

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): ACCUMULATOR ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

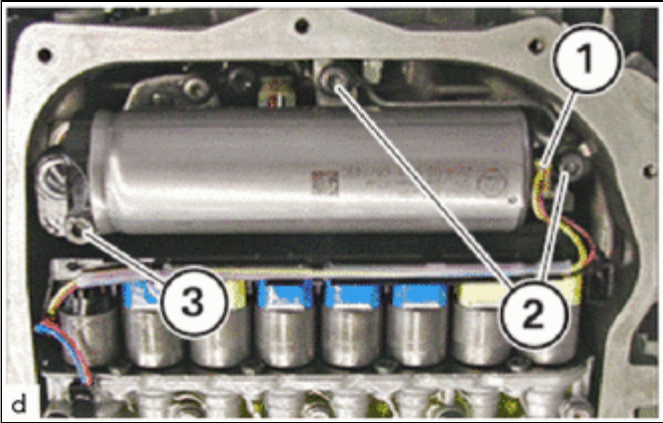
2. REMOVE TRANSMISSION OIL SUMP

Click here [INFO](#)

3. REMOVE HYDRAULIC IMPULSE STORAGE

CAUTION:

- Materials harmful to health.
- Contact with fluids harmful to health!
- Note and follow safety information on containers.
 - Conduct all work in appropriate personal protective equipment only.



(a) Unlock and disconnect connector (1).

- (b) Loosen the T40 bolts (M6x20) (2).
- (c) Loosen the T40 bolt (M6x59) (3).
- (d) Remove hydraulic impulse storage.

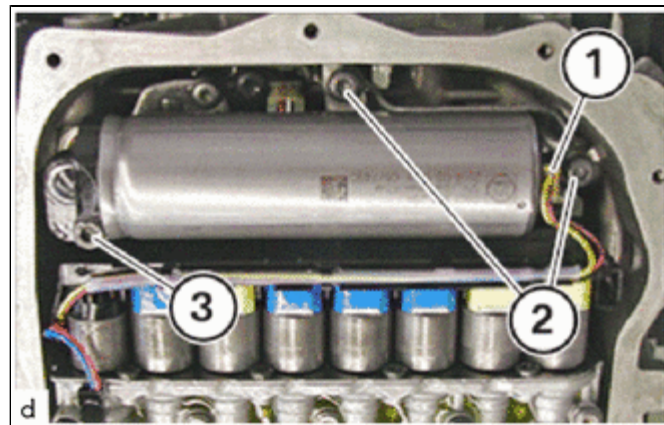
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): ACCUMULATOR ASSEMBLY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL HYDRAULIC IMPULSE STORAGE

(a) Install the hydraulic impulse storage.



(b) Replace the T40 bolts (2) and (3).

(c) Ensure a correct installation position of the T40 bolts.

HINT:

The T40 bolts are not all equally long.

(d) Tighten the T40 bolts (2) (M6x20).

Torque:

8.0 N·m { 82 kgf·cm, 71 in·lbf }

(e) Tighten the T40 bolt (3) (M6x59).

Torque:

8.0 N·m { 82 kgf·cm, 71 in·lbf }

(f) Connect connectors and lock.

2. INSTALL TRANSMISSION OIL SUMP

Click here [INFO](#)

3. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

Click here [INFO](#)

4. INSPECT FOR AUTOMATIC TRANSMISSION FLUID LEAK

5. INSTALL FRONT FLOOR COVER

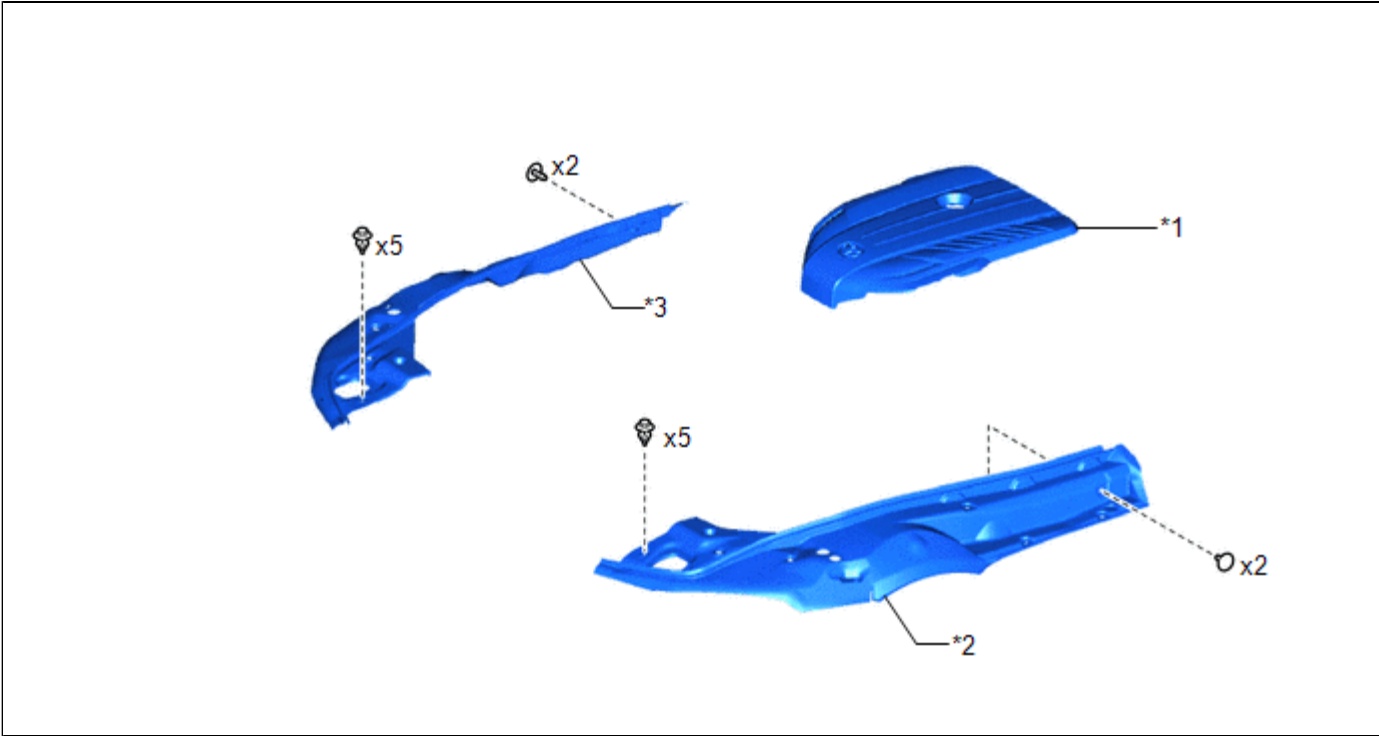
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): AUTOMATIC TRANSMISSION ASSEMBLY: COMPONENTS; 2020 MY Supra [03/2019 -]		

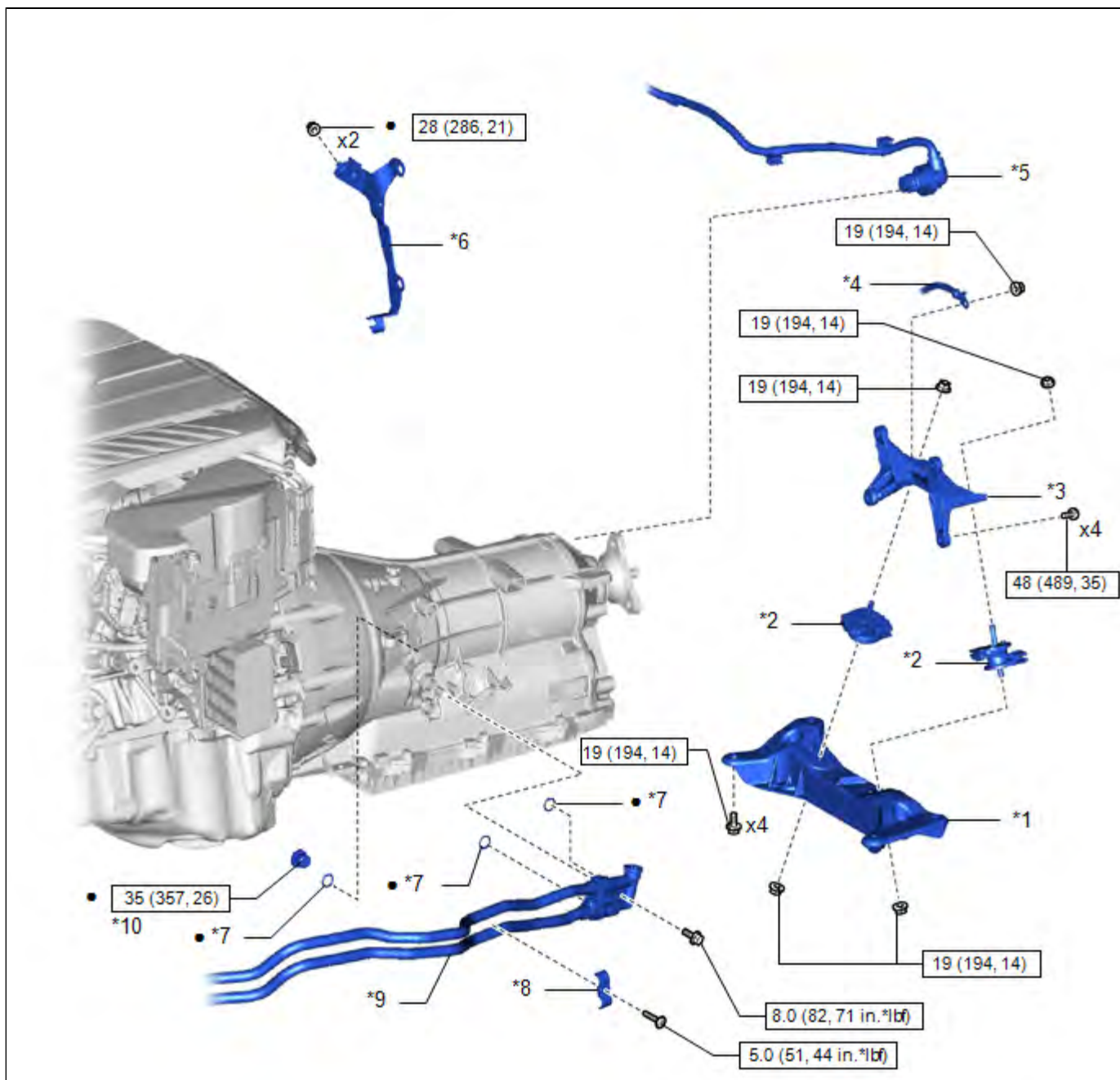
COMPONENTS

ILLUSTRATION



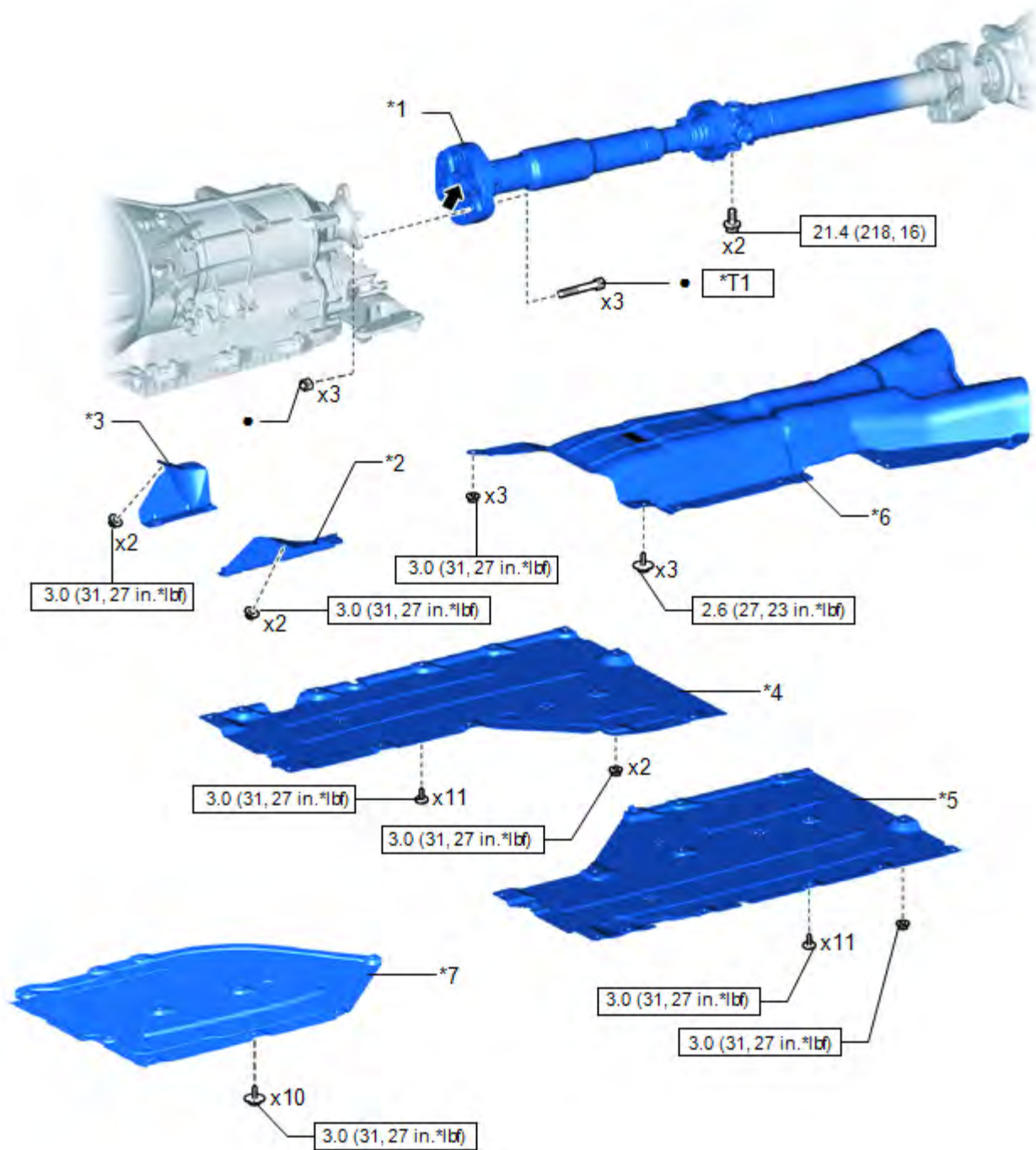
*1	NO. 1 ENGINE COVER SUB-ASSEMBLY	*2	UPPER FRONT FENDER PROTECTOR LH
*3	UPPER FRONT FENDER PROTECTOR RH	-	-

ILLUSTRATION



*1	REAR ENGINE MOUNTING MEMBER	*2	REAR ENGINE MOUNTING INSULATOR
*3	REAR ENGINE MOUNTING BRACKET SUB-ASSEMBLY	*4	NO. 2 EARTH WIRE
*5	WIRE HARNESS	*6	NO. 2 MANIFOLD STAY
*7	SEALING RING	*8	NO. 3 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP
*9	OIL COOLER TUBE	*10	FILLER PLUG
	N*m (kgf*cm, ft.*lbf): Specified torque	●	Non-reusable part

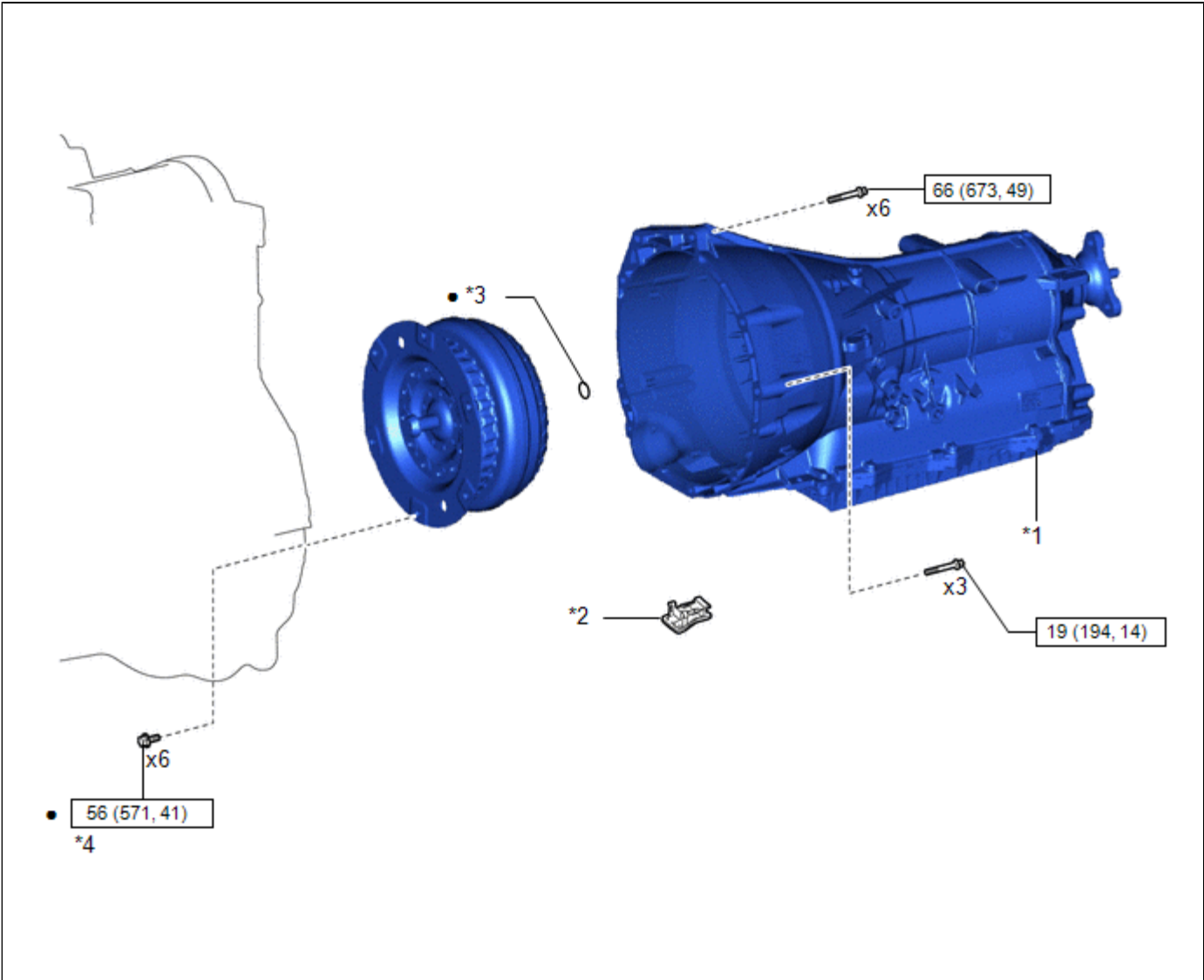
ILLUSTRATION



*1	PROPELLER SHAFT ASSEMBLY	*2	NO. 1 FLOOR HEAT INSULATOR
*3	NO. 2 FLOOR HEAT INSULATOR	*4	FRONT FLOOR COVER RH
*5	FRONT FLOOR COVER LH	*6	FRONT NO. 1 FLOOR HEAT INSULATOR
*7	FRONT FLOOR COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Lubricant Olistamoly 2 LN 584 LO
	1st: 55 (561, 41)		

*T1	2nd: Turn 90°	•	Non-reusable part
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ILLUSTRATION



*1	AUTOMATIC TRANSMISSION ASSEMBLY	*2	TRANSMISSION HOUSING COVER
*3	O-RING	*4	DRIVE PLATE AND TORQUE CONVERTER ASSEMBLY SETTING BOLT
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): AUTOMATIC TRANSMISSION ASSEMBLY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE AND INSTALL HOOD SUPPORT ASSEMBLY

Click here [INFO](#)

3. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

4. REMOVE FRONT FENDER UPPER PROTECTOR LH

Click here [INFO](#)

5. REMOVE FRONT FENDER UPPER PROTECTOR RH

HINT:

Use the same procedure as for the LH side.

6. INSTALL ENGINE HANGER

Click here [INFO](#)

7. INSTALL ENGINE SUPPORT BRIDGE

Click here [INFO](#)

8. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

9. REMOVE STARTER ASSEMBLY

Click here [INFO](#)

10. REMOVE FRONT FLOOR COVER LH

Click here [INFO](#)

11. REMOVE FRONT FLOOR COVER RH

HINT:

Use the same procedure as for the LH side.

12. REMOVE EXHAUST PIPE ASSEMBLY

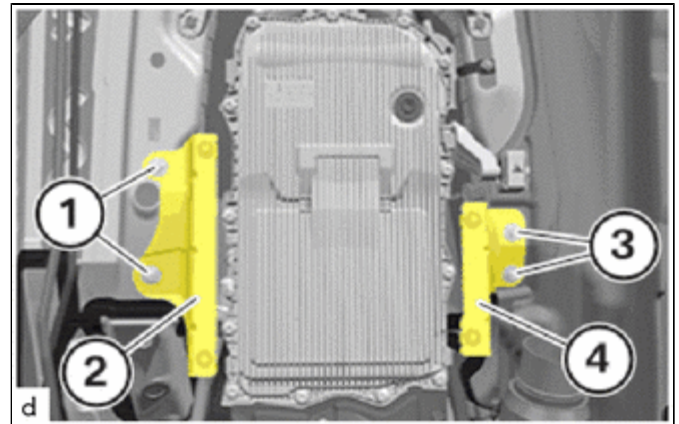
Click here [INFO](#)

13. REMOVE FRONT NO. 1 FLOOR HEAT INSULATOR

Click here [INFO](#)

14. REMOVE FLOOR HEAT INSULATOR

(a) Loosen nuts (1).



(b) Remove the No. 1 floor heat Insulator (2).

(c) Loosen nuts (3).

(d) Remove the No. 2 floor heat Insulator (4).

15. REMOVE REAR ENGINE MOUNTING MEMBER

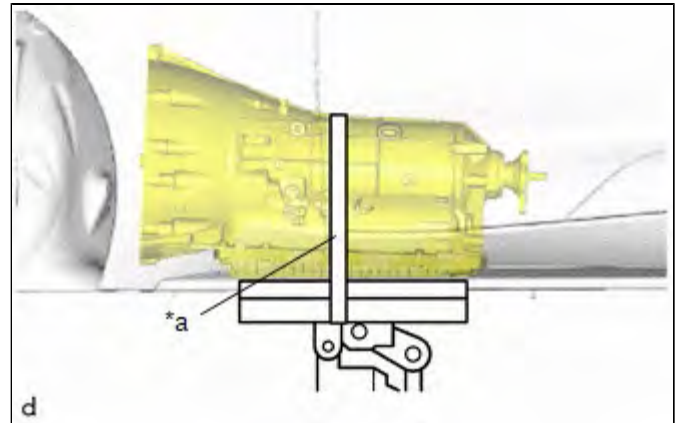
(a) Support the automatic transmission assembly with a transmission jack.

CAUTION:

Secure the automatic transmission assembly to the transmission jack using a lashing belt, etc. to prevent it from falling.

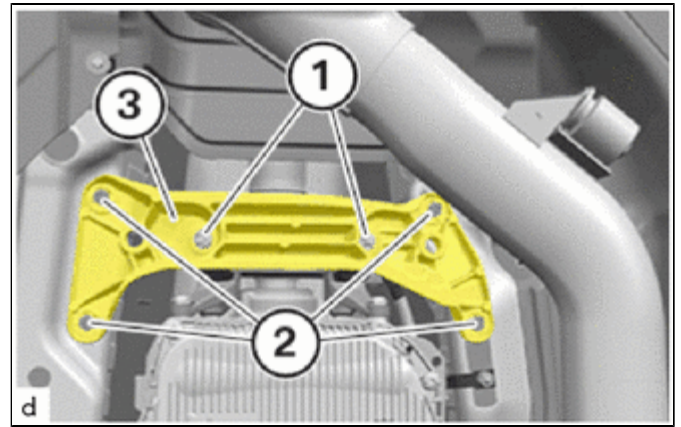
NOTICE:

- Place attachments on the transmission jack saddle.
- Make sure that the attachments and the transmission oil sump are centered on the transmission jack.



*a	Lashing Belt
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(b) Loosen the bolts (2).



(c) Loosen nuts (1).

(d) Remove the rear engine mounting member (3).

16. SEPARATE PROPELLER SHAFT ASSEMBLY

NOTICE:

- Damage to propeller shaft assembly during removal.

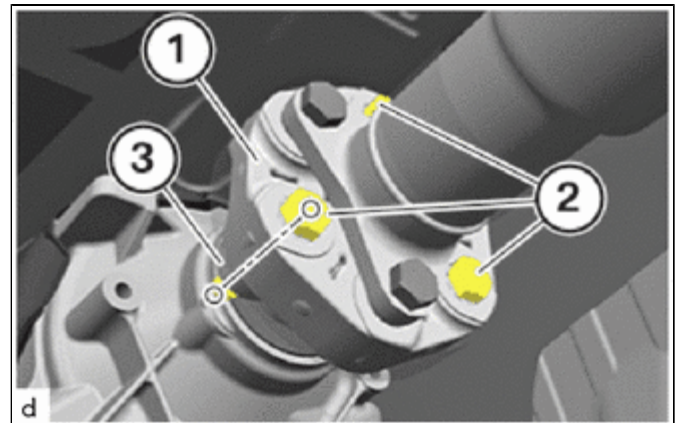
Non-observance of the removal guidelines for the propeller shaft assembly on the rear differential carrier assembly may cause severe damage.

- Do not disassemble the three-hole flange, flexible disc and propeller shaft assembly. The three-hole flange to the rear differential carrier assembly is balanced with the flexible disc and propeller shaft assembly.
- Loosen the recessed nut against the direction of travel in clockwise direction. The propeller shaft assembly must be loosened on the recessed nut only and exclusively in the direction of rotation otherwise the anti-twist lock of the bi-hexagonal flange nut is damaged.
- In the event of a damaged anti-twist lock on the bi-hexagonal flange nut: Replace the rear differential carrier assembly.

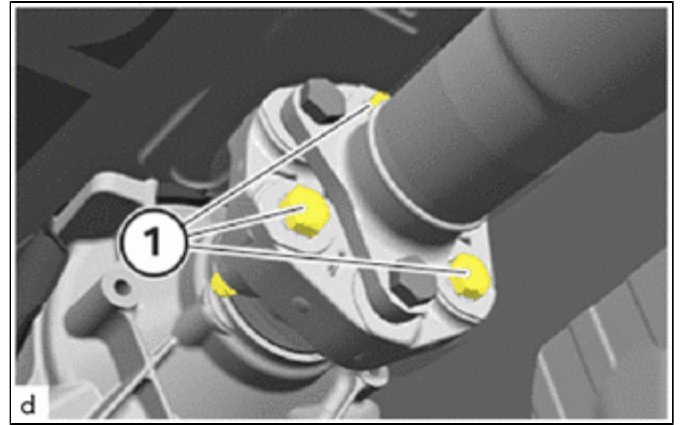
(a) Mark the installation position of the bolt connections (2) of the flexible coupling (1) and the output flange (3).

HINT:

- The mark makes it possible for the propeller shaft assembly to be installed again in the same position.
- This should prevent a humming noise from the drive train during driving.



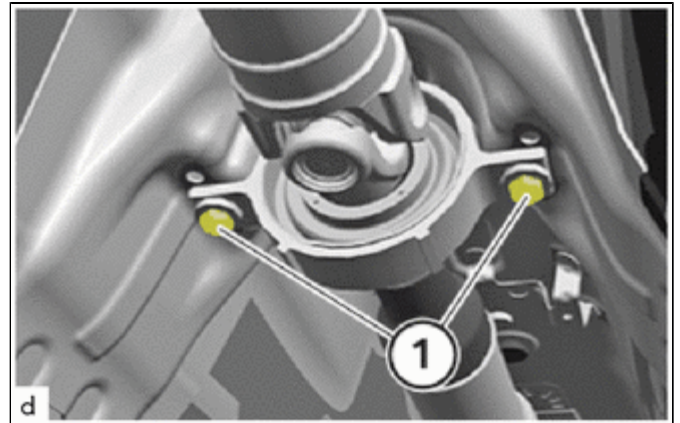
(b) Loosen 18 mm bolts (1).



(c) Unscrew the bolts (1) on the center bearing and hold down the propeller shaft assembly.

NOTICE:

Major deflection angles of the propeller shaft assembly may damage the propeller shaft assembly and/or the joints.



(d) Tie up propeller shaft assembly to underbody.

17. REMOVE NO. 2 MANIFOLD STAY

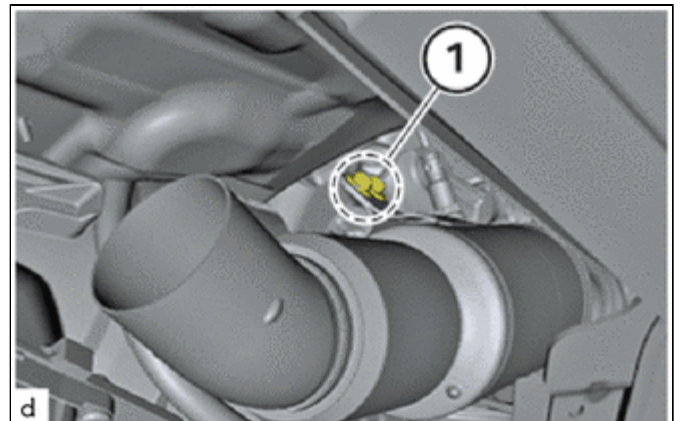
CAUTION:

- Hot surfaces.

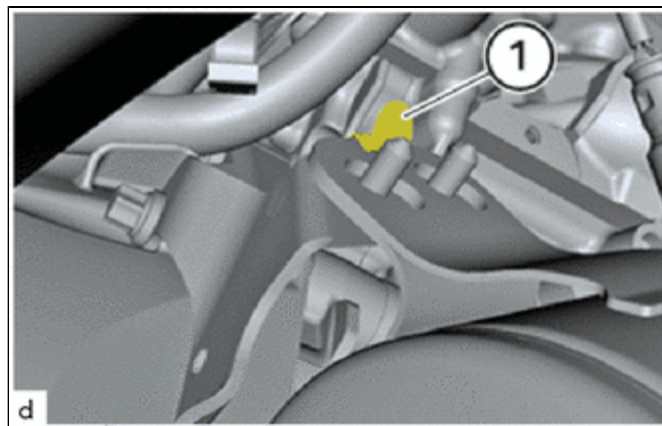
Risk of burning!

- Perform all work only on components that have cooled down.

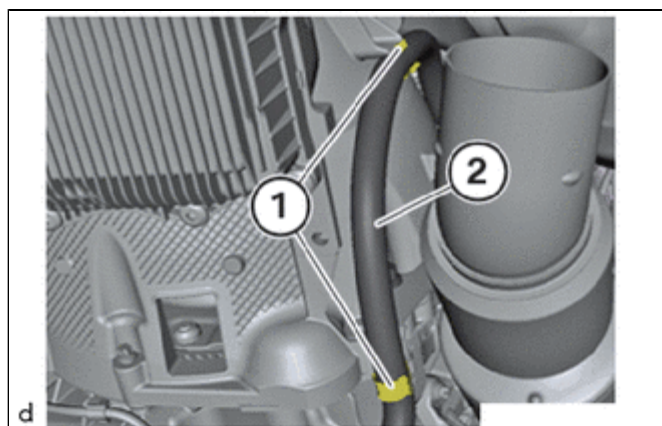
(a) Loosen the nuts (1).



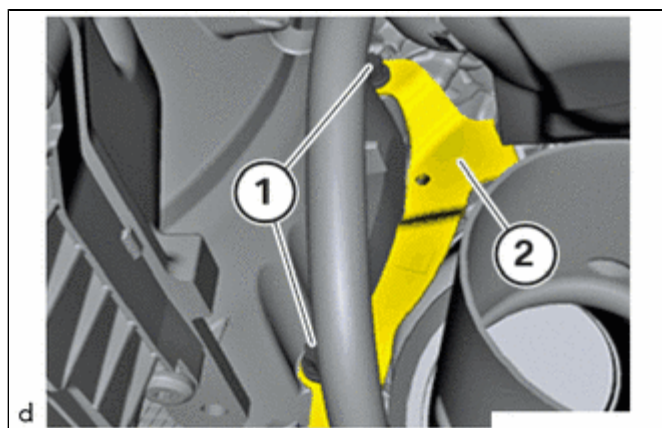
(b) Disengage tab (1) to the top.



(c) Detach starter cable (2) from the clamps (1).



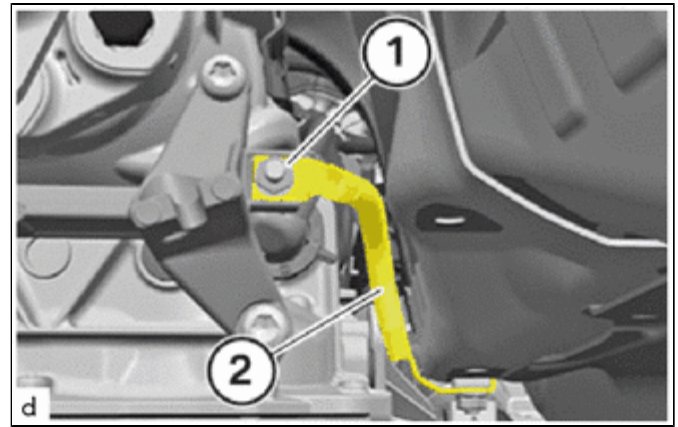
(d) Loosen the bolts (1).



(e) Thread out and remove the No. 2 manifold stay (2).

18. DISCONNECT NO. 2 EARTH WIRE

(a) Unfasten the nut (1).



(b) Detach the No. 2 earth wire (2) from the automatic transmission assembly.

