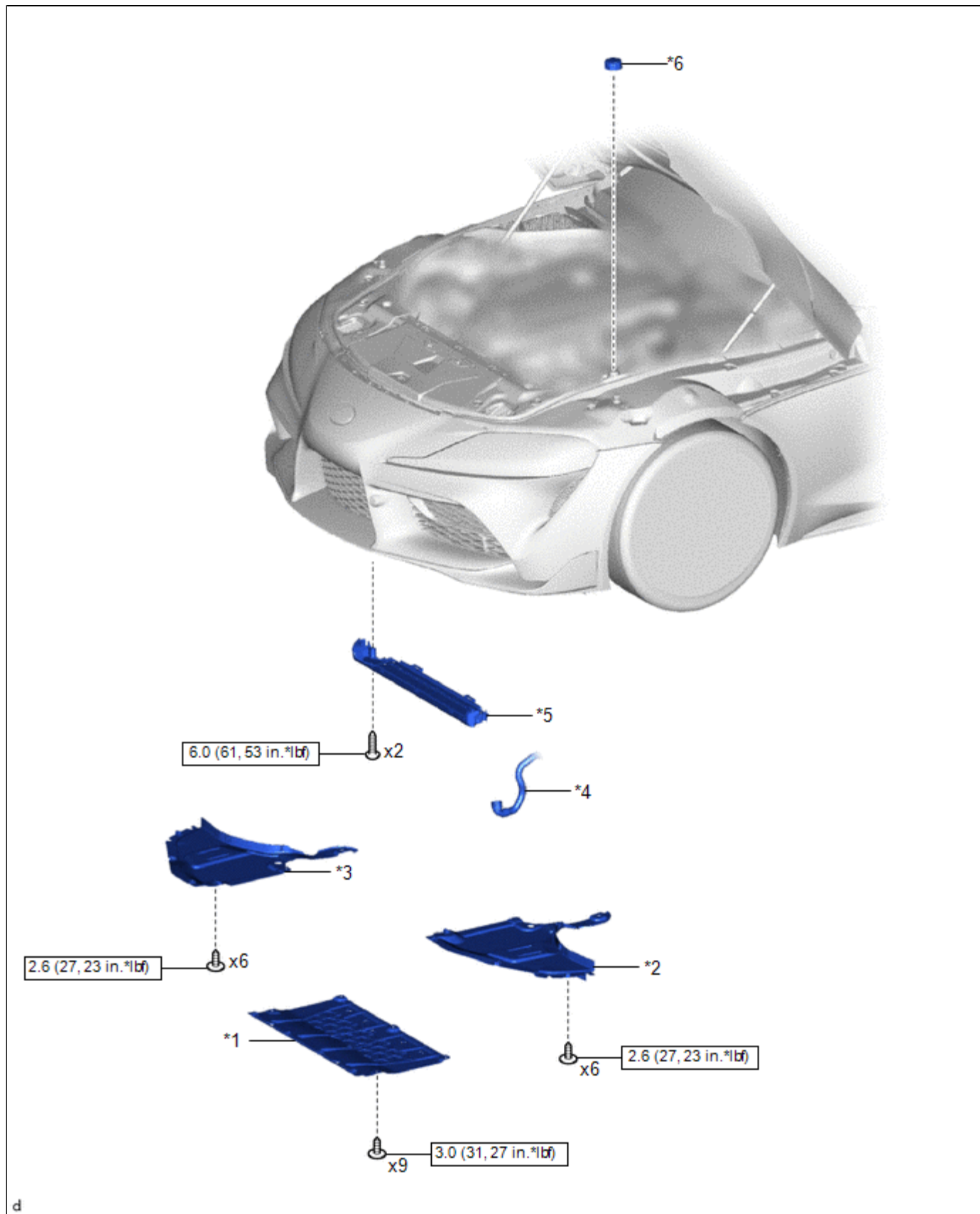


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT (for Low Temperature): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 1 ENGINE UNDER COVER ASSEMBLY	*2	FRONT FENDER SPLASH FRONT SHIELD LH
*3	FRONT FENDER SPLASH FRONT SHIELD RH	*4	NO. 6 RADIATOR HOSE
			RADIATOR RESERVE TANK CAP SUB-

*5	RADIATOR LOWER AIR GUIDE PLATE	*6	ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT (for Low Temperature): REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

CAUTION / NOTICE / HINT

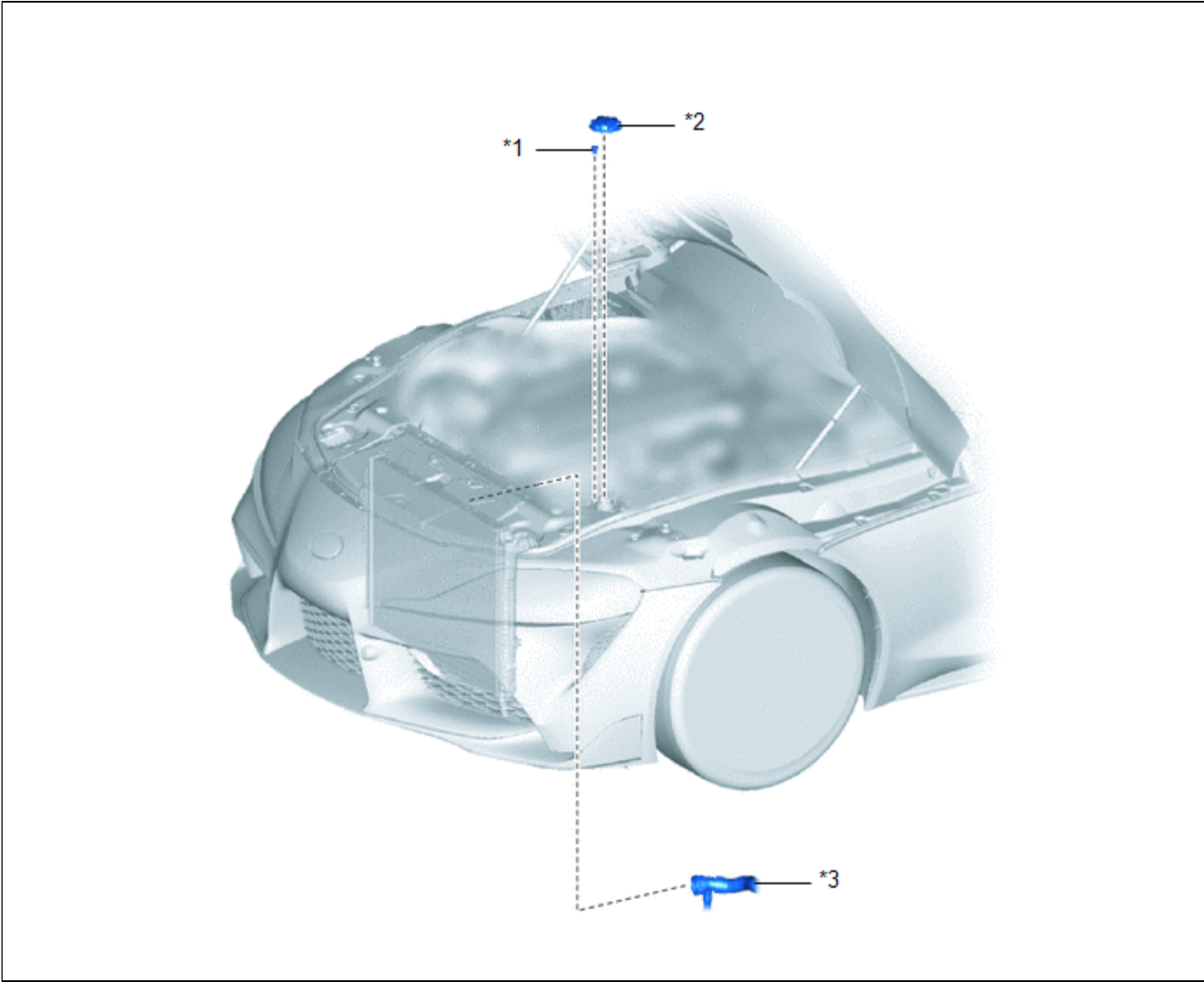
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT LINE: COMPONENTS; 2020 MY Supra [03/2019 -]		

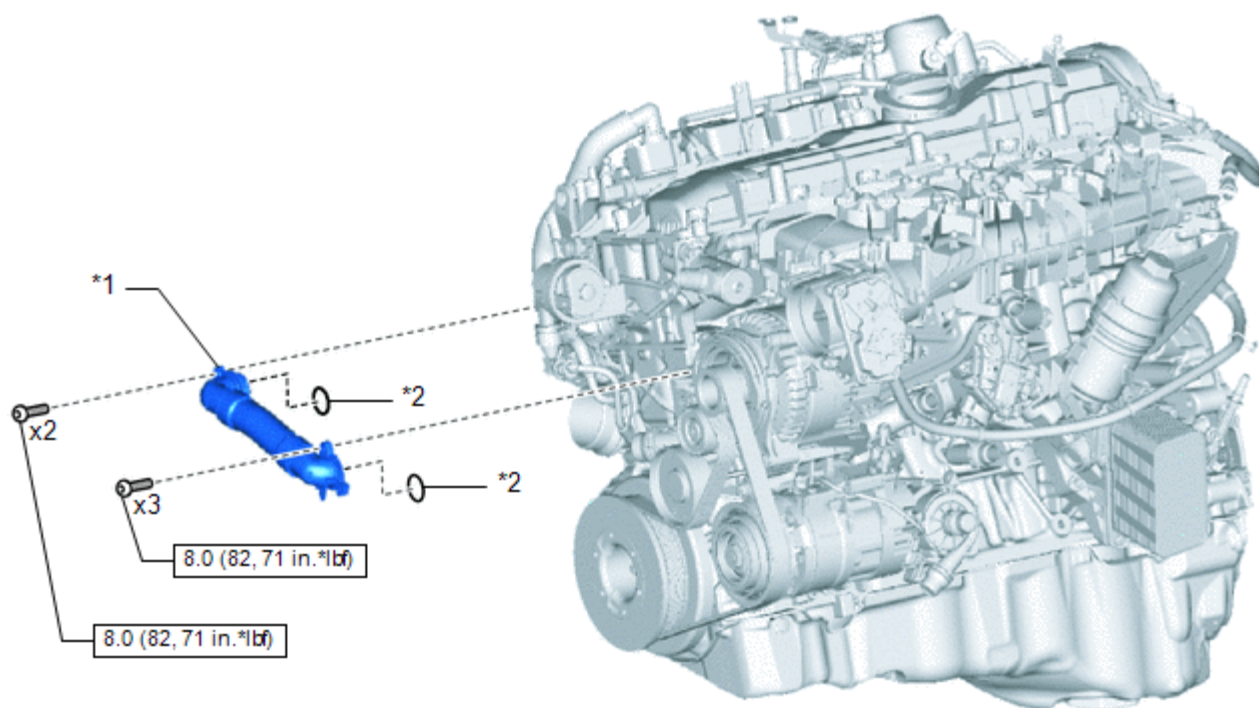
COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	NO. 2 WATER BY-PASS HOSE	*2	O-RING
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT LINE: 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.

- Hot surfaces.

Risk of burning!

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

NOTICE:

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

PROCEDURE

1. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

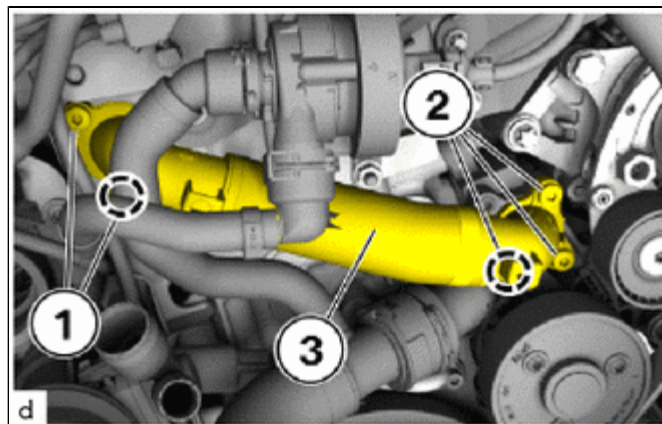
Click here [INFO](#)

4. REMOVE NO. 2 WATER BY-PASS HOSE

NOTICE:

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

(a) Loosen T30 bolts (1) and (2).



(b) Remove the No. 2 water by-pass hose (3) between the cylinder head and the engine water pump assembly.



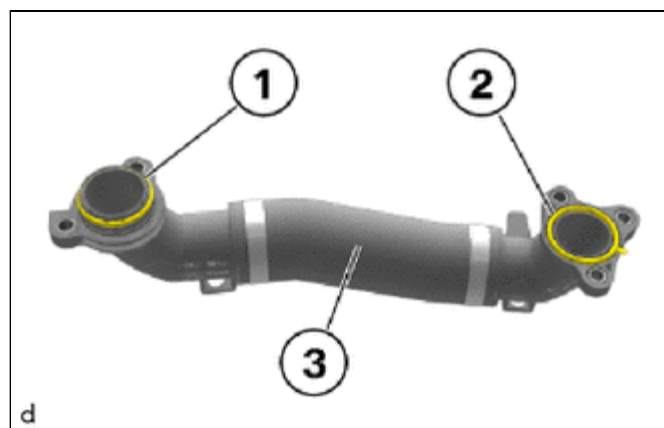
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBG
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT LINE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

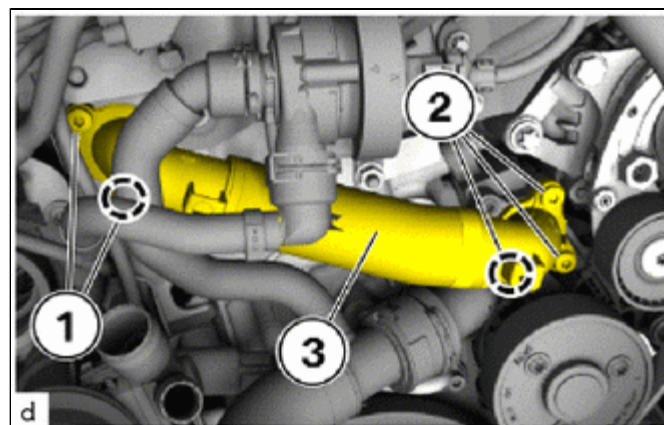
PROCEDURE

1. INSTALL NO. 2 WATER BY-PASS HOSE

- (a) Check the O-rings (1) and (2) on the No. 2 water by-pass hose (3) for damage and replace where required.



- (b) Position the No. 2 water by-pass hose (3) between the cylinder head and the engine water pump assembly.



- (c) Tighten down T30 bolts (1) and (2).

Torque:

8.0 N·m { 82 kgf·cm, 71 in·lbf }

2. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

3. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

5. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

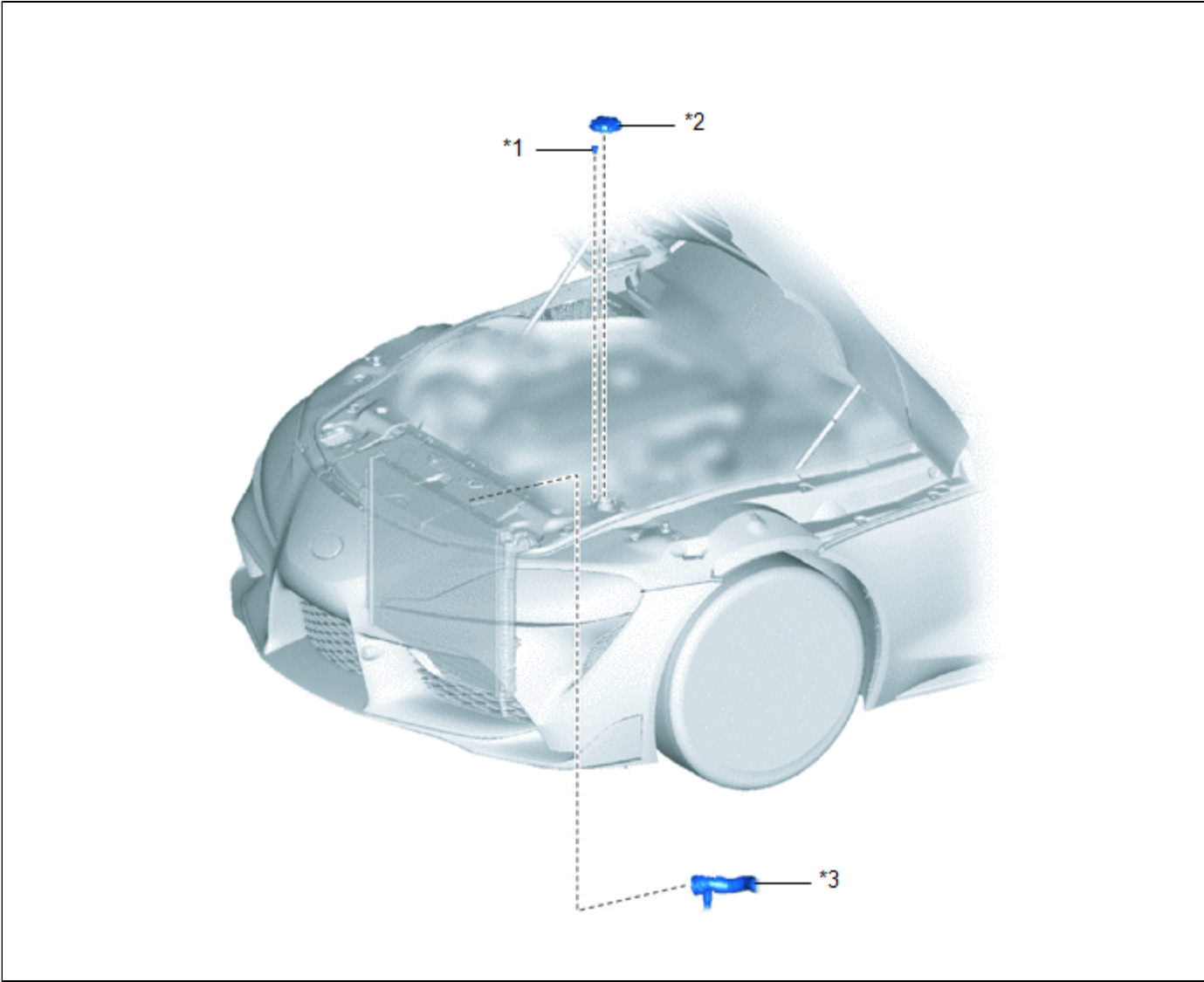
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBH
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT PIPE: COMPONENTS; 2020 MY Supra [03/2019 -]		

