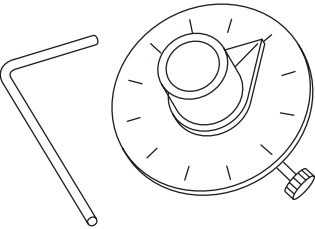
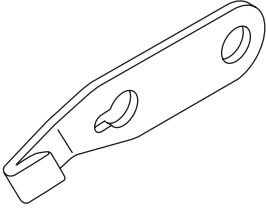
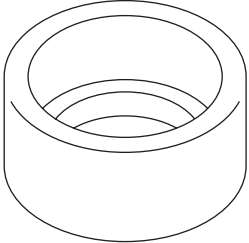
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

| ILLUSTRATION | TOOL NUMBER | DESCRIPTION | REMARKS |
|---|-------------|-------------------|--|
|  <p data-bbox="337 520 467 541">ST-398643600</p> | 398643600 | GAUGE | Used for measuring the total end play, extension end play and drive pinion height. |
|  <p data-bbox="337 871 467 892">ST-899864100</p> | 899864100 | REMOVER | Used for removing and installing the ball bearing. |
|  <p data-bbox="337 1222 467 1243">ST-498077000</p> | 498077000 | REMOVER | Used for removing the differential taper roller bearing. |
|  <p data-bbox="324 1572 467 1593">ST18657AA010</p> | 18657AA010 | INSTALLER | Used for installing the oil seal of inhibitor switch. |
|  <p data-bbox="324 1925 467 1946">ST18621AA000</p> | 18621AA000 | ADAPTER WRENCH | Used for removing and installing the drive pinion shaft lock nut. |

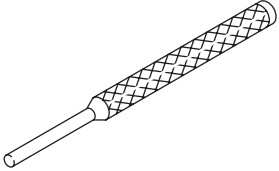
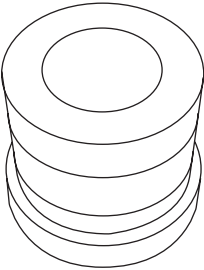
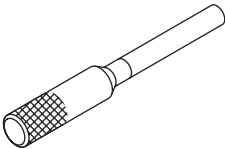
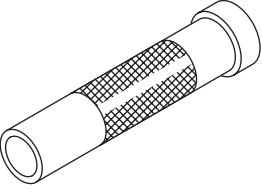
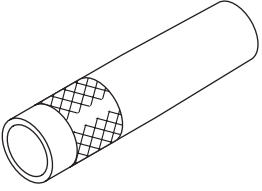
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

| ILLUSTRATION | TOOL NUMBER | DESCRIPTION | REMARKS |
|---|-------------|--------------------|---|
|  <p style="text-align: center;">ST18651AA000</p> | 18651AA000 | INSTALLER | Used for installing the differential taper roller bearing. |
|  <p style="text-align: center;">ST18720AA000</p> | 18720AA000 | REMOVER | Used for removing ball bearing of reduction driven gear. |
|  <p style="text-align: center;">ST18854AA000</p> | 18854AA000 | ANGLE GAUGE | <ul style="list-style-type: none"> • Used for installing the drive plate. • Used for installing the hypoid driven gear. |
|  <p style="text-align: center;">ST-498497100</p> | 498497100 | CRANKSHAFT STOPPER | Used for stopping the drive plate rotation when removing and installing the drive plate. |
|  <p style="text-align: center;">ST20299AG010</p> | 20299AG010 | PRESS SNAP RING | Used for installing the bearing of reduction driven gear. |

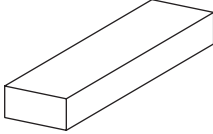
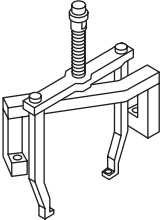
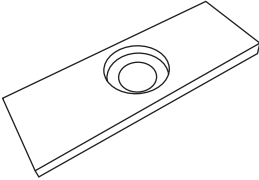
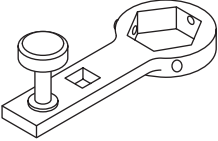
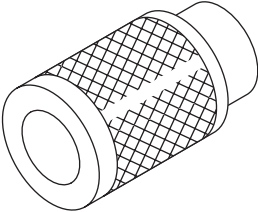
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

| ILLUSTRATION | TOOL NUMBER | DESCRIPTION | REMARKS |
|---|-------------|--------------------------|---|
|  <p data-bbox="337 520 467 541">ST-398791600</p> | 398791600 | REMOVER | Used for removing and installing the shifter arm spring pin. |
|  <p data-bbox="332 871 467 892">ST-399513600</p> | 399513600 | INSTALLER | Used for removing the bearing of the oil pump chain sprocket. |
|  <p data-bbox="337 1222 467 1243">ST-499267300</p> | 499267300 | STOPPER PIN | Used for adjusting the inhibitor switch. |
|  <p data-bbox="337 1572 467 1593">ST-499277100</p> | 499277100 | BUSHING 1-2 INSTALLER | Used for removing the transfer reduction driven gear. |
|  <p data-bbox="337 1925 467 1946">ST-499277200</p> | 499277200 | INSTALLER | Used for removing the transfer reduction driven gear. |