19. DISCONNECT OIL COOLER TUBE

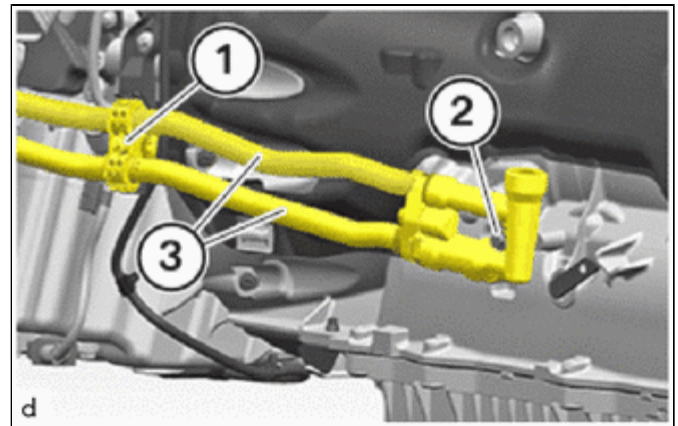
CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

(a) Release the T25 screw (1) and bolt (2).

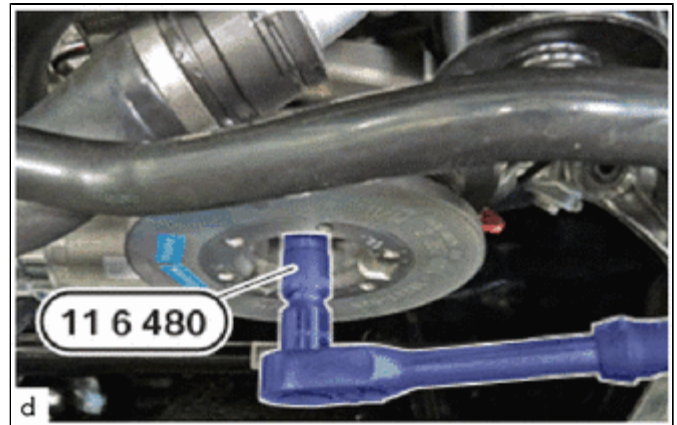


(b) Disconnect the oil cooler tubes (3) at the automatic transmission assembly.

20. REMOVE DRIVE PLATE AND TORQUE CONVERTER ASSEMBLY SETTING BOLT

(a) Turn the engine on the crankshaft pulley assembly with the special tool 0 493 380 (11 6 480) in the direction of rotation until a drive plate and torque converter assembly setting bolt (1) becomes visible in the recess.

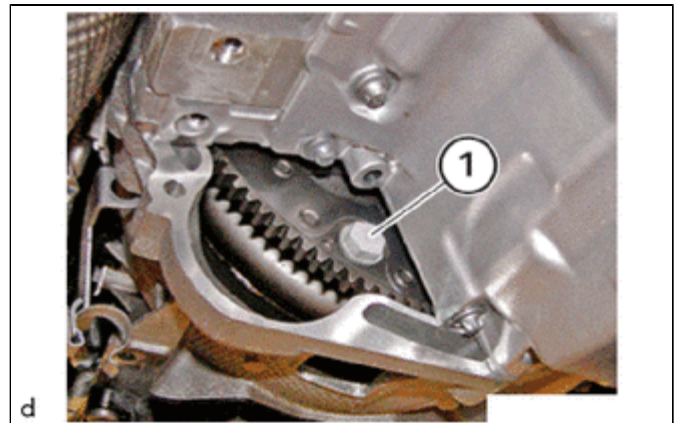
SST: 09200-WA190



(b) Release the drive plate and torque converter assembly setting bolt (1) of the torque converter.

HINT:

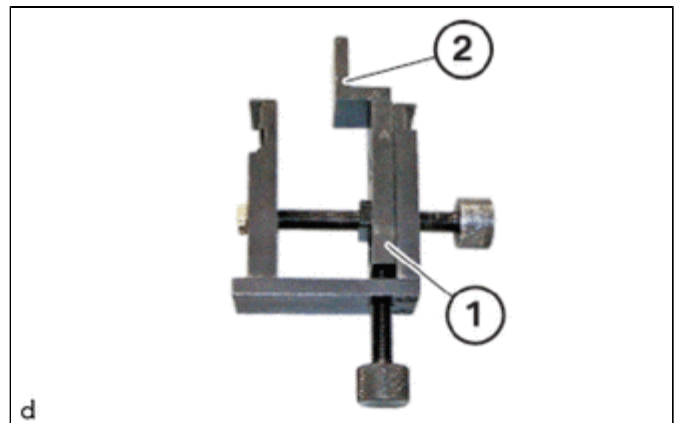
Repeat this procedure for all bolts.



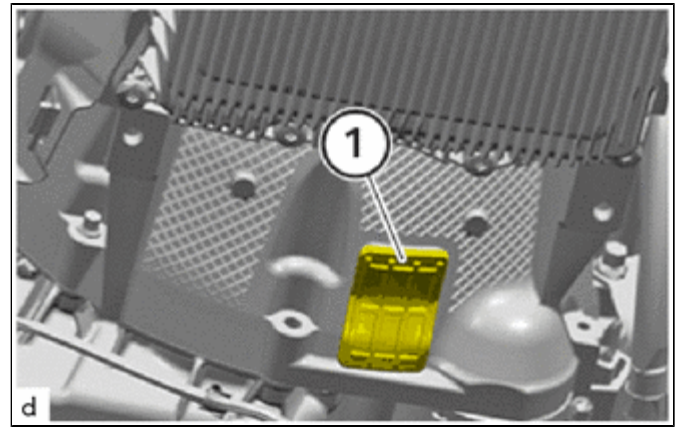
21. INSTALL SPECIAL TOOL TO FIX THE TORQUE CONVERTER

(a) Prepare special tool 0 494 478 (24 4 161) (1) with the special tool 0 496 061 (24 4 166) (2) as shown.

SST: 09300-WA030

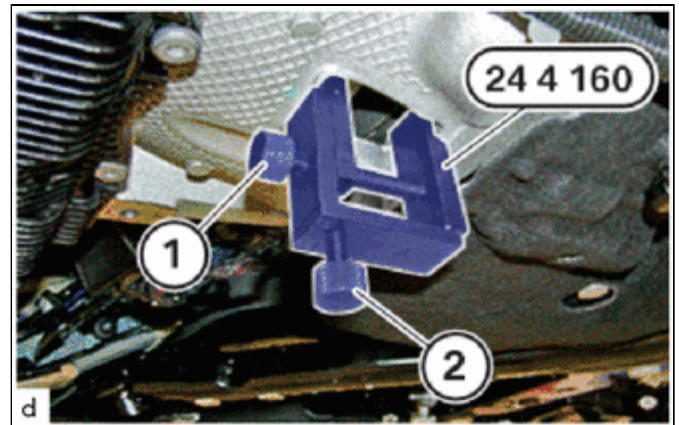


(b) Remove the transmission housing cover (1).



(c) Insert special tool 0 494 451 (24 4 160) into the recess of the transmission housing and apply slight tension using the screw (1).

SST: 09300-WA030



(d) Screw the screw (2) in to the stop.

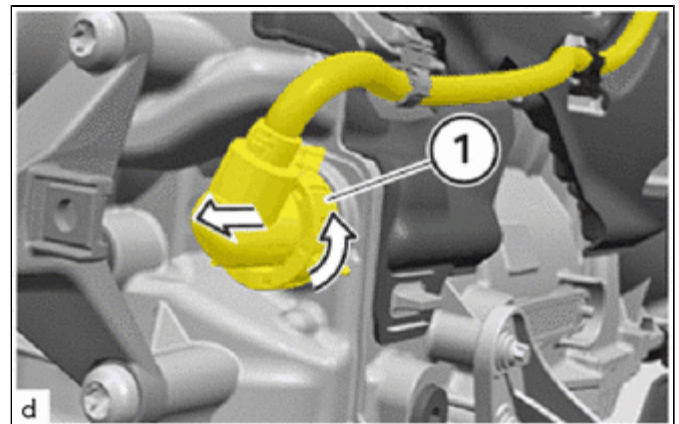
(e) Tighten down screw (1).

22. REMOVE WIRE HARNESS

(a) Unlock connector (1) by turning and pull off.

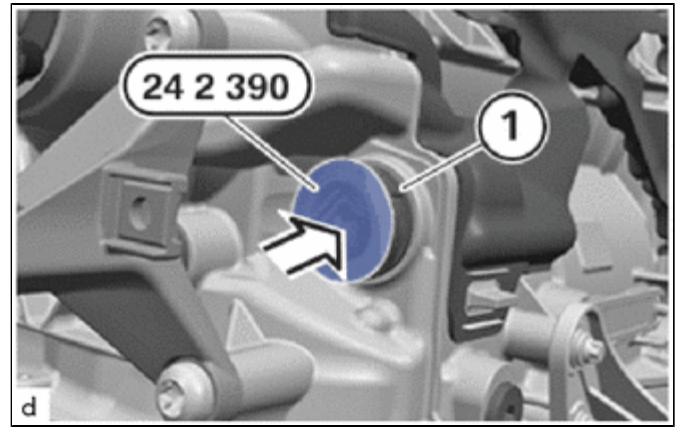
NOTICE:

Do not touch pins.



- (b) Insert special tool 0 494 213 (24 2 390) in sealing sleeve (1).

SST: 09300-WA100



23. REMOVE AUTOMATIC TRANSMISSION ASSEMBLY

CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

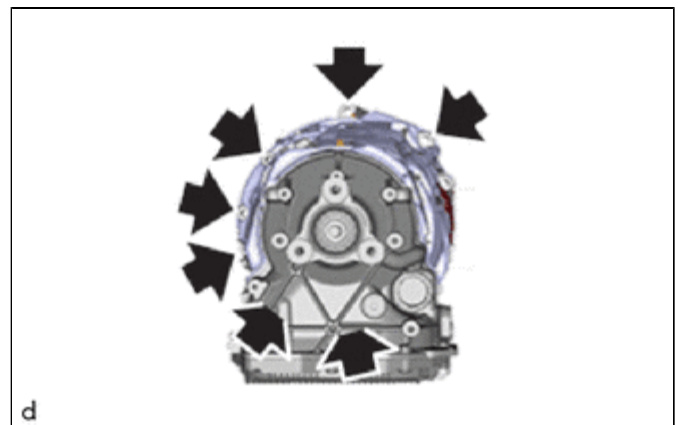
NOTICE:

- Damage to the engine block.

Damaged and corroded bolts will lead to major damage in the engine block and the automatic transmission assembly.

- It is imperative that protruding threads of the automatic transmission assembly bolts are checked for corrosion and damage prior to removal.
- It is imperative that all rust is removed from corroded threads and that they are cleaned prior to removal.
- Replace rusted and damaged bolts.

- (a) Unscrew the E10 bolts and E14 bolts.



- (b) Remove the automatic transmission assembly.

24. REMOVE TORQUE CONVERTER

CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

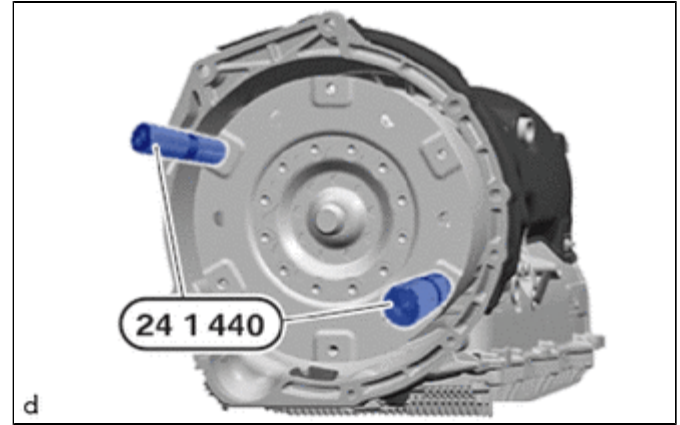
- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

- (a) Screw the special tool 0 496 717 (24 1 440) into the torque converter.

SST: 09300-WA040



- (b) Remove torque converter and set down vertically.

HINT:

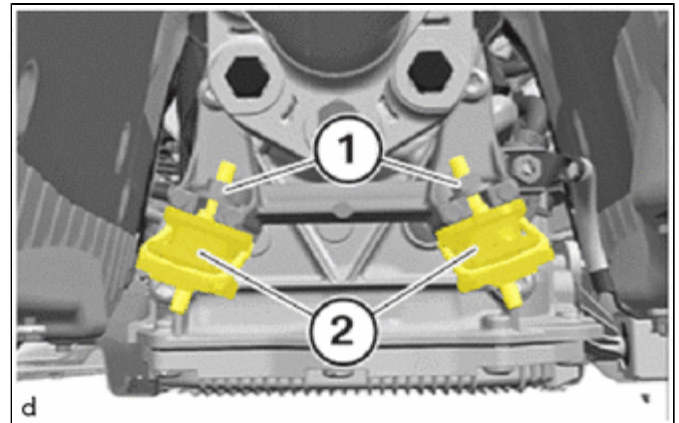
Drain, catch and dispose of the automatic transmission fluid.

25. REMOVE REAR ENGINE MOUNTING INSULATOR

HINT:

Perform this procedure only when replacement of the rear engine mounting insulator is necessary.

- (a) Loosen nuts (1).



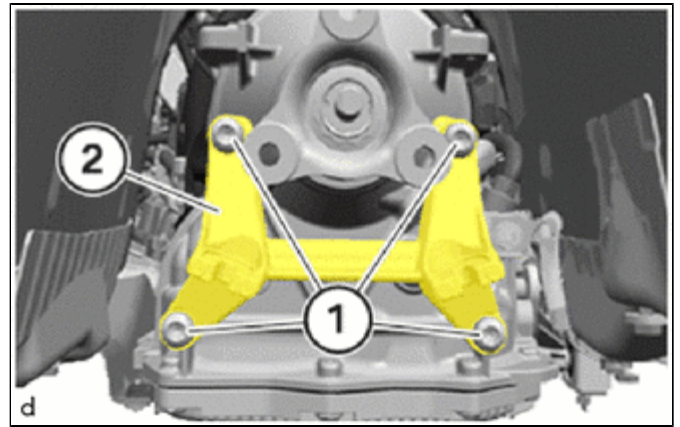
- (b) Remove the rear engine mounting insulator (2).

26. REMOVE REAR ENGINE MOUNTING BRACKET SUB-ASSEMBLY

HINT:

Perform this procedure only when replacement of the rear engine mounting bracket sub-assembly is necessary.

(a) Loosen the T55 bolts (1).



(b) Remove the rear engine mounting bracket sub-assembly (2).

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INSTALLATION

PROCEDURE

1. INSTALL TORQUE CONVERTER

CAUTION:

- Damage to the driver of the impeller.

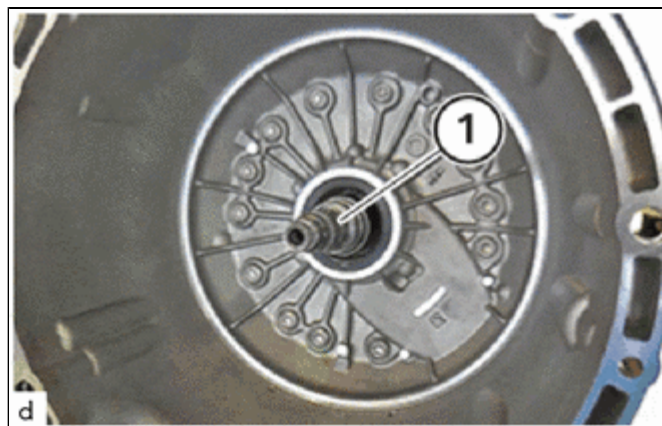
Failure to observe the installation instructions may lead to damage on the impeller driver.

- During installation, do not damage the torque converter radial shaft seal or ball bearing.
- Lock the torque converter correctly. Otherwise, the driver of the impeller may be damaged when the automatic transmission assembly is flange-mounted on the engine.

(a) Replace the O-ring on the drive shaft (1).

HINT:

When replacing the torque converter, use this procedure.



(b) Push the torque converter onto the transmission shaft up to the limit position.

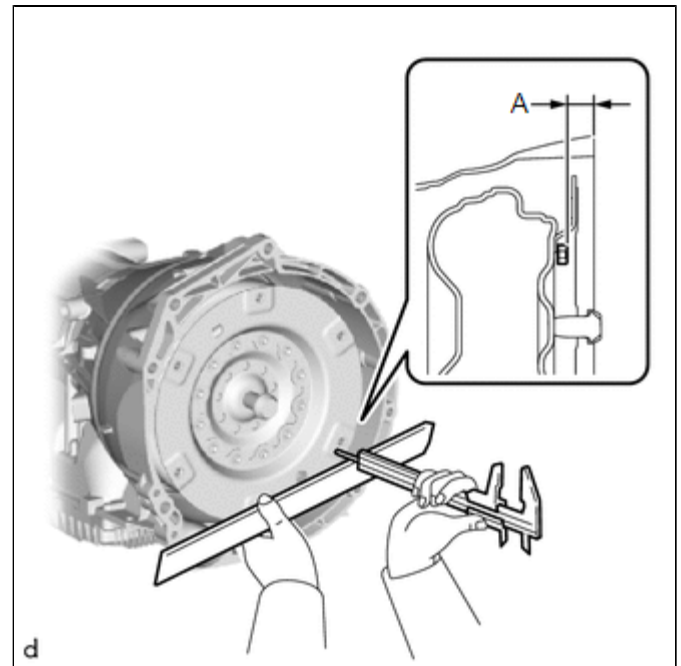
HINT:

- Press torque converter by hand into converter housing.
- At the same time, turn the torque converter until the recesses at the hub of the torque converter engage in the driver of the impeller.
- You can feel the torque converter slipping inward.

(c) Determine the dimension between the contact surface and the outer edge of the torque converter threaded hole using a vernier caliper and straightedge.

Standard:

Dimension (A) = Measured value is greater than 15 mm.



2. TEMPORARILY TIGHTEN AUTOMATIC TRANSMISSION ASSEMBLY

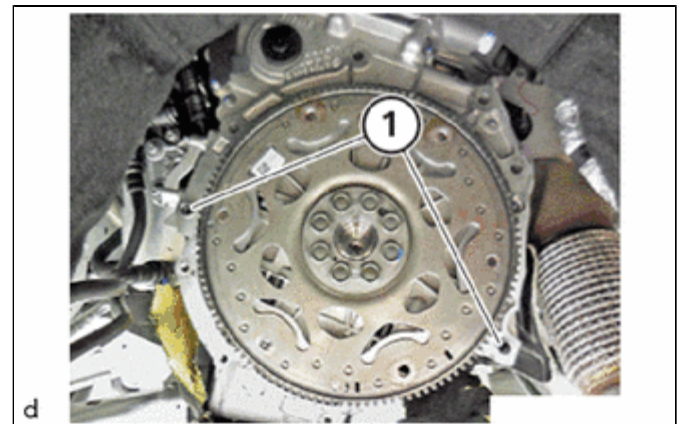
NOTICE:

- Damage to the automatic transmission assembly.

Damage to the automatic transmission assembly through unapproved automatic transmission fluid.

- Use only the approved Automatic Gearbox Oil ATF 3+.
- After completion of repair work, check automatic transmission fluid level.

(a) Replace damaged fitting sleeves (1).



(b) Check for correct fit of fitting sleeves (1).

(c) Rotate the torque converter until the bore hole of the torque converter is flush with bore hole in drive plate.

(d) Install the automatic transmission assembly.

(e) Fit the E10 bolts and E14 bolts and apply hand-tighten.

3. INSTALL NO. 2 MANIFOLD STAY

(a) Insert and position the No. 2 manifold stay.

(b) Hand-tighten the bolts.

NOTICE:

- Improper routing of the positive battery cable.
- Risk of short circuits!
- Route the positive battery cable without abrasions and do not trap.

(c) Engage the starter cable in the clamps.

(d) Engage the tab downward.

(e) Replace nuts.

(f) Tighten nuts.

Torque:

28 N·m {286 kgf·cm, 21 ft·lbf}

4. FULLY TIGHTEN AUTOMATIC TRANSMISSION ASSEMBLY

(a) Tighten the E10 bolts and E14 bolts in sequence (1) to (9).

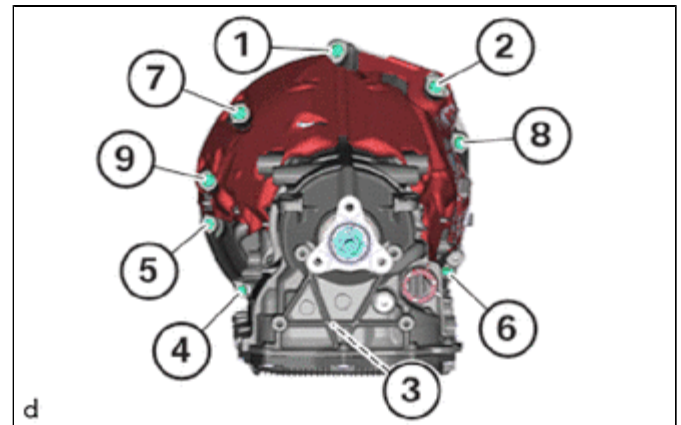
Torque:

E10 bolt :

19 N·m {194 kgf·cm, 14 ft·lbf}

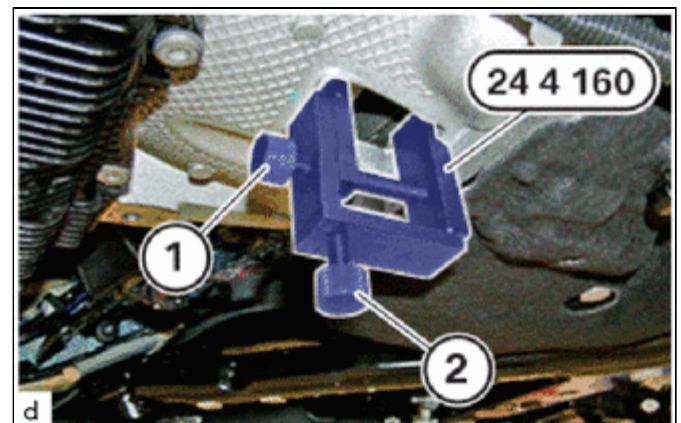
E14 bolt :

66 N·m {673 kgf·cm, 49 ft·lbf}



5. REMOVE SPECIAL TOOL TO FIX THE TORQUE CONVERTER

(a) Release screw (1) and screw (2).



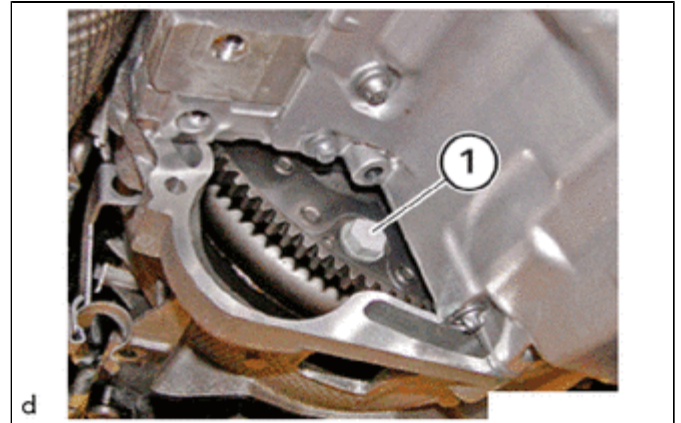
(b) Remove special tool 0 494 451 (24 4 160).

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(c) Install the transmission housing cover.

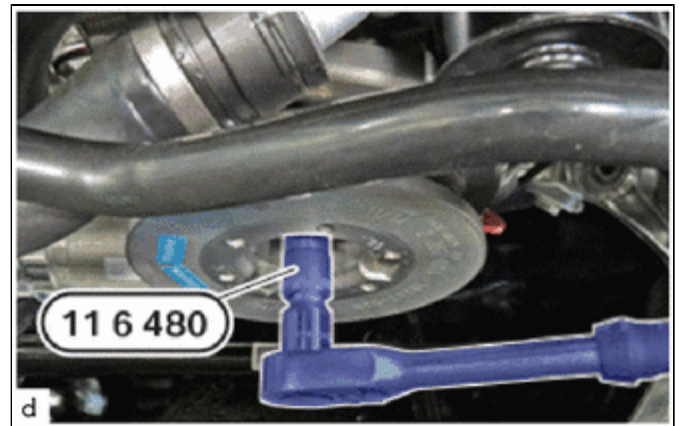
6. INSTALL DRIVE PLATE AND TORQUE CONVERTER ASSEMBLY SETTING BOLT

- (a) Replace the drive plate and torque converter assembly setting bolts.



- (b) Turn the engine on the crankshaft pulley assembly with the special tool 0 493 380 (11 6 480) in the direction of rotation until a drive plate and torque converter assembly setting bolt (1) becomes visible in the recess.

SST: 09200-WA190



- (c) Tighten the drive plate and torque converter assembly setting bolts of the torque converter.

Torque:

56 N·m {571 kgf·cm, 41 ft·lbf}

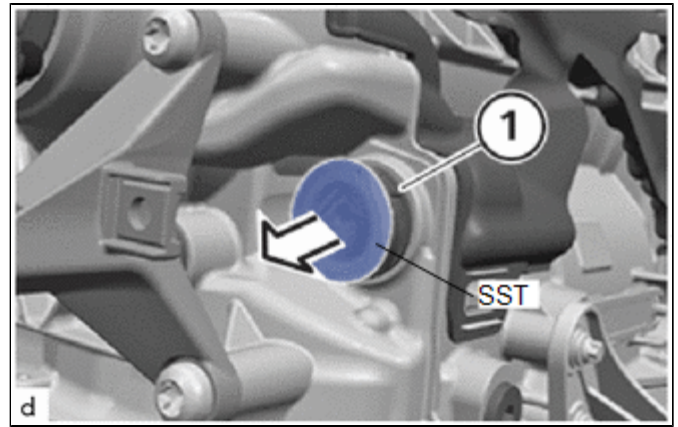
HINT:

Repeat this procedure for all drive plate and torque converter assembly setting bolts.

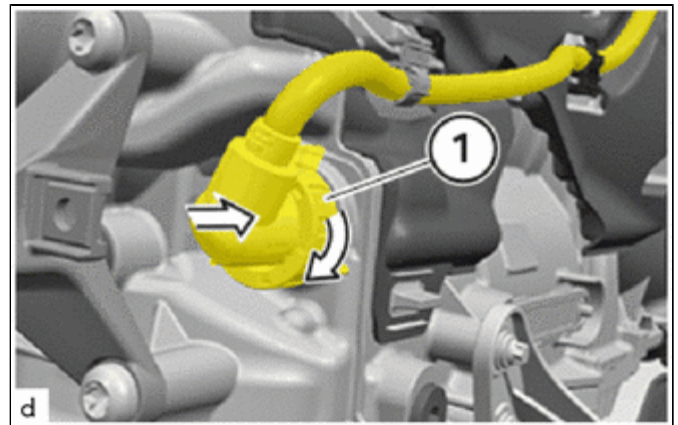
7. INSTALL WIRE HARNESS

- (a) Remove the special tool 0 494 213 (24 2 390) from the sealing sleeve (1).

SST: 09300-WA100



(b) Slide the connector (1) on.



(c) Twist the connector (1) in the direction of the arrow and lock.

8. CONNECT NO. 2 EARTH WIRE

(a) Install the No. 2 earth wire.

(b) Tighten nut.

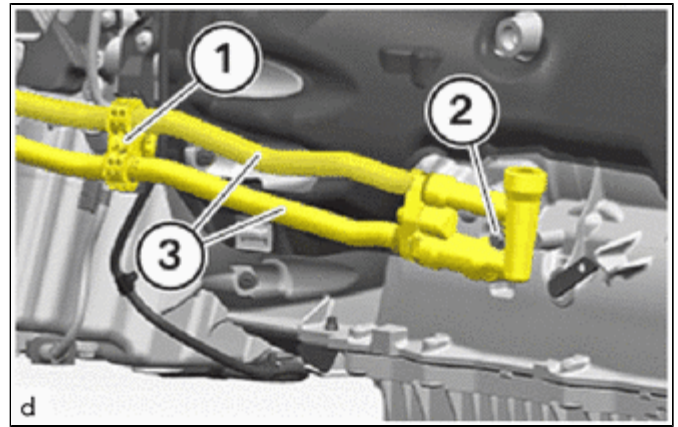
Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

9. CONNECT OIL COOLER TUBE

(a) Replace sealing rings.

(b) Position the oil cooler tubes on the automatic transmission assembly.



(c) Tighten down the bolt (2).

Torque:

8.0 N·m { 82 kgf·cm, 71 in·lbf }

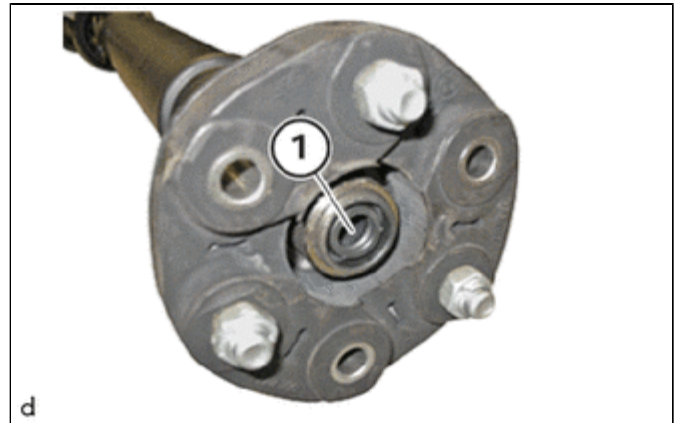
(d) Tighten down the T25 screw (1).

Torque:

5.0 N·m { 51 kgf·cm, 44 in·lbf }

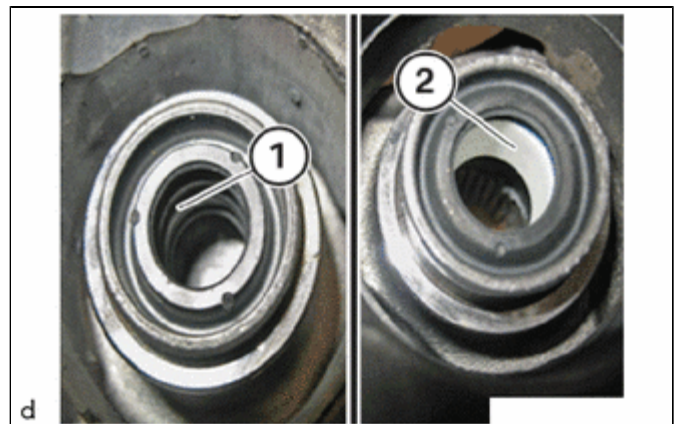
10. INSTALL PROPELLER SHAFT ASSEMBLY

(a) Check center No. 1 support bearing assembly for damage, replace if necessary.



(b) Apply a thin coat of Lubricant Olistamoly 2 LN 584 LO to the soft centering (1), if necessary.

(1) Do not grease the hard centering (2).

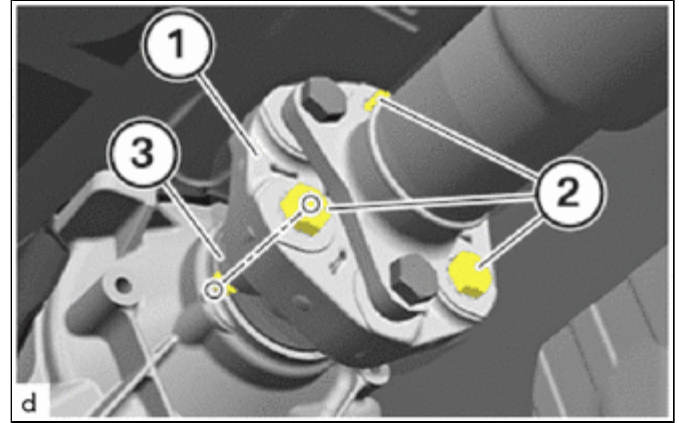


(c) Replace the 18 mm bolts and 18 mm self-locking nuts.

(d) Assemble the 18 mm bolts connections (2) of the flexible coupling (1) and the output flange (3) according to the self-affixed identification.

NOTICE:

This should prevent a humming noise from the drive train during driving.



(e) Hand-tighten 18 mm bolts (1) and 18 mm nuts (2), but do not tighten fully.

(f) Position the center bearing.

HINT:

Hand-tighten the bolts, but do not tighten fully.

(g) Hand-tighten the bolts, but do not tighten fully.

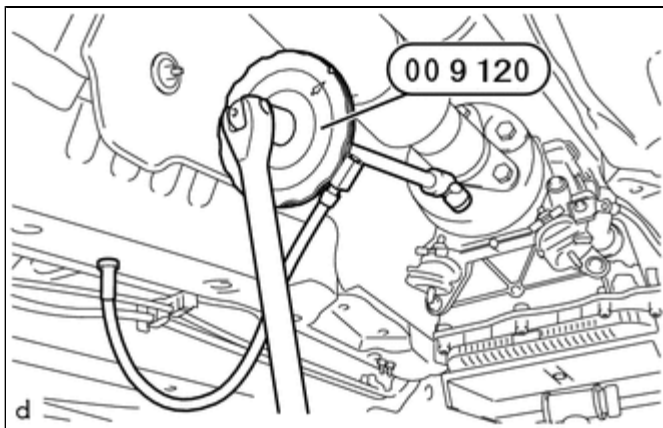
(h) Hold down the 18 mm bolts of the flexible coupling on the 18 mm nuts and tighten over the 18 mm bolts.