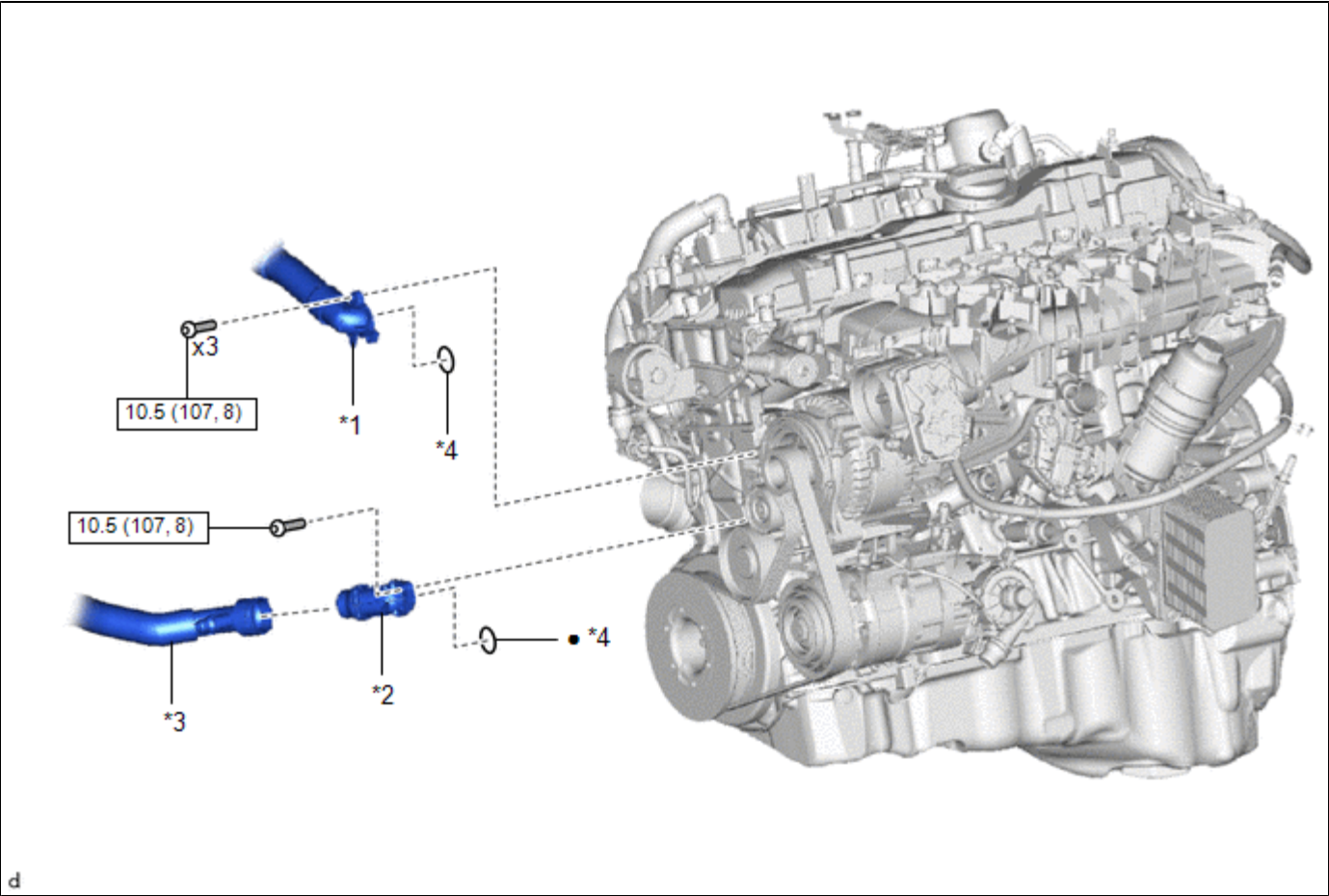
COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



d

*1	NO. 2 WATER BY-PASS HOSE	*2	WATER INLET
*3	NO. 1 RADIATOR HOSE	*4	WATER INLET O-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: B58 (COOLING): COOLANT PIPE: 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.
- Hot surfaces.
Risk of burning!
 - Perform all work only on components that have cooled down.

NOTICE:

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

PROCEDURE

1. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

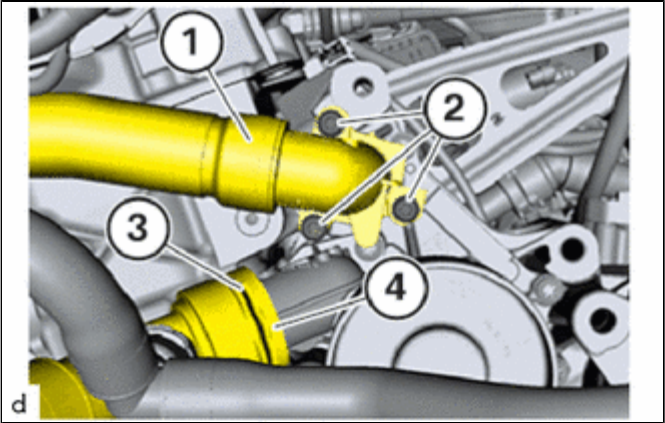
Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. DISCONNECT COOLANT HOSE

(a) Loosen T30 bolts (2).



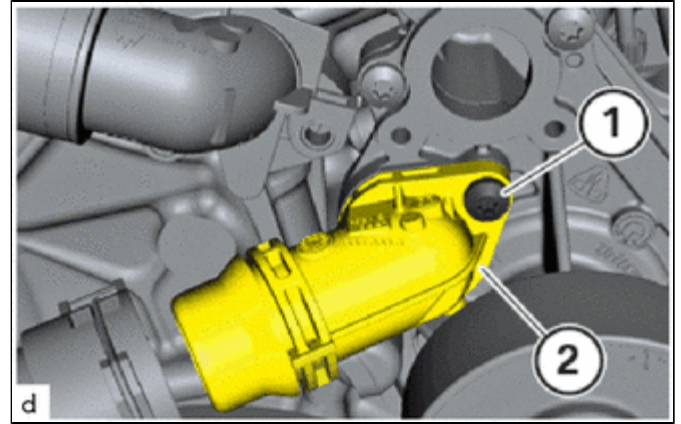
(b) Remove the No. 2 water by-pass hose (1) and tie it to the side.

(c) Unlock retaining clip (3).

(d) Remove No. 1 radiator hose (4).

5. REMOVE WATER INLET

(a) Loosen T30 bolt (1).



(b) Pull off and remove the water inlet (2).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLANT PIPE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

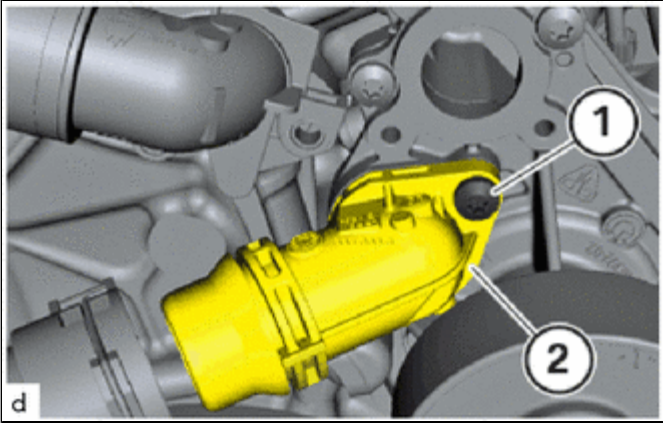
PROCEDURE

1. INSTALL WATER INLET

(a) Replace water inlet O-ring (1).



(b) Position the water inlet (2).



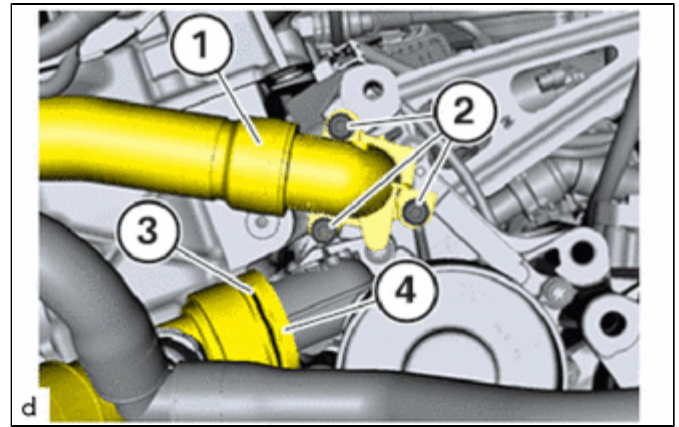
(c) Tighten down T30 bolt (1).

Torque:
 10.5 N·m {107 kgf·cm, 8 ft·lbf}

2. CONNECT COOLANT HOSE

(a) Connect and lock the No. 1 radiator hose (4).

(1) Retaining clip (3) must latch audibly into place.



(b) Position the No. 2 water by-pass hose (1).

(c) Tighten down T30 bolts (2).

Torque:

10.5 N·m { 107 kgf·cm, 8 ft·lbf }

3. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

4. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

5. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

6. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

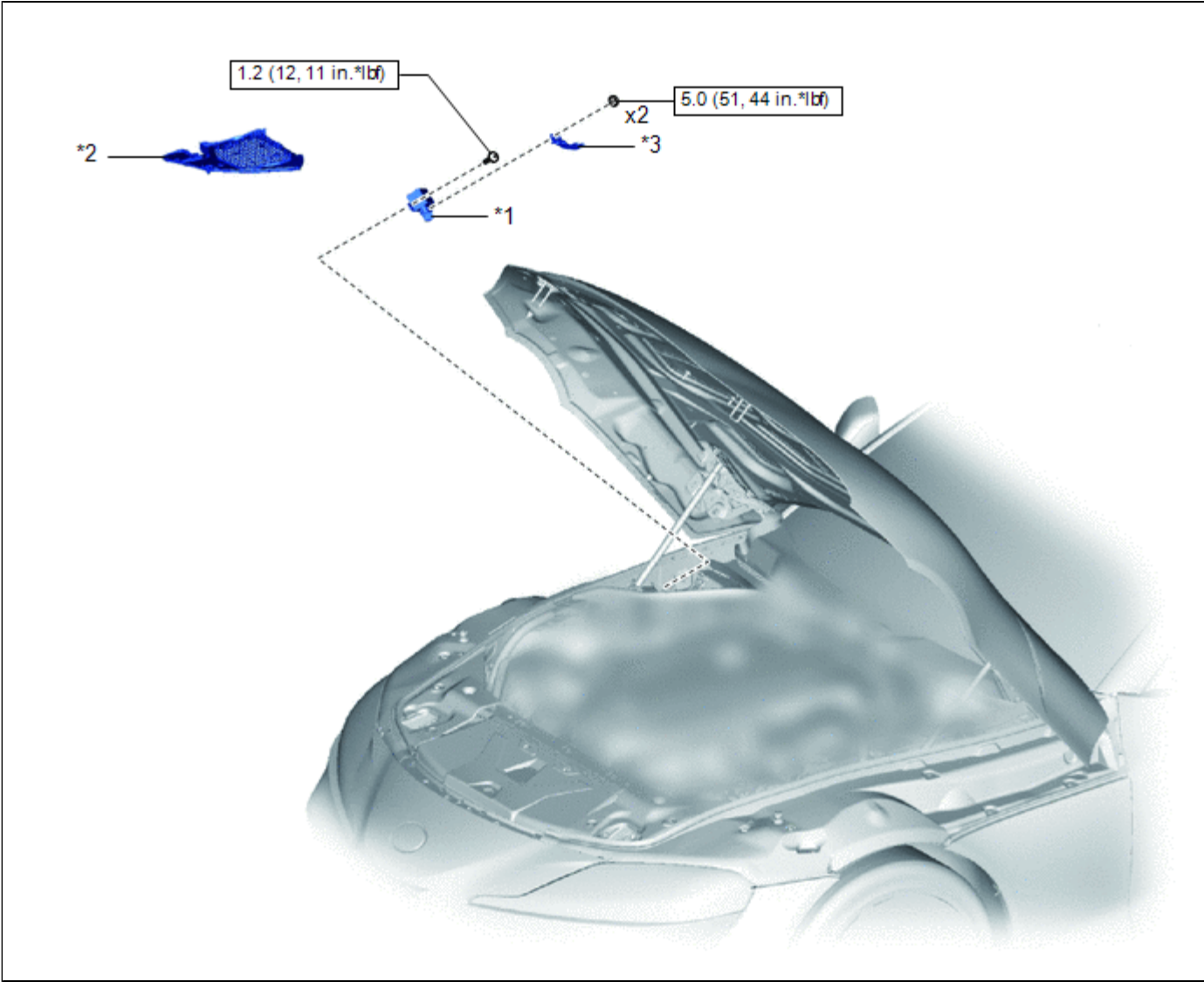


TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLING FAN RELAY: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	COOLING FAN RELAY	*2	COWL VENT COVER RH
*3	POSITIVE BATTERY CABLE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLING FAN RELAY: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

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

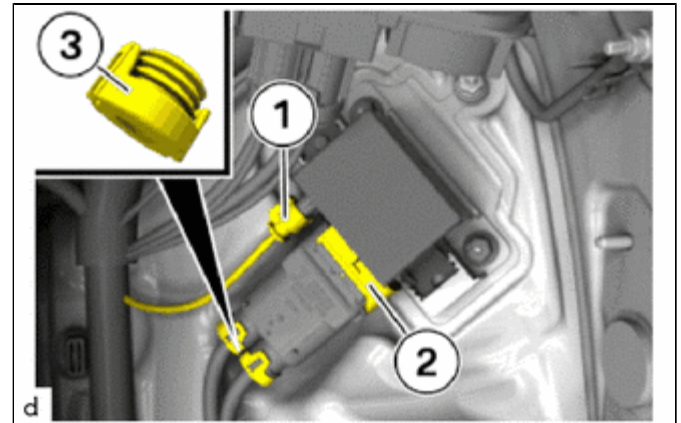
Click here [INFO](#)

2. REMOVE COWL VENT COVER RH

Click here [INFO](#)

3. REMOVE COOLING FAN RELAY

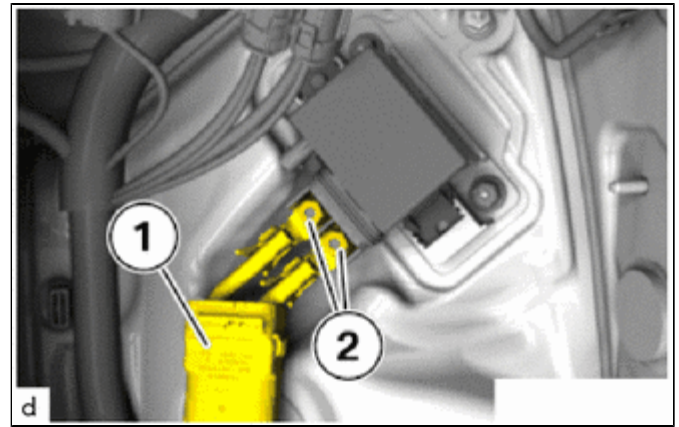
(a) Unlock connector (1) and disconnect.



(b) Remove cap (2).

(c) Unclip caps (3).

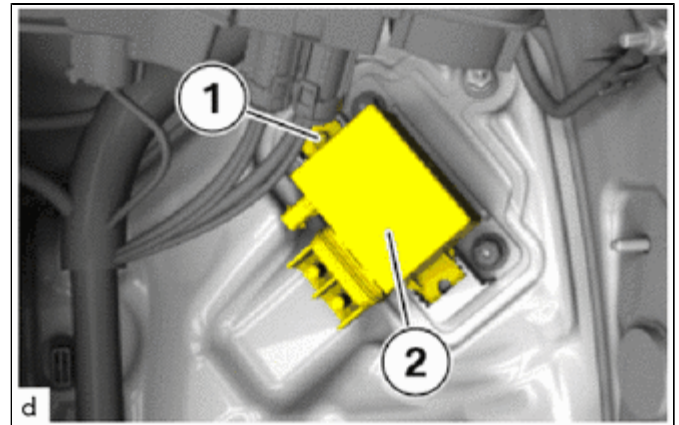
(d) Remove the rubber grommet (1) from the cooling fan relay.



(e) Loosen nuts (2).

(f) Remove the battery cables from the cooling fan relay.

(g) Loosen T25 screw (1).



(h) Swing the cooling fan relay (2) out of the bracket and remove.

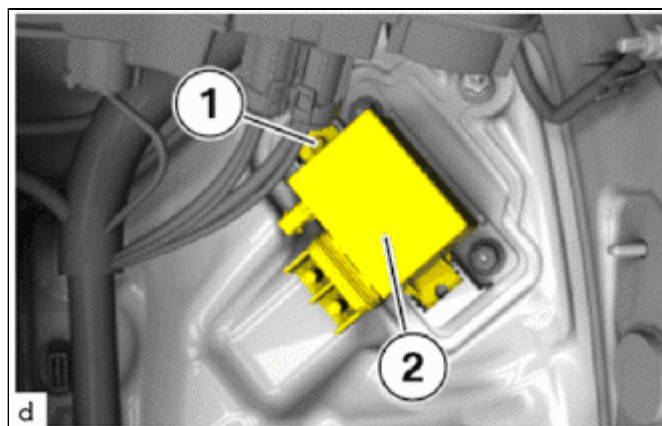
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLING FAN RELAY: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL COOLING FAN RELAY

(a) Position the cooling fan relay (2) in the bracket correctly.

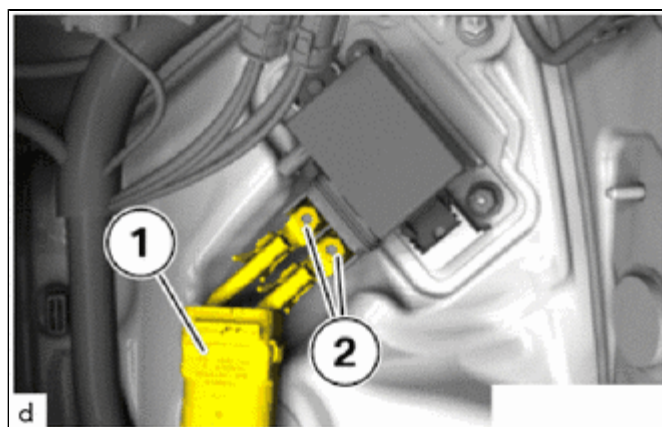


(b) Tighten down T25 screw (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(c) Position the battery cables on the cooling fan relay.



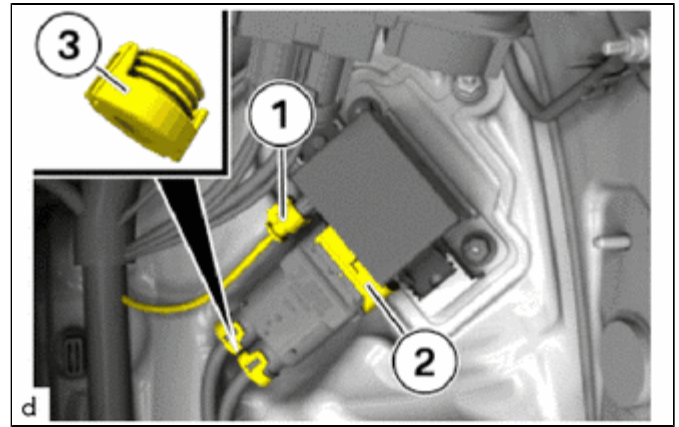
(d) Tighten nuts (2).

Torque:

5.0 N·m {51 kgf·cm, 44 in·lbf}

(e) Correctly position the rubber grommet (1).