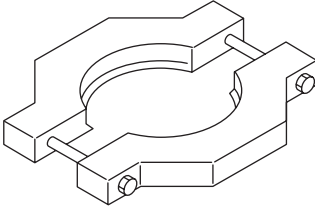
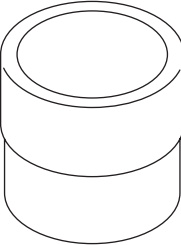
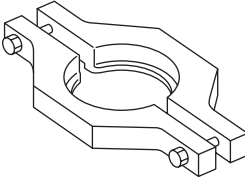
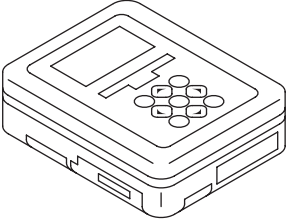
General Description

CONTINUOUSLY VARIABLE TRANSMISSION

| ILLUSTRATION | TOOL NUMBER | DESCRIPTION | REMARKS |
|---|-------------|-------------|---|
|  <p style="text-align: center;">ST-499575400</p> | 499575400 | GAUGE | Used for measuring height of end play. |
|  <p style="text-align: center;">ST-499737100</p> | 499737100 | PULLER SET | <ul style="list-style-type: none"> • Used for measuring the transfer end play. • Use the rack only. |
|  <p style="text-align: center;">ST-499575600</p> | 499575600 | GAUGE | Used for measuring height of end play. |
|  <p style="text-align: center;">ST-499787700</p> | 499787700 | WRENCH | Used for measuring the differential pinion shaft backlash. |
|  <p style="text-align: center;">ST-499757002</p> | 499757002 | INSTALLER | Used for removing the transfer reduction driven gear. |

General Description

CONTINUOUSLY VARIABLE TRANSMISSION

| ILLUSTRATION | TOOL NUMBER | DESCRIPTION | REMARKS |
|--|-------------|-------------------------------|--|
|  <p data-bbox="326 520 467 541">ST18767AA000</p> | 18767AA000 | REMOVER | Used for removing the transfer reduction driven gear. |
|  <p data-bbox="337 871 467 892">ST-499755602</p> | 499755602 | PRESS SNAP RING | Used for installing the ball bearing, roller bearing and oil seal. |
|  <p data-bbox="337 1222 467 1243">ST-498077600</p> | 498077600 | REMOVER | Used for removing the ball bearing of the rear drive shaft. |
|  <p data-bbox="342 1577 467 1598">ST1B022XU0</p> | 1B022XU0 | SUBARU SELECT MONITOR III KIT | Used for troubleshooting the electrical system. |

General Description

CONTINUOUSLY VARIABLE TRANSMISSION

2. GENERAL TOOL

| TOOL NAME | REMARKS |
|----------------------|--|
| Circuit tester | Used for measuring resistance and voltage. |
| Thickness gauge | Used for the clearance in reverse brake, forward clutch, transfer clutch and input clutch. |
| Caliper | Used for measuring the clearance at the parts. |
| 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. |
| TORX® bit E16 | Used for removing and installing the center support COMPL. |
| Straight pin remover | Used for removing and installing transmission gear oil drain plug. |
| Deep socket | Used for removing and installing the secondary pressure sensor. NOTE: Use Ko-ken 3/8 12-point 27 mm (manufacturer product No. 3305M-27). |
| Push/pull gauge | Used for measuring clutch clearance. |
| Chain sling | Used for removing and installing transmission. <ul style="list-style-type: none">• Length: 0.8 — 1 m (2.6 — 3.3 ft)• Load capacity: 1.2 t (2646 lb) or more• Diameter: 6 mm (0.24 in) or 6.3 mm (0.25 in)• Chain external width: 23.5 mm (0.93 in) or less• Chain internal width: 8.5 mm (0.33 in) or more |
| Screw shackle | Used for removing and installing transmission. <ul style="list-style-type: none">• Load capacity: 250 kg (551 lb) or more• Use two pieces. |