Torque:

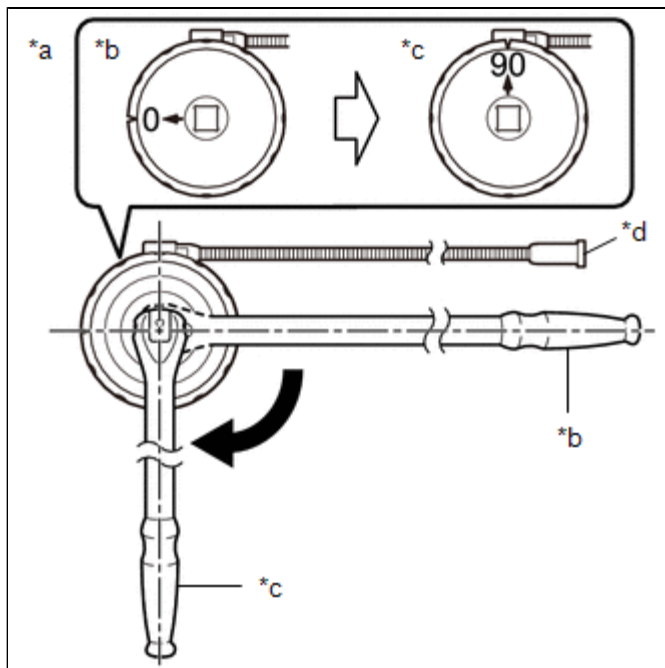
55 N·m {561 kgf·cm, 41 ft·lbf}

(i) Using SST, tighten the 18 mm bolts and counter support them at the 18 mm nuts an additional 90°.

SST: 09900-WA010



HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

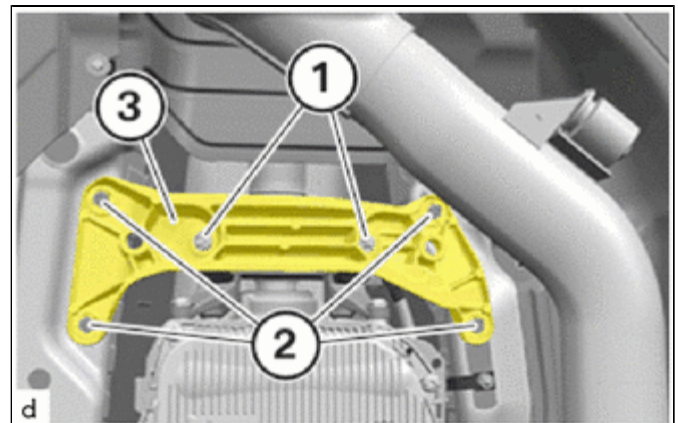
(j) Tighten the bolts.

Torque:

21.4 N·m {218 kgf·cm, 16 ft·lbf}

11. INSTALL REAR ENGINE MOUNTING MEMBER

(a) Install the rear engine mounting member (3).



(b) Tighten the nuts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(c) Tighten down the bolts (2).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

12. INSTALL FLOOR HEAT INSULATOR

- (a) Install the No. 1 floor heat Insulator and No. 2 floor heat Insulator.
- (b) Install the nuts and tighten.

Torque:

3.0 N·m {31 kgf·cm, 27 in·lbf}

13. INSTALL FRONT NO. 1 FLOOR HEAT INSULATOR

Click here [INFO](#)

14. INSTALL EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

15. INSTALL FRONT FLOOR COVER LH

Click here [INFO](#)

16. INSTALL FRONT FLOOR COVER RH

HINT:

Use the same procedure as for the LH side.

17. INSTALL STARTER ASSEMBLY

Click here [INFO](#)

18. REMOVE ENGINE SUPPORT BRIDGE

Click here [INFO](#)

19. REMOVE ENGINE HANGER

Click here [INFO](#)

20. INSTALL FRONT FENDER UPPER PROTECTOR LH

Click here [INFO](#)

21. INSTALL FRONT FENDER UPPER PROTECTOR RH

HINT:

Use the same procedure as for the LH side.

22. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

23. REMOVE AND INSTALL HOOD SUPPORT ASSEMBLY

Click here [INFO](#)

24. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

25. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

Click here [INFO](#)

26. INSPECT FOR AUTOMATIC TRANSMISSION FLUID LEAK

27. INSPECT FOR EXHAUST GAS LEAK

Click here [INFO](#)

28. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

29. INSTALL REAR ENGINE MOUNTING INSULATOR

HINT:

Perform this procedure only when replacement of the rear engine mounting insulator is necessary.

- (a) Install the rear engine mounting insulator.
- (b) Tighten nuts.

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

30. INSTALL REAR ENGINE MOUNTING BRACKET SUB-ASSEMBLY

HINT:

Perform this procedure only when replacement of the rear engine mounting bracket sub-assembly is necessary.

- (a) Install the rear engine mounting bracket sub-assembly.
- (b) Tighten down the T55 bolts.

Torque:

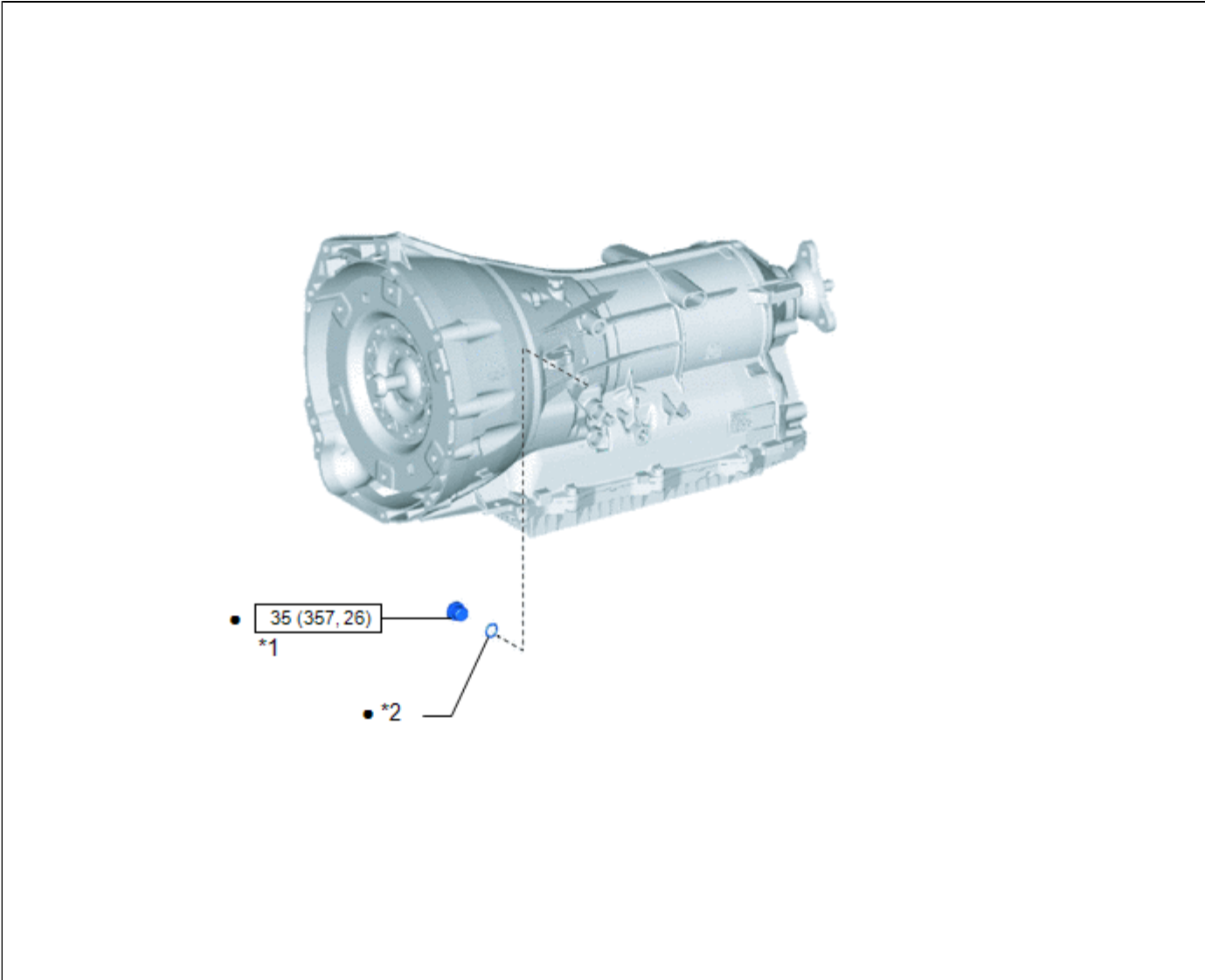
48 N·m {489 kgf·cm, 35 ft·lbf}



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): AUTOMATIC TRANSMISSION FLUID: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FILLER PLUG	*2	SEALING RING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): AUTOMATIC TRANSMISSION FLUID: ADJUSTMENT; 2020 MY Supra [03/2019 -]		

ADJUSTMENT

PROCEDURE

1. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

2. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

Click here [INFO](#)

3. INSTALL FRONT FLOOR COVER

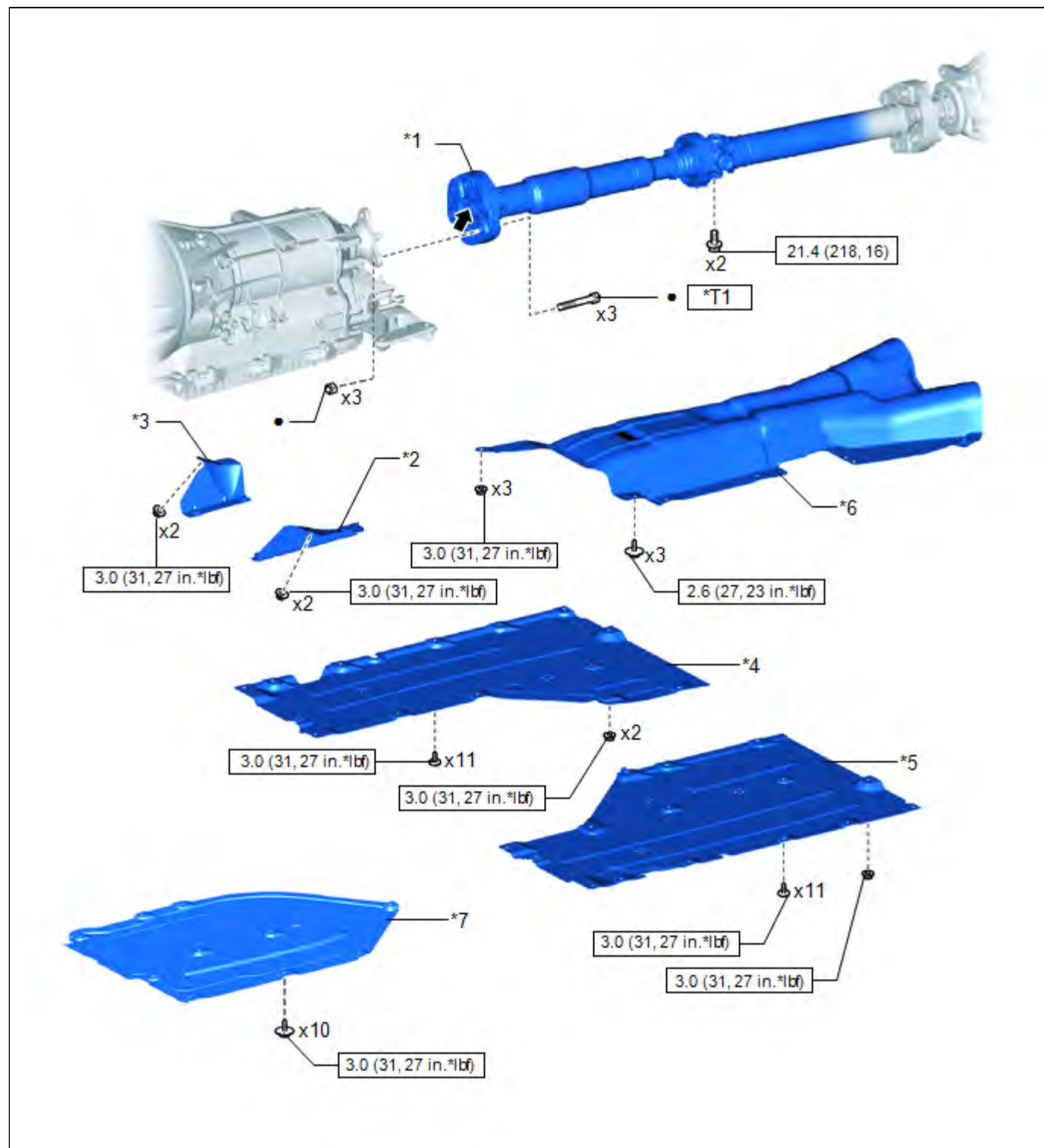
Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): AUTOMATIC TRANSMISSION REAR OIL SEAL: COMPONENTS; 2020 MY Supra [03/2019 -]		

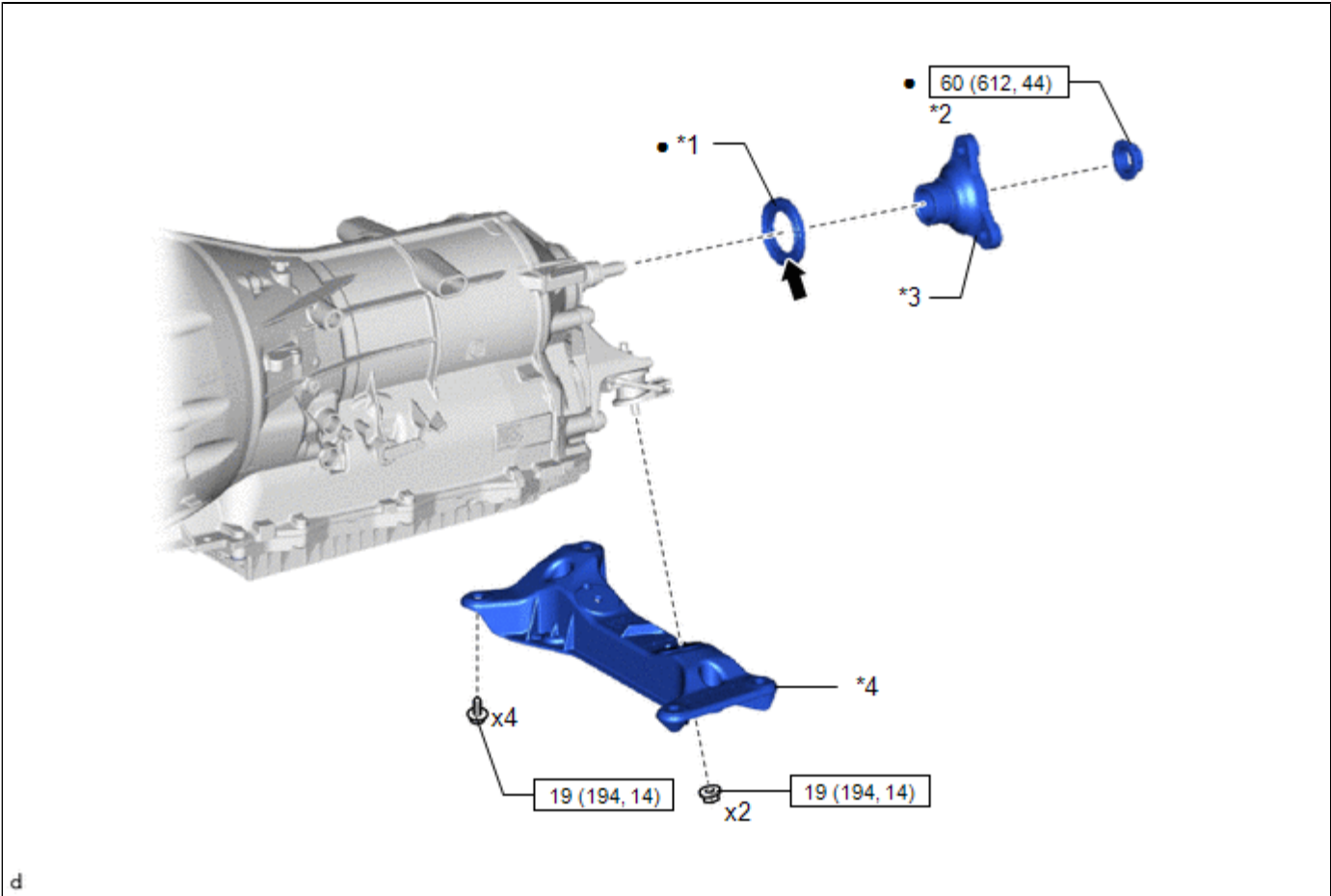
COMPONENTS

ILLUSTRATION



*1	PROPELLER SHAFT ASSEMBLY	*2	NO. 1 FLOOR HEAT INSULATOR
*3	NO. 2 FLOOR HEAT INSULATOR	*4	FRONT FLOOR COVER RH
*5	FRONT FLOOR COVER LH	*6	FRONT NO. 1 FLOOR HEAT INSULATOR
*7	FRONT FLOOR COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Lubricant Olistamoly 2 LN 584 LO
*T1	1st: 55 (561, 41) 2nd: Turn 90°	•	Non-reusable part

ILLUSTRATION



*1	OUTPUT FLANGE RADIAL SHAFT SEAL	*2	NUT
*3	OUTPUT FLANGE	*4	TRANSMISSION CROSSMEMBER
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	Automatic Gearbox Oil ATF 3+	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): AUTOMATIC TRANSMISSION REAR OIL SEAL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

3. REMOVE FRONT FLOOR COVER LH

Click here [INFO](#)

4. REMOVE FRONT FLOOR COVER RH

HINT:

Use the same procedure as for the LH side.

5. REMOVE EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

6. REMOVE FRONT NO. 1 FLOOR HEAT INSULATOR

Click here [INFO](#)

7. REMOVE NO. 2 FLOOR HEAT INSULATOR

Click here [INFO](#)

8. REMOVE NO. 1 FLOOR HEAT INSULATOR

HINT:

Use the same as for the No. 2 floor heat insulator.

9. REMOVE REAR ENGINE MOUNTING MEMBER

Click here [INFO](#)

10. SEPARATE PROPELLER SHAFT ASSEMBLY

Click here [INFO](#)

11. REMOVE OUTPUT FLANGE RADIAL SHAFT SEAL

CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.

- Conduct all work in appropriate personal protective equipment only.

NOTICE:

- Damage to the automatic transmission assembly.

Damage to the automatic transmission assembly through unapproved automatic transmission fluid.

- Use only the approved Automatic Gearbox Oil ATF 3+.
- After completion of repair work, check automatic transmission fluid level.

(a) Using SST and a hammer, release the staked part of the lock nut.

SST: 09930-00010

NOTICE:

- Use SST with the tapered part facing the shaft.
- Do not modify the tip of SST with a grinder or other device.
- Completely release the staked part of the lock nut before removing it.
- Do not damage the threads of the shaft.

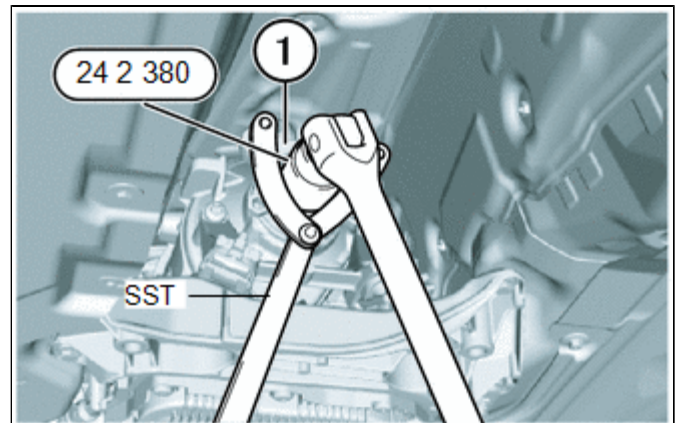


(b) Using SST, secure the output flange (1).

SST: 09960-10010

09962-01000

09963-01000



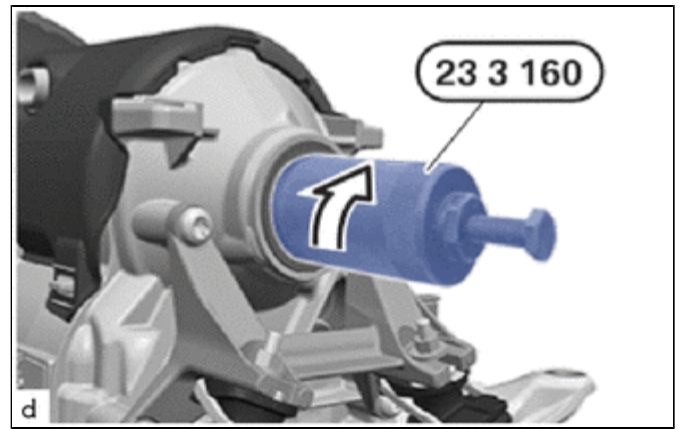
(c) Release nut with special tool 0 494 212 (24 2 380).

SST: 09900-WA060

(d) Pull off the output flange (1) from the output shaft.

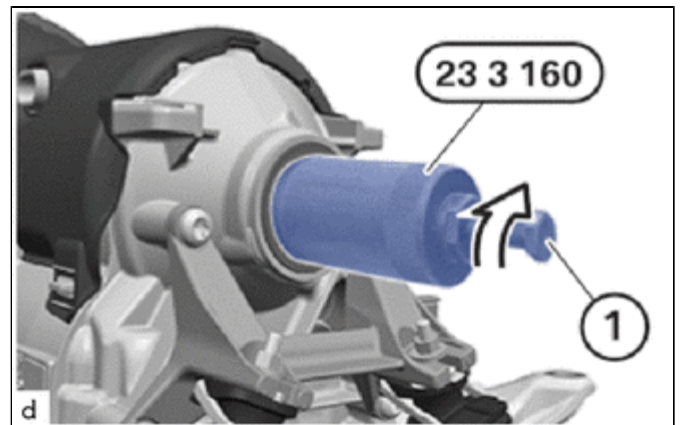
(e) Slide the special tool 0 494 416 (23 3 160) over the output shaft.

SST: 09300-WA110



- (f) Screw the special tool 0 494 416 (23 3 160) into the output flange radial shaft seal in the direction of arrow until the special tool is securely connected to the output flange radial shaft seal.

SST: 09300-WA110



- (g) Turn the bolt (1) into the special tool 0 494 416 (23 3 160) in the direction of arrow until the output flange radial shaft seal is pulled out of the transmission housing.

SST: 09300-WA110



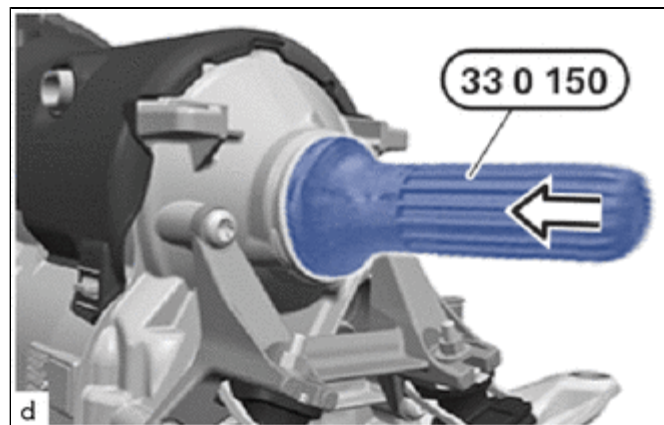
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): AUTOMATIC TRANSMISSION REAR OIL SEAL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL OUTPUT FLANGE RADIAL SHAFT SEAL

- (a) Oil the sealing lip of the output flange radial shaft seal (1) with ATF.



- (b) Strike in the output flange radial shaft seal (1) with the special tool 0 496 596 (33 0 150) up to the limit position.

SST: 09500-WA180

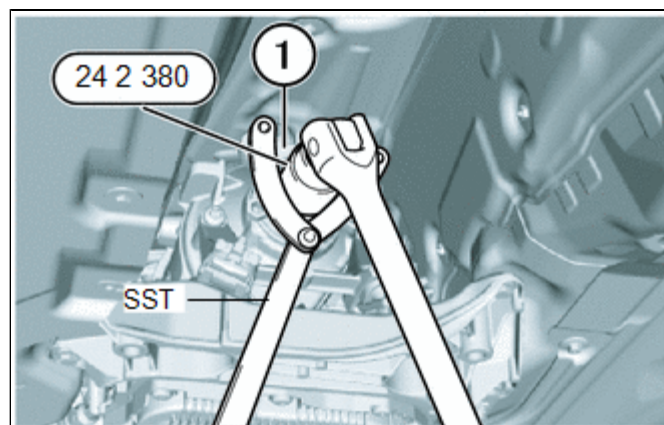
- (c) Replace nut.

- (d) Using SST, secure the output flange (1).

SST: 09960-10010

09962-01000

09963-01000



- (e) Tighten the nut with the special tool 0 494 212 (24 2 380).

SST: 09900-WA060

Torque:

60 N·m {612 kgf·cm, 44 ft·lbf}

- (f) Using a chisel and hammer, securely stake the lock nut.

2. INSTALL PROPELLER SHAFT ASSEMBLY

Click here [INFO](#)

3. INSTALL REAR ENGINE MOUNTING MEMBER

Click here [INFO](#)

4. INSTALL NO. 2 FLOOR HEAT INSULATOR

Click here [INFO](#)

5. INSTALL NO. 1 FLOOR HEAT INSULATOR

HINT:

Use the same as for the No. 2 floor heat insulator.

6. INSTALL FRONT NO. 1 FLOOR HEAT INSULATOR

Click here [INFO](#)

7. INSTALL EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

8. INSTALL FRONT FLOOR COVER LH

Click here [INFO](#)

9. INSTALL FRONT FLOOR COVER RH

HINT:

Use the same procedure as for the LH side.

10. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

11. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

Click here [INFO](#)

12. INSPECT FOR AUTOMATIC TRANSMISSION FLUID LEAK

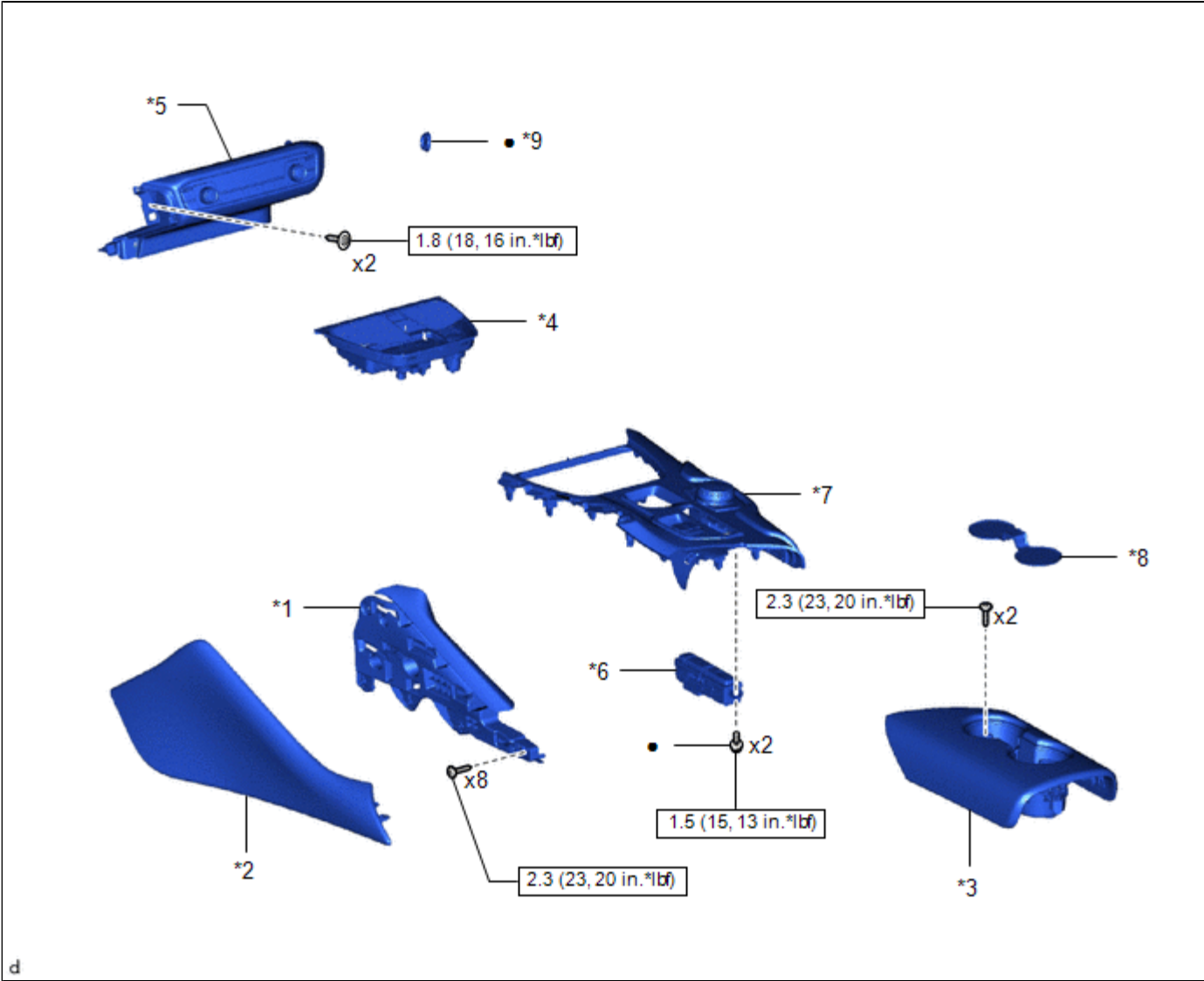
13. INSTALL FRONT FLOOR COVER

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): COMBINATION SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CONSOLE PANEL AND CONSOLE PANEL RETAINER	*2	CONSOLE SIDE PANEL
*3	FRONT CONSOLE ARMREST ASSEMBLY	*4	FRONT CONSOLE BOX COVER
*5	INSTRUMENT PANEL FINISH LOWER PANEL	*6	PATTERN SELECT SWITCH ASSEMBLY
*7	UPPER CONSOLE PANEL SUB-ASSEMBLY	*8	NO. 1 CONSOLE BOX SILENCER PAD
*9	RUBBER PLUG	-	-

	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): COMBINATION SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): COMBINATION SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

Click here [INFO](#)



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Doc ID: RM100000001JCGV

Model Year Start: 2020

Model: Supra

Prod Date Range: [03/2019 -]

Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): FORCED RELEASE: OPERATION METHOD; 2020 MY Supra
[03/2019 -]

OPERATION METHOD

CAUTION / NOTICE / HINT

CAUTION:

- If work is performed without first securing the vehicle, the vehicle may start moving and cause a serious accident or other disaster. Therefore, be sure to apply the parking brake and use wheel chocks to secure the vehicle before performing work.
- Perform the parking lock release operation with the vehicle level.



PROCEDURE

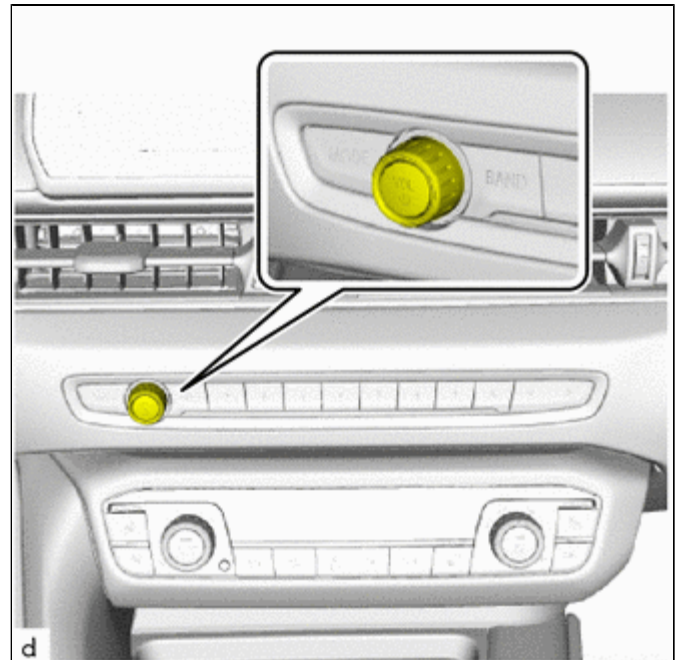
1. SECURE VEHICLE

(a) Apply the parking brake.

(b) Turn the START-STOP button (engine switch) off.

HINT:

Pressing and holding the AUDIO button changes the power source mode to IG OFF.



(c) Using a wheel chocks to secure the vehicle.

CAUTION:

During power failure, make sure use wheel chocks to secure the vehicle as the parking brake cannot be used.

2. PARKING LOCK FORCED RELEASE

CAUTION:

- Vehicle rolls away.

Danger of injury! Risk of damage!

- Secure the vehicle against rolling away before unlocking the parking lock.

HINT:

In the event of an open circuit, e.g. discharged battery or electrical fault, the parking lock must be unlocked manually, otherwise the wheels will be blocked and the vehicle cannot be moved.

(a) Raise vehicle.

CAUTION:

When using a jack, do not work on a vehicle supported only by jacks. Make sure to use safety stands.

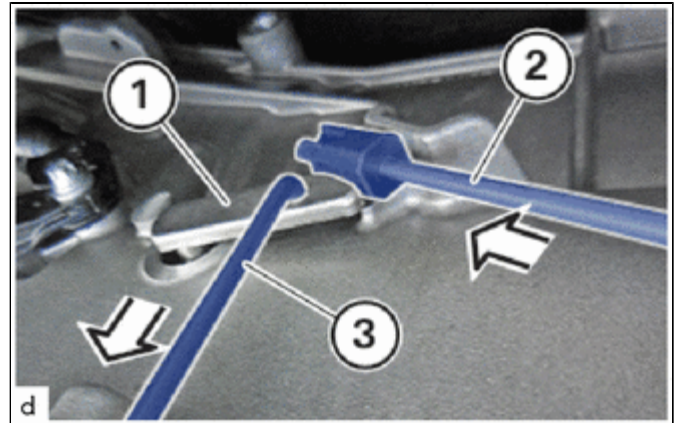
Click here [INFO](#)

(b) Remove the front floor cover.