(f) Clip in the caps (3).



(g) Install the cap (2).

(h) Connect connectors (1) and lock.

2. INSTALL COWL VENT COVER RH

Click here [INFO](#)

3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): COOLING SYSTEM: ON-VEHICLE INSPECTION; 2020 MY Supra [03/2019 -]		

ON-VEHICLE INSPECTION

PROCEDURE

1. INSPECT FOR COOLANT LEAK (for High Temperature)

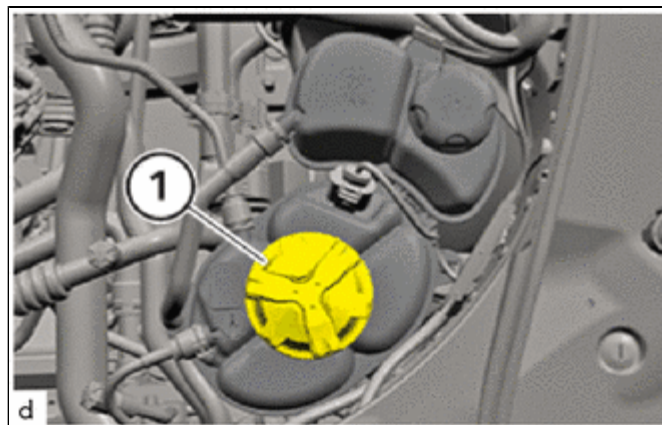
NOTICE:

- Hot surfaces.

Risk of burning!

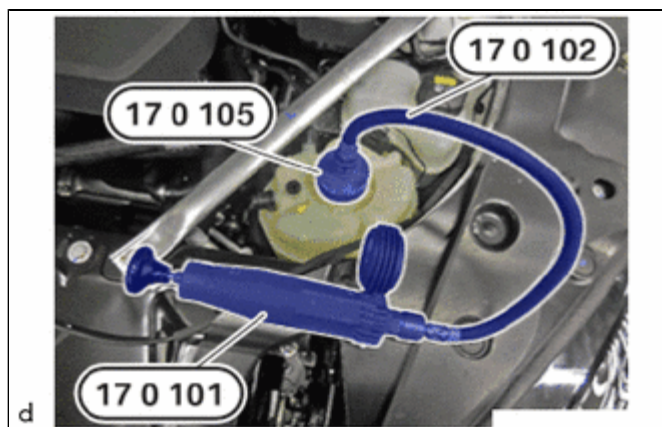
- Perform all work only on components that have cooled down.

(a) Loosen reserve tank cap sub-assembly (1).



(b) Attach the special tool 0 494 418 (17 0 101) with 0 494 419 (17 0 102) and 0 494 422 (17 0 105) from the set of special tools 0 494 417 (17 0 100).

SST: 09200-WA050



(c) Build up excess pressure and wait approx. 2 minutes.

Standard:

150 kPa (1.5 kgf/cm², 22 psi)

Electric switch valve must open at latest when the pressure is lower than the ambient pressure.

Maximum

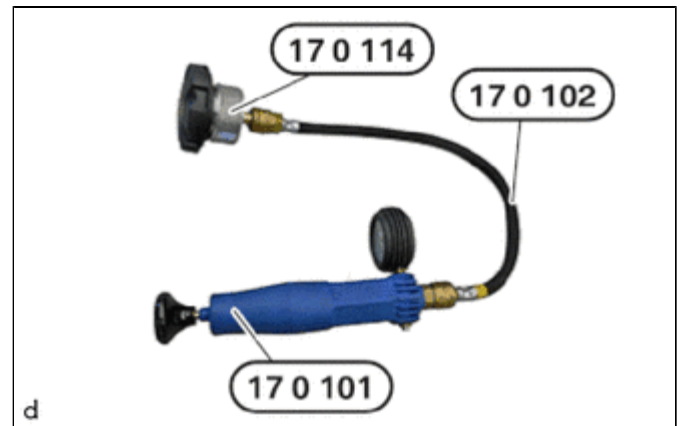
10 kPa (0.1 kgf/cm², 1 psi)

HINT:

- If the described test step is not completed successfully: repeat test step twice. Only replace the reserve tank cap sub-assembly after three tests with an incorrect opening pressure.
- When driving at high ambient temperatures, the design may cause the pressure relief valve in the reserve tank cap sub-assembly to open slightly and air to escape together with dissolved coolant.
- This coolant vapor condenses on the surface of the radiator reserve tank assembly and leaves traces of coolant when the vehicle has cooled down. These traces of coolant do not indicate whether the reserve tank cap sub-assembly is defective or not.
- Escaping coolant vapor when the vehicle is at standstill may cause the pressure relief valve to stick to the reserve tank cap sub-assembly. This may cause an incorrect opening pressure.

- (d) Screw on reserve tank cap sub-assembly (1) on special tool 0 494 643 (17 0 114) from the set of special tools 0 494 417 (17 0 100).

SST: 09200-WA050



- (e) Build up the pressure with special tools 0 494 418 (17 0 101) and 0 494 419 (17 0 102) from the set of special tools 0 494 417 (17 0 100).

- (f) Observe on the pressure measuring device when the opening pressure has been reached.

Maximum:

140 kPa (1.4 kgf/cm², 20 psi)

- (g) Close reserve tank cap sub-assembly.

- (h) Close the reserve tank cap sub-assembly until the arrows are flush.

2. INSPECT FOR COOLANT LEAK (for Low Temperature)

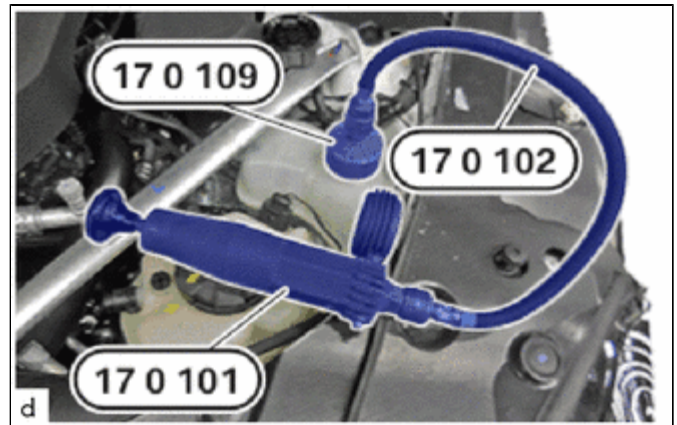
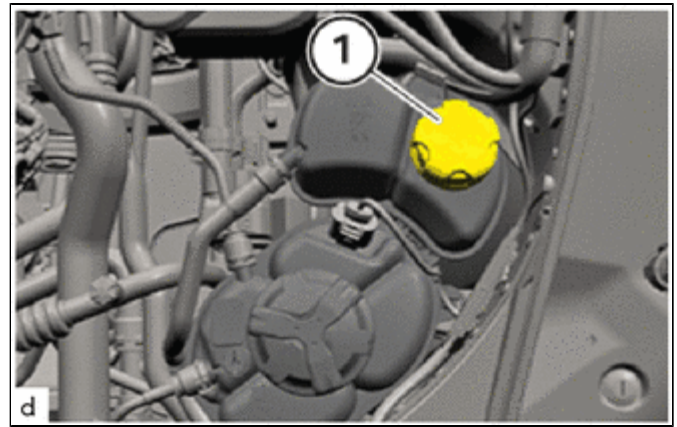
NOTICE:

- Hot surfaces.

Risk of burning!

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

- (a) Loosen radiator reserve tank cap sub-assembly (1).



- (b) Attach the special tool 0 494 418 (17 0 101) with 0 494 419 (17 0 102) and 0 494 426 (17 0 109) from the set of special tools 0 494 417 (17 0 100).

SST: 09200-WA050

- (c) Build up excess pressure and wait for approximately 2 minutes.

Standard:

150 kPa (1.5 kgf/cm², 22 psi)

Electric switch valve must open at latest when the pressure is lower than the ambient pressure.

Maximum

10 kPa (0.1 kgf/cm², 1 psi)

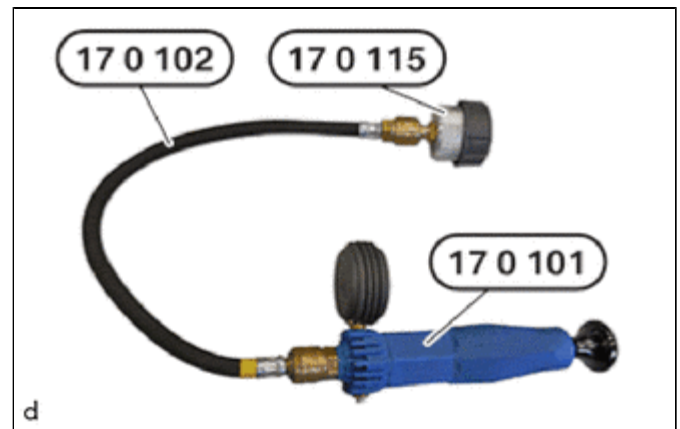
HINT:

- If the described test step is not completed successfully: repeat test step twice. Only replace the radiator reserve tank cap sub-assembly after three tests with an incorrect opening pressure.
- When driving at high ambient temperatures, the design may cause the pressure relief valve in the radiator reserve tank cap sub-assembly to open slightly and air to escape together with dissolved coolant.
- This coolant vapor condenses on the surface of the radiator reserve tank sub-assembly and leaves traces of coolant when the vehicle has cooled down. These traces of coolant do not indicate whether the radiator reserve tank cap sub-assembly is defective or not.
- Escaping coolant vapor when the vehicle is at standstill may cause the pressure relief valve to stick to the radiator reserve tank cap sub-assembly. This may cause an incorrect opening pressure.

- (d) Screw on radiator reserve tank cap sub-assembly (1) on

special tool 0 495 889 (17 0 115) from the set of special tools 0 494 417 (17 0 100).

SST: 09200-WA050



(e) Build up the pressure with the special tool 0 494 418 (17 0 101) and 0 494 419 (17 0 102) from the special tool set 0 494 417 (17 0 100).

(f) Observe on the pressure measuring device when the opening pressure has been reached.

Minimum:

140 kPa (1.4 kgf/cm², 20 psi)

(g) Close radiator reserve tank cap sub-assembly.

3. INSPECT ENGINE COOLANT

(a) Check the connections, hose clamps and hoses for coolant residues and damage such as e.g. cracks.

(b) Check the coolant composition in both radiator reserve tank.

CAUTION:

- When engine assembly and radiator assembly is hot, do not remove the radiator cap sub-assembly and air release valve.
- Fluid and steam may spray out due to high pressure, possibly resulting in burns.

(c) Check the coolant level in both radiator reserve tank.

The filling level in the radiator reserve tank must be between the minimum and maximum mark.

(d) Adjust filling level in the radiator reserve tank to the desired filling level.

The according amount of coolant must be supplemented or drawn off.

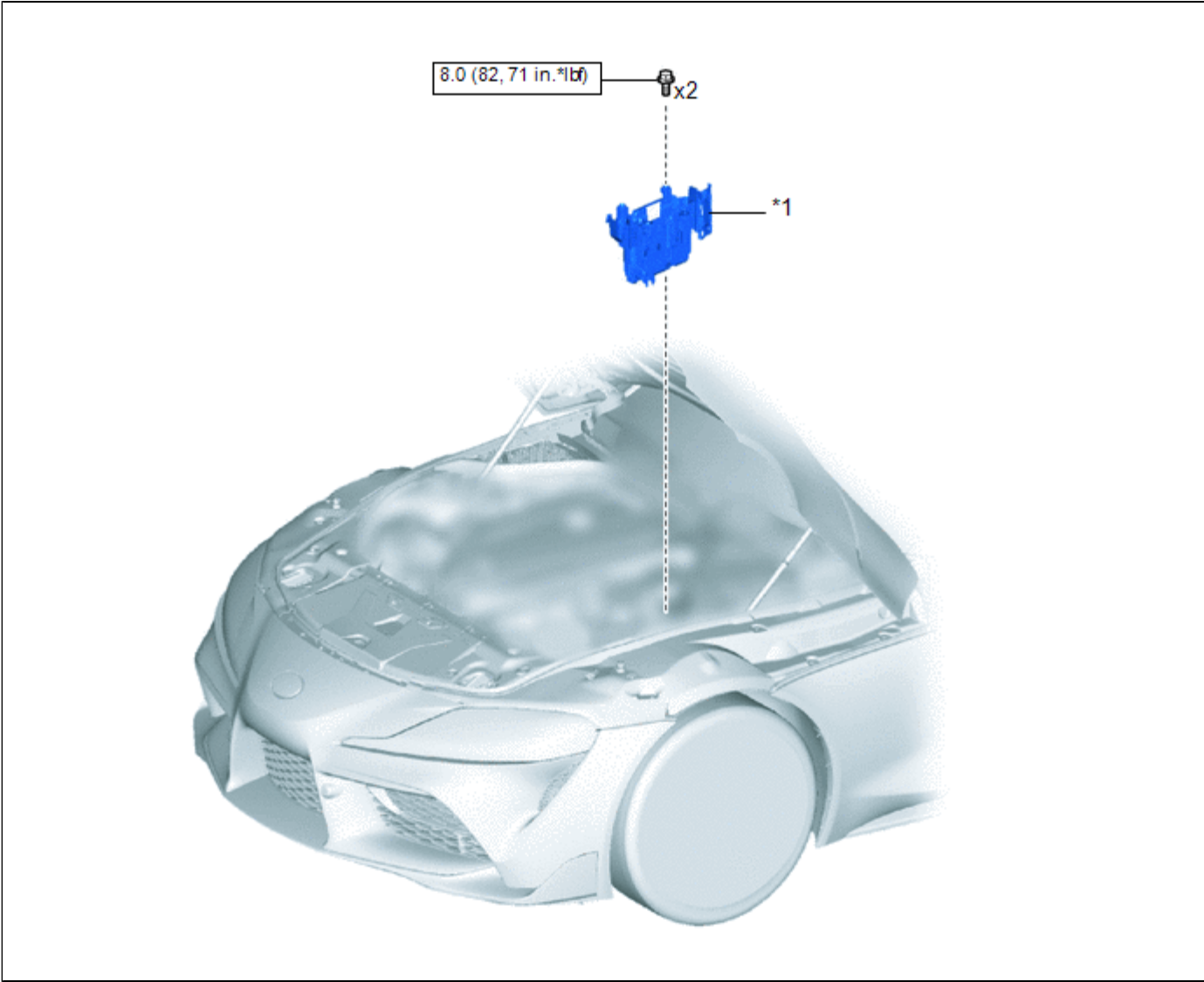
HINT:

When using Antifreeze and Corrosion Inhibitor Frostox HT-12, dilute the Antifreeze and Corrosion Inhibitor Frostox HT-12 to 50% before using it.

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Title: B58 (COOLING): ELECTRIC WATER PUMP (for Heater): COMPONENTS; 2020 MY Supra [03/2019 -]		

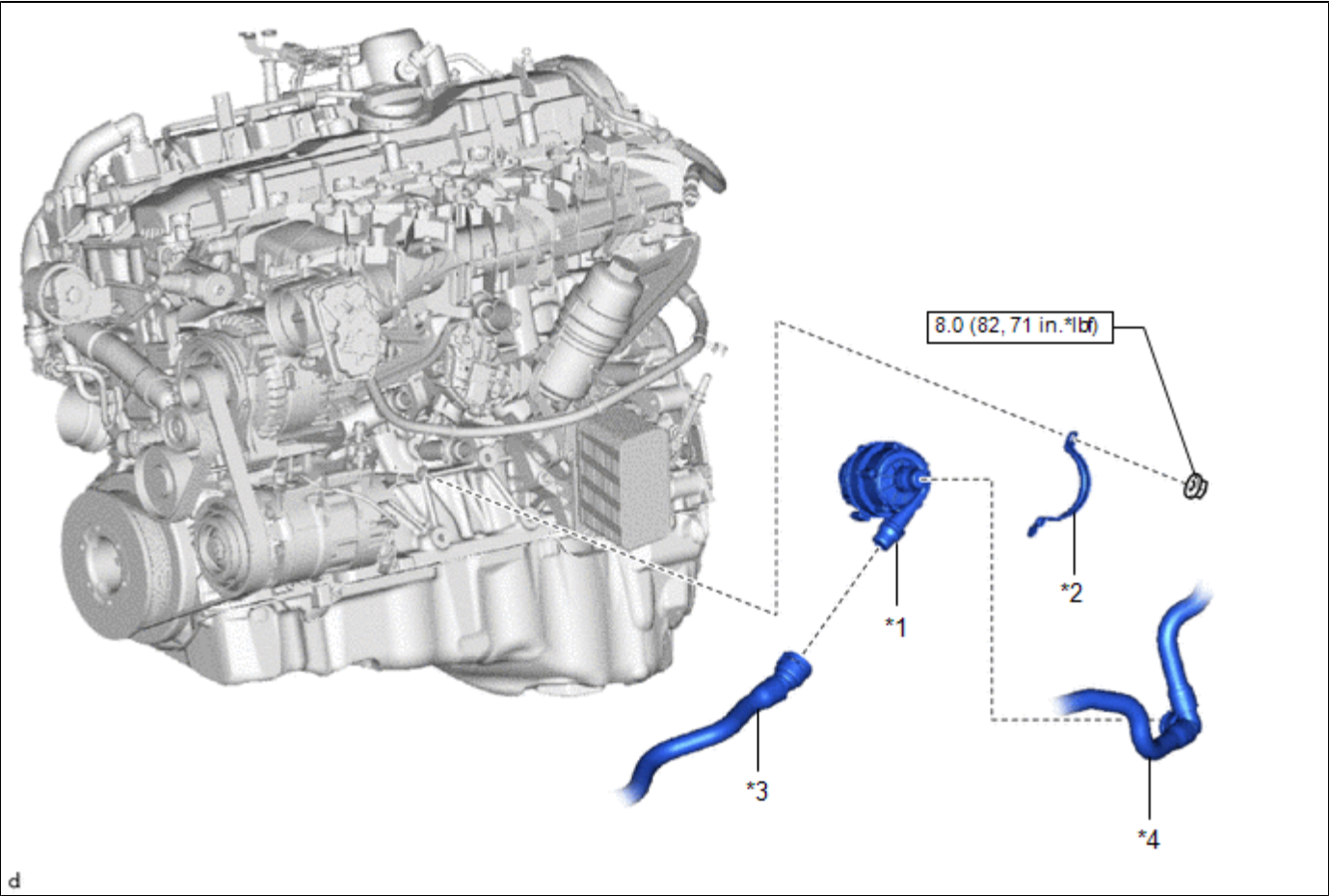
COMPONENTS

ILLUSTRATION



*1	ENGINE ROOM ECM BOX	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	WATER PUMP SUB-ASSEMBLY	*2	NO. 4 WATER PUMP BRACKET SUB-ASSEMBLY
*3	NO. 6 RADIATOR HOSE	*4	NO. 7 WATER BY-PASS HOSE
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-



TOYOTA

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): ELECTRIC WATER PUMP (for Heater): 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.

- Hot surfaces.

Risk of burning!

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

NOTICE:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. REMOVE NO. 1 INTEGRATION RELAY

Click here [INFO](#)

3. REMOVE ENGINE ROOM ECM BOX

Click here [INFO](#)

4. REMOVE WATER PUMP SUB-ASSEMBLY

CAUTION:

- Hot fluids.

Risk of scalding!

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

NOTICE:

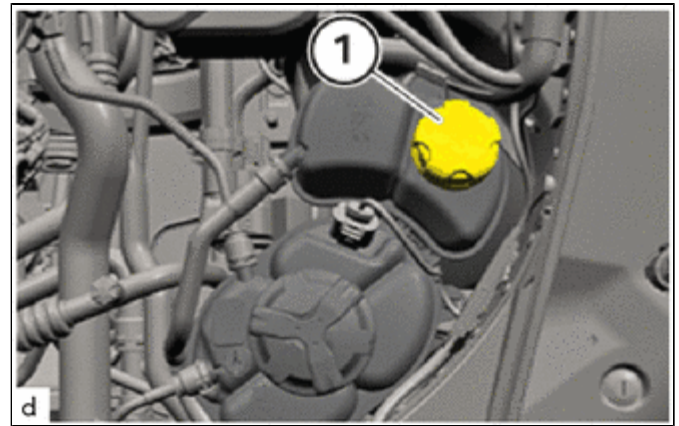
- Damage to wires when disconnecting connectors and plug connections.

Sheared wires can cause a short circuit.

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

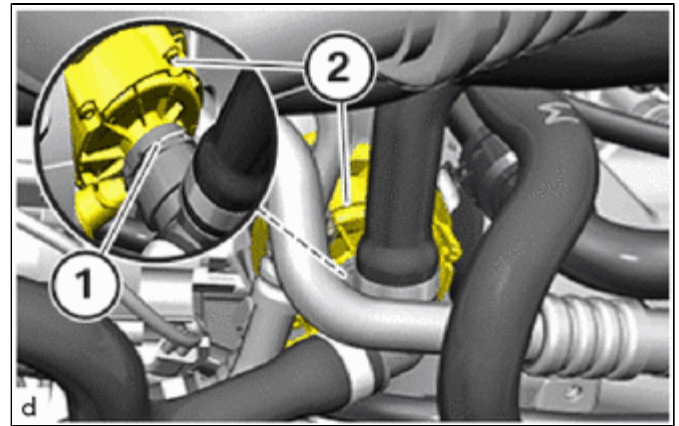
- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Loosen reserve tank cap sub-assembly (1).



(b) Disconnect the No. 7 water by-pass hose (1) with the special tool.

SST: 09900-WA090



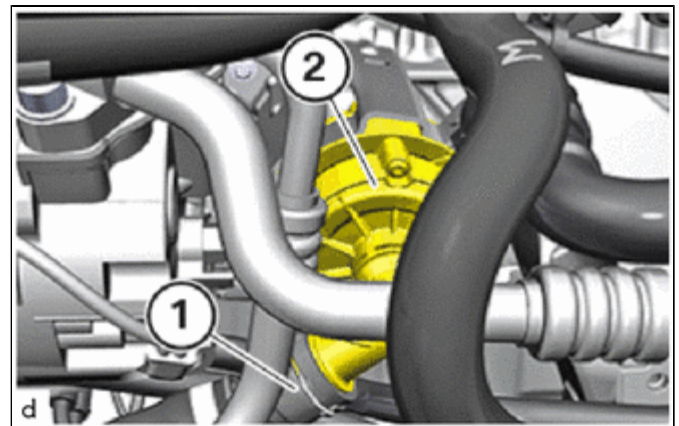
(c) Unlock No. 7 water by-pass hose (1) and disconnect from the water pump sub-assembly (2).

(d) Catch and dispose of escaping coolant.

(e) Place the No. 7 water by-pass hose (1) aside.

(f) Disconnect the No. 6 radiator hose (1) with the special tool.

SST: 09900-WA090

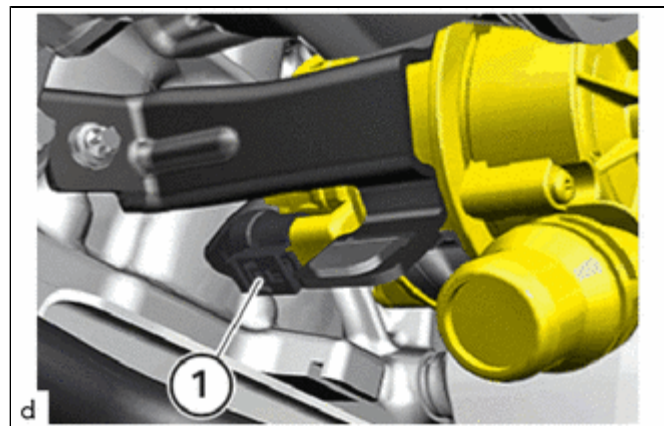


(g) Unlock No. 6 radiator hose (1) and disconnect from the water pump sub-assembly (2).

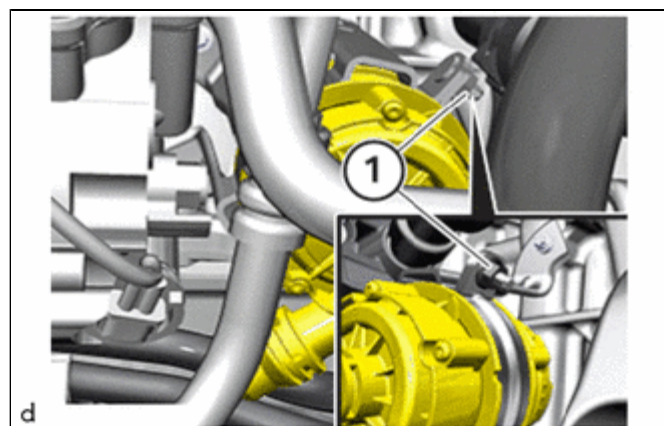
(h) Catch and dispose of escaping coolant.

(i) Place the No. 6 radiator hose (1) aside.

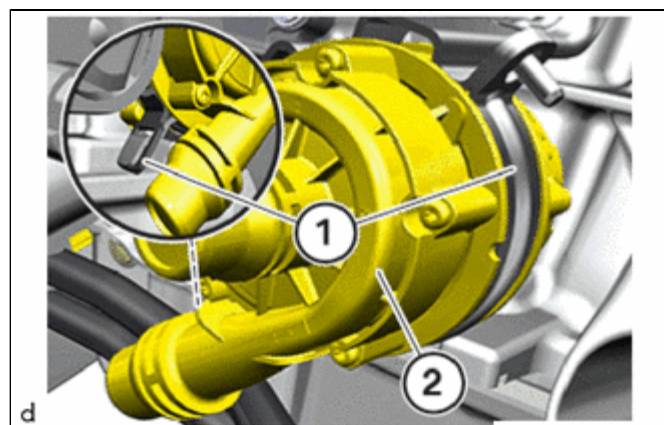
(j) Unlock plug connection (1) and disconnect.



(k) Unfasten nut (1).



(l) Release No. 4 water pump bracket sub-assembly (1).



(m) Guide out and remove the water pump sub-assembly (2).

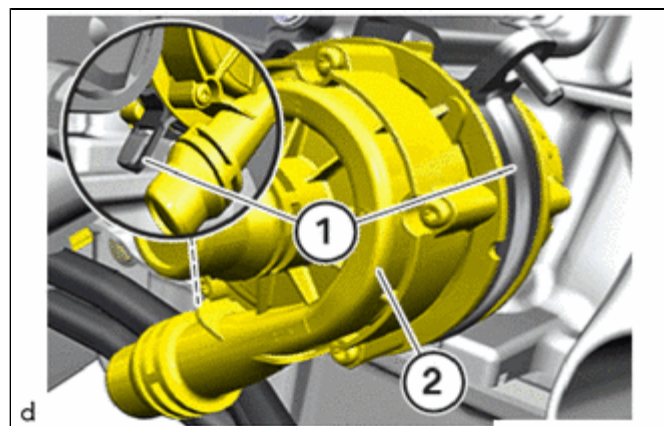
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): ELECTRIC WATER PUMP (for Heater): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL WATER PUMP SUB-ASSEMBLY

(a) Feed in and install the water pump sub-assembly (2).



(b) Position No. 4 water pump bracket sub-assembly (1).

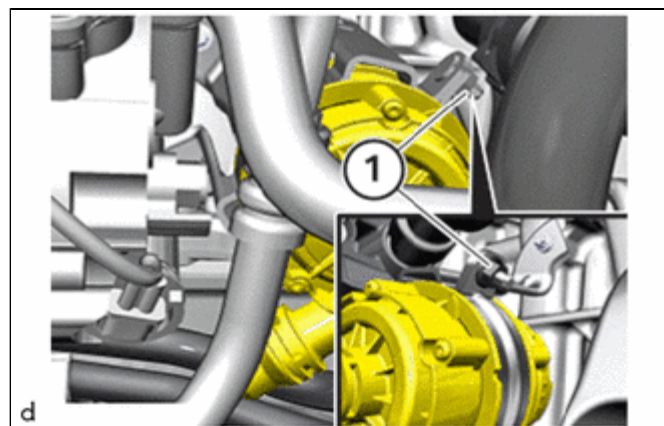
HINT:

Note the installation position of the component. The component may be installed in various installation positions.

(c) Tighten nut (1).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}



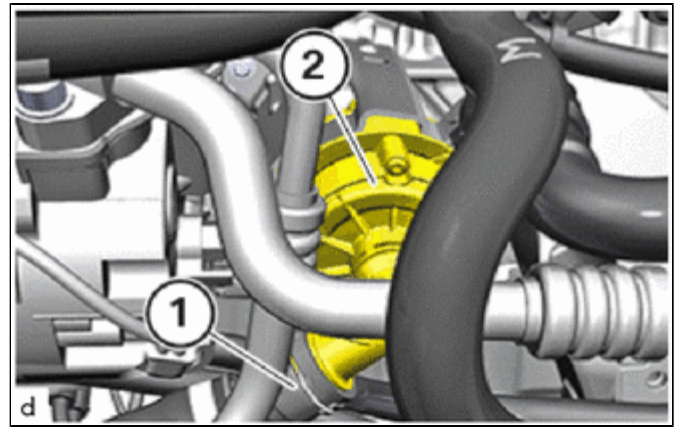
(d) Connect connectors and lock.

(1) The connector must engage audibly.

(e) Connect and lock the No. 6 radiator hose (1) to the water pump sub-assembly (2).

HINT:

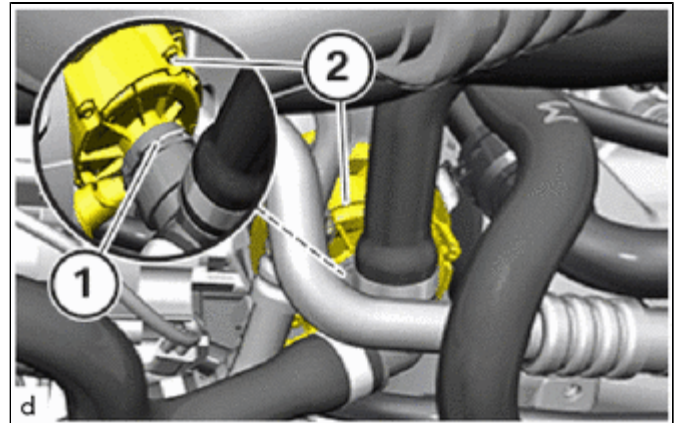
Make sure that the connections are locked correctly. The locks must engage audibly.



(f) Connect and lock the No. 7 water by-pass hose (1) to the water pump sub-assembly (2).

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.



2. INSTALL ENGINE ROOM ECM BOX

Click here [INFO](#)

3. INSTALL NO. 1 INTEGRATION RELAY

Click here [INFO](#)

4. ADD ENGINE COOLANT (for Low Temperature)

Click here [INFO](#)

5. INSPECT FOR COOLANT LEAK (for Low Temperature)

Click here [INFO](#)

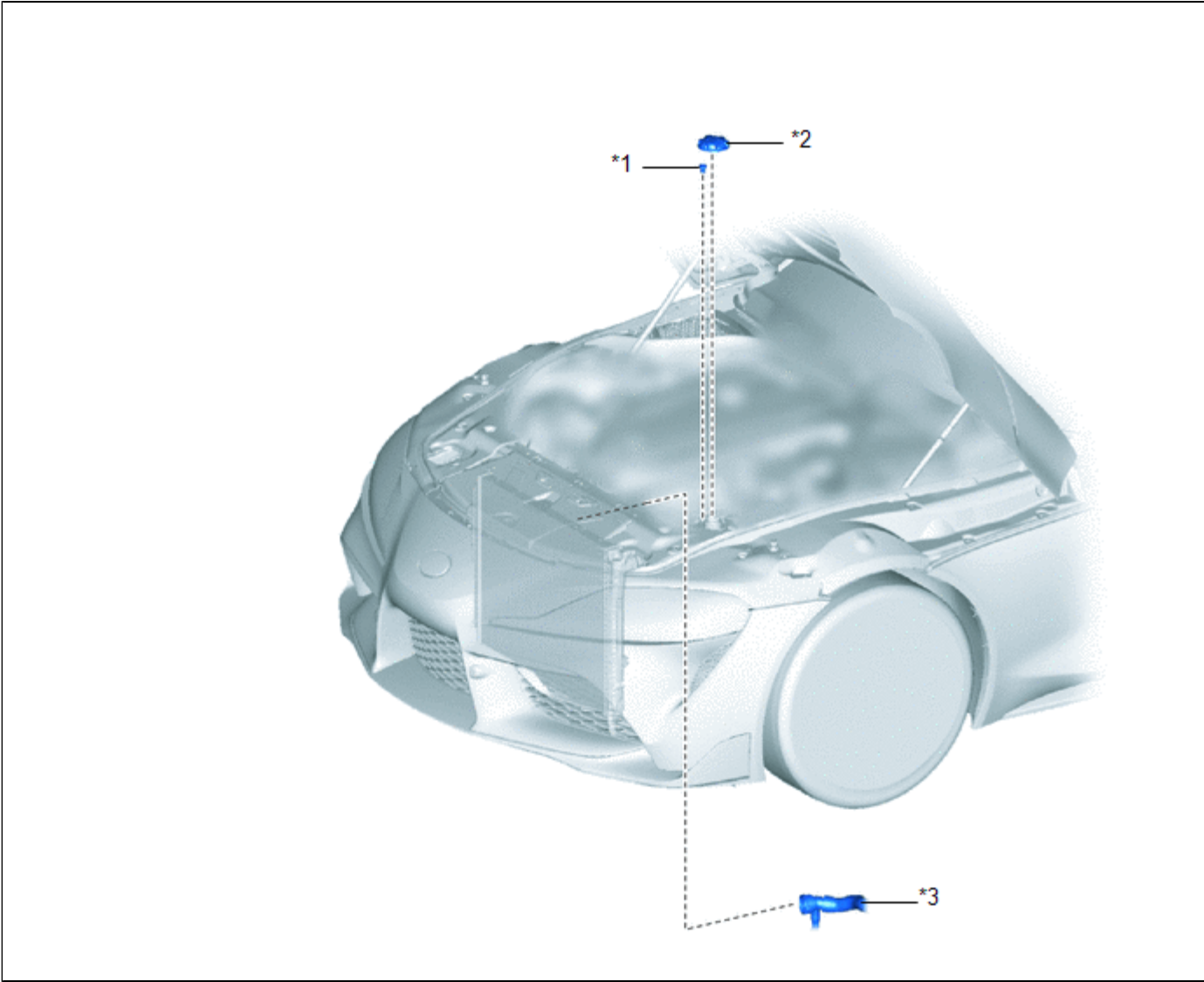
6. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAQ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): ELECTRIC WATER PUMP (for Turbo): COMPONENTS; 2020 MY Supra [03/2019 -]		

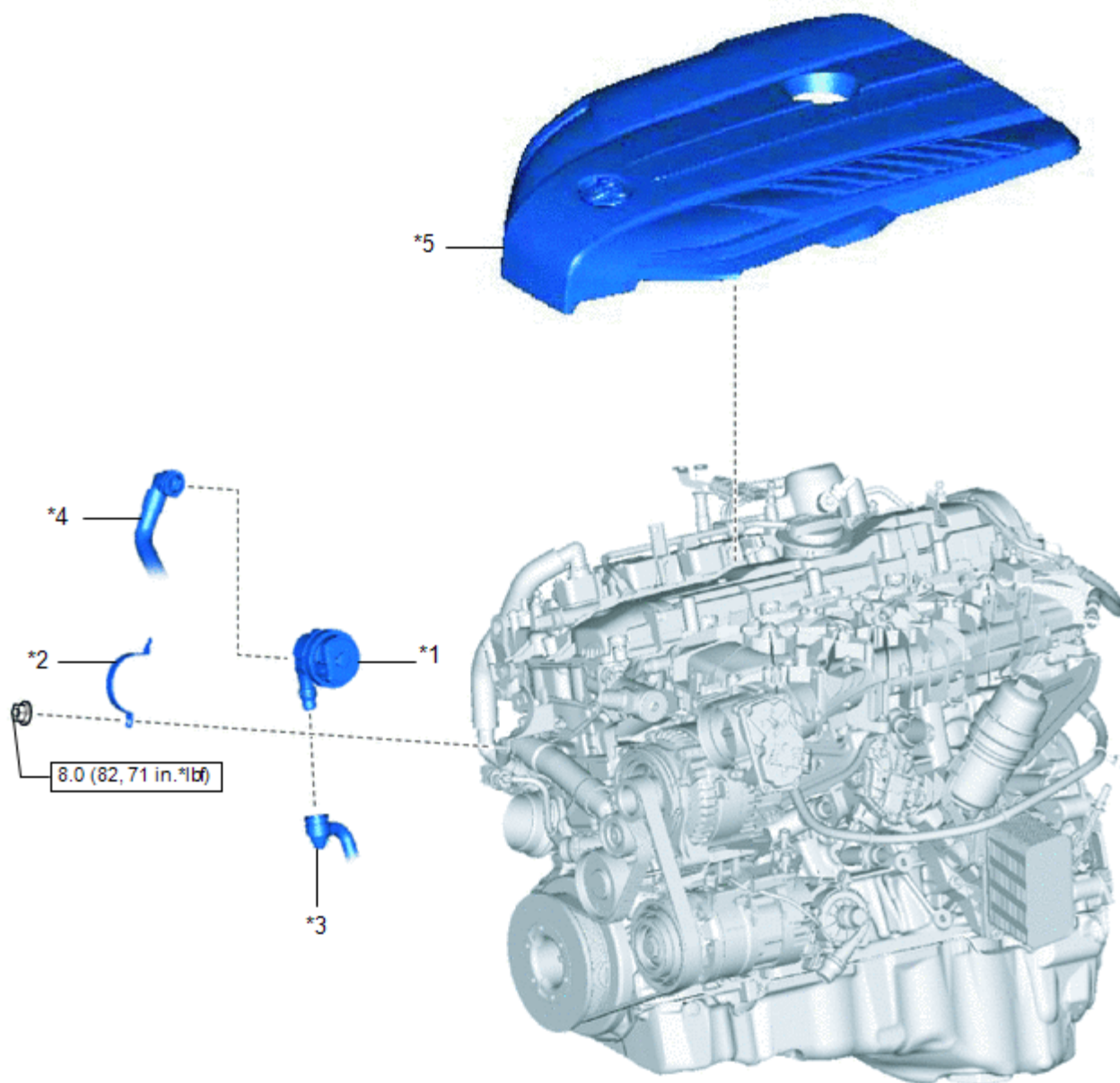
COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	WATER PUMP ASSEMBLY	*2	NO. 2 WATER PUMP BRACKET SUB-ASSEMBLY
*3	NO. 2 TURBO WATER PIPE SUB-ASSEMBLY	*4	NO. 3 RADIATOR HOSE
*5	NO. 1 ENGINE COVER SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): ELECTRIC WATER PUMP (for Turbo): 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.
- Hot surfaces.