Click here [INFO](#)

(c) Pull selector shaft journal (1) downwards using special tool 2 355 850 (3).

SST: 09700-WA050



(d) Install special tool 2 355 850 (2) between selector shaft journal (1) and transmission housing.

SST: 09700-WA050

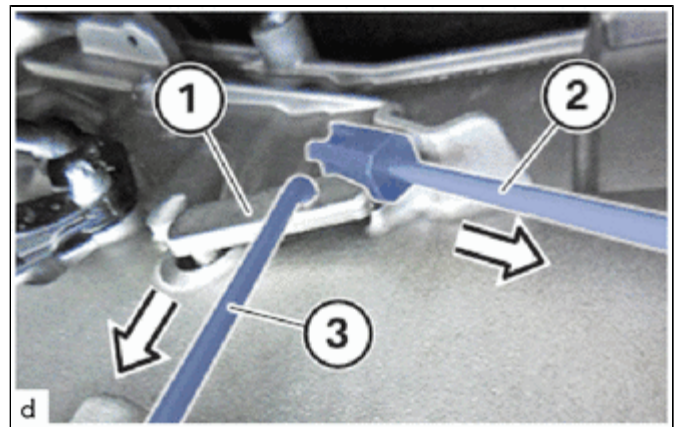
HINT:

The parking lock is unlocked.

3. PARKING LOCK

(a) Pull selector shaft journal (1) downwards using special tool 2 355 850 (3).

SST: 09700-WA050



(b) Remove special tool 2 355 850 (2).

SST: 09700-WA050

HINT:

The parking lock is locked.

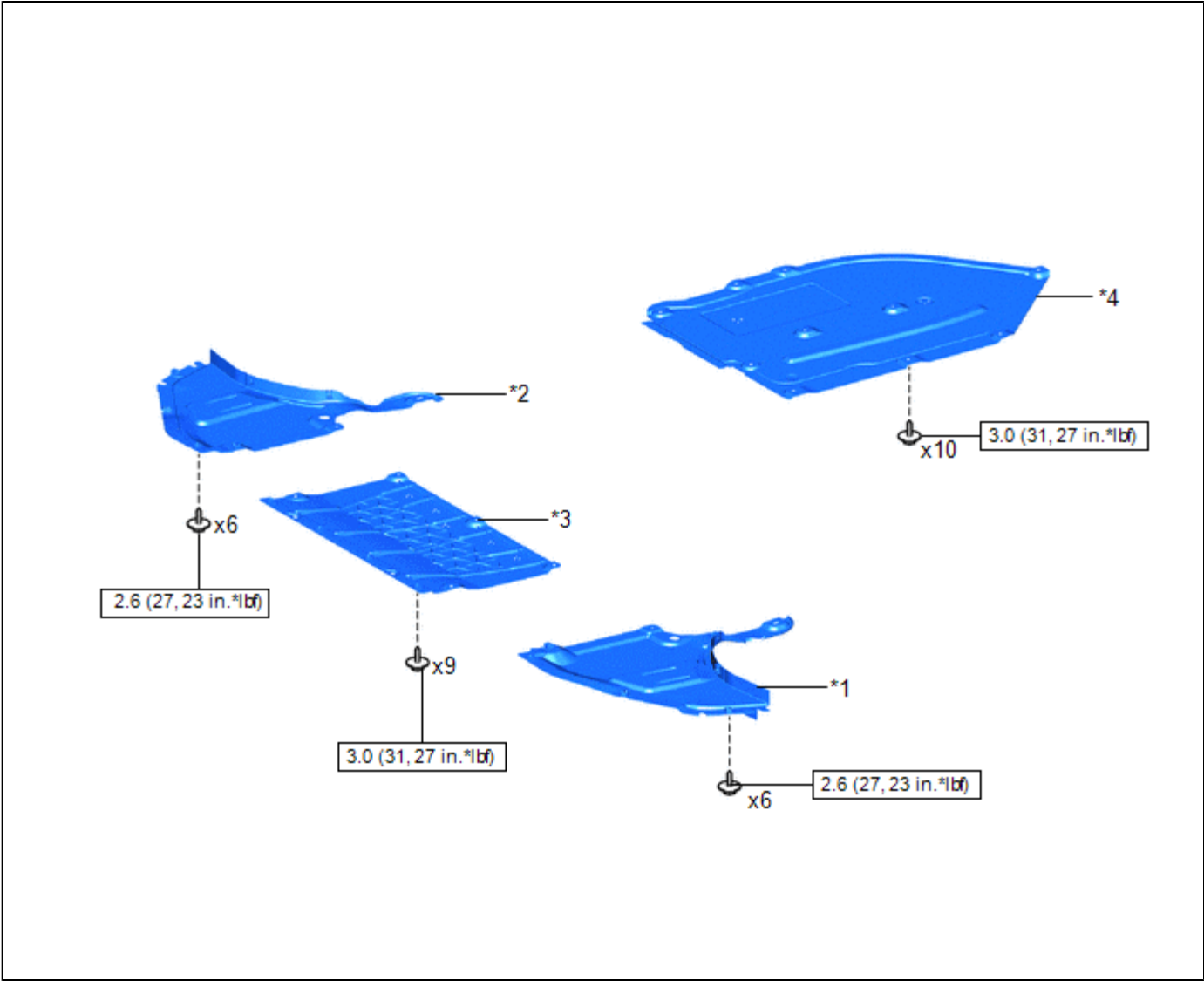
(c) Install the front floor cover.

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): OIL COOLER: COMPONENTS; 2020 MY Supra [03/2019 -]		

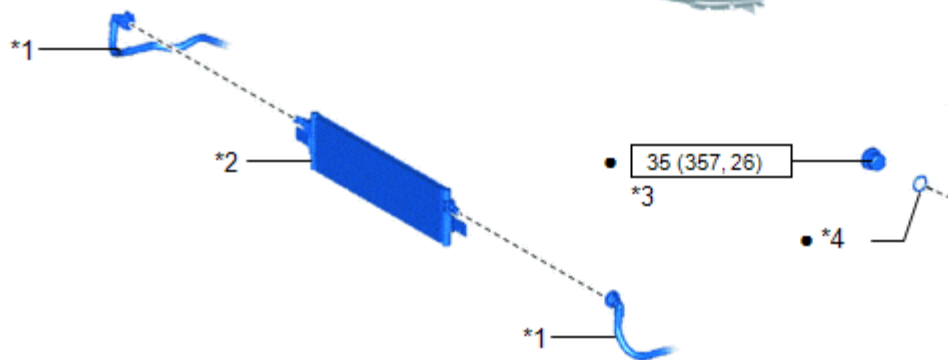
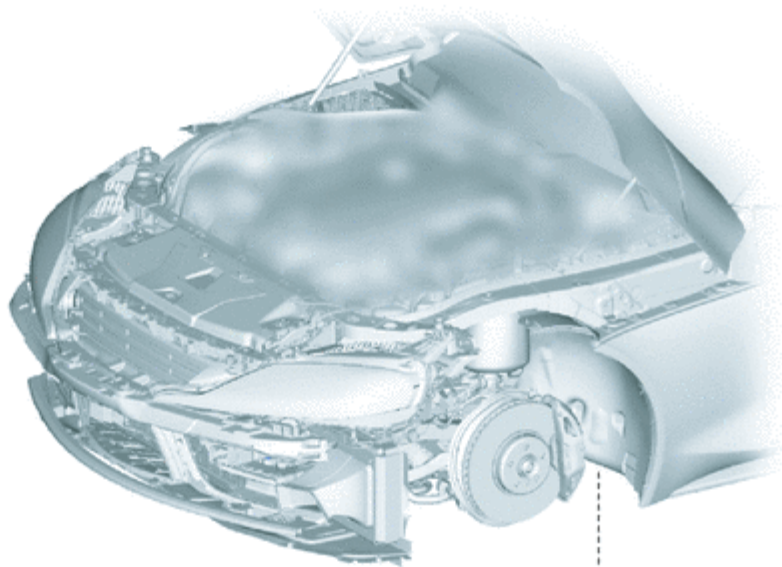
COMPONENTS

ILLUSTRATION



*1	FRONT FENDER SPLASH FRONT SHIELD LH	*2	FRONT FENDER SPLASH FRONT SHIELD RH
*3	NO. 1 ENGINE UNDER COVER ASSEMBLY	*4	FRONT FLOOR COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	OIL COOLER TUBE	*2	TRANSMISSION OIL COOLER
*3	FILLER PLUG	*4	SEALING RING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): OIL COOLER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE NO. 1 ENGINE UNDER COVER ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT FENDER SPLASH FRONT SHIELD LH

Click here [INFO](#)

3. REMOVE FRONT FENDER SPLASH FRONT SHIELD RH

HINT:

Use the same procedure as for the LH side.

4. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

5. REMOVE FRONT BUMPER

Click here [INFO](#)

6. REMOVE TRANSMISSION OIL COOLER

CAUTION:

- Hot surfaces.

Risk of burning!

- Perform all work only on components that have cooled down.

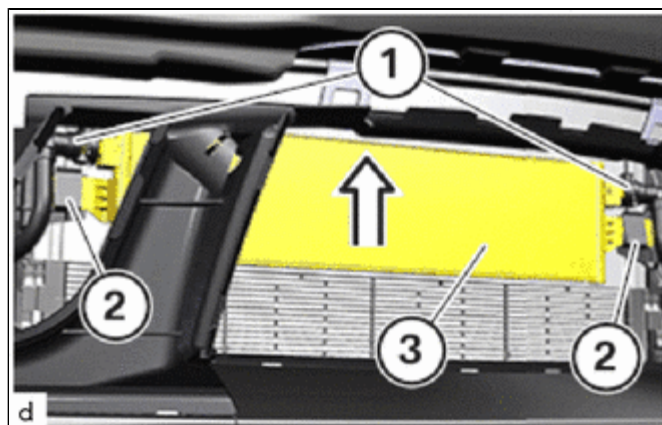
HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Unlock oil cooler tubes (1) and disconnect.

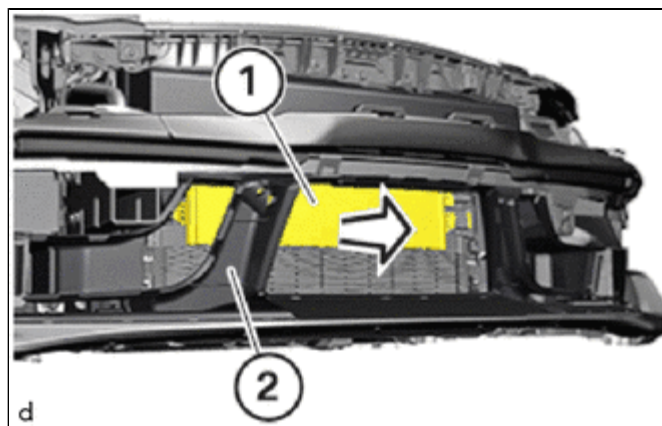
HINT:

Drain, catch and dispose of the automatic transmission fluid.



(b) Thread transmission oil cooler (3) in direction of arrow out of the holders (2).

(c) Thread out transmission oil cooler (1) in direction of arrow through the opening in the front air duct (2) and remove.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): OIL COOLER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TRANSMISSION OIL COOLER

CAUTION:

- Hot surfaces.

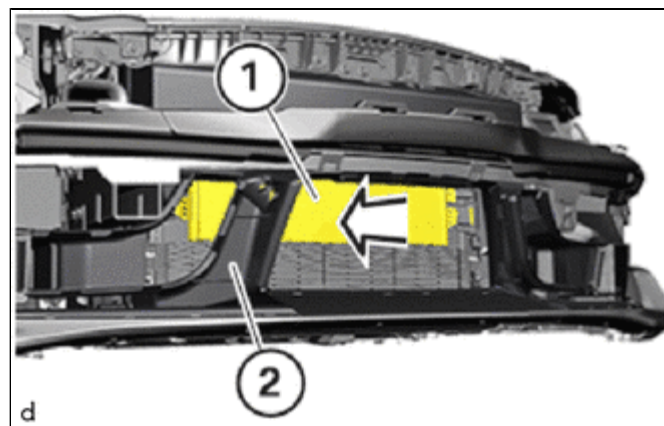
Risk of burning!

- Perform all work only on components that have cooled down.

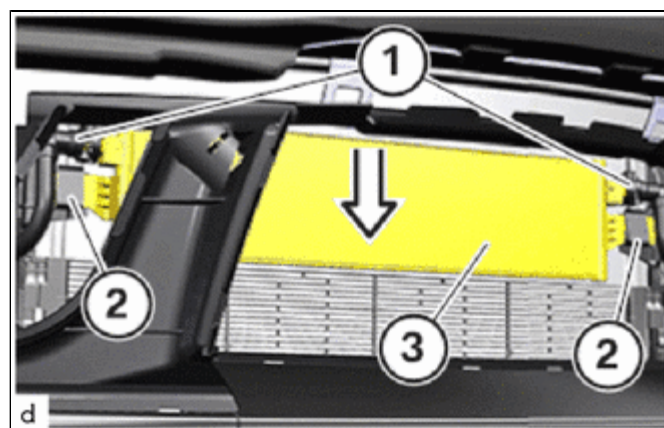
HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

- (a) Thread in transmission oil cooler (1) in direction of arrow through the opening in the front air duct (2) and install.



- (b) Position transmission oil cooler (3) an insert into holders (2) in direction of arrow.



- (c) Connect oil cooler tubes (1) and lock.

HINT:

The oil cooler tubes (1) must engage audibly.

2. INSTALL FRONT BUMPER

Click here [INFO](#)

3. INSTALL FRONT FENDER SPLASH FRONT SHIELD LH

Click here [INFO](#)

4. INSTALL FRONT FENDER SPLASH FRONT SHIELD RH

HINT:

Use the same procedure as for the LH side.

5. INSTALL NO. 1 ENGINE UNDER COVER ASSEMBLY

Click here [INFO](#)

6. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

Click here [INFO](#)

7. INSPECT FOR AUTOMATIC TRANSMISSION FLUID LEAK

8. INSTALL FRONT FLOOR COVER

Click here [INFO](#)

9. ADJUST MILLIMETER WAVE RADAR SENSOR

- Before starting adjustment:

Click here [INFO](#)

- Adjustment:

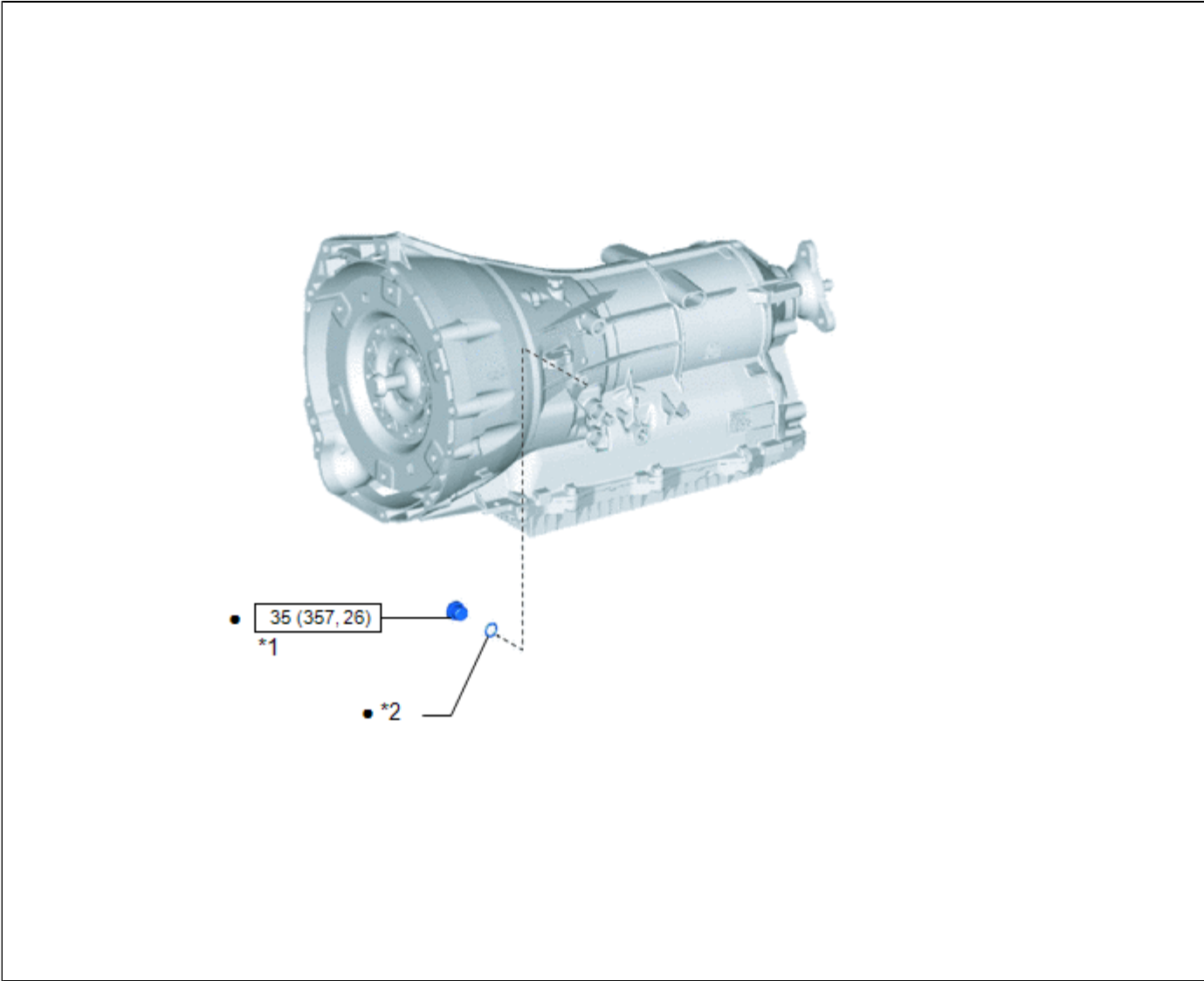
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): OIL COOLER TUBE: COMPONENTS; 2020 MY Supra [03/2019 -]		

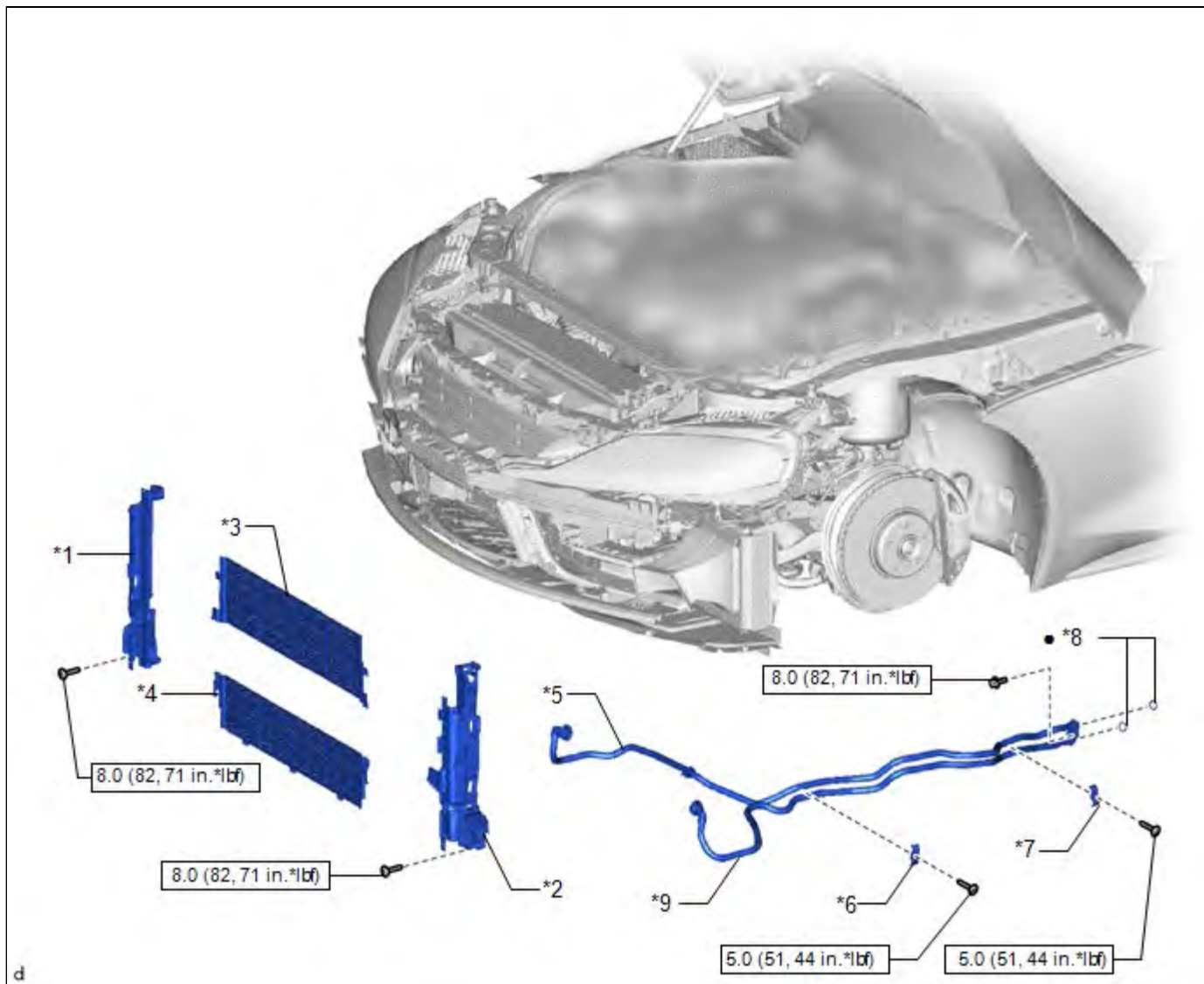
COMPONENTS

ILLUSTRATION



*1	FILLER PLUG	*2	SEALING RING
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

ILLUSTRATION



*1	RADIATOR SIDE PLATE RH	*2	RADIATOR SIDE PLATE LH
*3	UPPER RADIATOR PROTECTOR	*4	LOWER RADIATOR PROTECTOR
*5	NO. 1 OIL COOLER OUTLET TUBE	*6	NO. 1 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP
*7	NO. 3 AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP	*8	O-RING
*9	NO. 1 OIL COOLER INLET TUBE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): OIL COOLER TUBE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot fluids.
Risk of scalding!
 - Conduct all work in the vehicle wearing appropriate personal protective equipment only.
- Materials harmful to health.
Contact with fluids harmful to health!
 - Note and follow safety information on containers.
 - Conduct all work in appropriate personal protective equipment only.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

PROCEDURE

1. REMOVE RADIATOR ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 2 RADIATOR ASSEMBLY

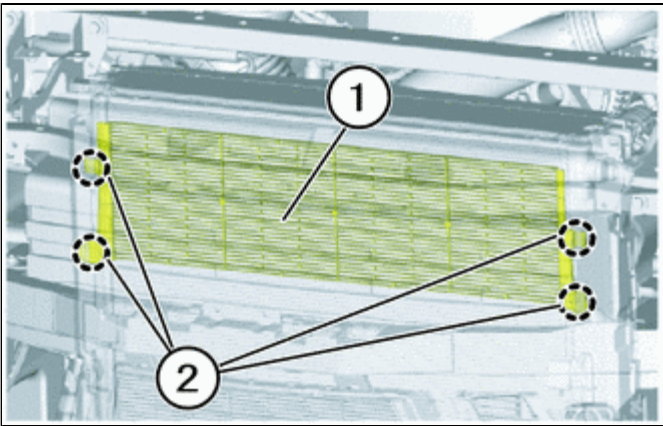
Click here [INFO](#)

3. REMOVE TRANSMISSION OIL COOLER

Click here [INFO](#)

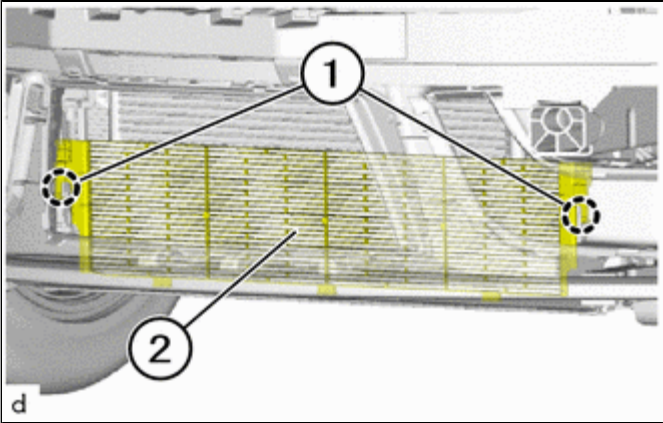
4. REMOVE UPPER RADIATOR PROTECTOR

(a) Detach the guides (2) to remove the upper radiator protector (1).



5. REMOVE LOWER RADIATOR PROTECTOR

(a) Detach the guides (1) to remove the lower radiator protector (2).

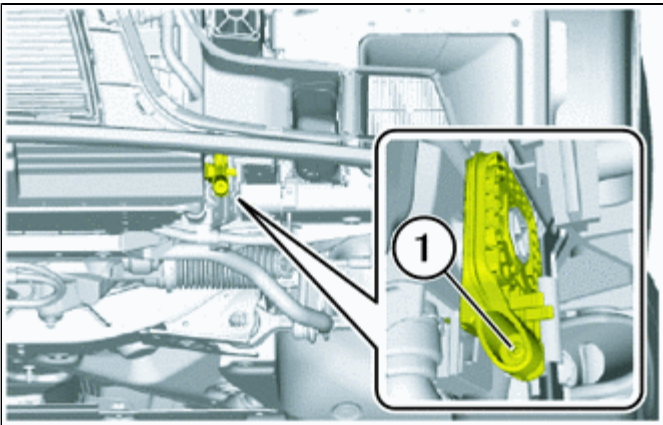


6. REMOVE RADIATOR SIDE PLATE LH

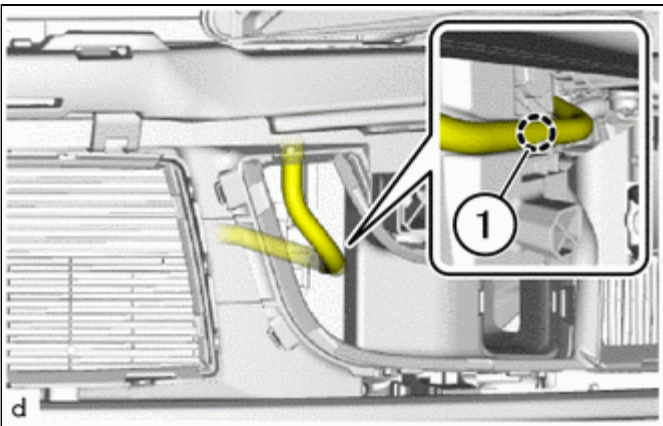
HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

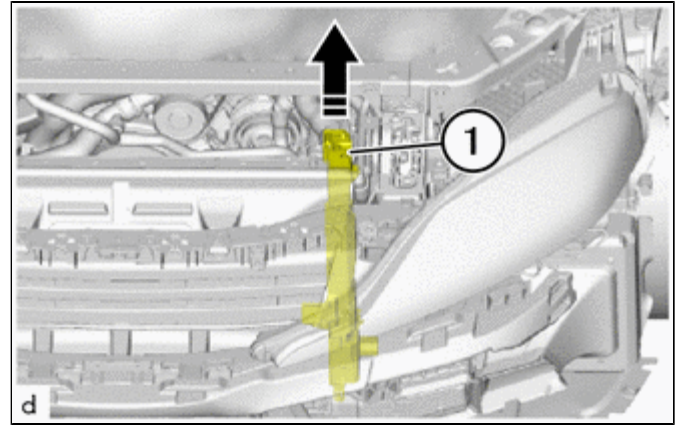
(a) Loosen the T30 bolts (1).



(b) Disconnect the oil cooler tubes (1).



- (c) Remove the radiator side plate LH (1) in the direction of the arrow.



7. REMOVE OIL COOLER TUBE

CAUTION:

- Hot fluids.

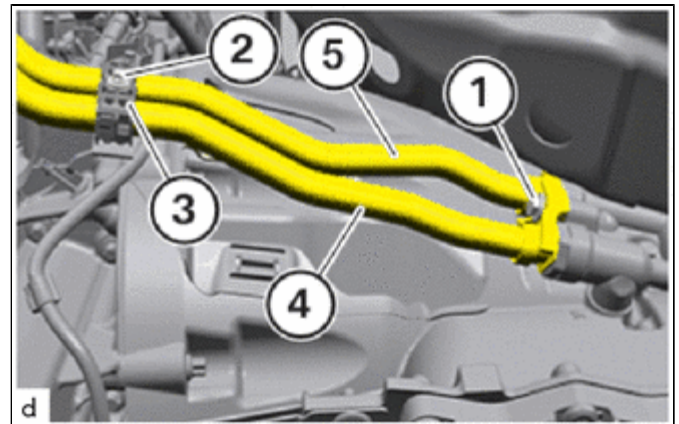
Risk of scalding!

- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

- (a) Loosen the bolt (1).



- (b) Loosen the T25 screw (2).

- (c) Loosen No. 3 automatic transmission oil cooler tube clamp (3).

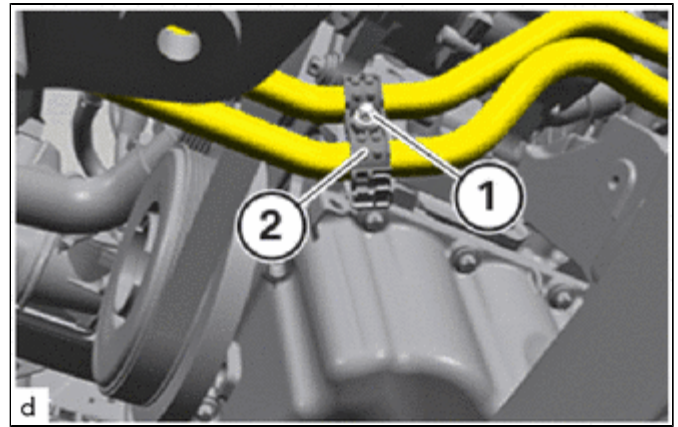
- (d) Disconnect the No. 1 oil cooler inlet tube (4) from the transmission oil thermostat.

- (e) Disconnect the No. 1 oil cooler outlet tube (5) from the transmission oil thermostat.

HINT:

Drain, catch and dispose of the automatic transmission fluid.

(f) Loosen the T25 screw (1).



(g) Loosen the No. 1 automatic transmission oil cooler tube clamp (2).

(h) Feed the oil cooler tubes out and remove.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): OIL COOLER TUBE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

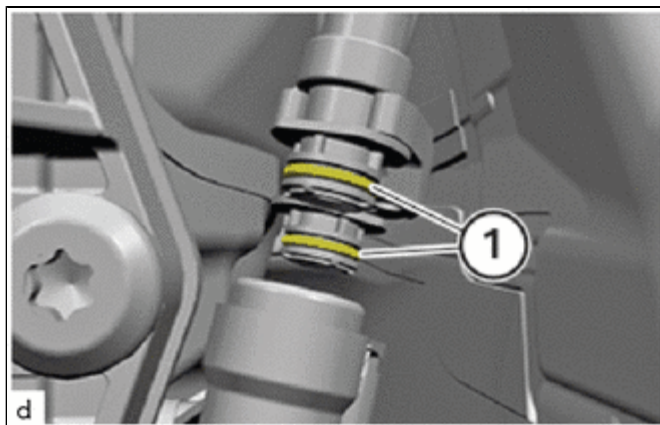
1. INSTALL OIL COOLER TUBE

- (a) Fasten the oil cooler tubes in the No. 1 automatic transmission oil cooler tube clamp.
- (b) Tighten down the T25 screw.

Torque:

5.0 N·m { 51 kgf·cm, 44 in·lbf }

- (c) Replace O-rings (1).



- (d) Connect the No. 1 oil cooler inlet tube and No. 1 oil cooler outlet tube to the transmission oil thermostat.
- (e) Tighten down the bolt.

Torque:

8.0 N·m { 82 kgf·cm, 71 in·lbf }

- (f) Position the oil cooler tubes in the No. 3 automatic transmission oil cooler tube clamp.
- (g) Secure the No. 3 automatic transmission oil cooler tube clamp.
- (h) Tighten down the T25 screw.

Torque:

5.0 N·m { 51 kgf·cm, 44 in·lbf }

2. INSTALL RADIATOR SIDE PLATE LH

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

- (a) Install the radiator side plate LH.
- (b) Connect and lock the oil cooler tubes.

HINT:

Clip in the oil cooler tubes in marked areas.

(c) Tighten the T30 bolts.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

3. INSTALL LOWER RADIATOR PROTECTOR

(a) Attach the guides to install the lower radiator protector.

4. INSTALL UPPER RADIATOR PROTECTOR

(a) Attach the guides to install the upper radiator protector.