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

NOTICE:

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

PROCEDURE

1. REMOVE NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

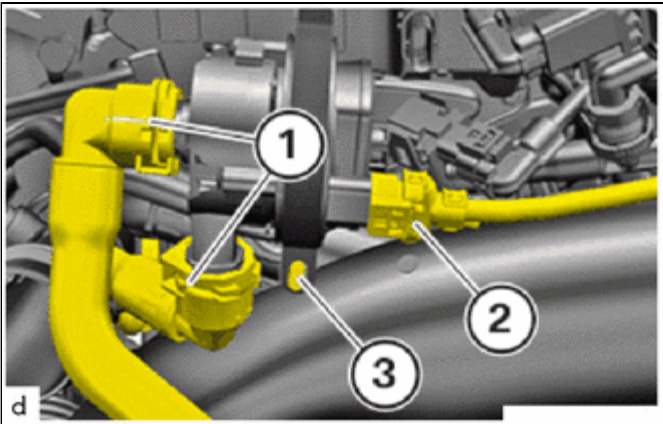
Click here [INFO](#)

4. REMOVE WATER PUMP ASSEMBLY

NOTICE:

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

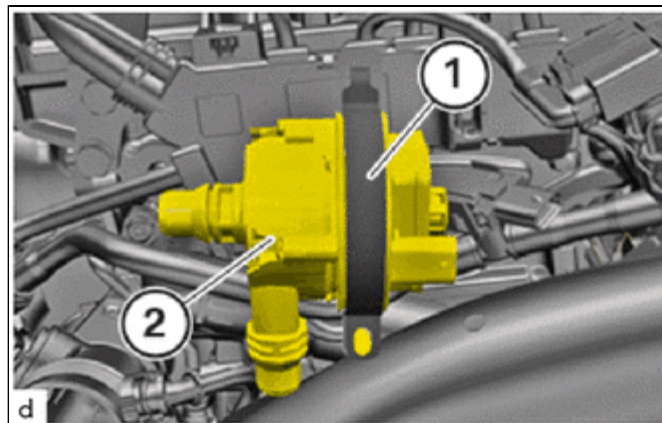
(a) Unlock and disconnect the No. 3 radiator hose and No. 2 turbo water pipe sub-assembly (1).



(b) Unlock plug connection (2) and disconnect.

(c) Loosen nut (3).

(d) Guide the No. 2 water pump bracket sub-assembly (1) out and remove.



(e) Remove water pump assembly (2).



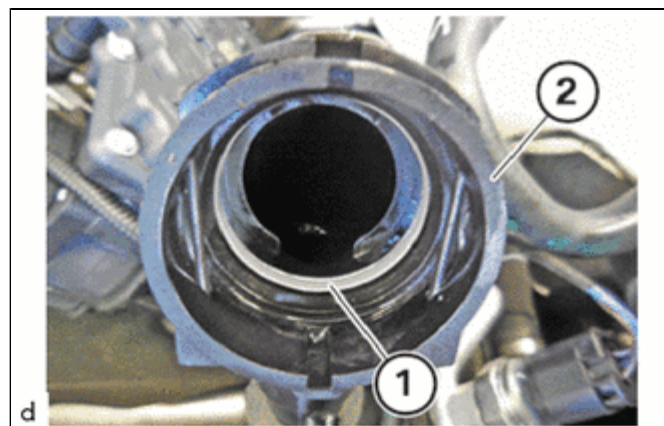
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): ELECTRIC WATER PUMP (for Turbo): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL WATER PUMP ASSEMBLY

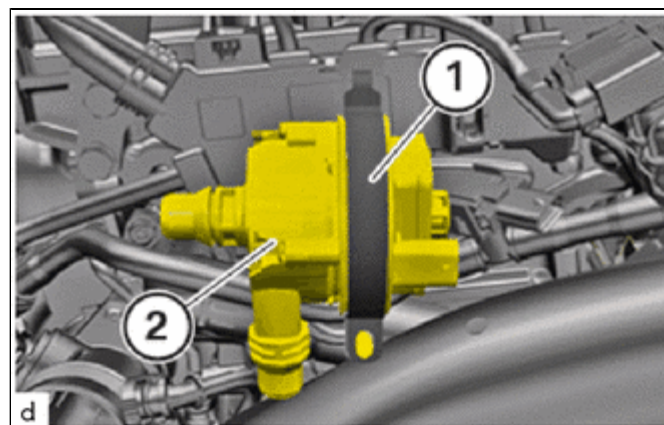
- (a) Check the sealing rings (1) of the coolant lines (2) for damage and replace the coolant lines, if necessary.



- (b) Position the water pump assembly (2).

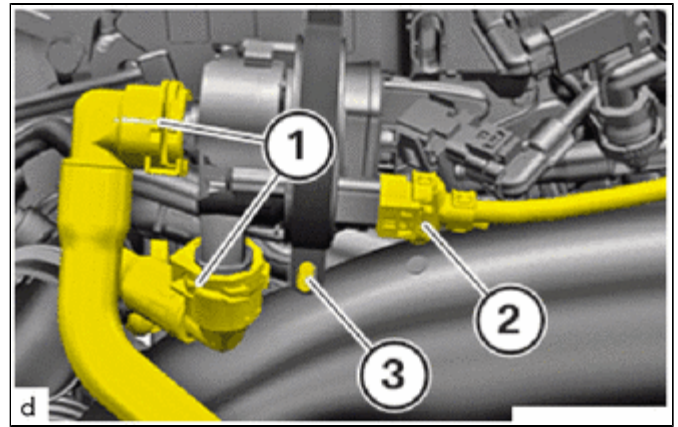
HINT:

Note the installation position of the component. The component may be installed in various installation positions.



- (c) Insert and install the No. 2 water pump bracket sub-assembly (1).

- (d) Make sure the No. 2 water pump bracket sub-assembly is fitted correctly.



(e) Tighten nut (3).

Torque:

8.0 N·m { 82 kgf·cm, 71 in·lbf }

(f) Connect and lock the No. 3 radiator hose and No. 2 turbo water pipe sub-assembly (1).

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

(g) Connect connector (2) and lock.

2. INSTALL NO. 1 ENGINE COVER SUB-ASSEMBLY

Click here [INFO](#)

3. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

5. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

*3	FRONT BUMPER UPPER RETAINER	*4	RADIATOR UPPER AIR DEFLECTOR
*5	UPPER RADIATOR SUPPORT SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): FAN SHROUD: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

HINT:

When the engine is stopped after the end of the journey, it may be necessary to run the electric fan. In rare cases, operation of the electric fan can last up to 11 min. This protects the components. In this case, replacing the electric fan will not remedy the problem!

PROCEDURE

1. REMOVE HEADLIGHT ASSEMBLY LH

Click here [INFO](#)

2. REMOVE HEADLIGHT ASSEMBLY RH

HINT:

Use the same procedure as for the LH side.

3. REMOVE FRONT BUMPER INNER SUPPORT

Click here [INFO](#)

4. REMOVE FRONT BUMPER UPPER RETAINER

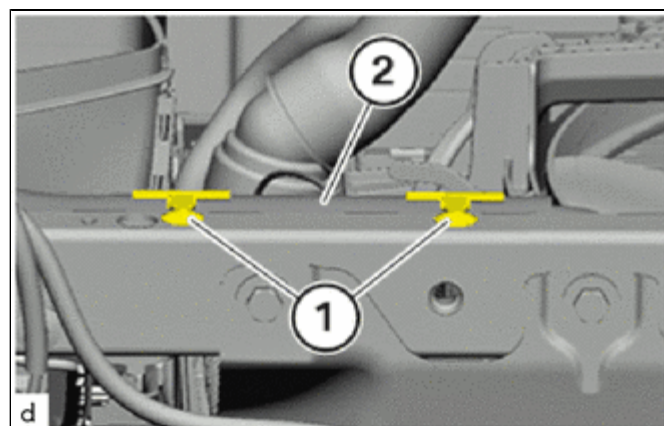
Click here [INFO](#)

5. REMOVE RADIATOR UPPER AIR DEFLECTOR

Click here [INFO](#)

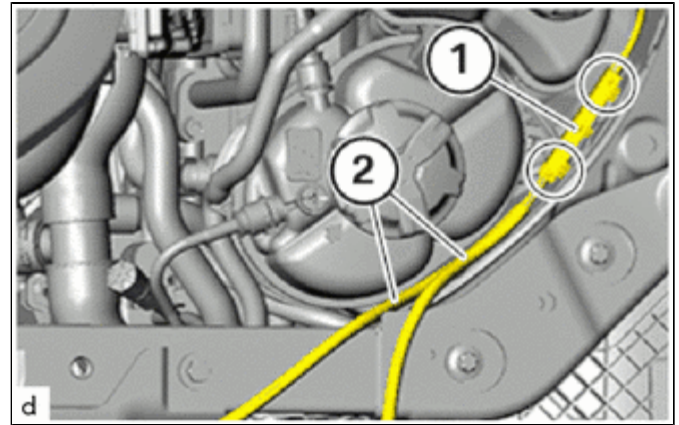
6. REMOVE UPPER RADIATOR SUPPORT SUB-ASSEMBLY

(a) Loosen the clips (1).



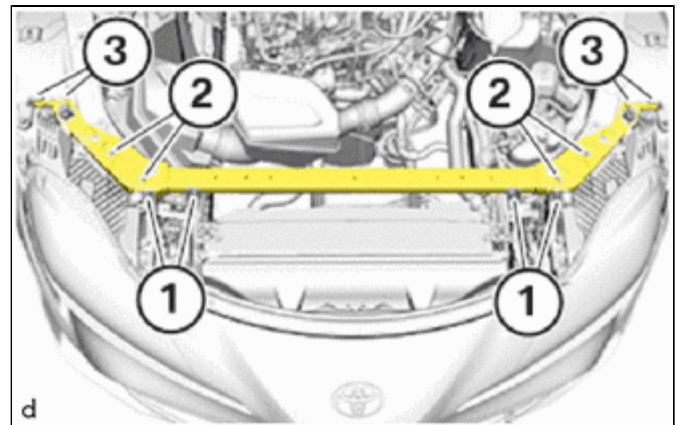
(b) Place wiring harness (2) to one side.

(c) Unclip the housing (1) in the marked areas.



(d) Detach the Bowden cables (2) at the separation point in the housing (1) where required.

(e) Loosen bolts (1).



(f) Loosen E14 bolts (2).

(g) Unscrew the bolts (3) and remove the upper radiator support sub-assembly.

7. REMOVE FAN WITH MOTOR ASSEMBLY

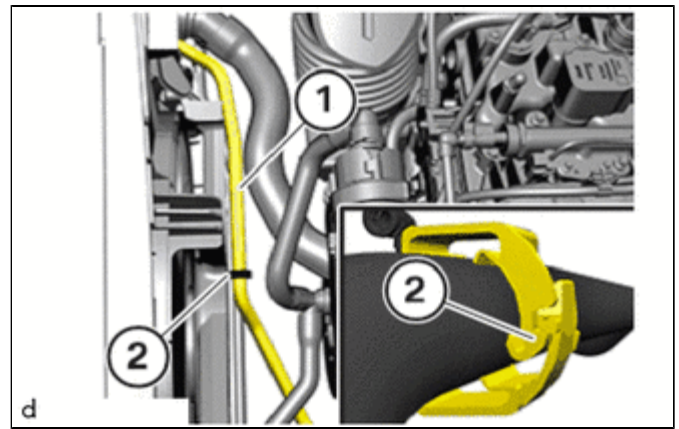
CAUTION:

- Hot surfaces.

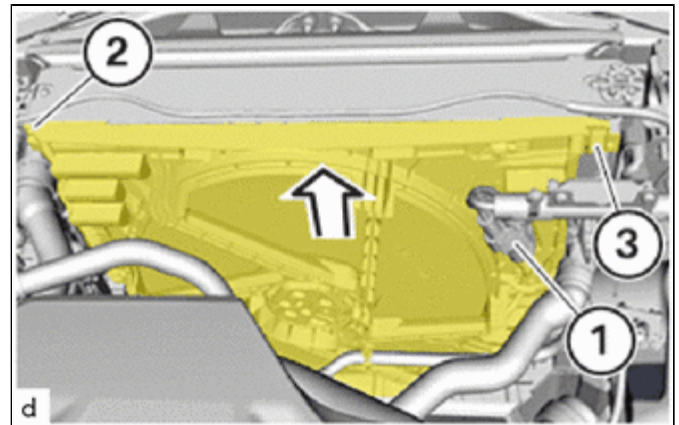
Risk of burning!

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

(a) Release the automatic transmission oil cooler tube (1) from the holder (2) on the fan with motor assembly.



(b) Unlock plug connection (1) and disconnect



(c) Loosen T30 screw (2).

(d) Unlock the right lock (3).

(e) Remove fan with motor assembly (1) in direction of arrow.

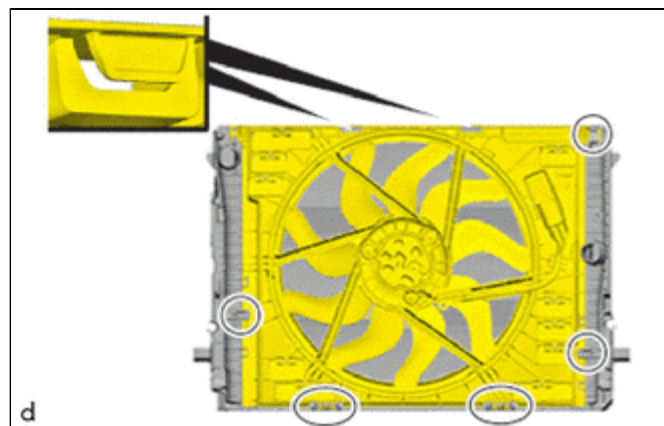
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): FAN SHROUD: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

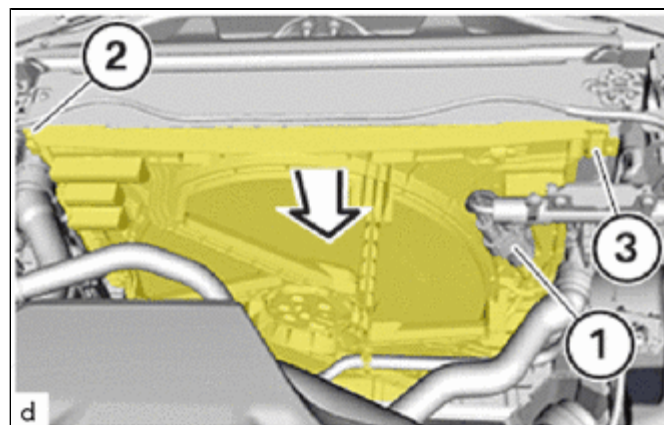
PROCEDURE

1. INSTALL FAN WITH MOTOR ASSEMBLY

(a) Engage the fan with motor assembly at the guides (marks).



(b) Feed in and install the fan with motor assembly in the direction of the arrow.



(c) Lock the right lock (3).

(d) Tighten down T30 screw (2).

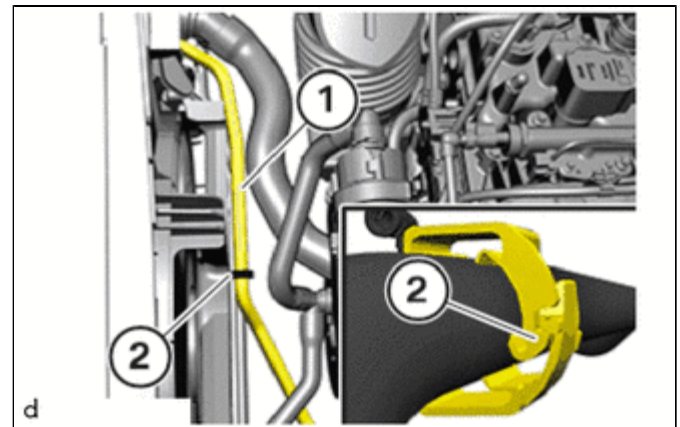
Torque:

6.0 N·m {61 kgf·cm, 53 in·lbf}

(e) Connect connectors (1) and lock.

(1) The connector must engage audibly.

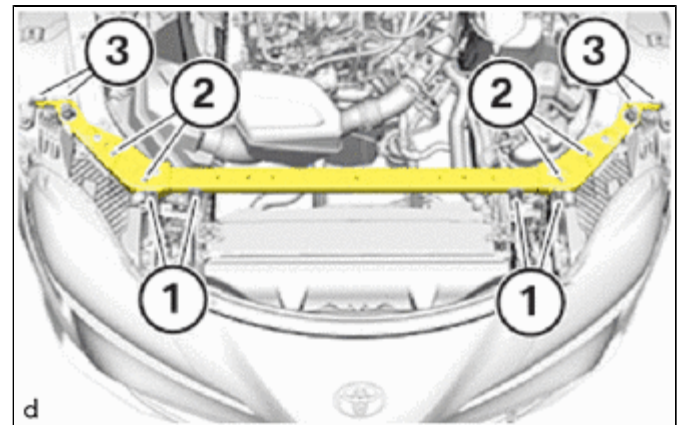
- (f) Secure the automatic transmission oil cooler tube (1) in the holder (2).



- (g) Lock holder (2).

2. INSTALL UPPER RADIATOR SUPPORT SUB-ASSEMBLY

- (a) Position upper radiator support sub-assembly.



- (b) Insert bolts (1) and tighten them.

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

- (c) Insert E14 bolts (2) and tighten.

Torque:

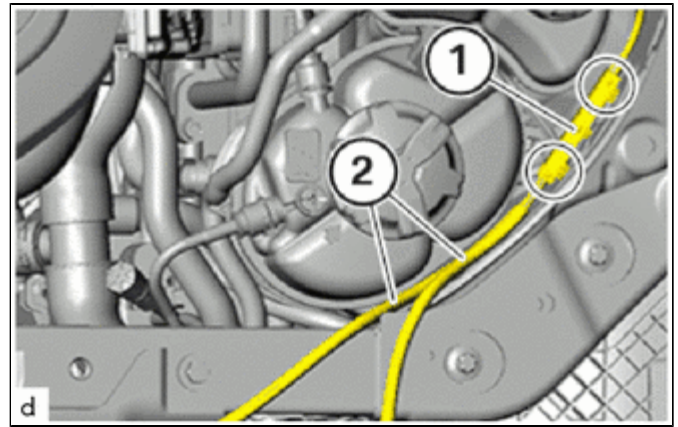
56 N·m {571 kgf·cm, 41 ft·lbf}

- (d) Insert bolts (3) and tighten them.

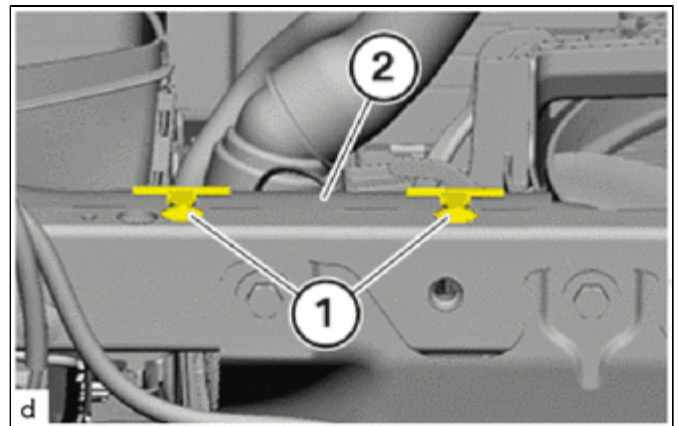
Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}

- (e) If applicable, attach the Bowden cables (2).



(f) Clip in housing (1) in the marked areas.



(g) Position wiring harness (2).

(h) Mount clips (1).

3. INSTALL RADIATOR UPPER AIR DEFLECTOR

Click here [INFO](#)

4. INSTALL FRONT BUMPER UPPER RETAINER

Click here [INFO](#)

5. INSTALL FRONT BUMPER INNER SUPPORT

Click here [INFO](#)

6. INSTALL HEADLIGHT ASSEMBLY LH

Click here [INFO](#)

7. INSTALL HEADLIGHT ASSEMBLY RH

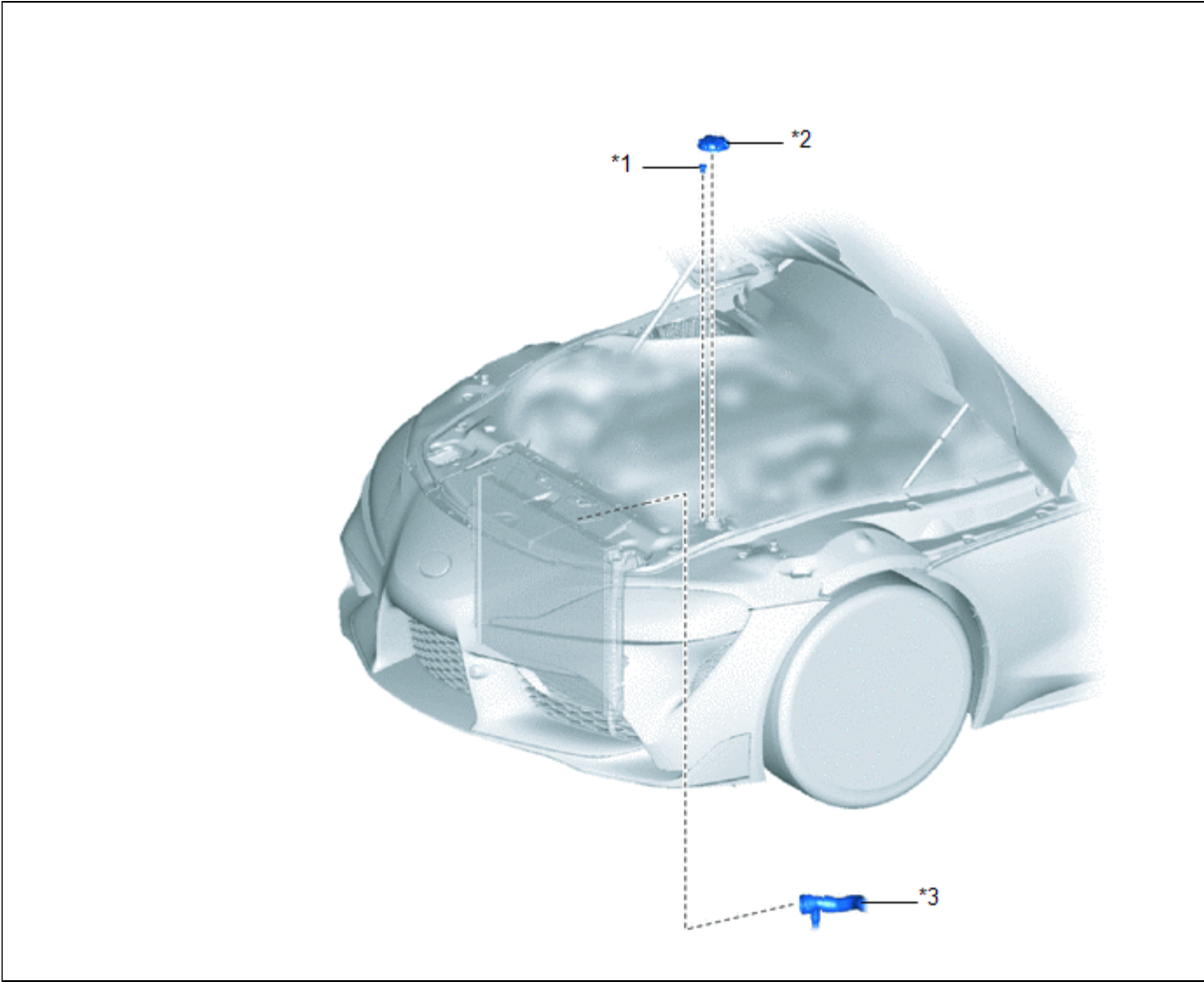
HINT:

Use the same procedure as for the LH side.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): HEAT MANAGEMENT MODULE: COMPONENTS; 2020 MY Supra [03/2019 -]		

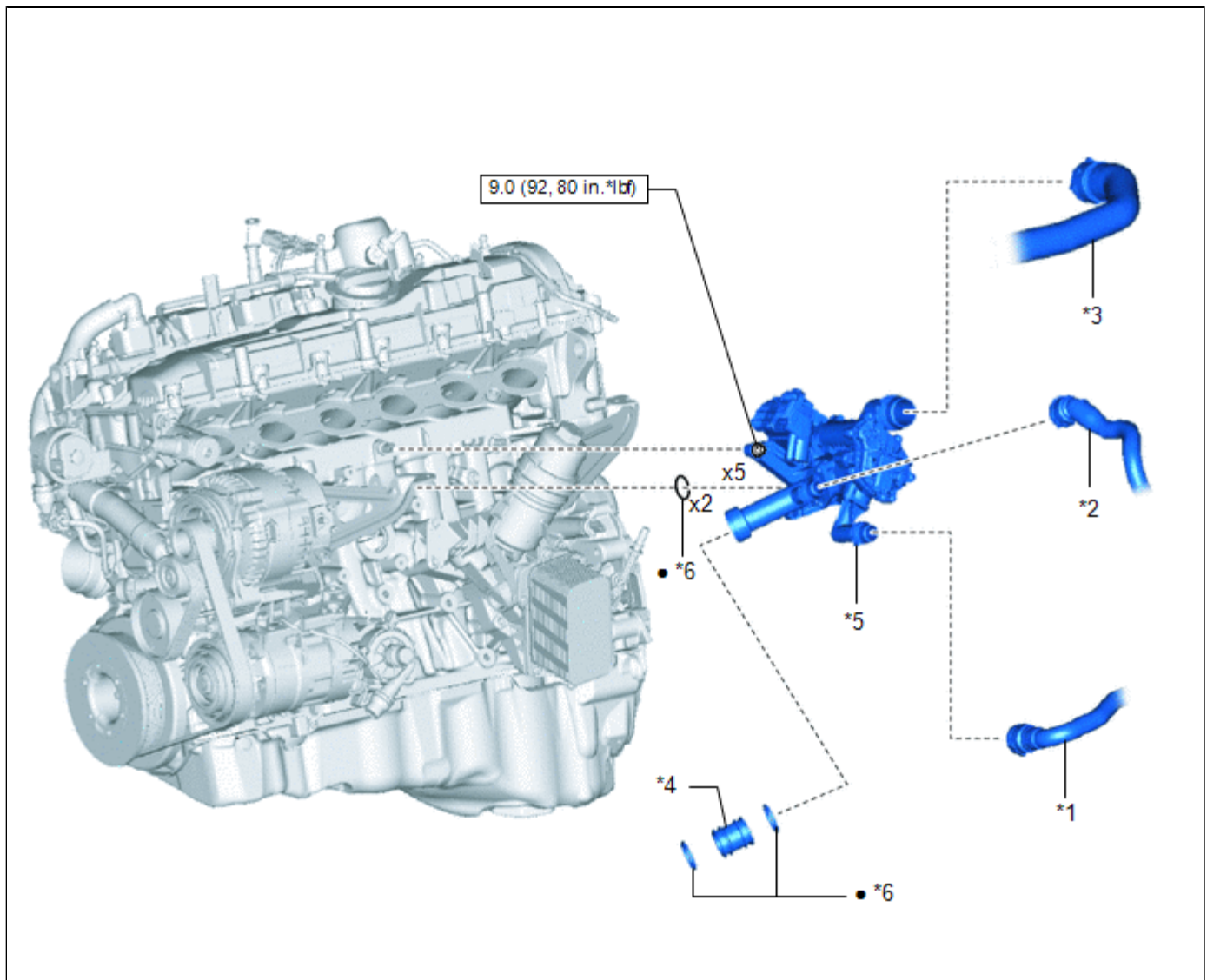
COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): HEAT MANAGEMENT MODULE: 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.

NOTICE:

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

PROCEDURE

1. REMOVE INTAKE MANIFOLD

Click here [INFO](#)

2. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

3. REMOVE WATER VALVE

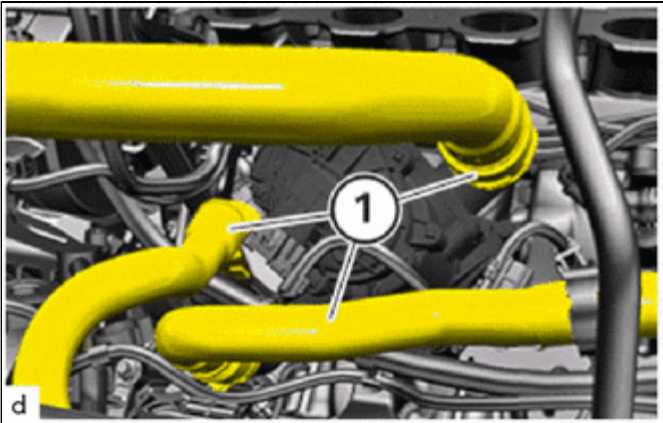
CAUTION:

- Hot fluids.
- Risk of scalding!
- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

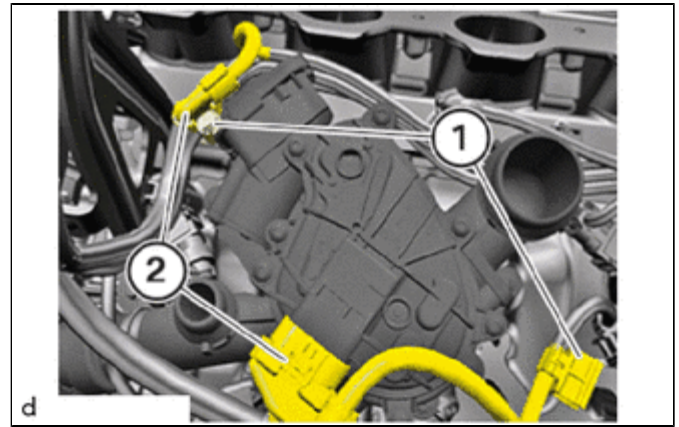
NOTICE:

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

(a) Unlock and pull off the No. 2 radiator hose, No. 1 water by-pass hose and water heater hose (1).

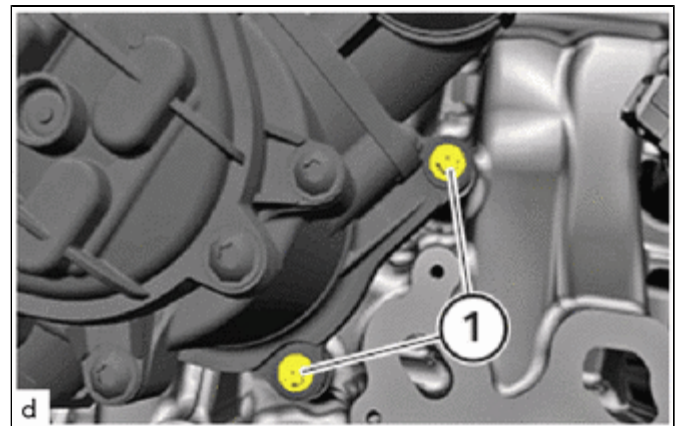


(b) Detach the cable clips (1) from the water valve and the full-flow oil filter.

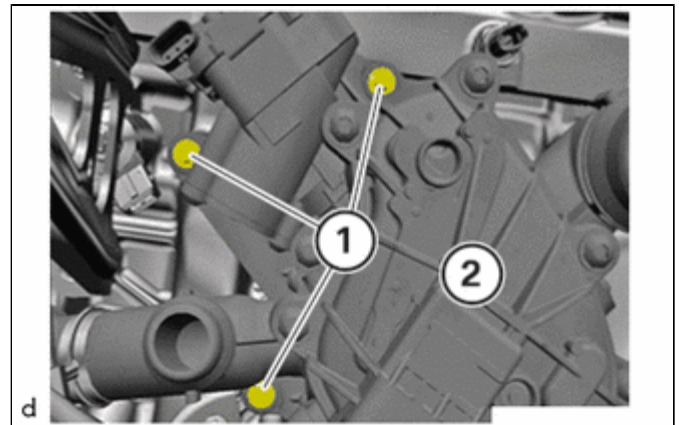


(c) Unlock and disconnect plug connections (2).

(d) Loosen E10 bolt (1).



(e) Loosen E10 bolts (1).



(f) Thread out the water valve (2) to the rear and out of the water inlet with water pump housing sub-assembly and remove.

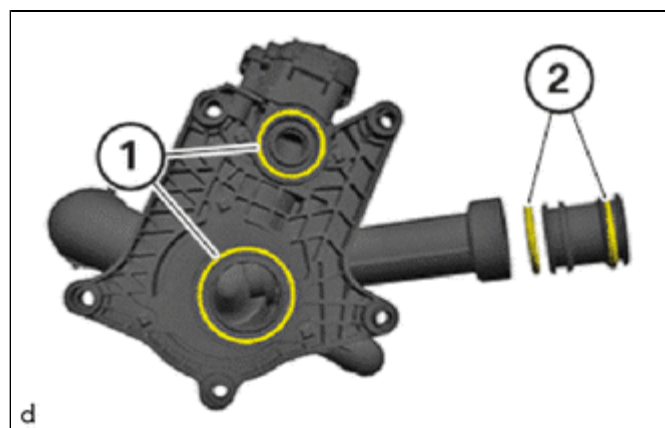
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): HEAT MANAGEMENT MODULE: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL WATER VALVE

(a) Replace the O-rings (1).



(b) Replace the O-rings (2).

(c) Coat O-rings (2) with coolant before installing.

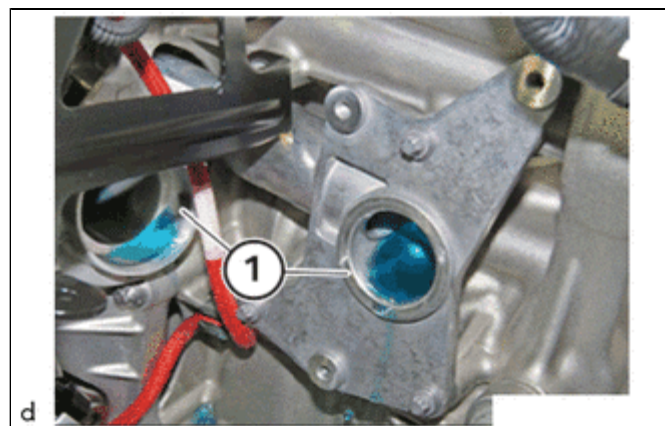
(d) Clean sealing surfaces (1).

NOTICE:

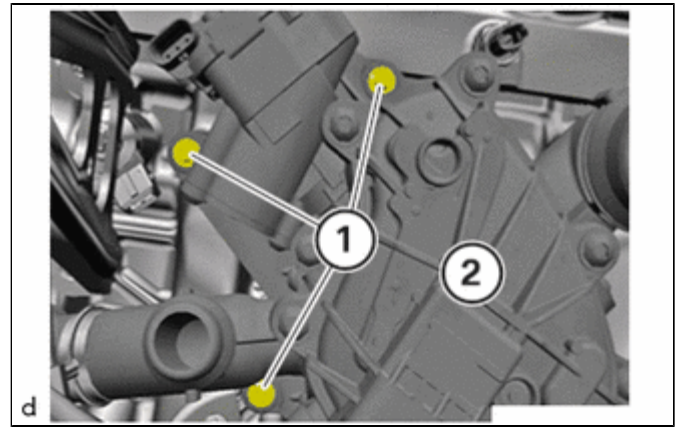
- Damage to the surface.

The use of metal-cutting tools (e.g. emery cloth) to clean the surfaces can damage them and lead to leaks or engine damage.

- Do not use any metal-cutting tools.



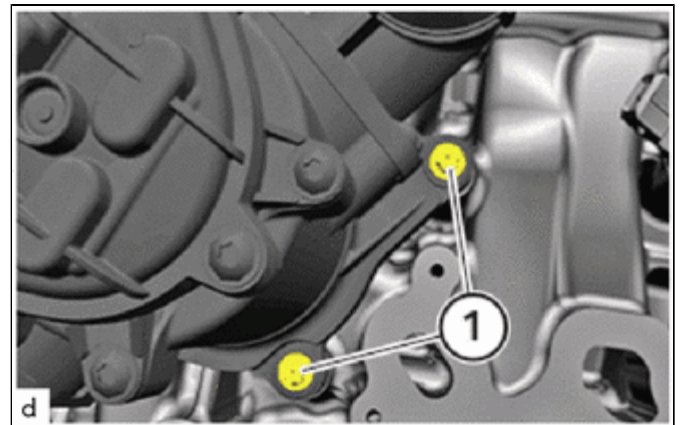
(e) Insert water valve (2) into the water inlet with water pump housing sub-assembly from the rear.



(f) Position the water valve (2) and tighten the E10 bolts (1).