5. INSTALL TRANSMISSION OIL COOLER

Click here [INFO](#)

6. INSTALL NO. 2 RADIATOR ASSEMBLY

Click here [INFO](#)

7. INSTALL RADIATOR ASSEMBLY

Click here [INFO](#)

8. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

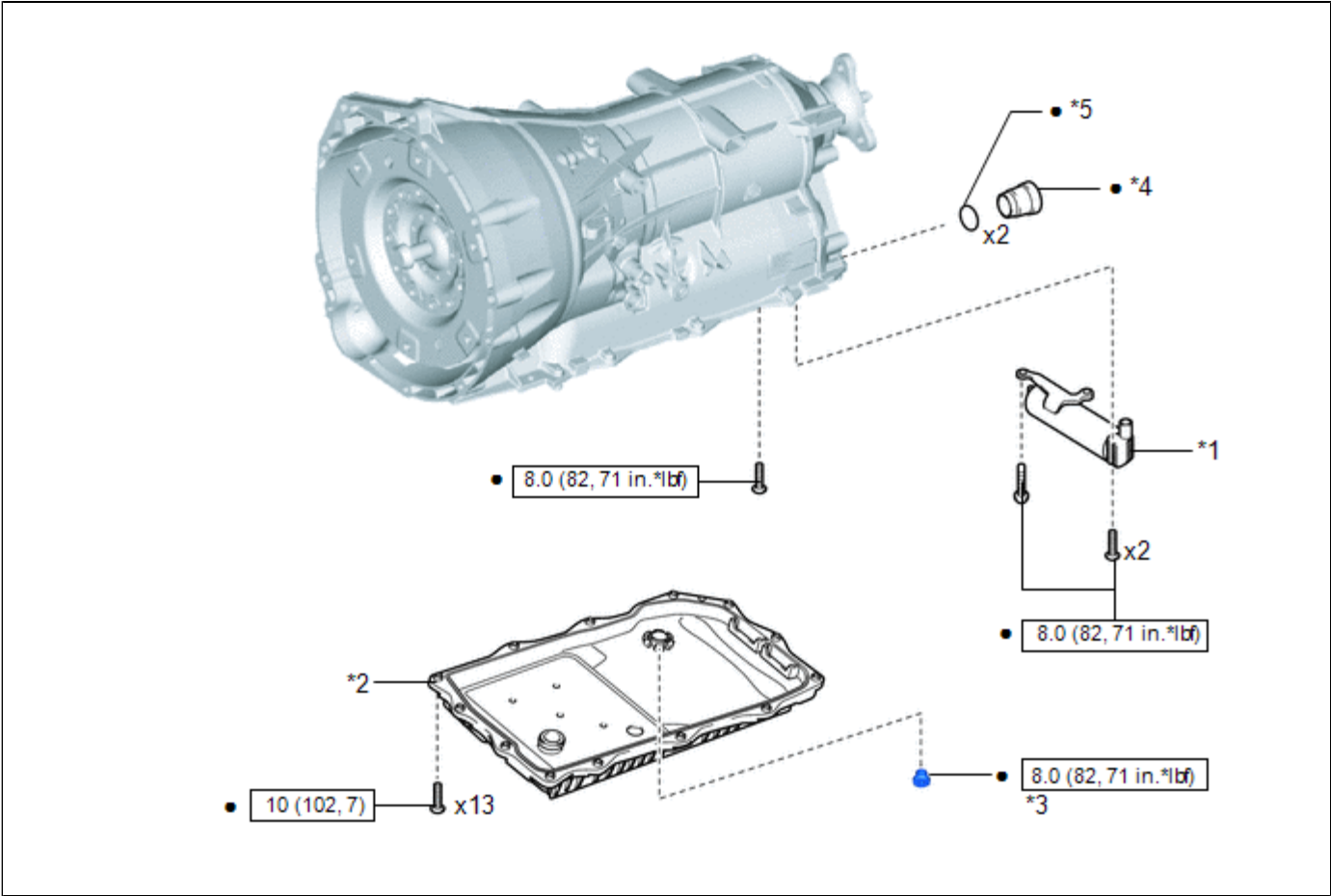
Click here [INFO](#)

9. INSPECT FOR AUTOMATIC TRANSMISSION FLUID LEAK

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SEALING SLEEVE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	HYDRAULIC IMPULSE STORAGE	*2	TRANSMISSION OIL SUMP
*3	OIL DRAIN PLUG	*4	SEALING SLEEVE
*5	SEALING RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SEALING SLEEVE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

2. SECURE AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

3. REMOVE TRANSMISSION OIL SUMP

Click here [INFO](#)

4. REMOVE HYDRAULIC IMPULSE STORAGE

Click here [INFO](#)

5. REMOVE SEALING SLEEVE

CAUTION:

- Materials harmful to health.

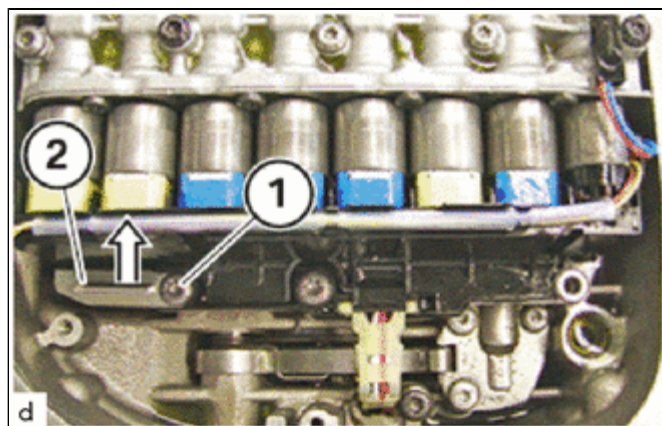
Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

(a) Unscrew the T40 bolt (1) and unlock the sealing sleeve with the slide (2).

HINT:

Press the slide (2) in the direction of the arrow.

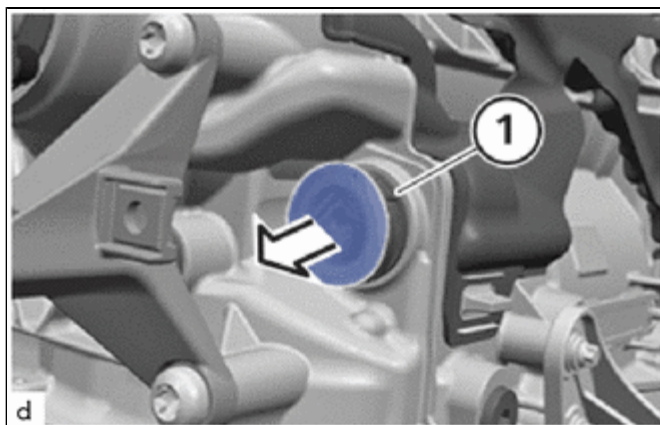


(b) Remove the sealing sleeve (1) with the special tool 0 494 213 (24 2 390).

SST: 09300-WA100

HINT:

The sealing sleeve (1) must be installed in the same mounting orientation.



TOYOTA

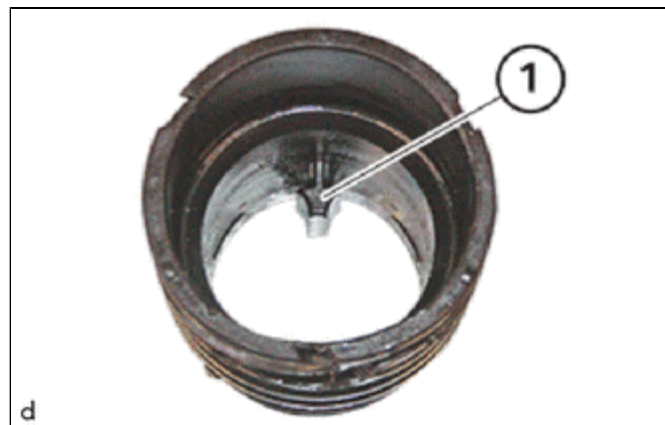
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SEALING SLEEVE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL SEALING SLEEVE

- (a) Check the lug (1) for damage and replace the sealing sleeve where necessary.



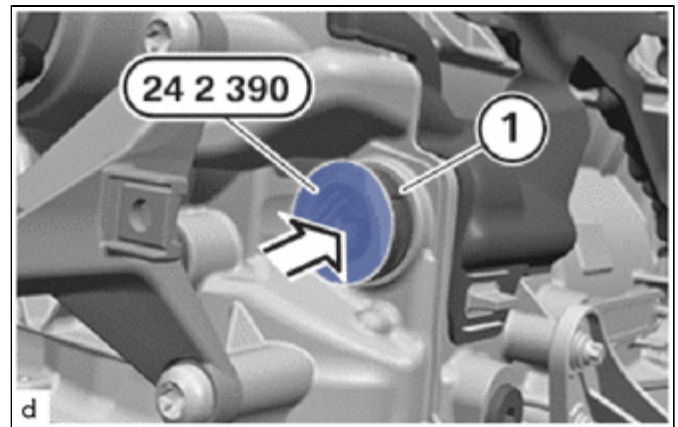
- (b) Replace the sealing rings (1).



- (c) Carefully position the sealing sleeve (1).

HINT:

Twist the sealing sleeve (1) until the lug has been inserted into the groove of the gear.



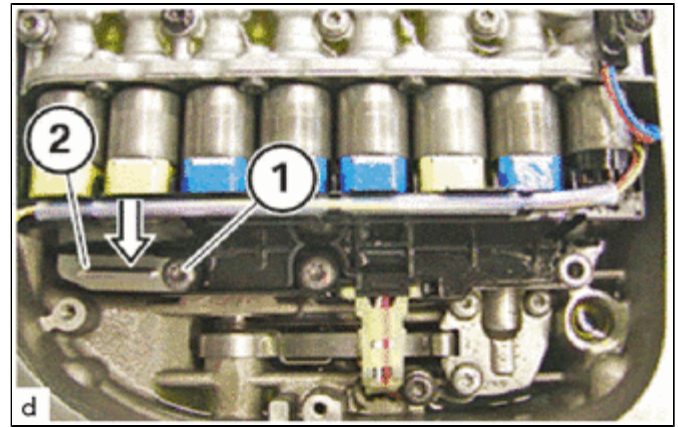
(d) Slide in the sealing sleeve (1) in the direction of the arrow up to the limit position.

NOTICE:

The lug on the sealing sleeve (1) must not be damaged.

(e) Remove special tool 0 494 213 (24 2 390).

SST: 09300-WA100



(f) Push the slide (2) in the direction of the arrow and lock.

(g) Replace the T40 bolt.

(h) Position and tighten the T40 bolt (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

2. INSTALL HYDRAULIC IMPULSE STORAGE

Click here [INFO](#)

3. INSTALL TRANSMISSION OIL SUMP

Click here [INFO](#)

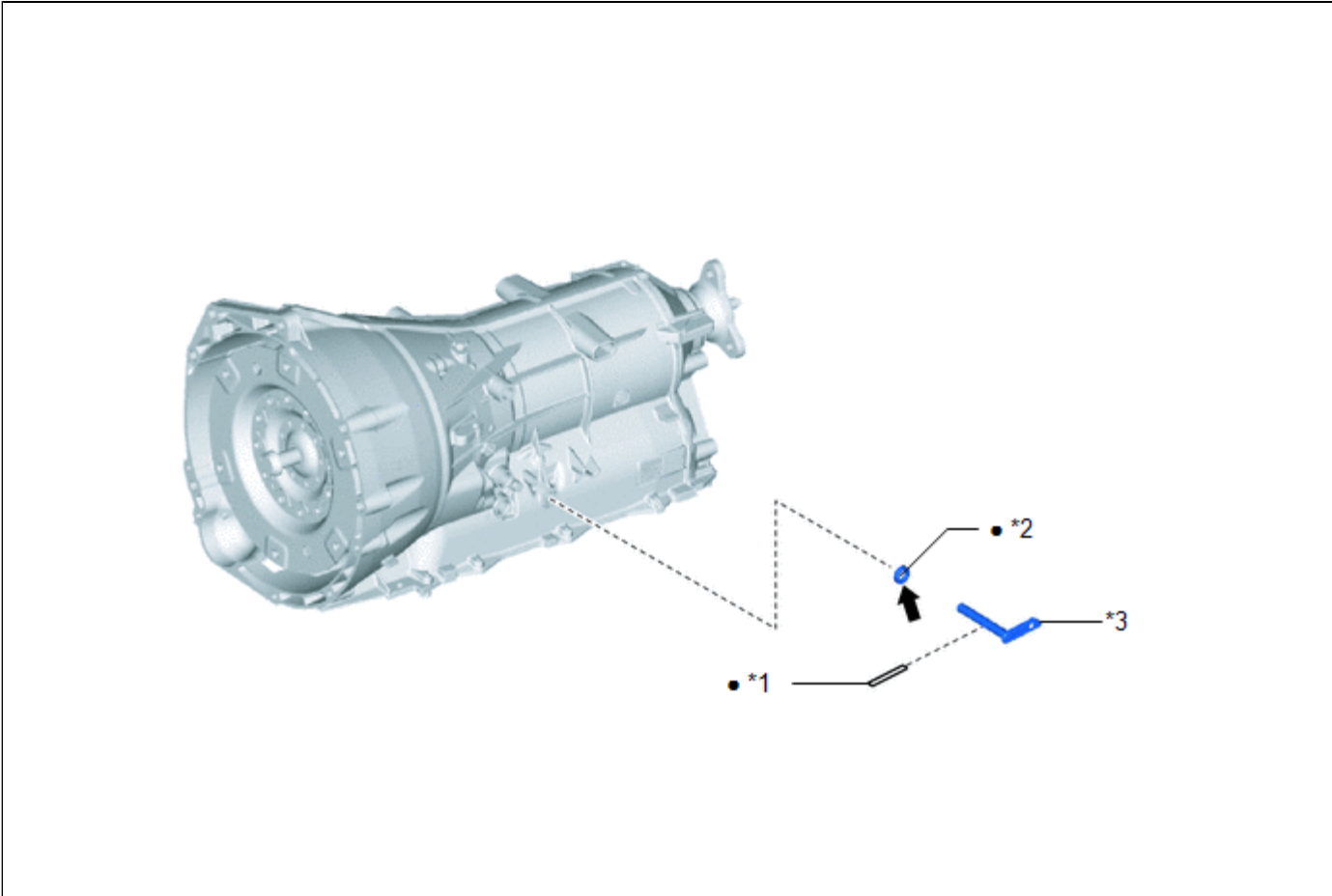
4. INSTALL AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SERECTOR SHAFT RADIAL SHAFT SEAL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CLAMPING SLEEVE	*2	SELECTOR SHAFT RADIAL SHAFT SEAL
*3	SELECTOR SHAFT	-	-
•	Non-reusable part	➡	Automatic Gearbox Oil ATF 3+

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SERECTOR SHAFT RADIAL SHAFT SEAL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

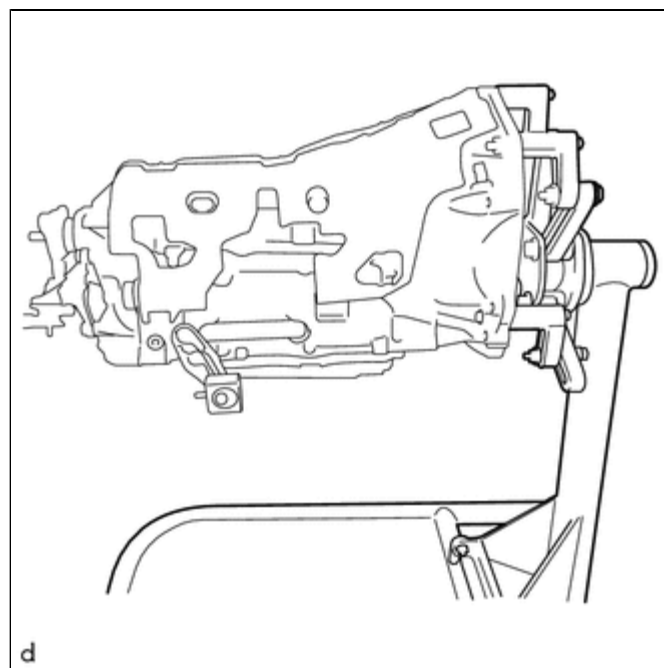
PROCEDURE

1. REMOVE AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

2. SECURE AUTOMATIC TRANSMISSION ASSEMBLY

- (a) Install the automatic transmission assembly to an engine stand.



3. REMOVE MECHATRONICS

Click here [INFO](#)

4. REMOVE SELECTOR SHAFT RADIAL SHAFT SEAL

CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

NOTICE:

- Damage to the automatic transmission assembly.

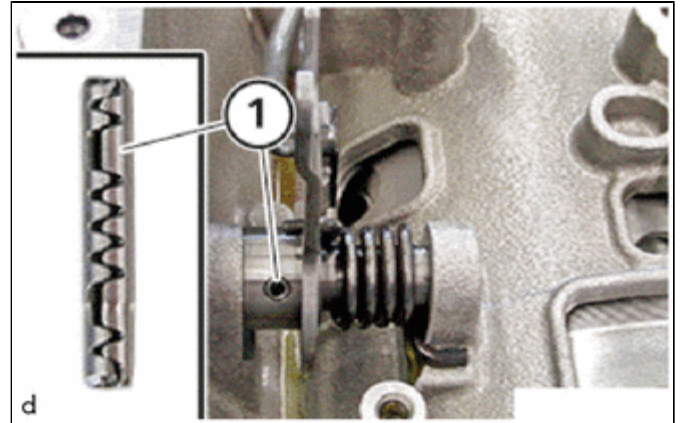
Damage to the automatic transmission assembly through unapproved automatic transmission fluid.

- Use only the approved Automatic Gearbox Oil ATF 3+.
- After completion of repair work, check automatic transmission fluid level.

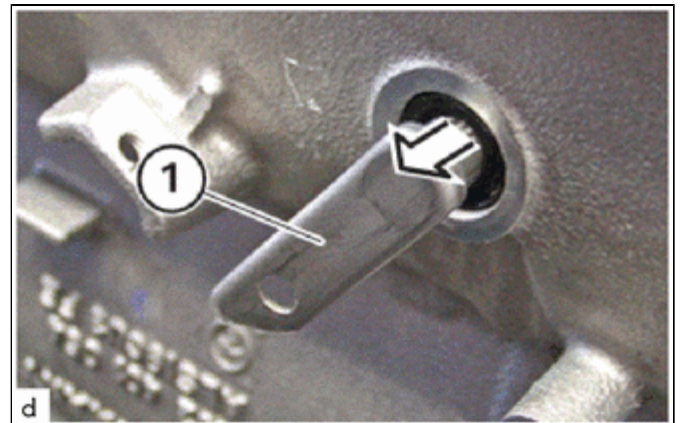
(a) Drive out the clamping sleeve (1) from the selector shaft using a suitable tool.

HINT:

The return spring is under tension.

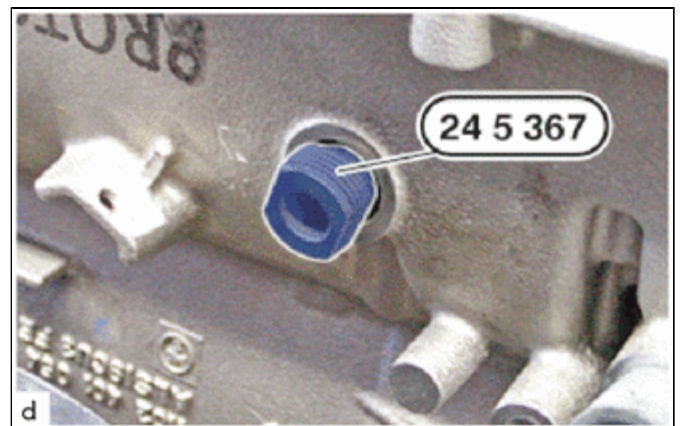


(b) Pull the selector shaft (1) from the transmission housing in the direction of the arrow.



(c) Screw in special tool 0 496 718 (24 5 367) until it has been securely connected to the selector shaft radial shaft seal.

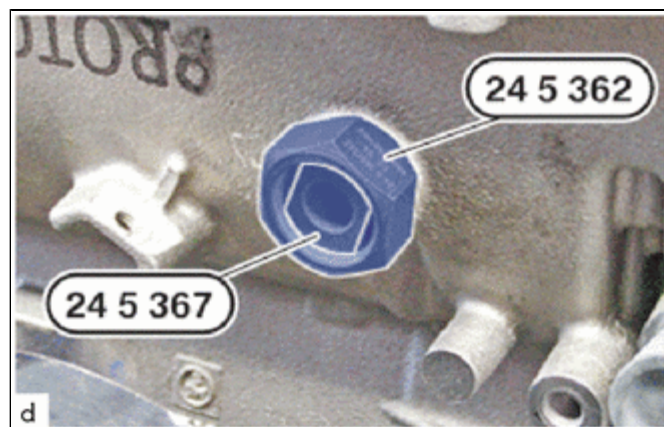
SST: 09300-WA130



(d) Screw special tool 0 491 783 (24 5 362) onto special tool 0 496 718 (24 5 367) and tighten it.

SST: 09300-WA120

SST: 09300-WA130



(e) Pull the selector shaft radial shaft seal from the transmission housing.

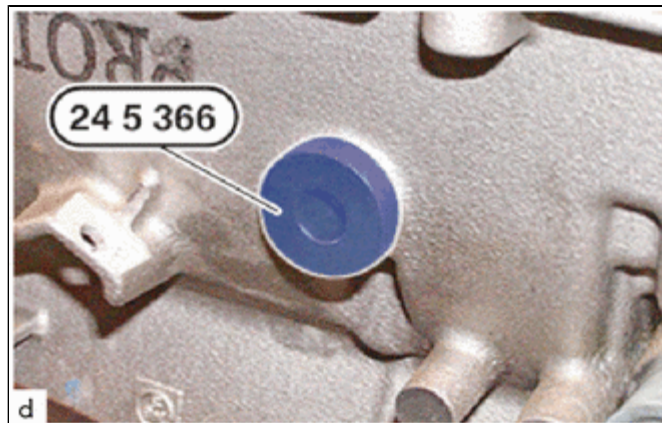
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SERECTOR SHAFT RADIAL SHAFT SEAL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL SELECTOR SHAFT RADIAL SHAFT SEAL

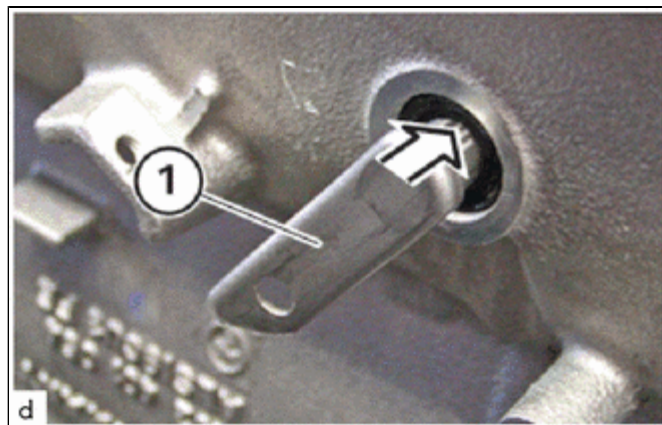
- (a) Oil the sealing lip of the selector shaft radial shaft seal with ATF.



- (b) Drive the selector shaft radial shaft seal to the limit position using the special tool 0 494 208 (24 5 366) and a plastic hammer.

SST: 09300-WA120

- (c) Slide the selector shaft (1) into the transmission housing in the direction of arrow.



- (d) Replace the clamping sleeve.
(e) Insert narrower end of clamping sleeve into bore hole.
(f) Using a suitable tool, drive in the clamping sleeve until the clamping sleeve is in line with the bore hole.

2. INSTALL MECHATRONICS

Click here [INFO](#)

3. INSTALL AUTOMATIC TRANSMISSION ASSEMBLY

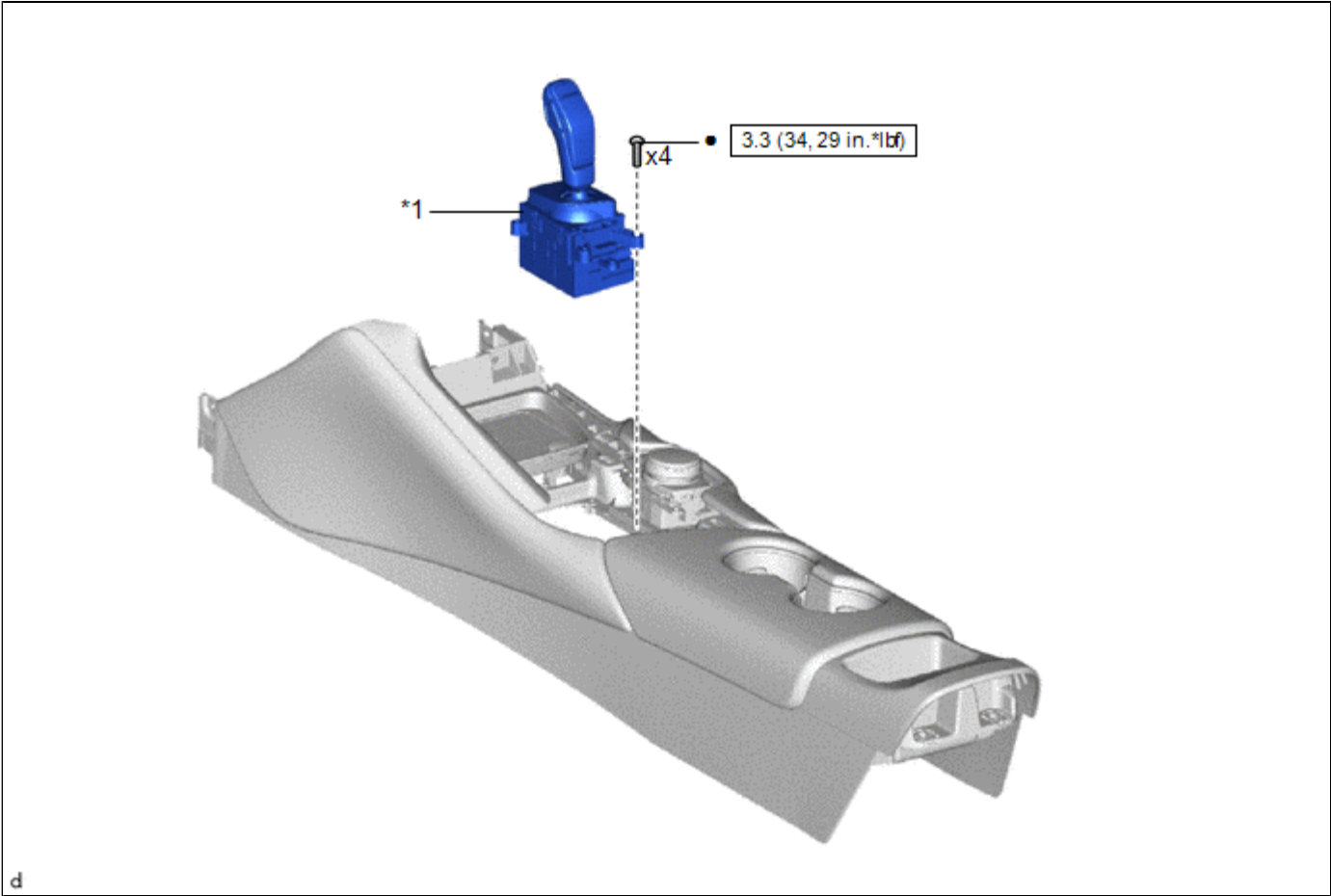
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SHIFT LEVER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	TRANSMISSION FLOOR SHIFT ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SHIFT LEVER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT CONSOLE BOX

Click here [INFO](#)

3. REMOVE TRANSMISSION FLOOR SHIFT ASSEMBLY

NOTICE:

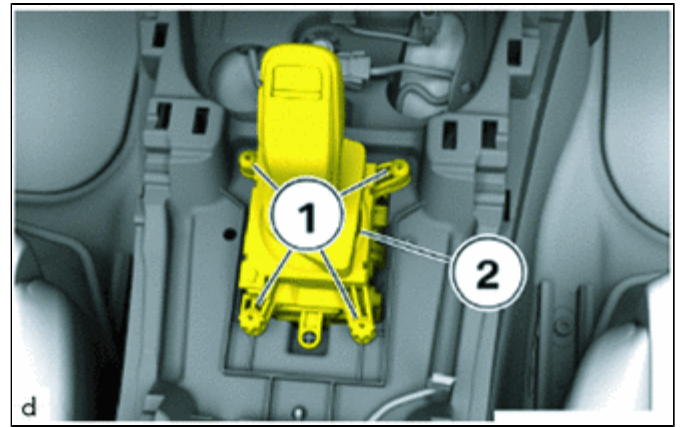
- Electrostatic discharge.

Damage to or destruction of electrical components.

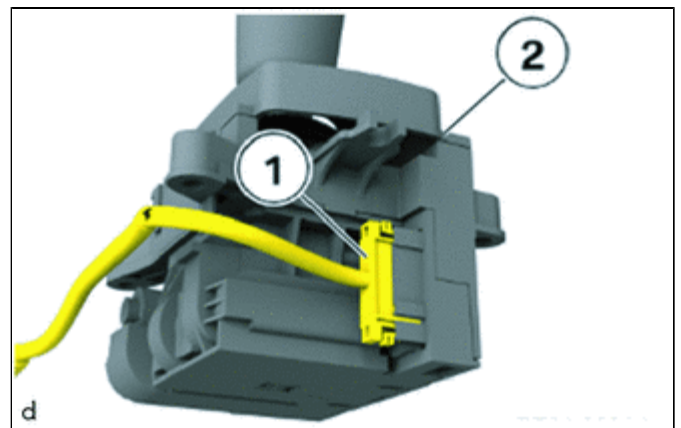
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

(a) Loosen the T20 bolts (1).



(b) Lift the transmission floor shift assembly (2).



(c) Unlock plug connection (1) and disconnect.

(d) Remove the transmission floor shift assembly (2).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SHIFT LEVER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TRANSMISSION FLOOR SHIFT ASSEMBLY

- (a) Connect and lock the connector on the transmission floor shift assembly.
- (b) Position the transmission floor shift assembly.
- (c) Replace the T20 bolts.
- (d) Tighten the T20 bolts.

Torque:

3.3 N·m {34 kgf·cm, 29 in·lbf}

2. INSTALL FRONT CONSOLE BOX

Click here [INFO](#)

3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

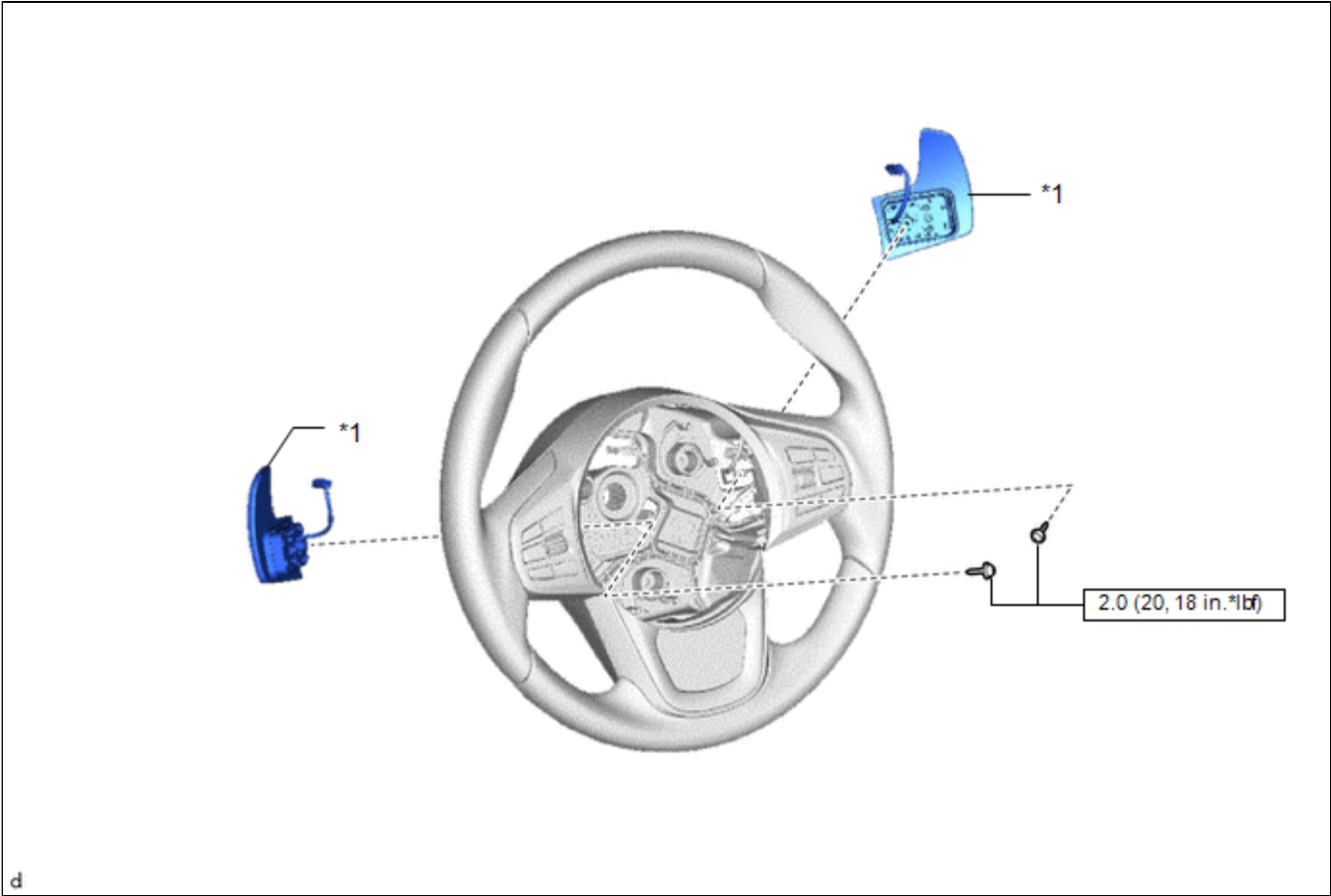
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SHIFT PADDLE SWITCH: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	TRANSMISSION SHIFT SWITCH ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SHIFT PADDLE SWITCH: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:



- Airbag unit.

Danger! Life-threatening injuries!

- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- For additional information see:

[Click here](#) [INFO](#)

HINT:

A wheel alignment is not necessary after the removal, installation or replacement.

PROCEDURE

1. REMOVE HORN BUTTON ASSEMBLY

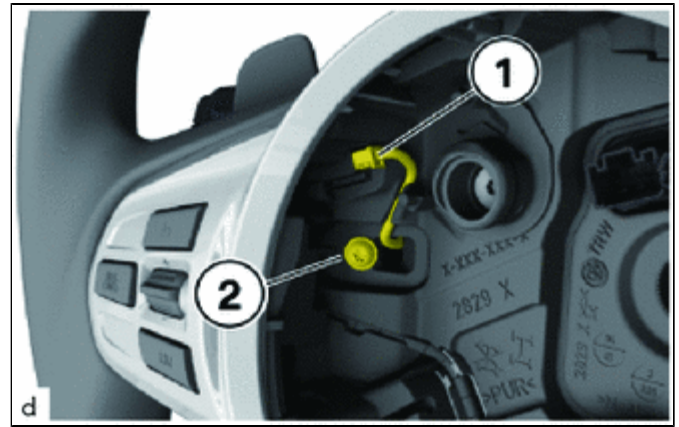
[Click here](#) [INFO](#)

2. REMOVE TRANSMISSION SHIFT SWITCH ASSEMBLY

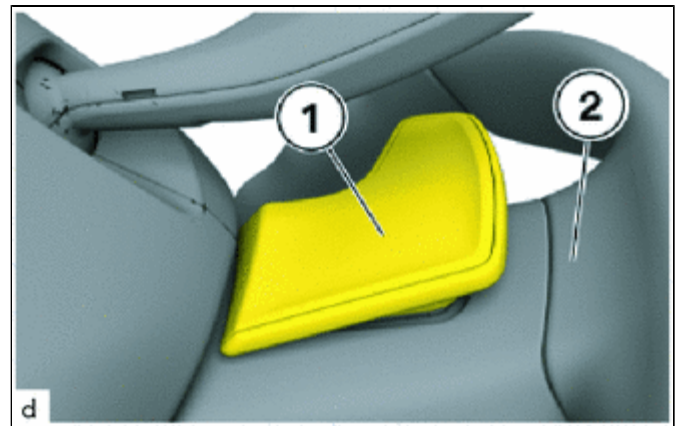
HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

(a) Unlock plug connection (1) and disconnect.



(b) Loosen the T20 bolt (2).



(c) Thread the transmission shift switch assembly (1) out of the steering wheel (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGI
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): SHIFT PADDLE SWITCH: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TRANSMISSION SHIFT SWITCH ASSEMBLY

HINT:

- Use the same procedure for the RH side and LH side.
- The following procedure is for the LH side.

- Thread the transmission shift switch assembly into the steering wheel.
- Connect connectors and lock.
- Tighten down the T20 bolt.

Torque:

2.0 N·m {20 kgf·cm, 18 in·lbf}

2. INSTALL STEERING WHEEL ASSEMBLY

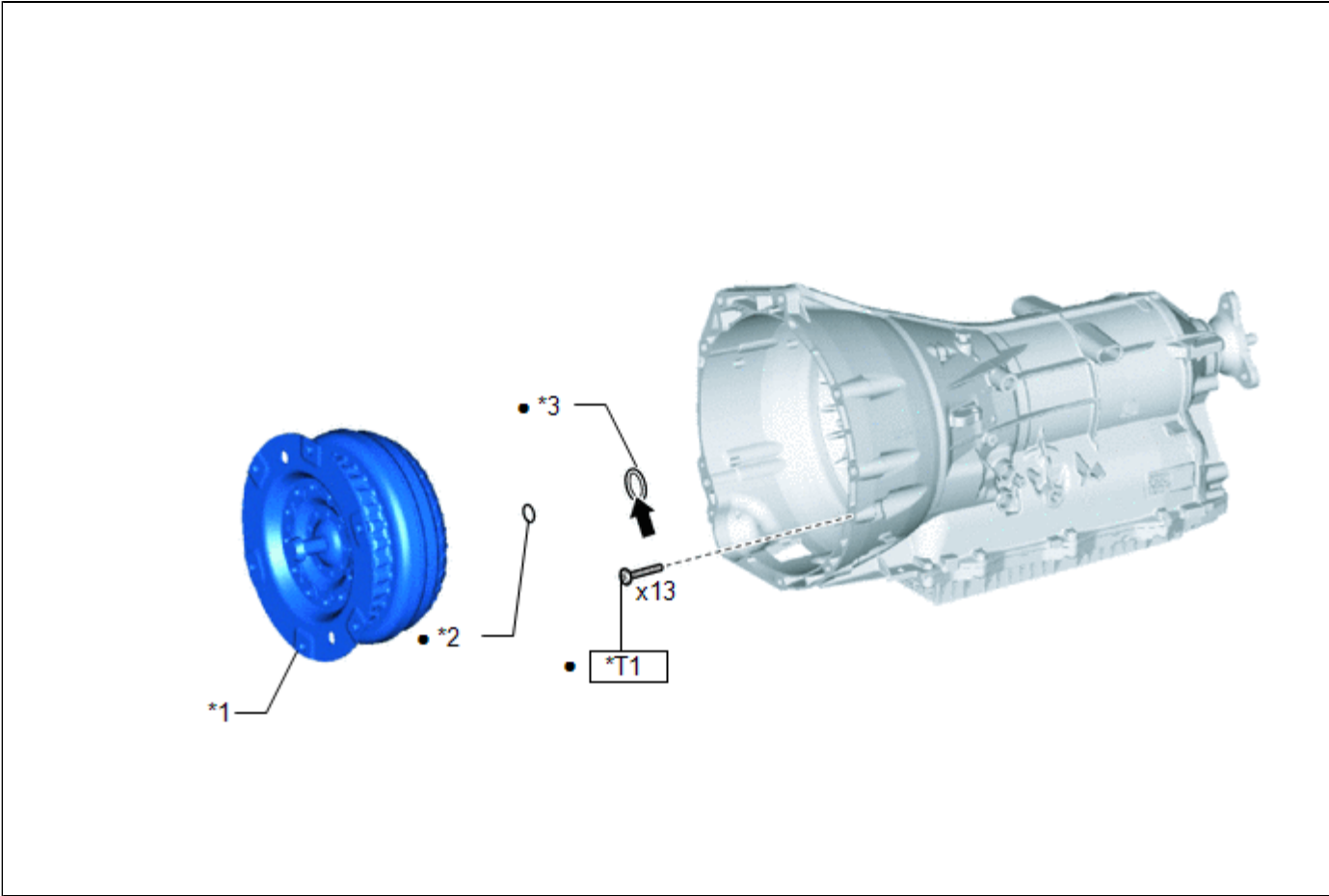
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TORQUE CONVERTER RADIAL SHAFT SEAL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	TORQUE CONVERTER	*2	O-RING
*3	TORQUE CONVERTER RADIAL SHAFT SEAL	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	Automatic Gearbox Oil ATF 3+	-	-
*T1	1st: 10 (102, 7) 2nd: Turn 90°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TORQUE CONVERTER RADIAL SHAFT SEAL: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

2. REMOVE TORQUE CONVERTER

Click here [INFO](#)

3. REMOVE TORQUE CONVERTER RADIAL SHAFT SEAL

CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

NOTICE:

- Damage to the automatic transmission assembly.

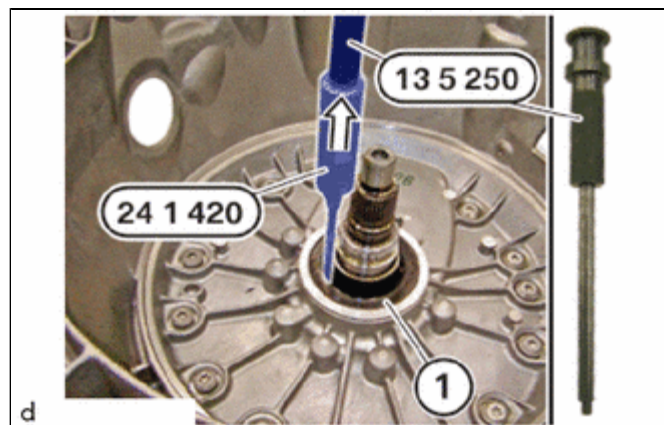
Damage to the automatic transmission assembly through unapproved automatic transmission fluid.

- Use only the approved Automatic Gearbox Oil ATF 3+.
- After completion of repair work, check automatic transmission fluid level.

(a) Pull out the torque converter radial shaft seal (1) with the special tools 0 496 716 (24 1 420) and 0 493 321 (13 5 250).

SST: 09300-WA050

SST: 09200-WA210



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCG9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TORQUE CONVERTER RADIAL SHAFT SEAL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

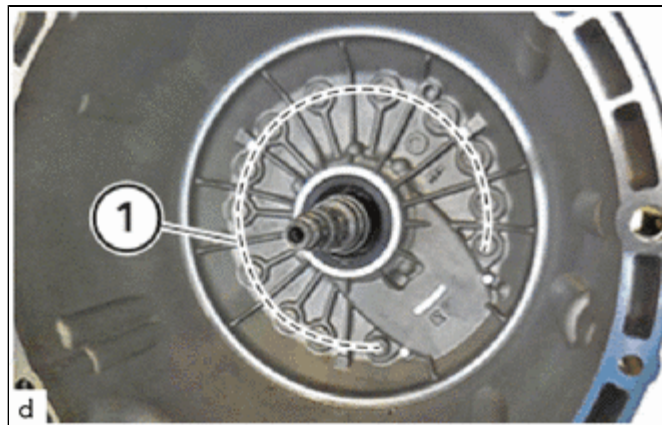
PROCEDURE

1. INSTALL TORQUE CONVERTER RADIAL SHAFT SEAL

(a) Replace the T50 bolts (1).

HINT:

- To do so, it is essential to use the new parts from the drive repair kit.
- The 13 T50 bolts (1) in the drive repair kit are equipped with a sealing ring.



(b) Replace and hand-tighten the T50 bolts (1) along the dotted line.

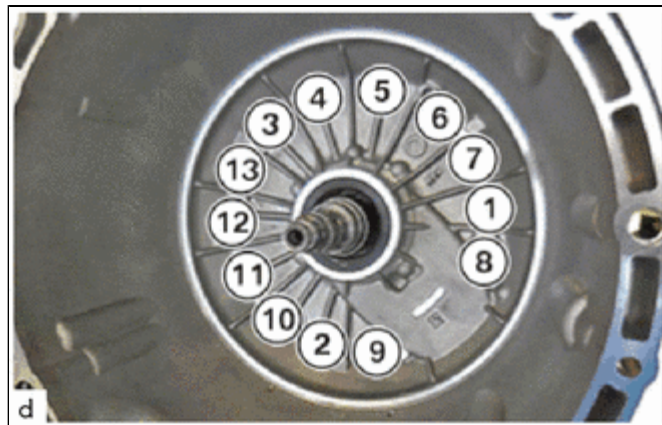
HINT:

The T50 bolts (1) must be replaced one by one. Only ever replace a T50 bolt (1) one at a time.

(c) Tighten the T50 bolts in the order (1) to (13).

Torque:

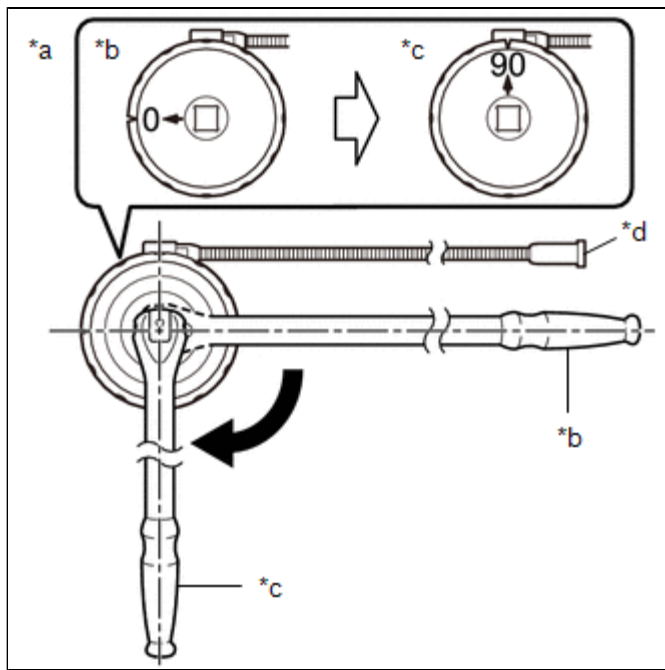
10 N·m {102 kgf·cm, 7 ft·lbf}



(d) Using SST, tighten the T50 bolts an additional 90°

SST: 09900-WA010

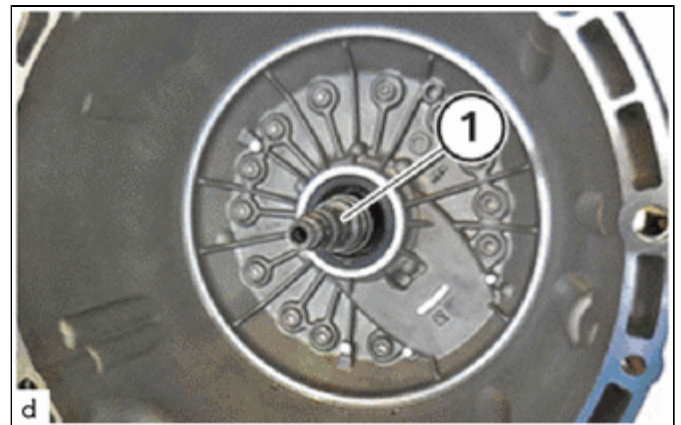
HINT:



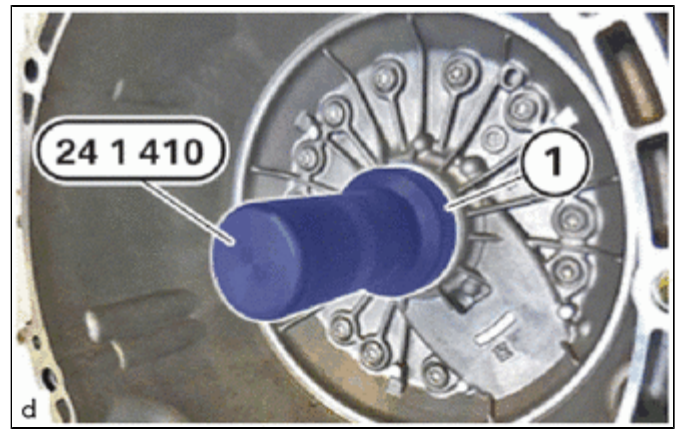
*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(e) Install the O-ring on the drive shaft.



(f) Oil the sealing lip of the torque converter radial shaft seal with ATF.



(g) Strike the torque converter radial shaft seal (1) with the special tool 0 496 719 (24 1 410) until it reaches the limit position.

SST: 09300-WA060

2. INSTALL TORQUE CONVERTER

Click here [INFO](#)

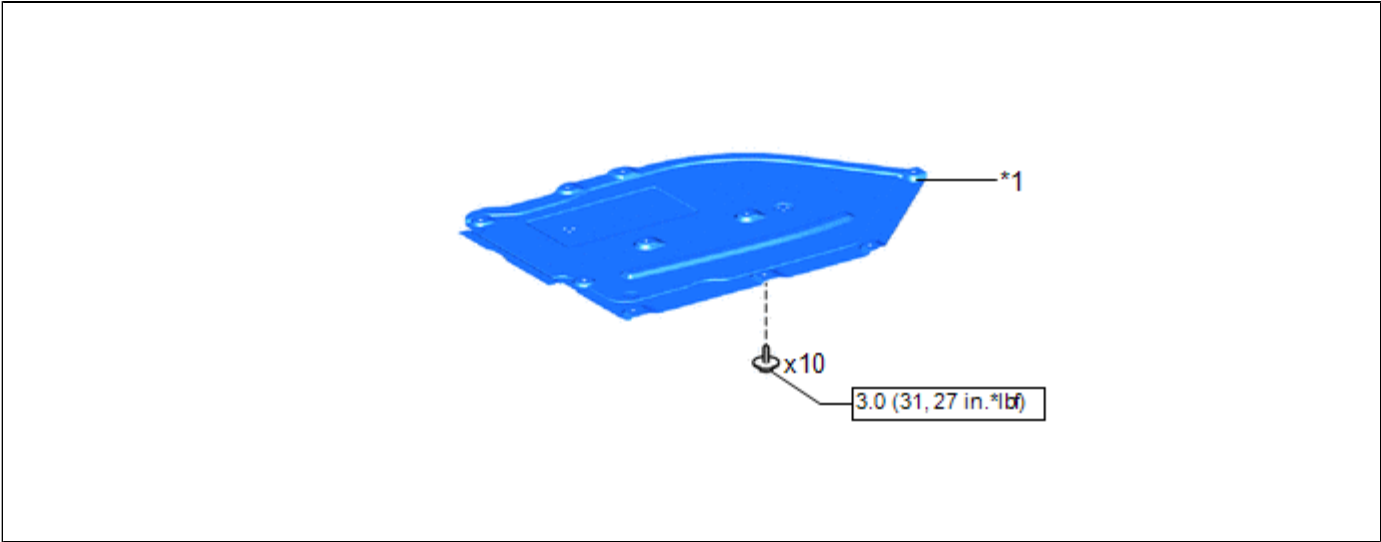
3. INSTALL AUTOMATIC TRANSMISSION ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION OIL THERMOSTAT: COMPONENTS; 2020 MY Supra [03/2019 -]		

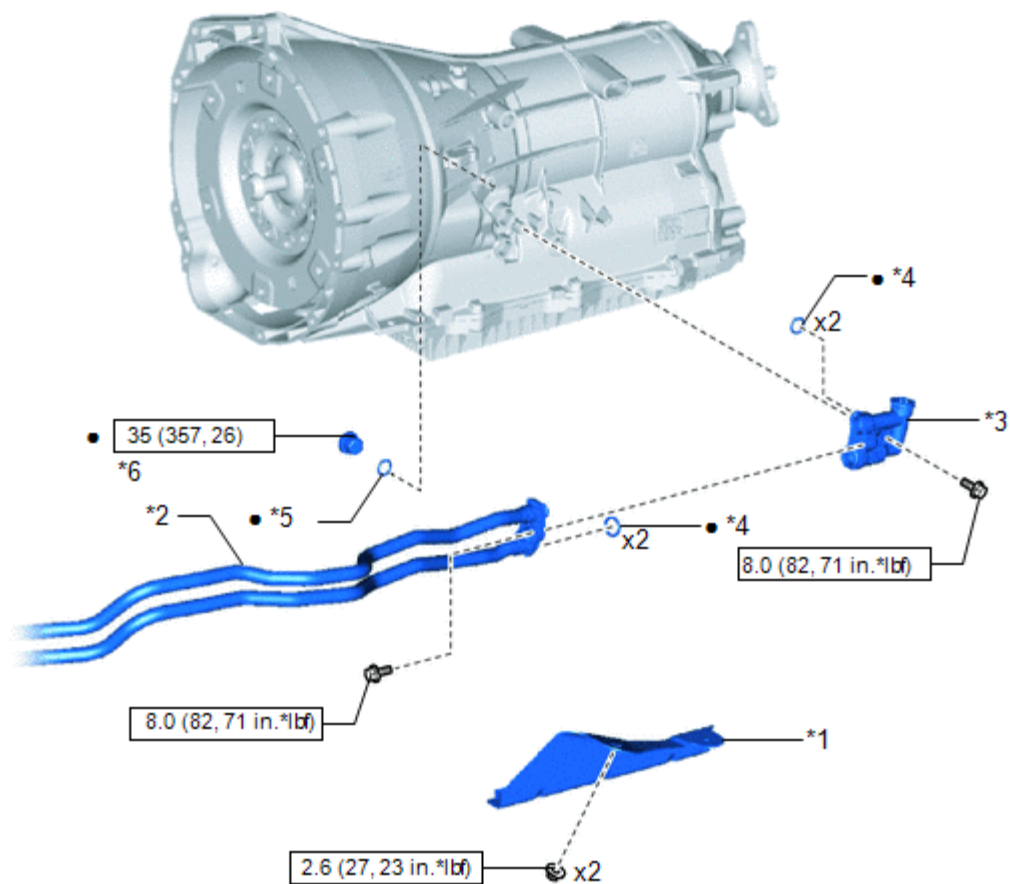
COMPONENTS

ILLUSTRATION



*1	FRONT FLOOR COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	NO. 1 FLOOR HEAT INSULATOR	*2	OIL COOLER TUBE
*3	TRANSMISSION OIL THERMOSTAT	*4	O-RING
*5	SEALING RING	*6	FILLER PLUG
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION OIL THERMOSTAT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

2. REMOVE TRANSMISSION OIL THERMOSTAT

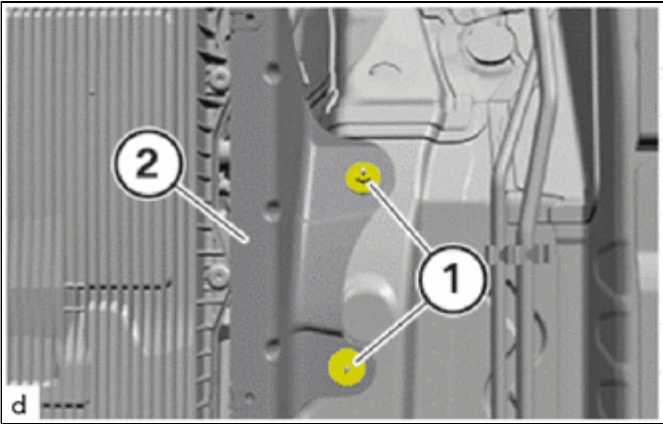
CAUTION:

- Hot surfaces.
- Risk of burning!
- Perform all work only on components that have cooled down.

HINT:

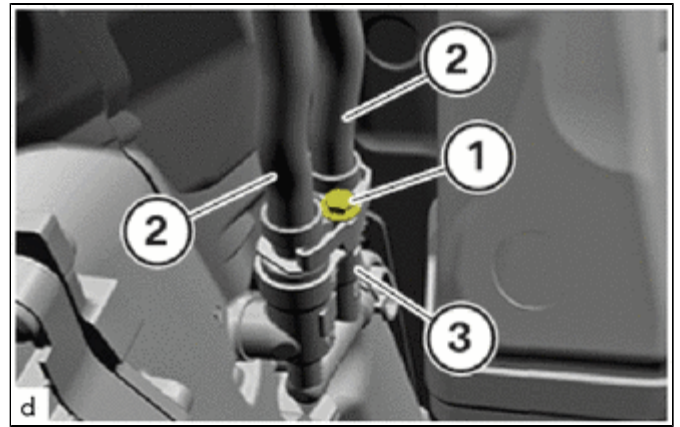
Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Loosen nuts (1).



(b) Guide out and remove No. 1 floor heat insulator (2).

(c) Loosen the bolt (1).

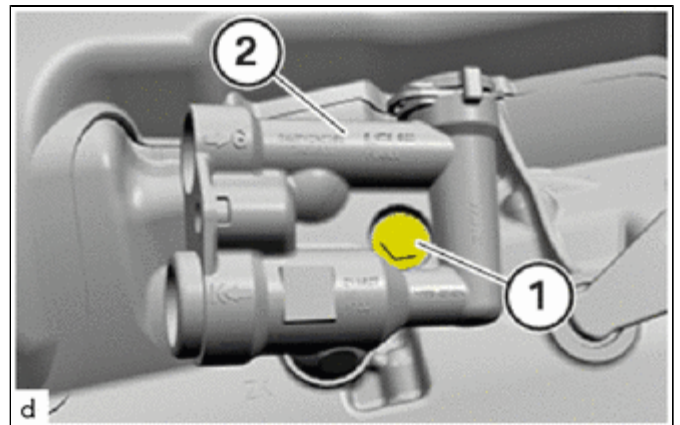


(d) Pull the oil cooler tubes (2) out of the transmission oil thermostat (3) and set aside.

HINT:

Drain, catch and dispose of the automatic transmission fluid.

(e) Loosen the bolt (1).



(f) Pull the transmission oil thermostat (2) out of the connections on the automatic transmission assembly and remove.

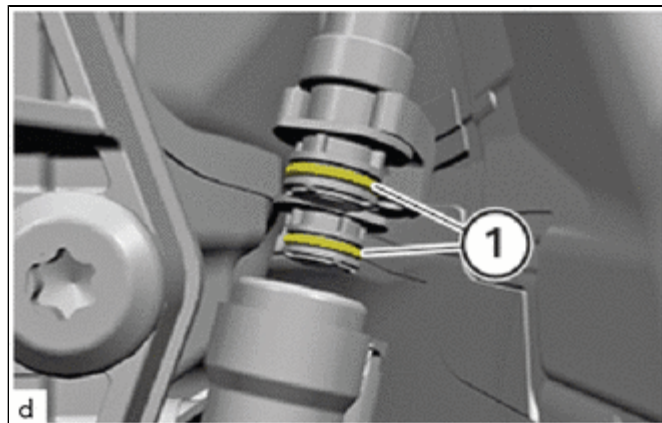
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION OIL THERMOSTAT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

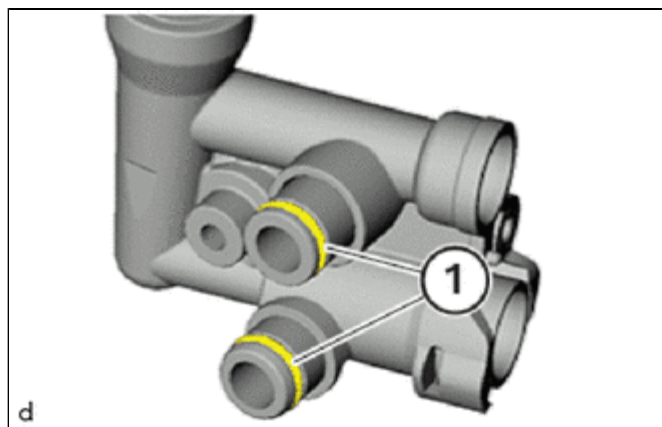
PROCEDURE

1. INSTALL TRANSMISSION OIL THERMOSTAT

(a) Replace O-rings (1).



(b) Replace O-rings (1).



(c) Install the transmission oil thermostat in the connections on the automatic transmission assembly.

(d) Tighten down the bolt.

Torque:

8.0 N·m { 82 kgf·cm, 71 in·lbf }

(e) Install the oil cooler tubes in the transmission oil thermostat.

(f) Tighten down the bolt.

Torque:

8.0 N·m { 82 kgf·cm, 71 in·lbf }

(g) Insert and install the No. 1 floor heat insulator.

(h) Tighten nuts.

Torque:

2.6 N·m {27 kgf·cm, 23 in·lbf}

2. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

Click here [INFO](#)

3. INSPECT FOR AUTOMATIC TRANSMISSION FLUID LEAK

4. INSTALL FRONT FLOOR COVER

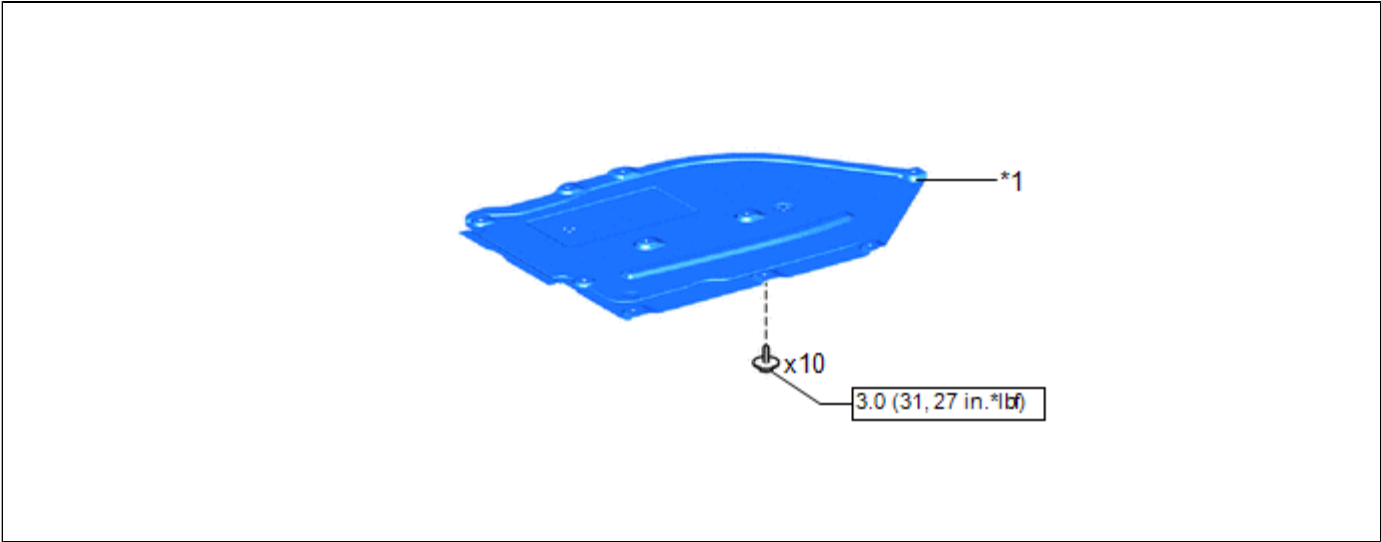
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION VALVE BODY: COMPONENTS; 2020 MY Supra [03/2019 -]		

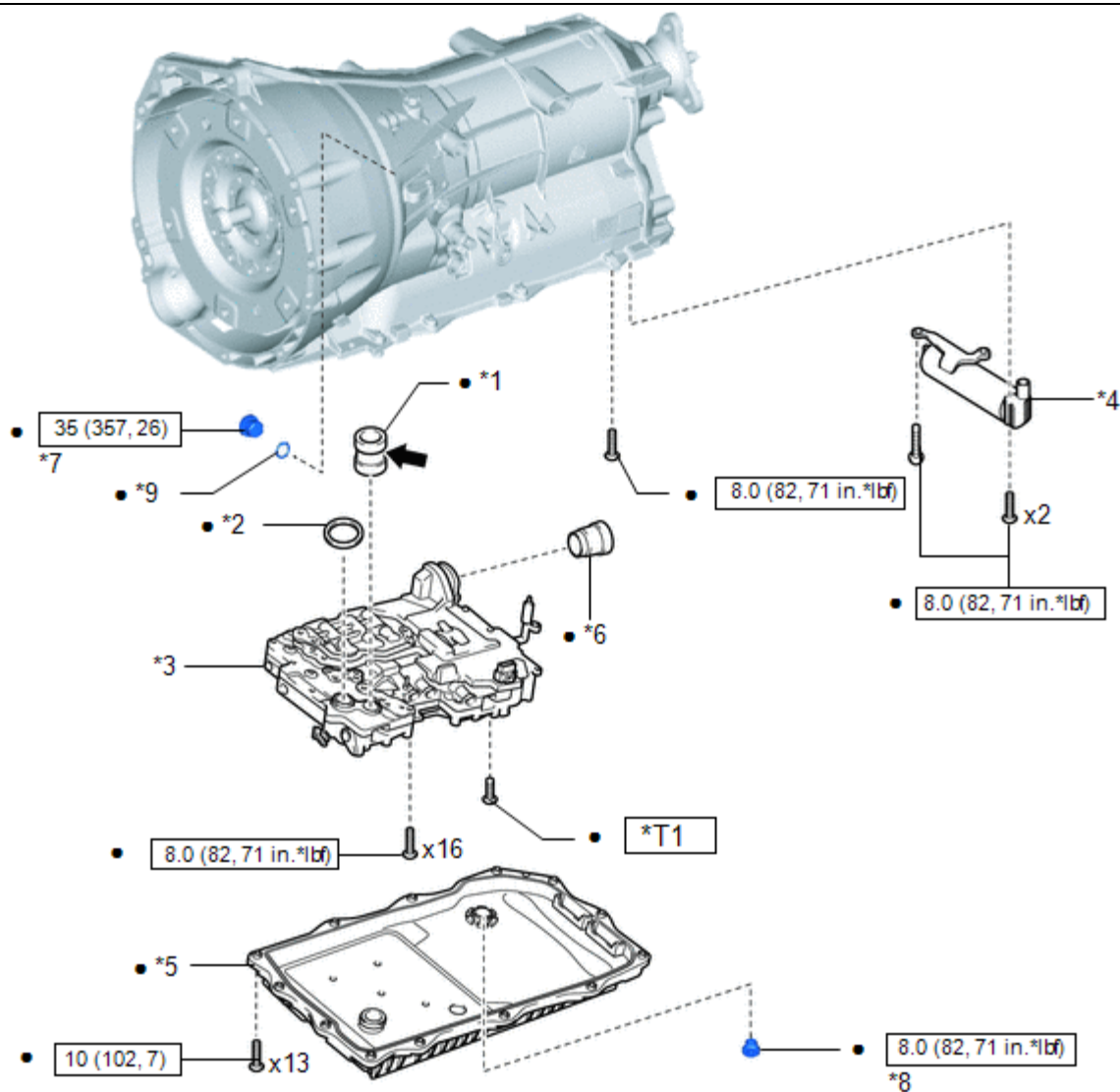
COMPONENTS

ILLUSTRATION



*1	FRONT FLOOR COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	PRESSURE PIPE	*2	O-RING
*3	MECHATRONICS	*4	HYDRAULIC IMPULSE STORAGE
*5	TRANSMISSION OIL SUMP	*6	SEALING SLEEVE
*7	FILLER PLUG	*8	OIL DRAIN PLUG
*9	SEALING RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part
	Automatic Gearbox Oil ATF 3+	-	-
*T1	1st: 4.0 (41, 35) 2nd: Turn 12°	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCFQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION VALVE BODY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

3. REMOVE TRANSMISSION OIL SUMP

CAUTION:

- Materials harmful to health.