Torque:

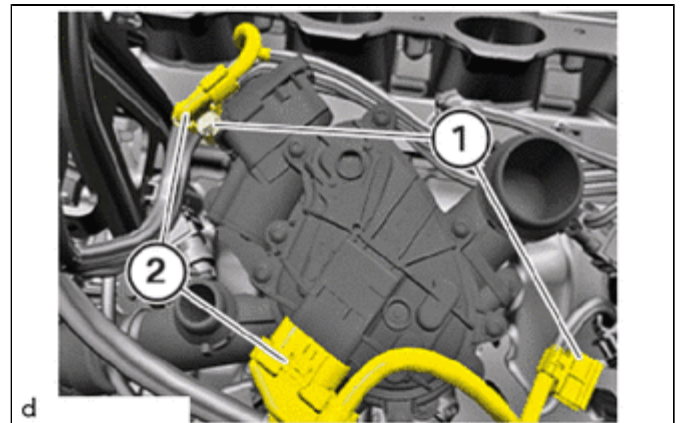
9.0 N·m {92 kgf·cm, 80 in·lbf}



(g) Tighten the E10 bolts (1).

Torque:

9.0 N·m {92 kgf·cm, 80 in·lbf}



(h) Connect and lock the connector (2).

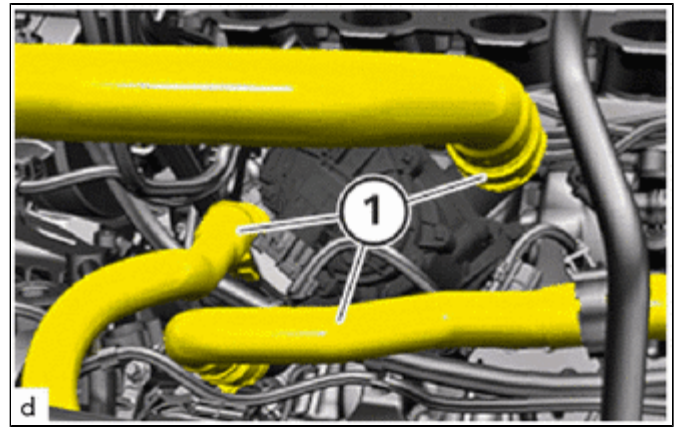
(1) The locks must engage audibly.

(i) Fasten the cable clip (1) on the water valve and on the full-flow oil filter.

- (j) Connect the No. 2 radiator hose, No. 1 water by-pass hose and water heater hose (1) on the water valve and lock.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.



2. INSTALL INTAKE MANIFOLD

Click here [INFO](#)

3. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

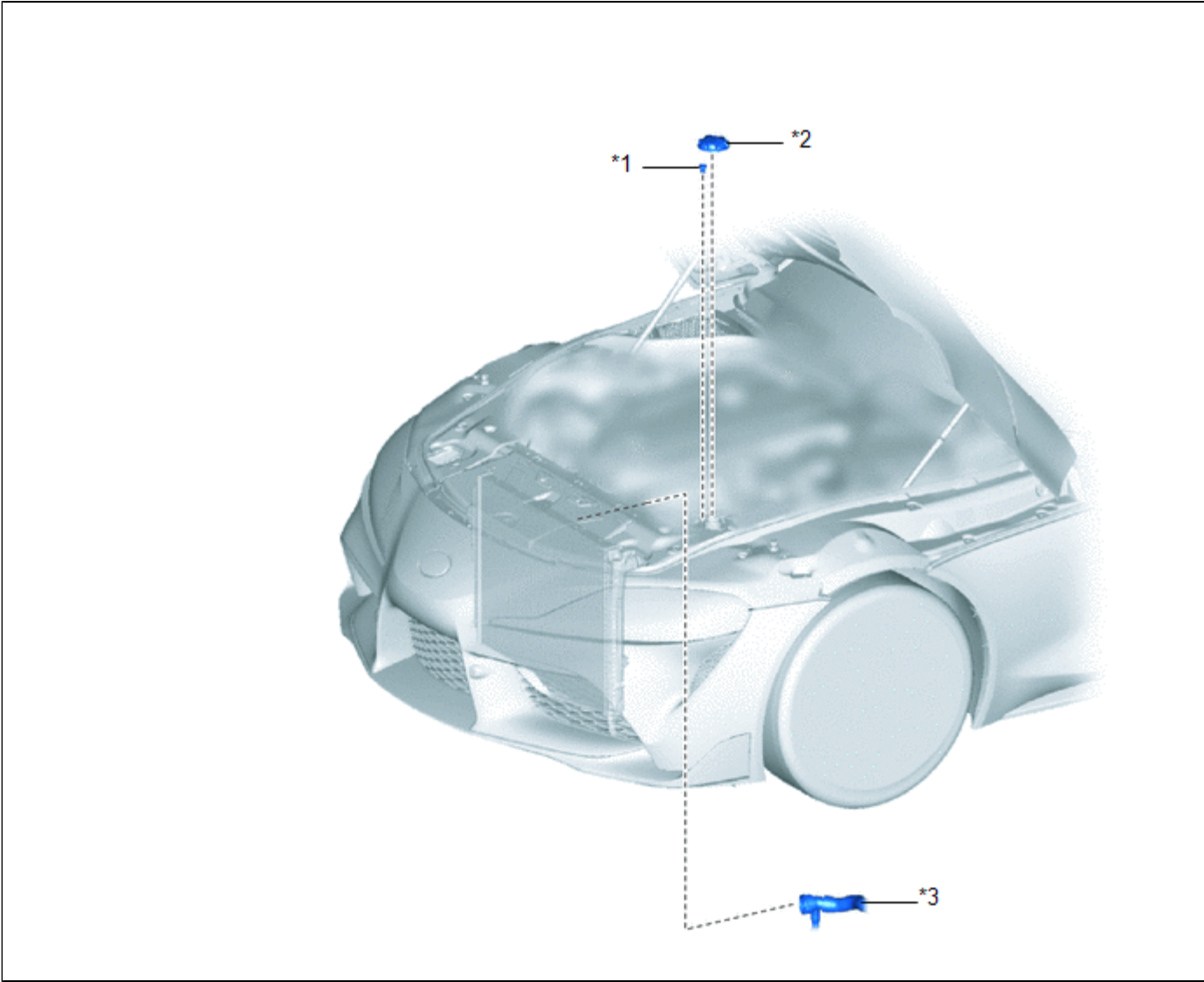


TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR (for High Temperature): COMPONENTS; 2020 MY Supra [03/2019 -]		

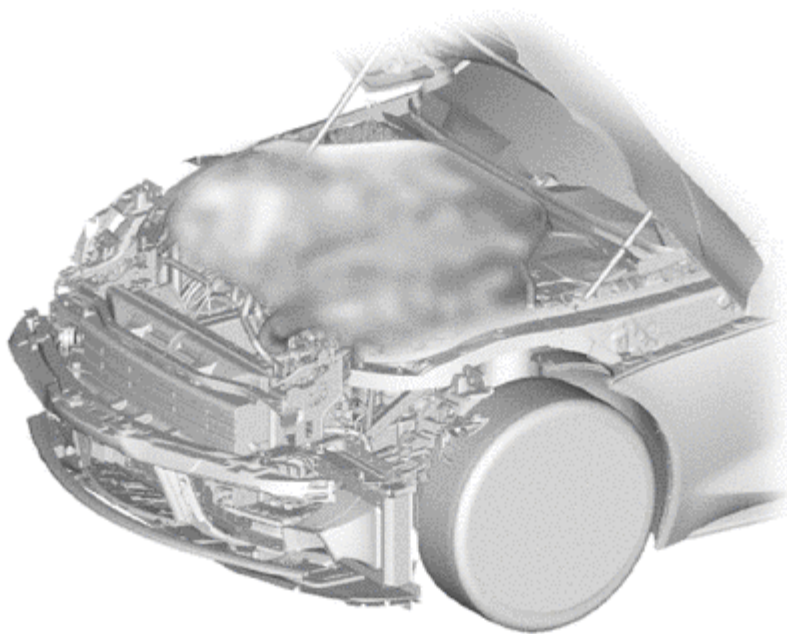
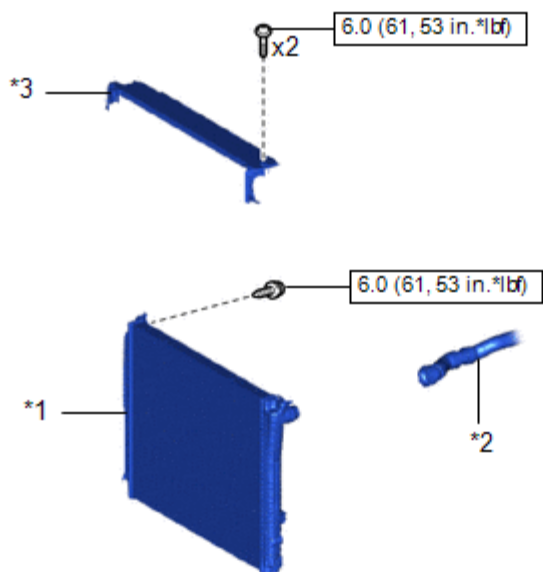
COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



d

*1	RADIATOR ASSEMBLY	*2	NO. 2 RADIATOR HOSE
*3	RADIATOR UPPER AIR GUIDE PLATE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR (for High Temperature): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FAN WITH MOTOR ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. REMOVE RADIATOR ASSEMBLY

CAUTION:

- Hot surfaces.

Risk of burning!

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

NOTICE:

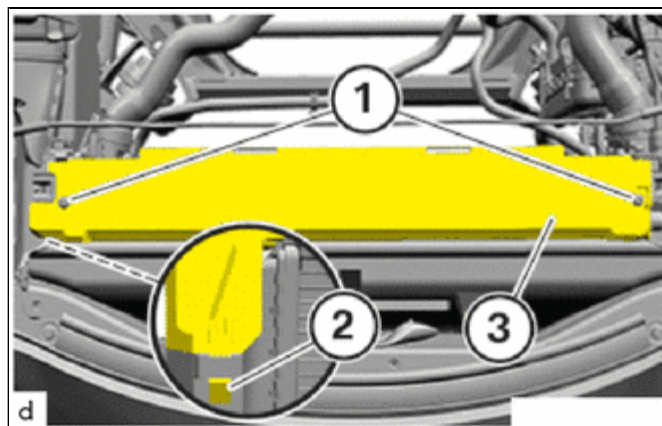
- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

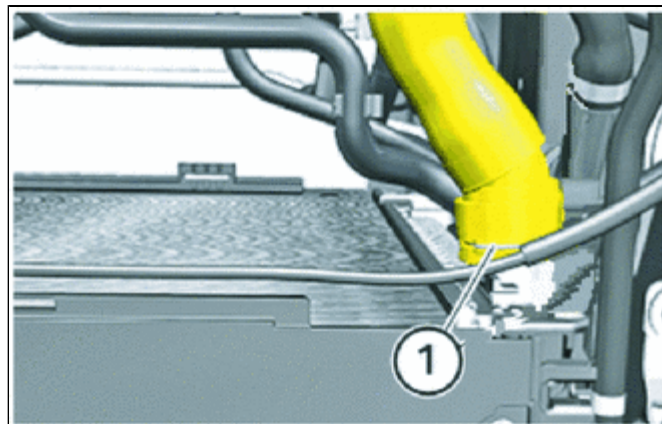
- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Loosen T30 screws (1).

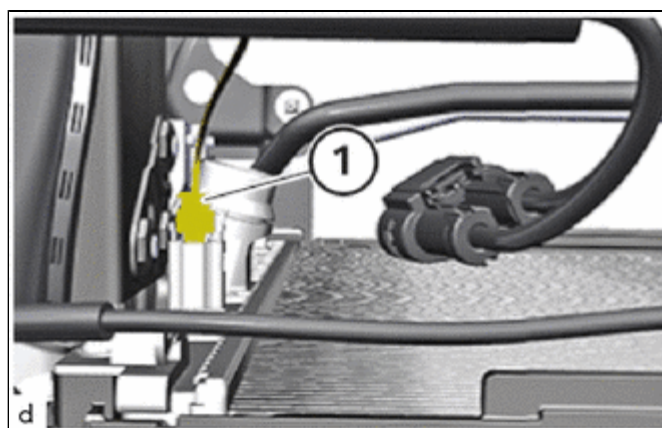


(b) Unlock the lock (2) and remove the radiator upper air guide plate (3) toward the top.

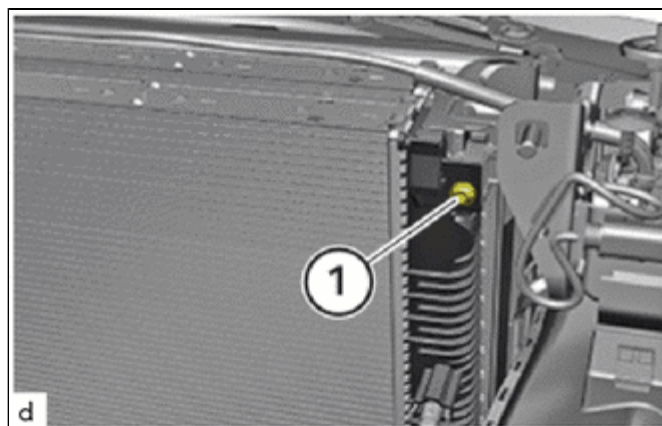
(c) Unlock the No. 2 radiator hose (1) and disconnect from the radiator assembly.



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

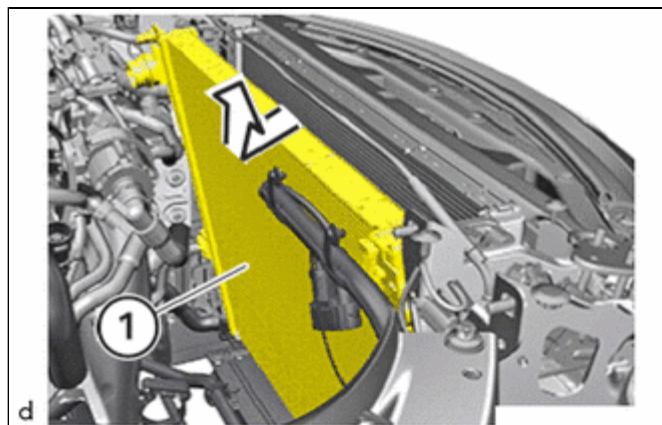


(e) Loosen T30 screw (1).



(f) Slightly pivot the radiator assembly (1) in direction of arrow

and thread out and remove to the top.



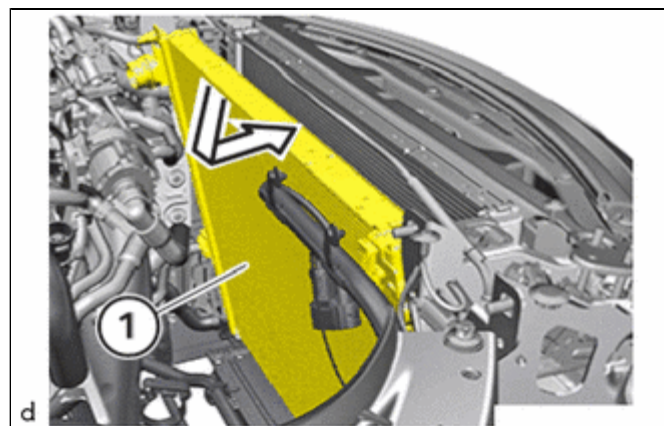
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR (for High Temperature): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

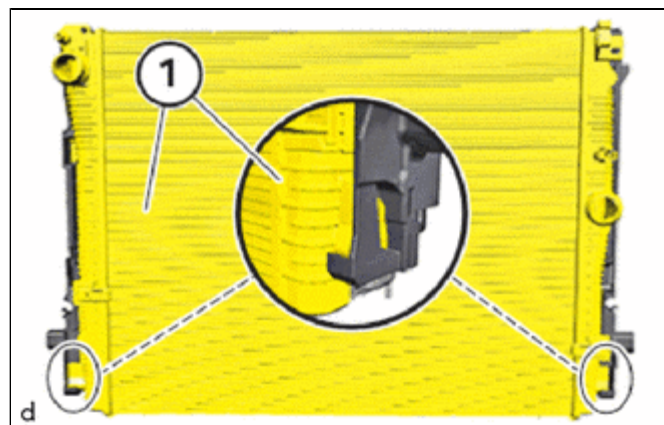
PROCEDURE

1. INSTALL RADIATOR ASSEMBLY

- (a) Feed in and install radiator assembly (1) in direction of arrow.



- (b) Make sure the radiator assembly (1) is positioned correctly in the brackets in the marked areas.



- (c) Tighten down T30 screw.

Torque:

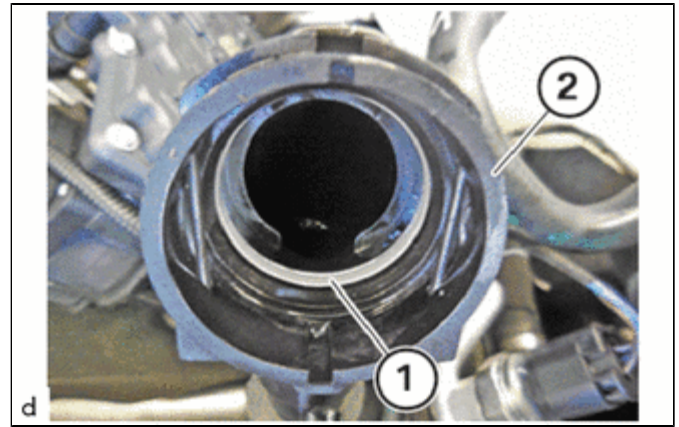
6.0 N·m { 61 kgf·cm, 53 in·lbf }

- (d) Connect connectors and lock.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

(e) Check the sealing ring (1) of the No. 2 radiator hose (2) for damage and renew where required.



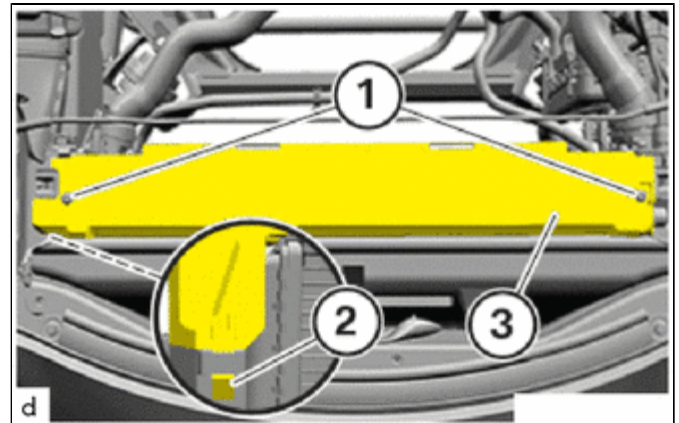
(f) Connect and lock the No. 2 radiator hose.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

(g) Guide in and install radiator upper air guide plate (3).

(1) The lock (2) must audibly engage.



(h) Tighten the T30 screws (1).