Contact with fluids harmful to health!
 - Note and follow safety information on containers.
 - Conduct all work in appropriate personal protective equipment only.

NOTICE:

- Damage to the transmission oil sump.

Non-observance of the automatic transmission fluid specifications may lead to severe damage to the automatic transmission.
 - Remove transmission oil sump only after it has cooled down.
 - Use only the approved Automatic Gearbox Oil ATF 3+.
 - After completion of repair work, check automatic transmission fluid level.

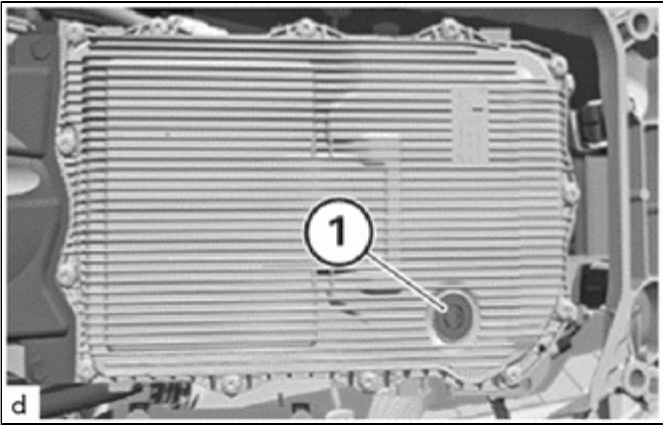
HINT:

Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

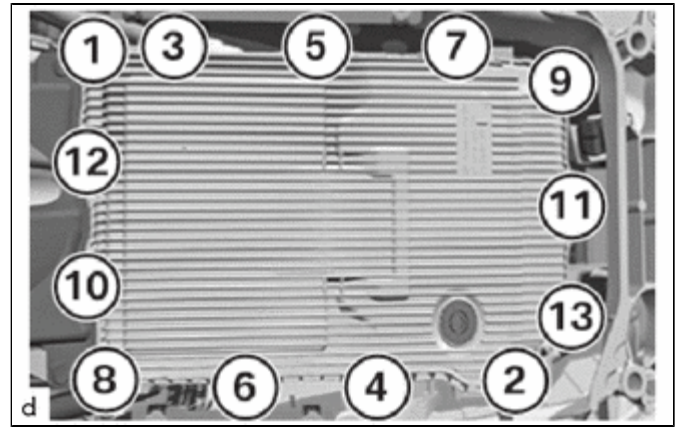
(a) Release oil drain plug (1).

HINT:

Drain, catch and dispose of the automatic transmission fluid.



(b) Loosen the T40 bolts (1) to (13).



(c) Remove transmission oil sump.

4. REMOVE HYDRAULIC IMPULSE STORAGE

Click here [INFO](#)

5. REMOVE MECHATRONICS

CAUTION:

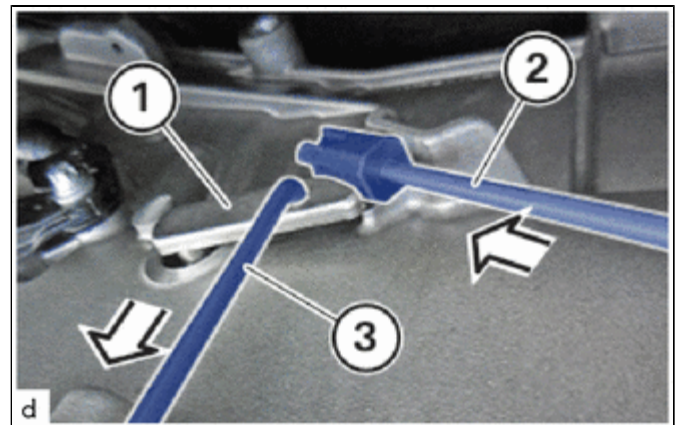
- Materials harmful to health.

Contact with fluids harmful to health!

- Note and follow safety information on containers.
- Conduct all work in appropriate personal protective equipment only.

(a) Pull the selector shaft journal (1) downward with the special tool 2 355 850 (3) in the direction of the arrow.

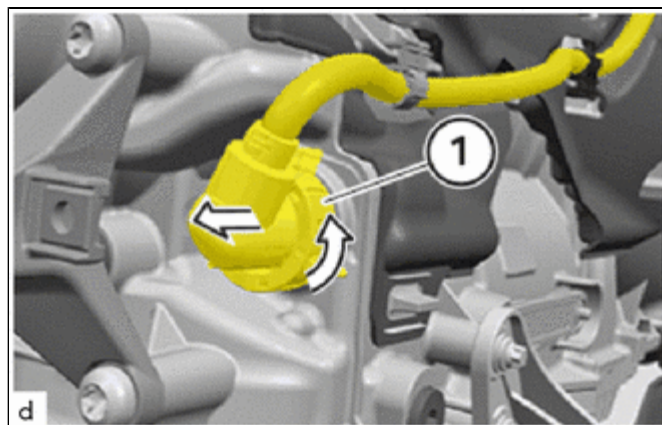
SST: 09700-WA050



(b) Install the special tool 2 355 850 (2) between the selector shaft journal (1) and transmission housing in direction of arrow.

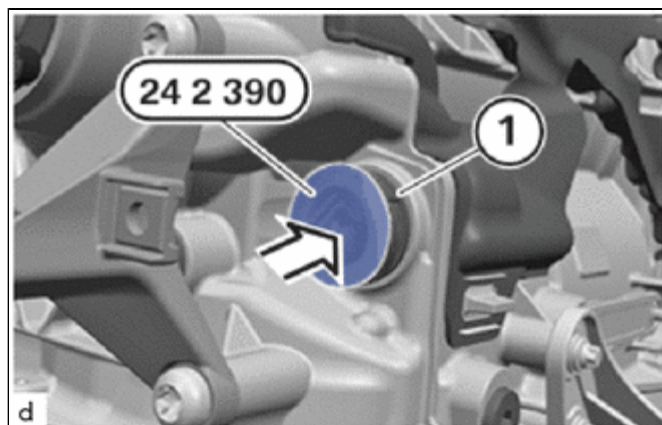
SST: 09700-WA050

(c) Turn the connector (1) in the direction of the arrow and pull it off.

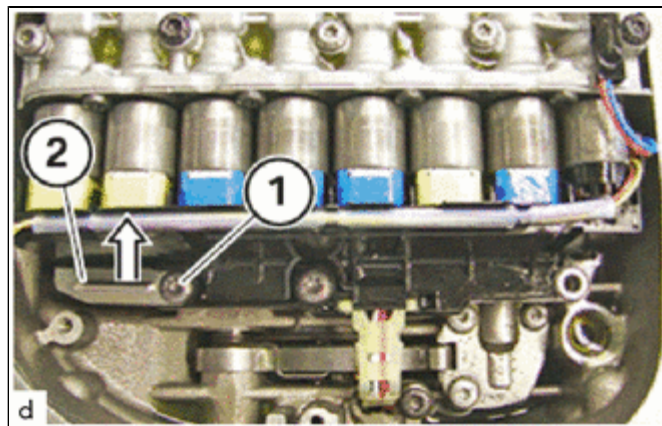


(d) Insert special tool 0 494 213 (24 2 390) in sealing sleeve (1).

SST: 09300-WA100



(e) Unscrew the T40 bolt (1) and unlock the sealing sleeve with the slide (2).



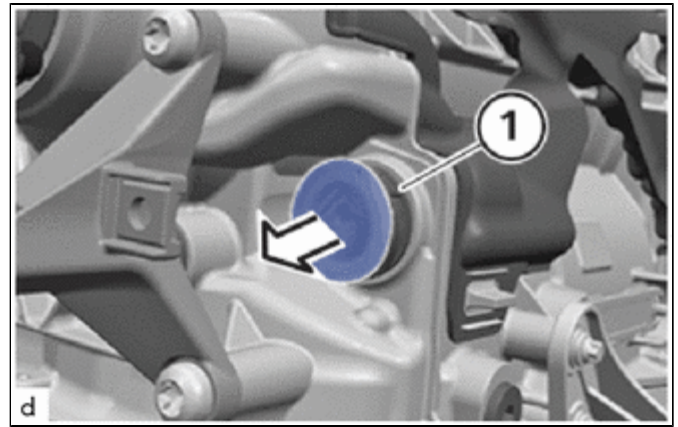
(f) Press the slide (2) in the direction of the arrow.

(g) Remove the sealing sleeve (1) with the special tool 0 494 213 (24 2 390).

SST: 09300-WA100

HINT:

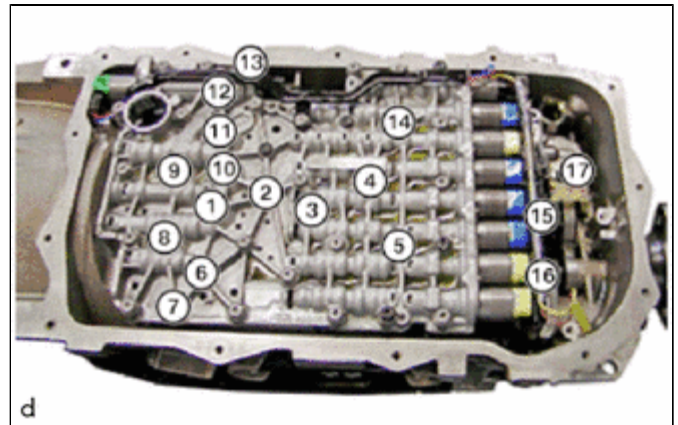
The sealing sleeve (1) must be installed in the same mounting orientation.



(h) Release the T40 bolts (4) and (9) from the mechatronics.

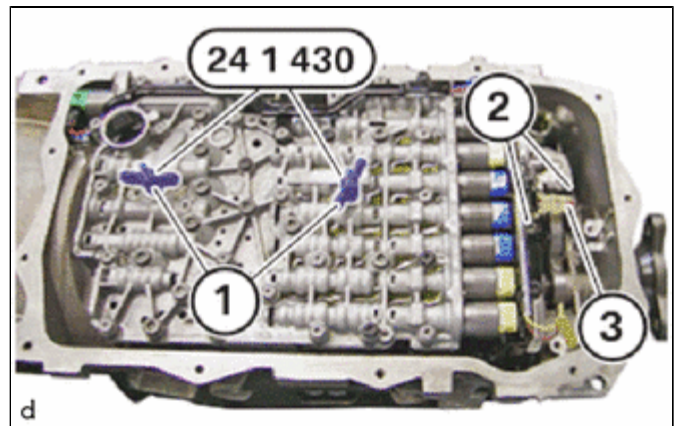
HINT:

Do not release the remaining the T40 bolts (1) to (3), (5) to (8) and (10) to (17) yet.



(i) Install special tool 0 496 715 (24 1 430).

SST: 09300-WA080



(j) Tighten the wing nuts (1).

(k) Loosen the T40 bolts (2).

(l) Carefully pull the output speed sensor (3) out of the housing and insert it in the recess on the module.

NOTICE:

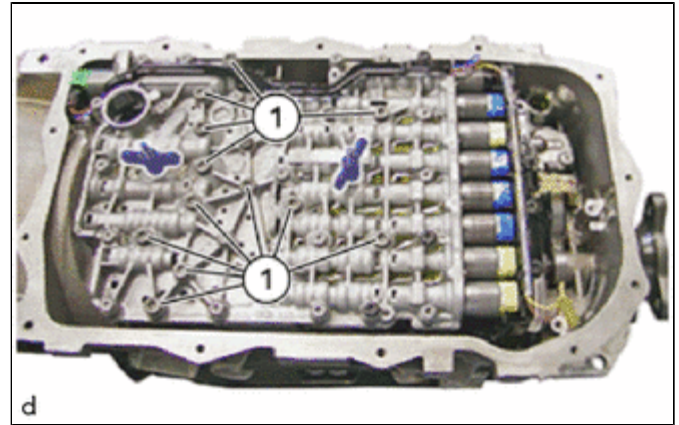
The journal on the output speed sensor may break off during removal or installation.

HINT:

Note the original mounting orientation of the output speed sensor.

- Observe the correct mounting orientation when installing the output speed sensor.

(m) Loosen the T40 bolts (1).



(n) Release the wing nuts on the special tool 0 496 715 (24 1 430).

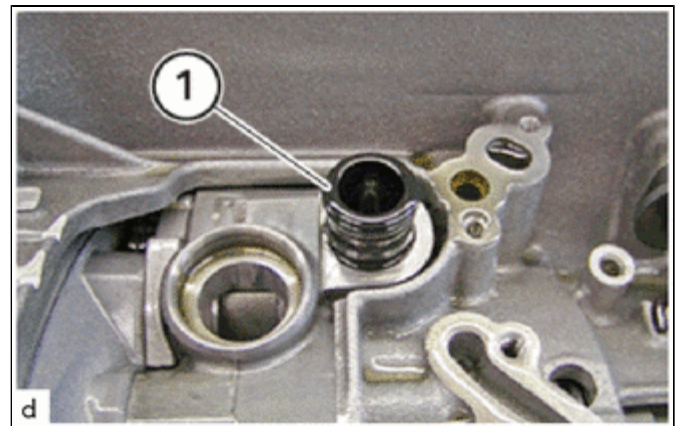
SST: 09300-WA080

(o) Remove mechatronics.

HINT:

Carefully remove mechatronics.

(p) Remove pressure pipe (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION VALVE BODY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL MECHATRONICS

NOTICE:

- Damage on the automatic transmission assembly after removing the mechatronics.

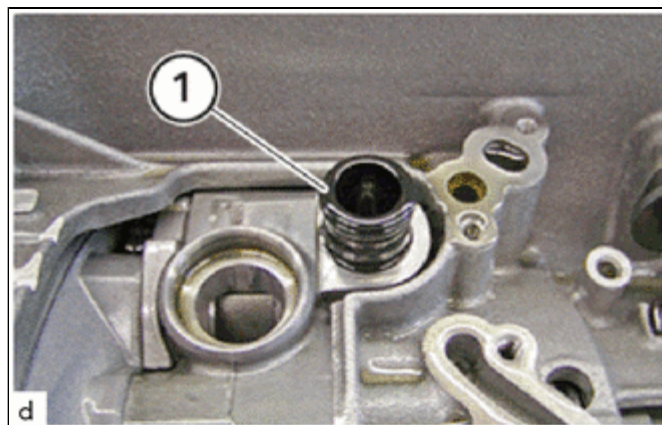
Non-observance of the following work may cause severe damage to the automatic transmission assembly.

- Load specific data status with the diagnosis system.

Vehicle information / Control unit list / EGS / Call up control unit functions / Diagnostic request / EGS sensor / Parking lock position

- Use only the approved Automatic Gearbox Oil ATF 3+.
- After completion of repair work, check the automatic transmission fluid level.

(a) Replace the pressure pipe (1).

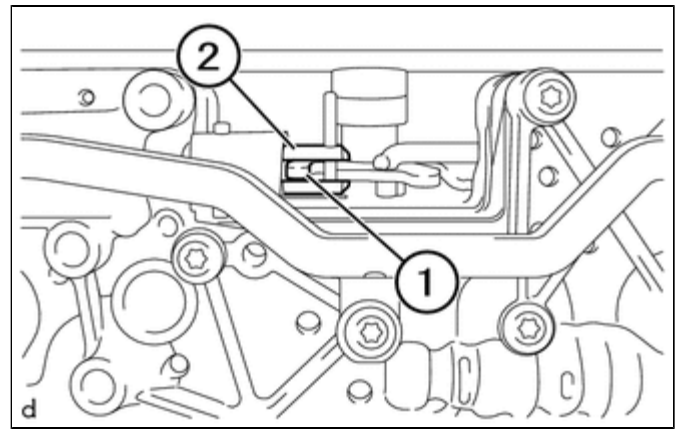


(b) Coat the O-rings at the new pressure pipe using ATF.

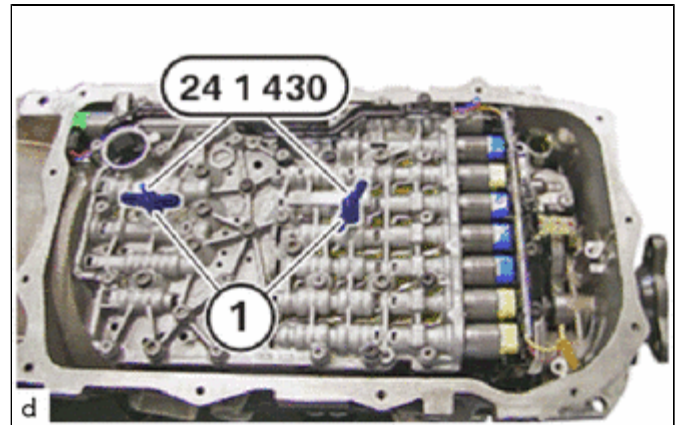
(c) Install pressure pipe (1).

(d) Fit mechatronics unit.

(e) Feed shifting claw (1) into gearshift shaft (2).



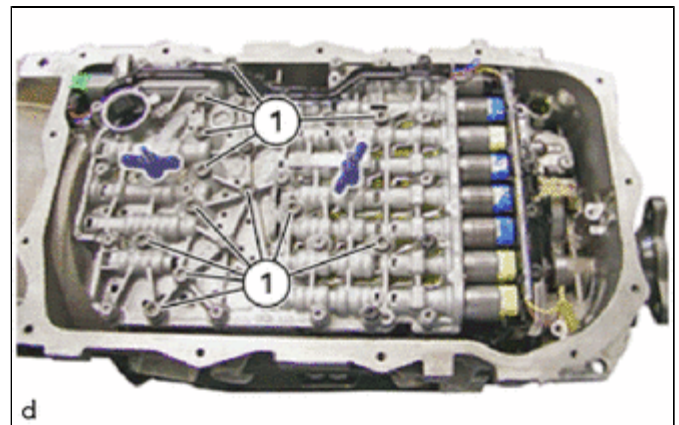
(f) Install mechatronics.



(g) Alternately tighten the wing nuts (1) of special tool 0 496 715 (24 1 430) until the mechatronics are in contact with the automatic transmission assembly.

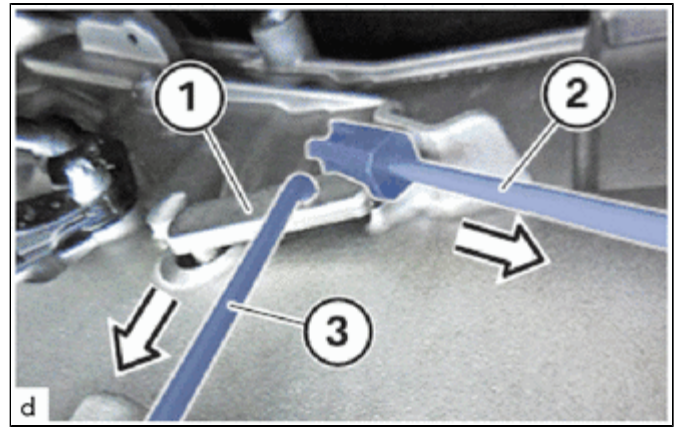
SST: 09300-WA080

(h) Insert the T40 bolts (1) and tighten lightly.



- (i) Pull the selector shaft journal (1) downward with the special tool 2 355 850 (3) in the direction of the arrow.

SST: 09700-WA050



- (j) Remove the special tool 2 355 850 (2) in the direction of the arrow.

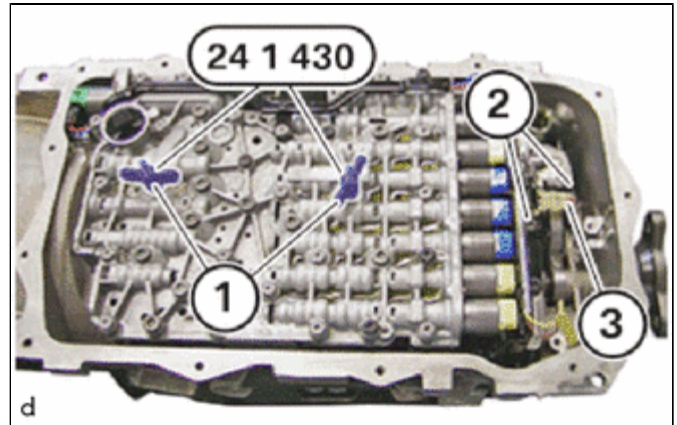
SST: 09700-WA050

- (k) Carefully position the output speed sensor (3) and push it in up to the limit position.

SST: 09700-WA050

HINT:

- Note the original mounting orientation of the output speed sensor.
- Observe the correct mounting orientation when installing the output speed sensor.
- The journal on the output speed sensor may break off during removal or installation.



- (l) Insert the T40 bolts (2) and tighten lightly.

- (m) Release the wing nuts (1).

- (n) Remove special tool 0 496 715 (24 1 430).

SST: 09300-WA080

- (o) Insert the T40 bolts (1) and tighten lightly.

- (p) Replace the sealing sleeve (1).

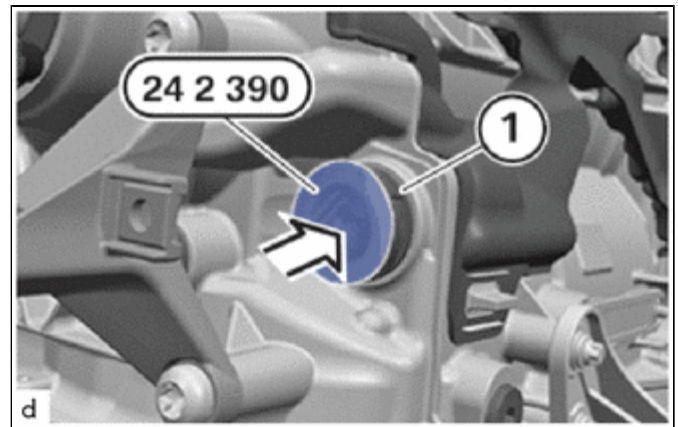
- (q) Carefully position the sealing sleeve (1).

- (r) Twist the sealing sleeve (1) until the lug has been inserted into the groove of the gear.

- (s) Slide in the sealing sleeve (1) in the direction of the arrow up to the limit position.

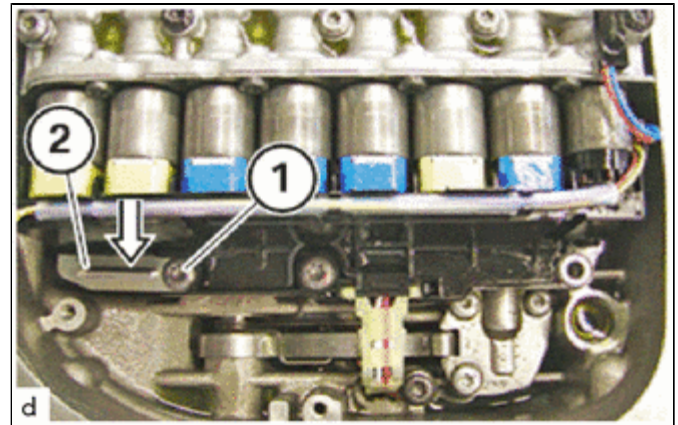
NOTICE:

The lug on the sealing sleeve must not be damaged.



(t) Remove special tool 0 494 213 (24 2 390).

SST: 09300-WA100



(u) Push the slide (2) in the direction of the arrow and lock.

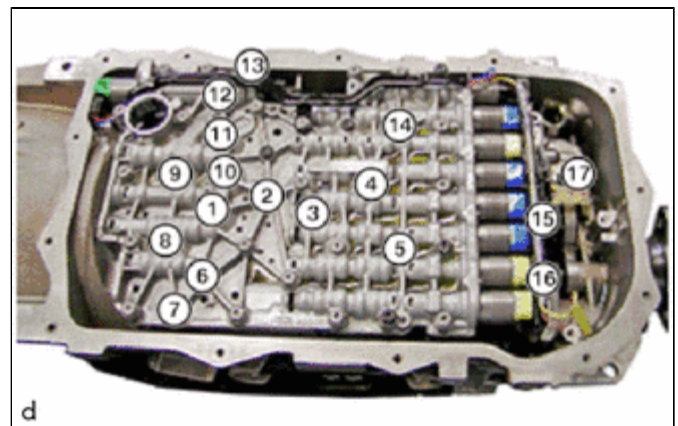
(v) Replace the T40 bolt (1).

(w) Screw in the T40 bolt (1).

(x) Replace T40 bolts.

NOTICE:

- When assembling, it is essential to observe screwing sequences and tightening torques.
- Non-compliance with the regulations can lead to damage.



(y) Tighten the T40 bolts in the order (1) to (16).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

(z) Tighten the T40 bolt (17) of the output speed sensor.

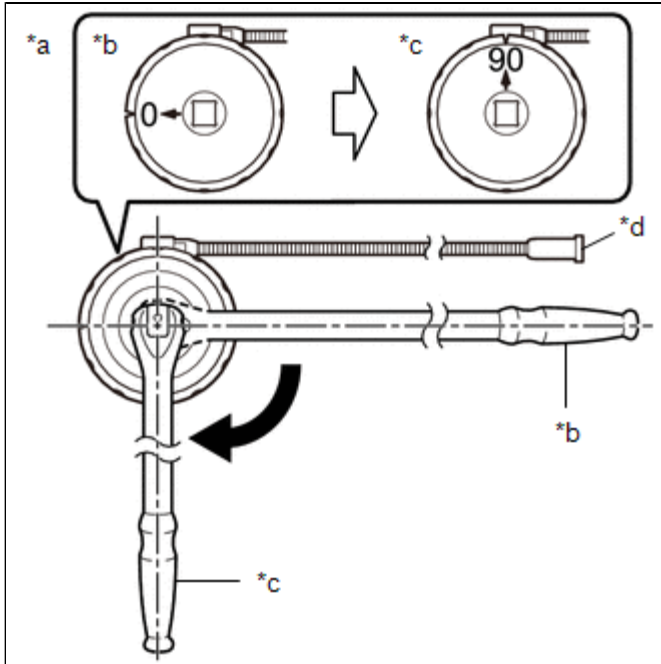
Torque:

4.0 N·m {41 kgf·cm, 35 in·lbf}

(aa) Using SST, tighten the T40 bolt an additional 12°.

SST: 09900-WA010

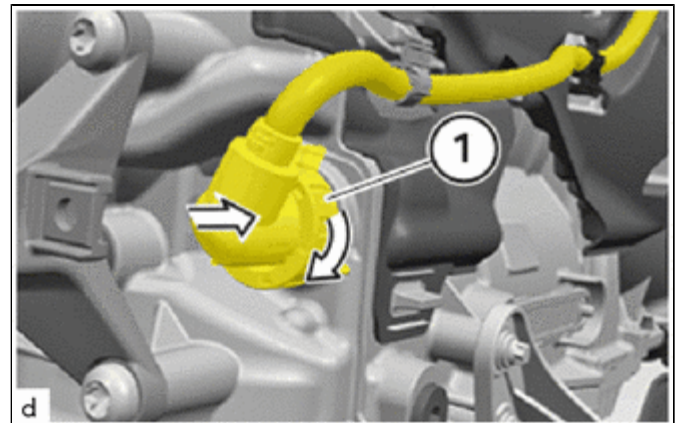
HINT:



*a	Example
*b	Before Tightening
*c	After Tightening
*d	Magnetic Portion

- The magnetic portion is used to secure the gauge to the vehicle.
- After first adjusting the needle of the gauge to 0°, tighten to the specified angle.
- Perform the work procedure carefully so that the gauge, etc. does not become tilted.

(ab) Slide the connector (1) on.



(ac) Twist the connector (1) in the direction of the arrow and lock.

2. INSTALL HYDRAULIC IMPULSE STORAGE

Click here [INFO](#)

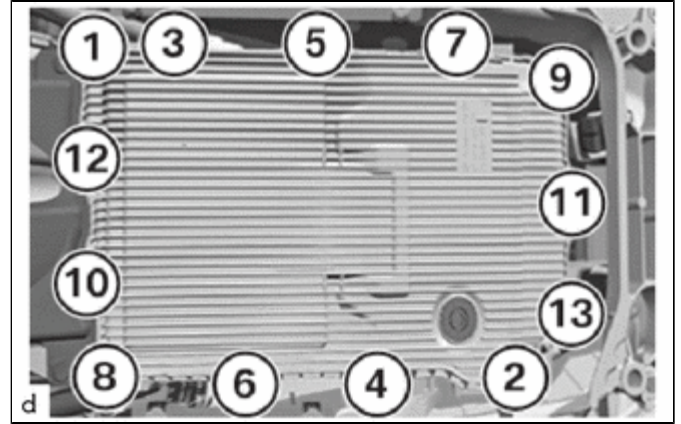
3. INSTALL TRANSMISSION OIL SUMP

HINT:

The transmission oil sump must be replaced each time it is released.

(a) Clean the contact surface of the transmission oil sump on the automatic transmission assembly.

(b) Replace T40 bolts (1) to (13).



(c) Position the transmission oil sump.

(d) Insert T40 bolts until screw heads make contact.

(e) Tighten T40 bolts in the order (1) to (13).

Torque:

10 N·m {102 kgf·cm, 7 ft·lbf}

(f) If necessary, tighten the oil drain plug.

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

4. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

5. ADJUST AUTOMATIC TRANSMISSION FLUID LEVEL

Click here [INFO](#)

6. INSPECT FOR AUTOMATIC TRANSMISSION FLUID LEAK

7. INSTALL FRONT FLOOR COVER

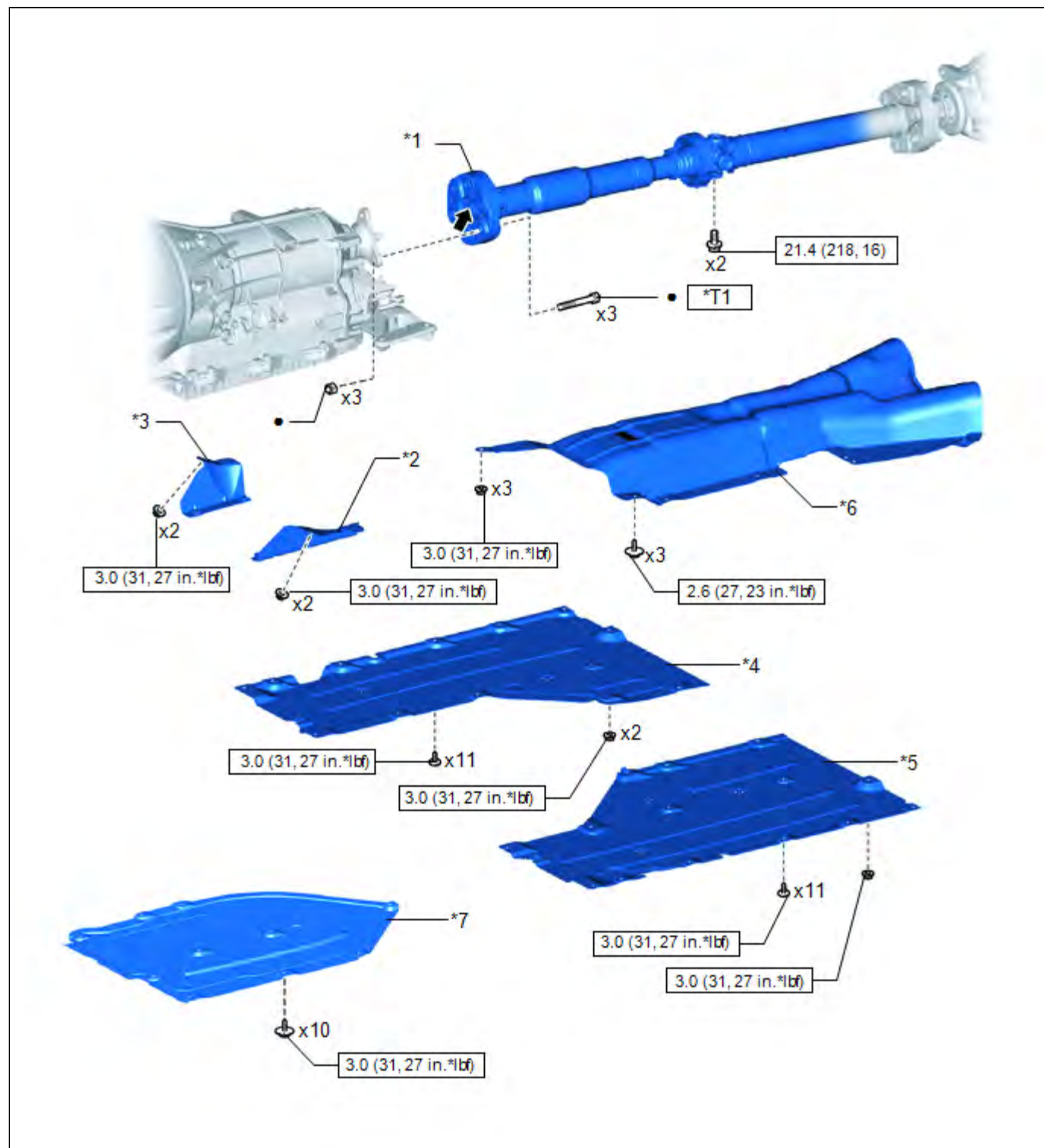
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION WIRE: COMPONENTS; 2020 MY Supra [03/2019 -]		

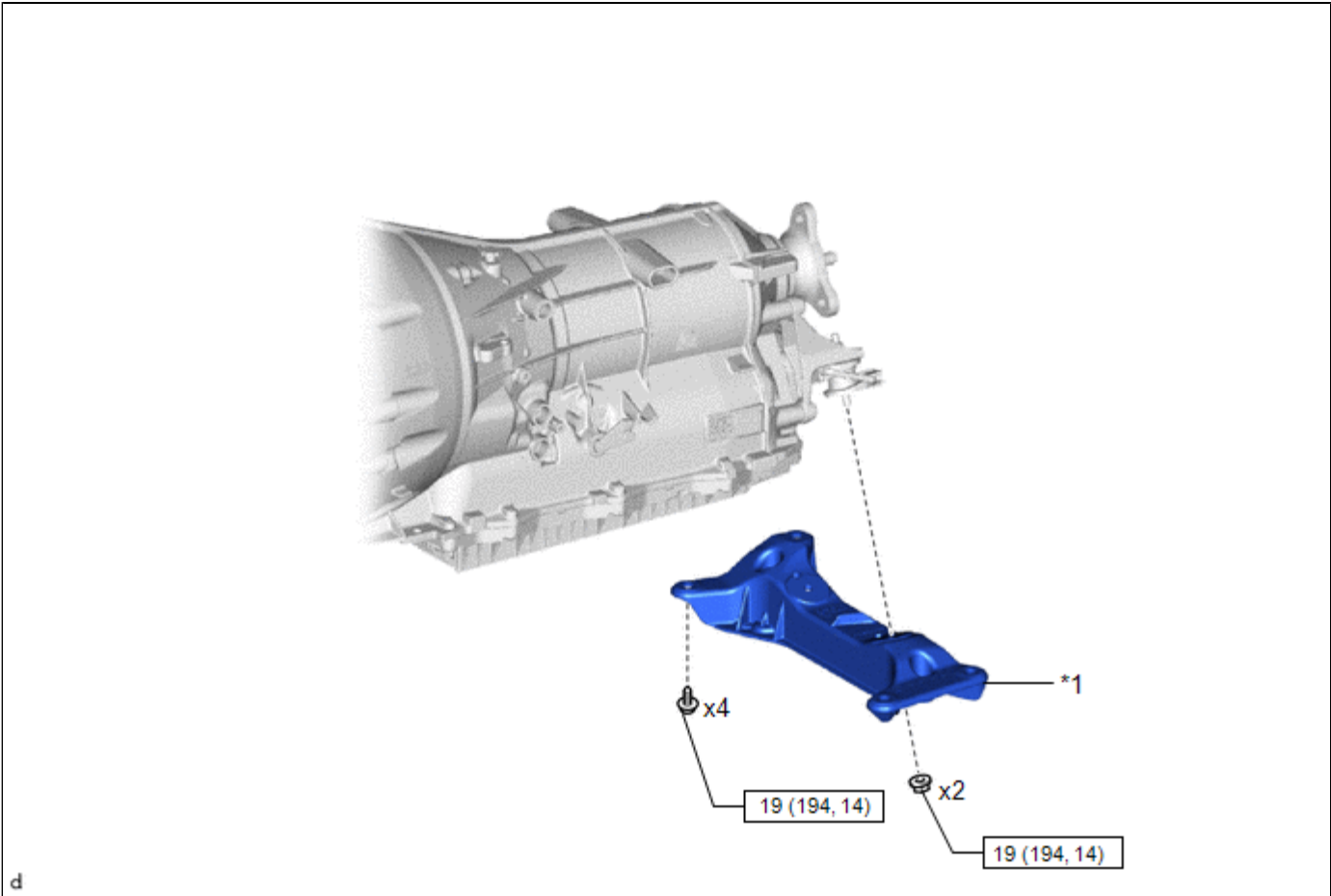
COMPONENTS

ILLUSTRATION



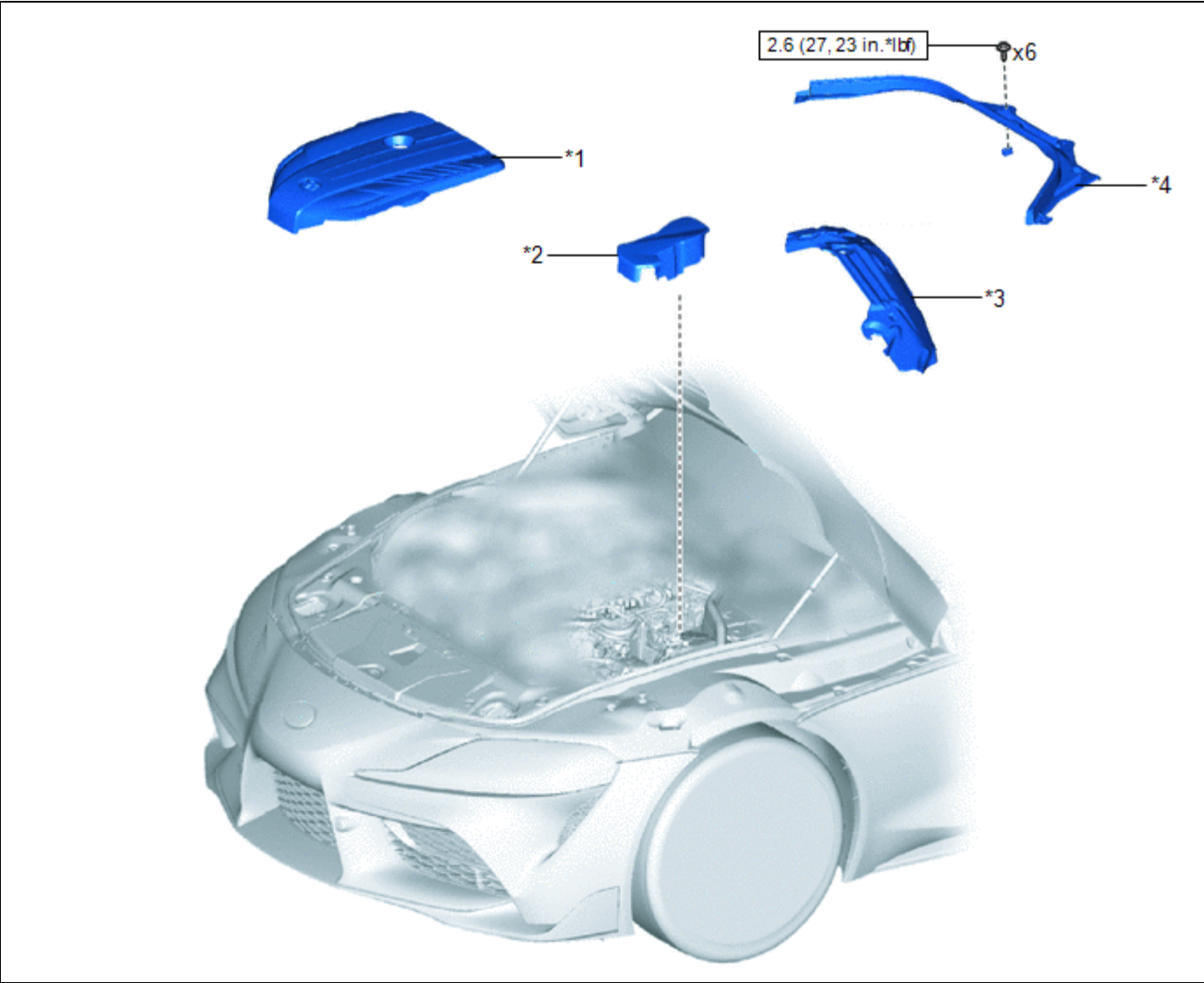
*1	PROPELLER SHAFT ASSEMBLY	*2	NO. 1 FLOOR HEAT INSULATOR
*3	NO. 2 FLOOR HEAT INSULATOR	*4	FRONT FLOOR COVER RH
*5	FRONT FLOOR COVER LH	*6	FRONT NO. 1 FLOOR HEAT INSULATOR
*7	FRONT FLOOR COVER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque		Lubricant Olistamoly 2 LN 584 LO
*T1	1st: 55 (561, 41) 2nd: Turn 90°	•	Non-reusable part

ILLUSTRATION



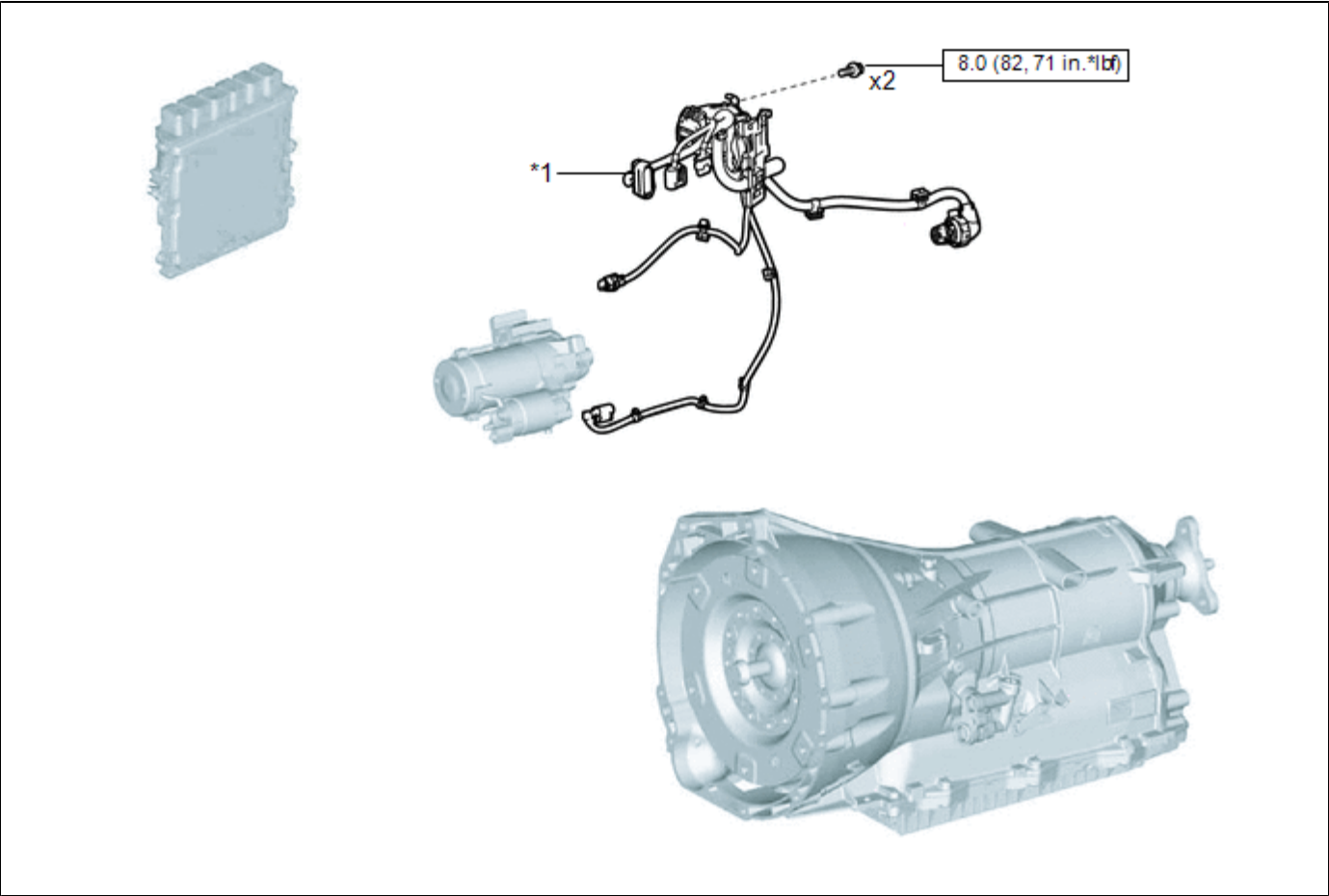
*1	REAR ENGINE MOUNTING MEMBER	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	NO. 1 ENGINE COVER SUB-ASSEMBLY	*2	COVER
*3	NO. 1 ENGINE COVER	*4	COWL TOP VENTILATOR LOUVER PROTECTOR

ILLUSTRATION



*1	TRANSMISSION WIRE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCGQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION WIRE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

NOTICE:

- Damage to battery terminal, the safety battery terminal or the battery state sensor.

Damaged battery terminals can lead to malfunctions or vehicle electrical system faults.

- Pull off battery terminal from battery pole by carefully moving to and fro. Do not pry off using a tool.

PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

2. REMOVE FRONT WIPER MOTOR AND LINK ASSEMBLY

Click here [INFO](#)

3. REMOVE COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

4. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

5. REMOVE NO. 1 ENGINE COVER

Click here [INFO](#)

6. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

7. REMOVE FRONT FLOOR COVER LH

Click here [INFO](#)

8. REMOVE FRONT FLOOR COVER RH

HINT:

Use the same procedure as for the LH side.

9. REMOVE EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

10. REMOVE FRONT NO. 1 FLOOR HEAT INSULATOR

Click here [INFO](#)

11. REMOVE NO. 2 FLOOR HEAT INSULATOR

Click here [INFO](#)

12. REMOVE NO. 1 FLOOR HEAT INSULATOR

HINT:

Use the same as for the No. 2 floor heat insulator.

13. REMOVE REAR ENGINE MOUNTING MEMBER

Click here [INFO](#)

14. SEPARATE PROPELLER SHAFT ASSEMBLY

Click here [INFO](#)

15. DISCONNECT ALL CONNECTORS FROM THE ECM AND FROM THE NO. 1 INTEGRATION RELAY

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- For additional information see:

Click here [INFO](#)

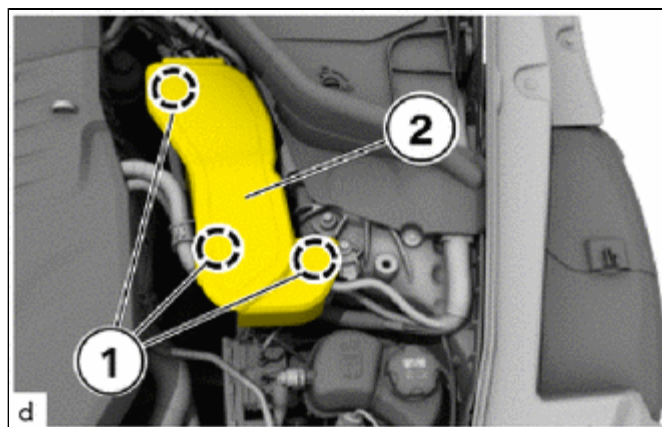
HINT:

- Follow instructions for removing and installing control units.
 - For additional information see:

Click here [INFO](#)

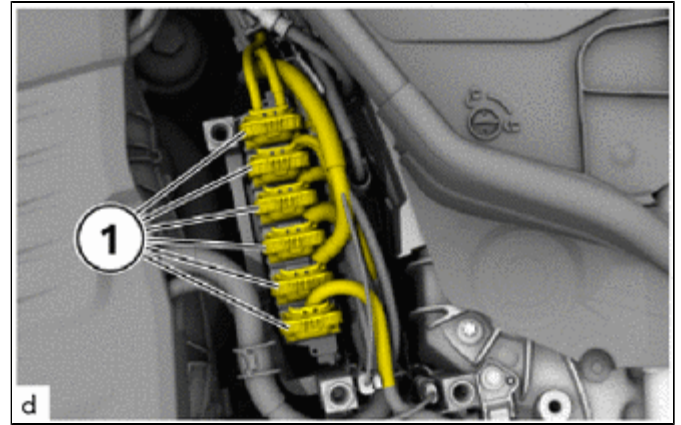
- Disconnecting control units may cause fault code entries and functional limitations. Fault code entries must be read out and deleted if necessary.

(a) Release snap-lock couplings (1).

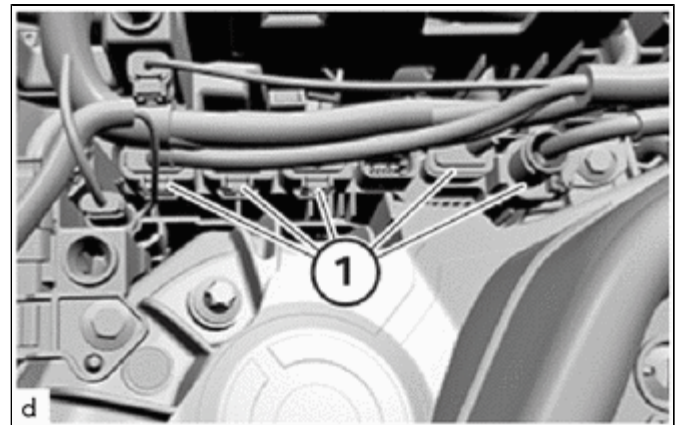


(b) Feed the cover (2) out toward the top and remove.

(c) Unlock and disconnect all plug connections (1).

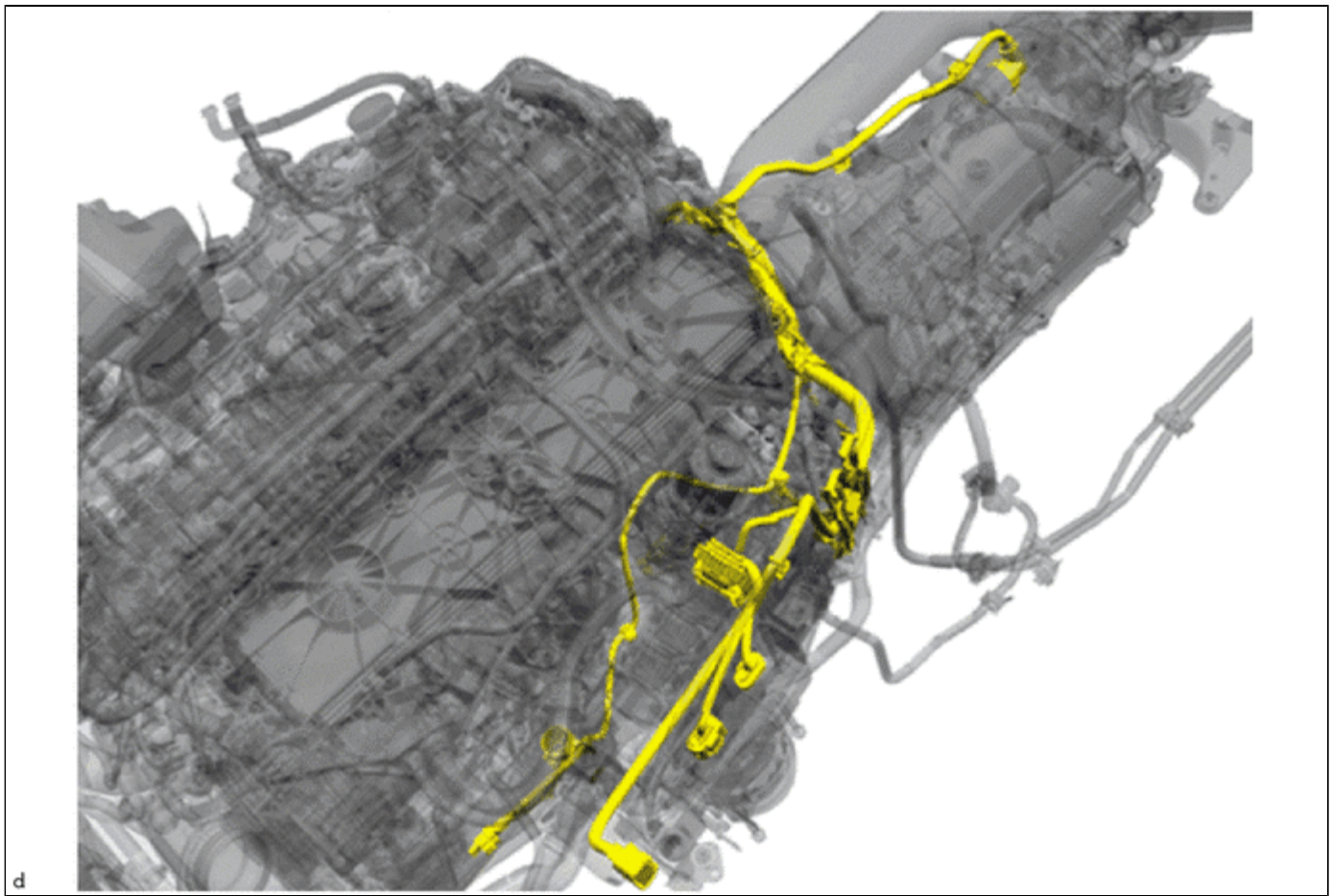


(d) Unlock and disconnect all plug connections (1).



16. REMOVE TRANSMISSION WIRE

(a) Overview of the transmission wire



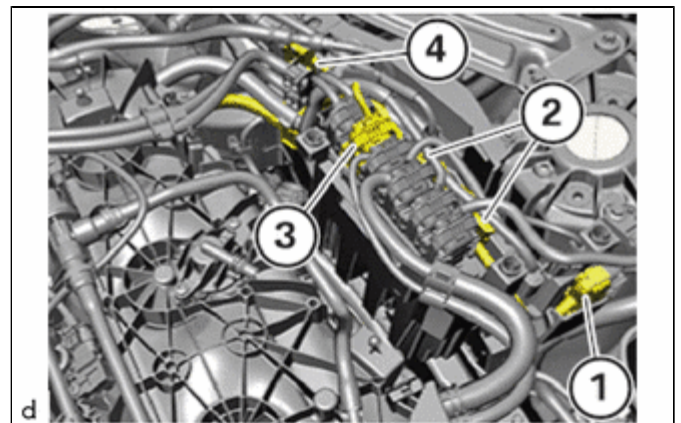
NOTICE:

- Damage to wires when disconnecting connectors and plug connections.

Sheared wires can cause a short circuit.

- Do not pull on the wires when disconnecting connectors and plug connections.

(b) Unlock connector (1) and pull off.

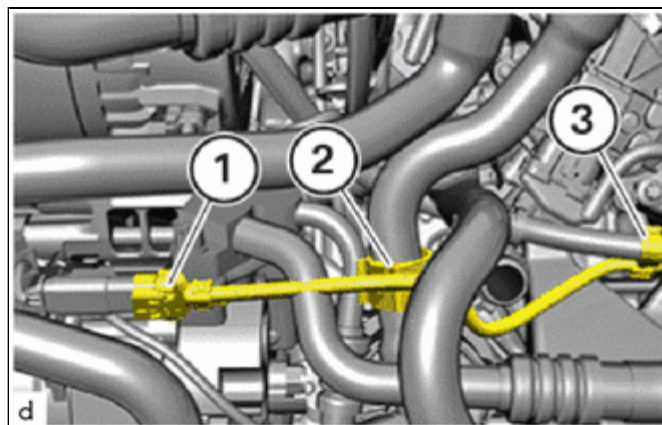


(c) Disconnect connector (2) from the integrated supply module.

(d) Disconnect connector (3) from the ECM.

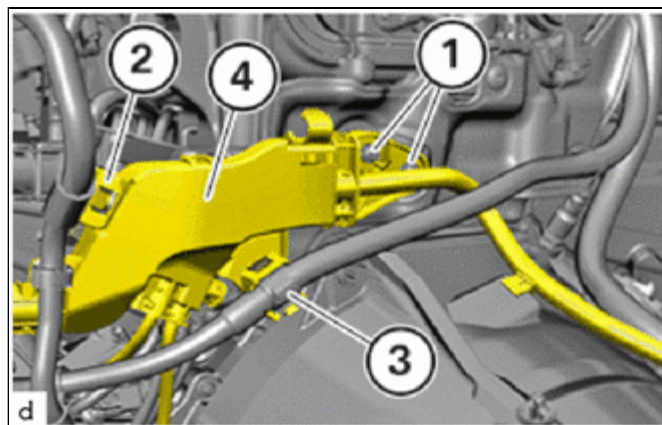
(e) Release transmission wire from bracket (4).

(f) Unlock the connector (1) and disconnect it from the compressor with magnet clutch.



(g) Loosen clamp (2).

(h) Loosen clamp (3).

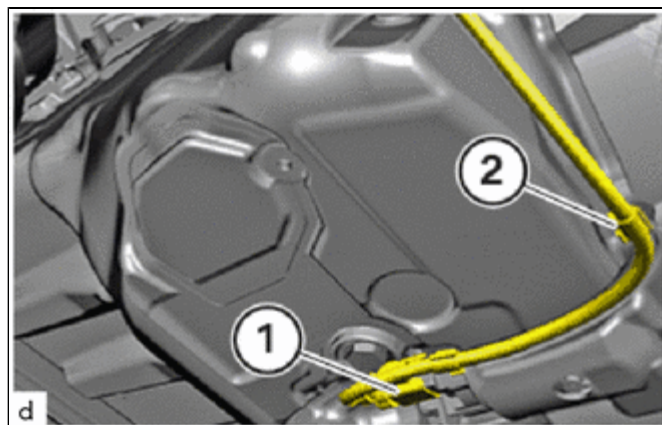


(i) Loosen the E8 bolts (1).

(j) Loosen clamp (2).

(k) Detach positive battery cable at the clamp (3).

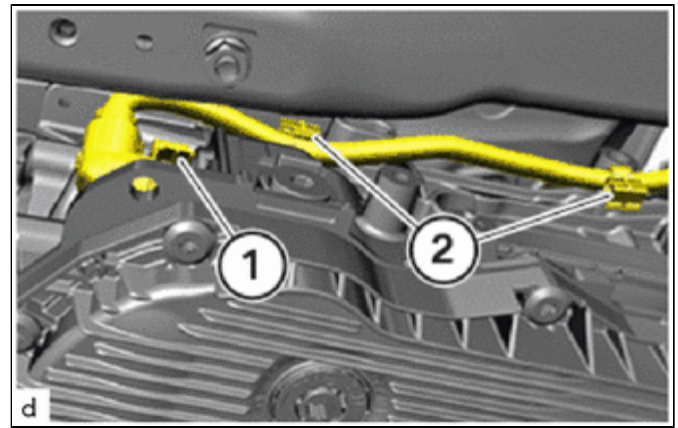
(l) Release cable duct (4) and lay to one side.



(m) Unlock connector (1) and remove from starter assembly.

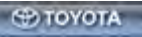
(n) Detach the cable (2) from the clamps and set it aside.

(o) Unlock the connector (1) on the automatic transmission assembly and pull off.



(p) Loosen the cables from the clamps (2).

(q) Thread out and remove the transmission wire.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: 8HP51 (AUTOMATIC TRANSMISSION / TRANSAXLE): TRANSMISSION WIRE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TRANSMISSION WIRE

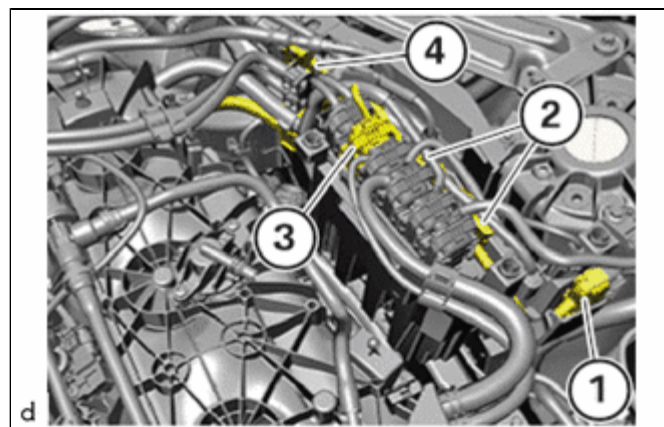
NOTICE:

- Improper routing of cables and wiring harnesses.

Trapped, crushed or damaged cables may cause short circuits and malfunctions.

- Route all cables without abrasions, do not trap and crush.

(a) Connect and lock the connector (1).

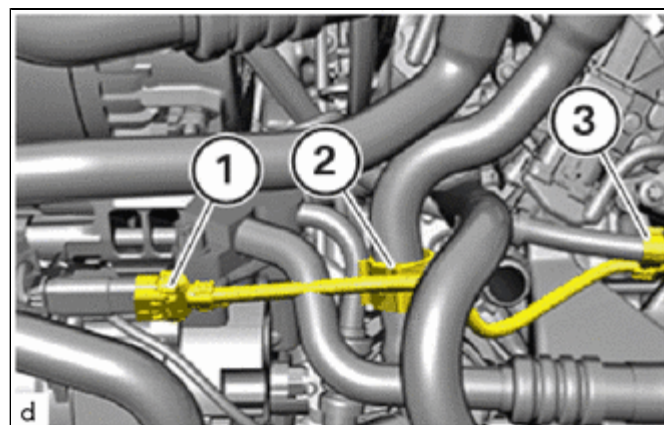


(b) Route the connector (2) to the integrated supply module.

(c) Route the connector (3) to the ECM.

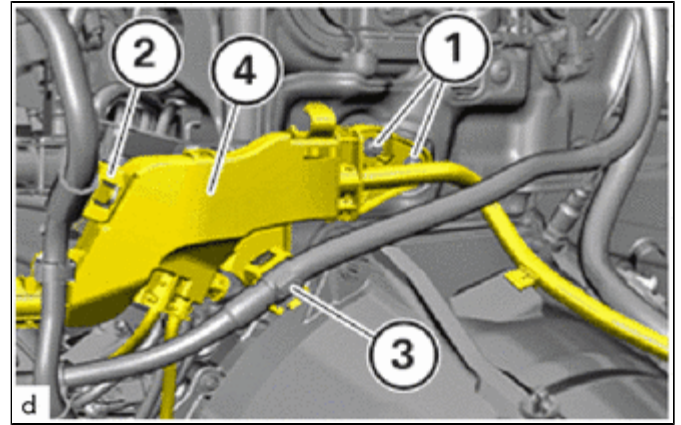
(d) Secure the transmission wire at the bracket (4).

(e) Connect and lock the connector (1) of the compressor with magnet clutch.



- (f) Secure clamps (2).
- (g) Secure clamp (3).

- (h) Mount cable channel (4).



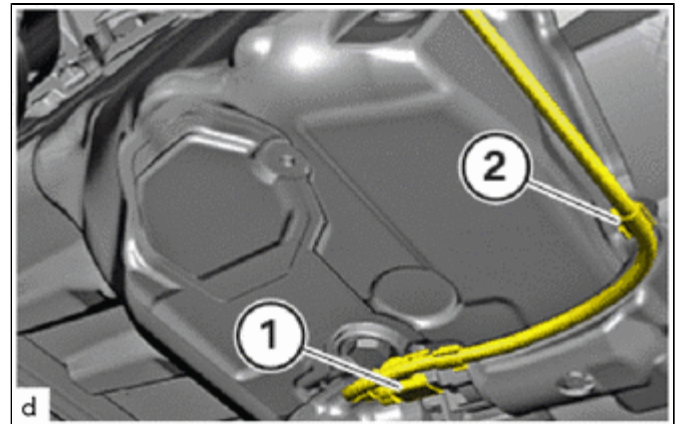
- (i) Tighten the E8 bolts (1).

Torque:

8.0 N·m { 82 kgf·cm, 71 in·lbf }

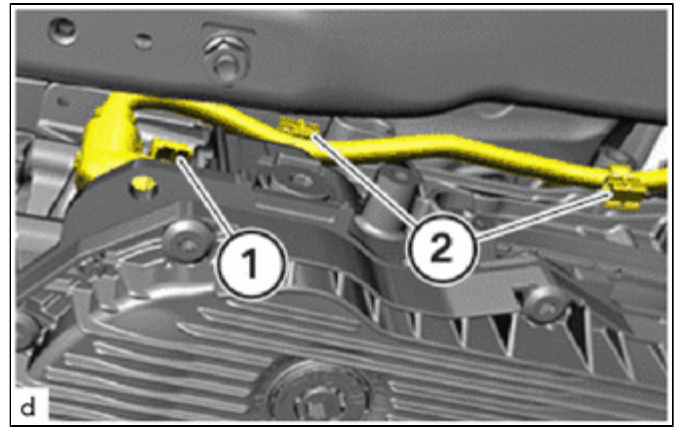
- (j) Lock clamp (2).
- (k) Secure positive battery cable at the clamp (3).

- (l) Connect and lock the connector (1) of the starter assembly.



- (m) Secure the cables (2) to the clamps .

- (n) Connect and lock the connector (1) to the automatic transmission assembly.



(o) Secure the cable with the clamps (2).

2. CONNECT ALL CONNECTORS FROM THE ECM AND FROM THE NO. 1 INTEGRATION RELAY

HINT:

- Follow instructions for removing and installing control units.
- For additional information see:

[Click here](#) **INFO**

- Disconnecting control units may cause fault code entries and functional limitations. Fault code entries must be read out and deleted if necessary.

(a) Connect all connectors and lock.

HINT:

All connectors must engage audibly.

(b) Connect all connectors and lock.

HINT:

All connectors must engage audibly.

(c) Install the cover.

HINT:

The snap-lock couplings must engage audibly.

3. INSTALL PROPELLER SHAFT ASSEMBLY

[Click here](#) **INFO**

4. INSTALL REAR ENGINE MOUNTING MEMBER

[Click here](#) **INFO**

5. INSTALL NO. 2 FLOOR HEAT INSULATOR

[Click here](#) **INFO**

6. INSTALL NO. 1 FLOOR HEAT INSULATOR

HINT:

Use the same as for the No. 2 floor heat insulator.

7. INSTALL FRONT NO. 1 FLOOR HEAT INSULATOR

Click here [INFO](#)

8. INSTALL EXHAUST PIPE ASSEMBLY

Click here [INFO](#)

9. INSTALL FRONT FLOOR COVER LH

Click here [INFO](#)

10. INSTALL FRONT FLOOR COVER RH

HINT:

Use the same procedure as for the LH side.

11. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

12. INSTALL NO. 1 ENGINE COVER

Click here [INFO](#)

13. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

14. INSTALL COWL TOP VENTILATOR LOUVER PROTECTOR

Click here [INFO](#)

15. INSTALL FRONT WIPER MOTOR AND LINK ASSEMBLY

Click here [INFO](#)

16. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)