Torque:

6.0 N·m { 61 kgf·cm, 53 in·lbf }

2. INSTALL FAN WITH MOTOR ASSEMBLY

Click here [INFO](#)

3. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

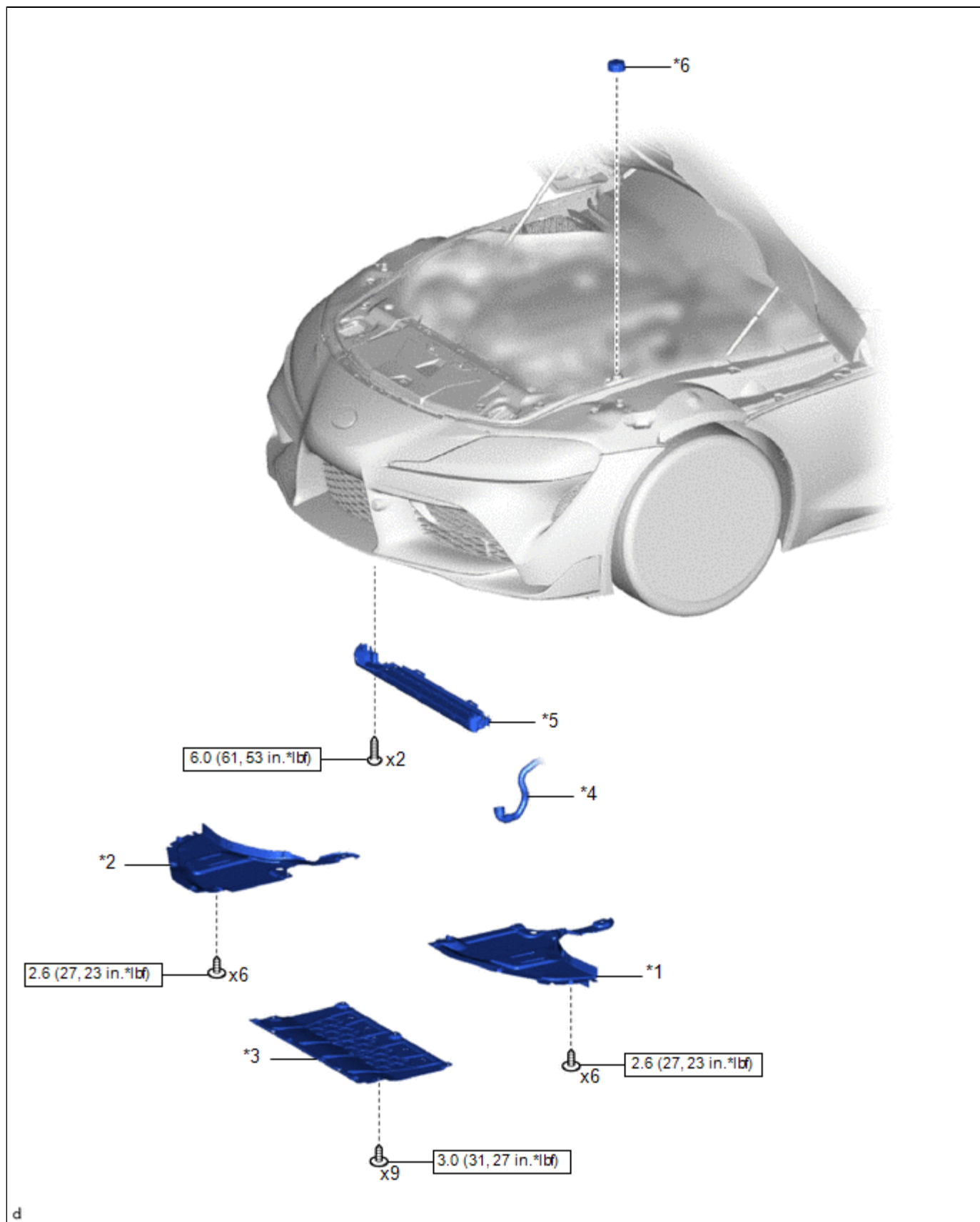
5. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR (for Low Temperature): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

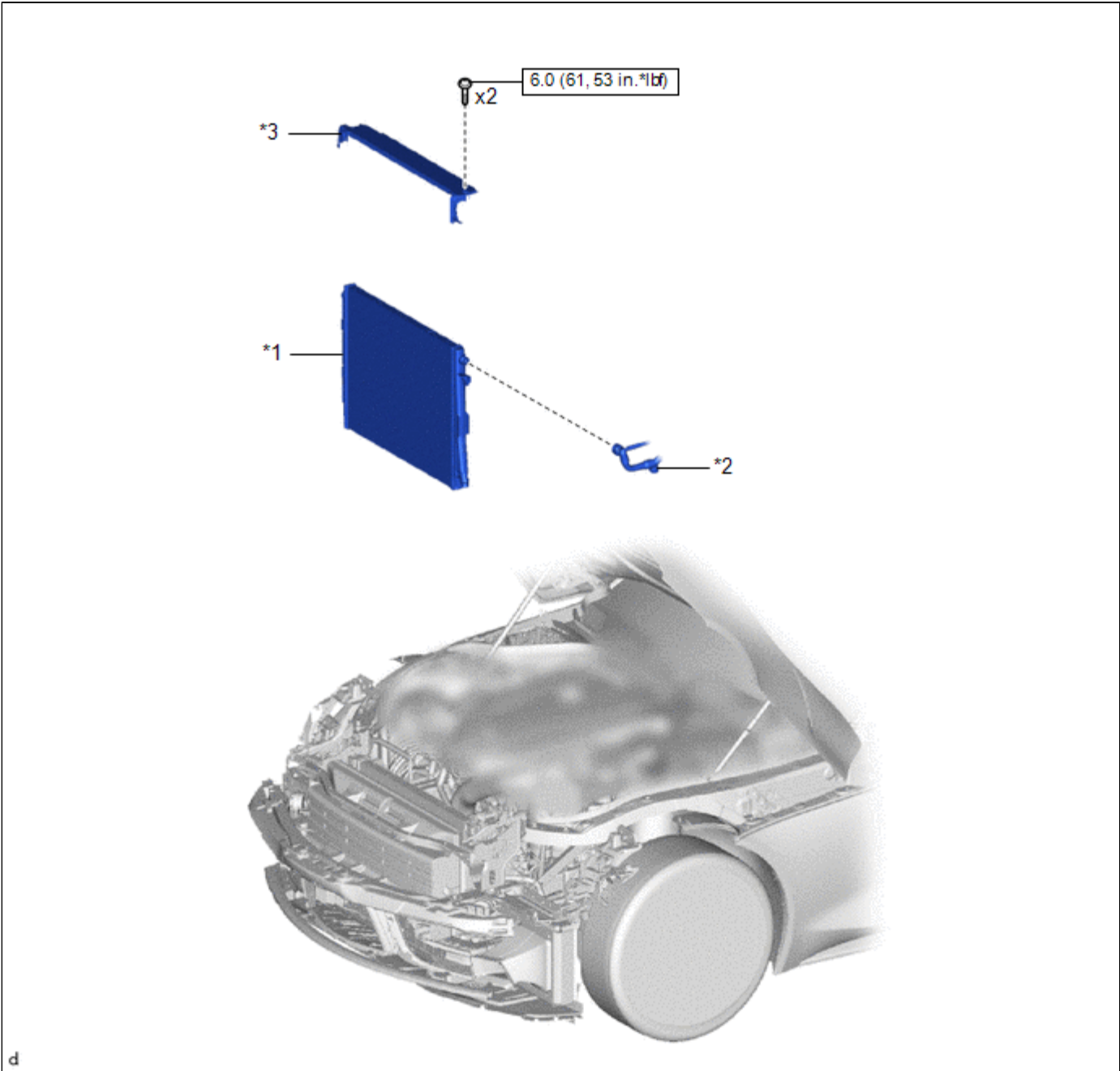
ILLUSTRATION



*1	FRONT FENDER SPLASH FRONT SHIELD LH	*2	FRONT FENDER SPLASH FRONT SHIELD RH
*3	NO. 1 ENGINE UNDER COVER ASSEMBLY	*4	NO. 6 RADIATOR HOSE
			RADIATOR RESERVE TANK CAP SUB-

*5	RADIATOR LOWER AIR GUIDE PLATE	*6	ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	NO. 2 RADIATOR ASSEMBLY	*2	NO. 5 WATER BY-PASS HOSE
*3	RADIATOR UPPER AIR GUIDE PLATE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR (for Low Temperature): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FAN WITH MOTOR ASSEMBLY

Click here [INFO](#)

2. REMOVE NO. 1 ENGINE UNDER COVER ASSEMBLY

Click here [INFO](#)

3. REMOVE FRONT FENDER SPLASH FRONT SHIELD LH

Click here [INFO](#)

4. REMOVE FRONT FENDER SPLASH FRONT SHIELD RH

HINT:

Use the same procedure as for the LH side.

5. DRAIN ENGINE COOLANT (for Low Temperature)

Click here [INFO](#)

6. REMOVE NO. 2 RADIATOR ASSEMBLY

CAUTION:

- Hot surfaces.

Risk of burning!

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

NOTICE:

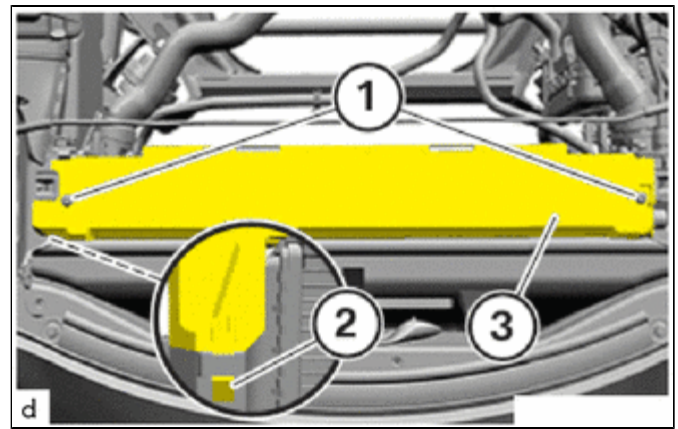
- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

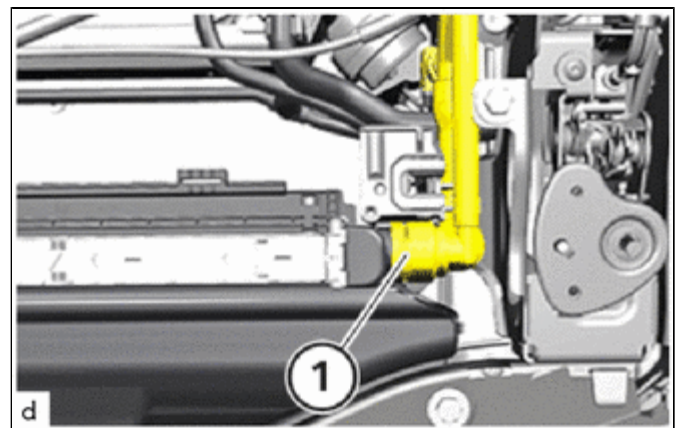
In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

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

(a) Loosen T30 screws (1).

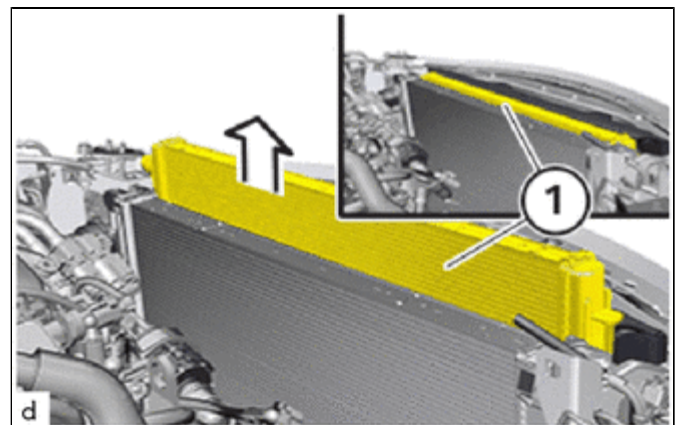


(b) Unlock the lock (2) and remove the radiator lower air guide plate (3) toward the top.



(c) Unlock and disconnect the No. 5 water by-pass hose (1).

(d) Set No. 5 water by-pass hose (1) aside and secure.



(e) Feed out No. 2 radiator assembly (1) in direction of arrow and remove.

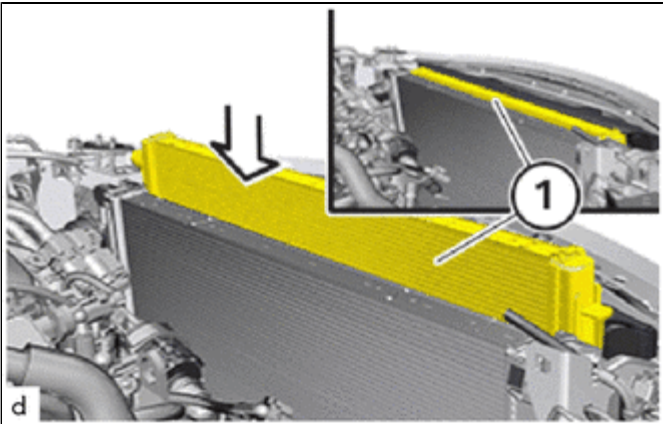
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR (for Low Temperature): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 2 RADIATOR ASSEMBLY

- (a) Feed in No. 2 radiator assembly (1) in direction of arrow and install.



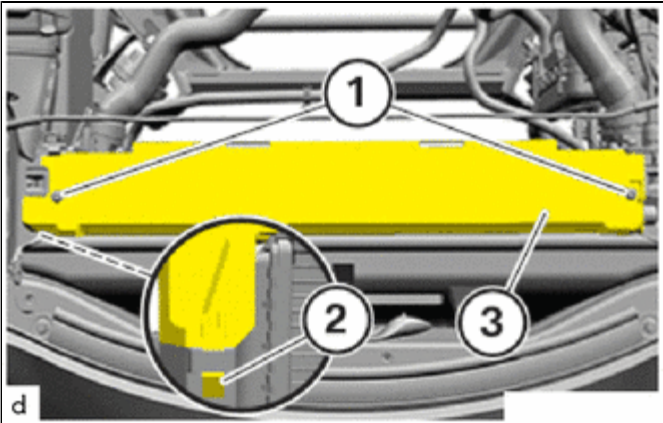
- (b) Connect and lock the No. 5 water by-pass hose.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

- (c) Guide in and install radiator lower air guide plate (3).

(1) The lock (2) must audibly engage.



- (d) Tighten the T30 screws (1).

Torque:

6.0 N·m { 61 kgf·cm, 53 in·lbf }

2. INSTALL FAN WITH MOTOR ASSEMBLY

Click here [INFO](#)

3. ADD ENGINE COOLANT (for Low Temperature)

Click here [INFO](#)

4. INSPECT FOR COOLANT LEAK (for Low Temperature)

Click here [INFO](#)

5. INSTALL FRONT FENDER SPLASH FRONT SHIELD LH

Click here [INFO](#)

6. INSTALL FRONT FENDER SPLASH FRONT SHIELD RH

HINT:

Use the same procedure as for the LH side.

7. INSTALL NO. 1 ENGINE UNDER COVER ASSEMBLY

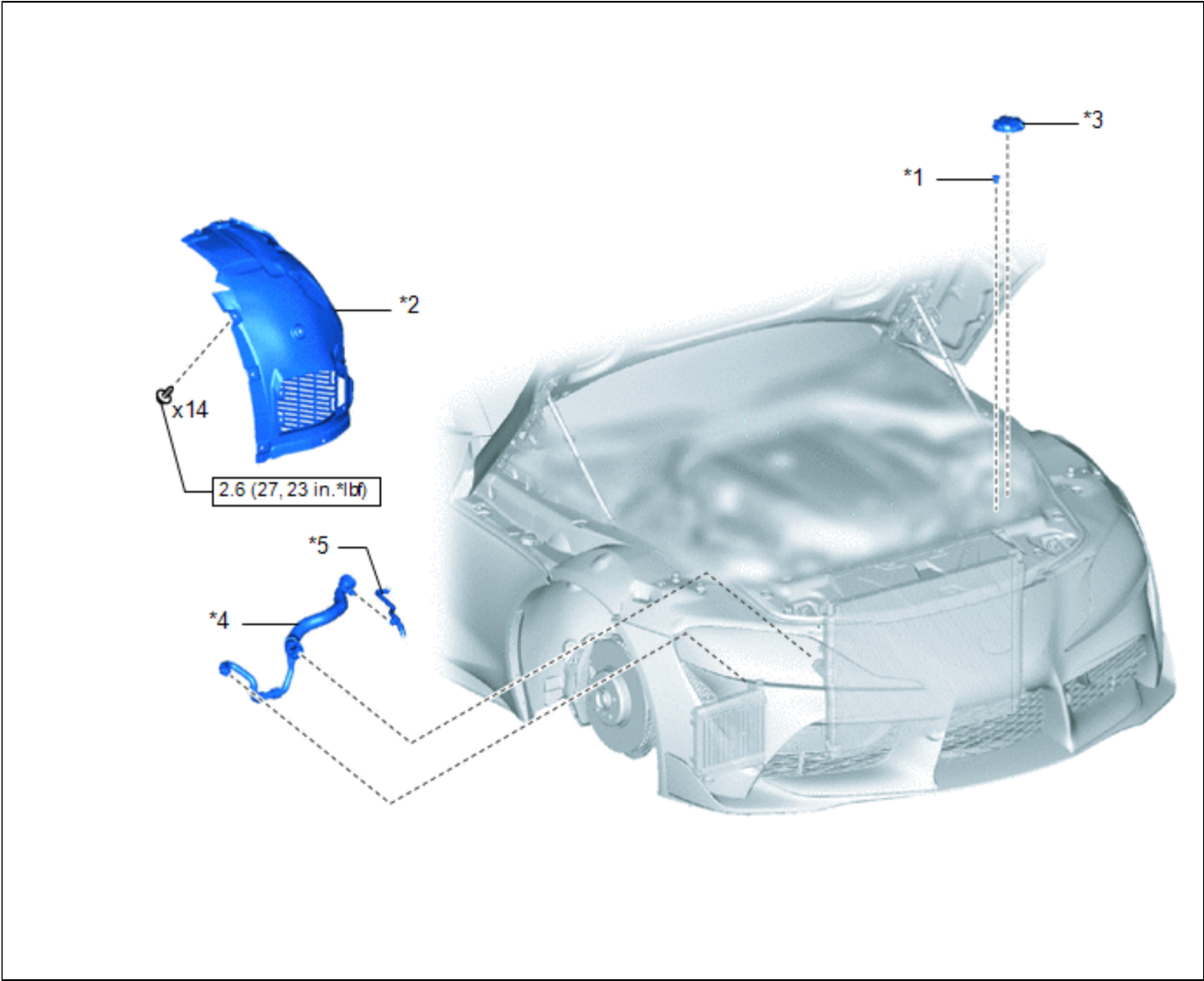
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR HOSE (for Lower Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	FRONT FENDER LINER RH
*3	RESERVE TANK CAP SUB-ASSEMBLY	*4	NO. 1 RADIATOR HOSE
*5	NO. 3 RADIATOR HOSE	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR HOSE (for Lower Side): 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.

NOTICE:

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

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. REMOVE WHEEL ASSEMBLY

Click here [INFO](#)

3. REMOVE FRONT FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

4. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

5. REMOVE NO. 1 RADIATOR HOSE

CAUTION:

- Hot fluids.

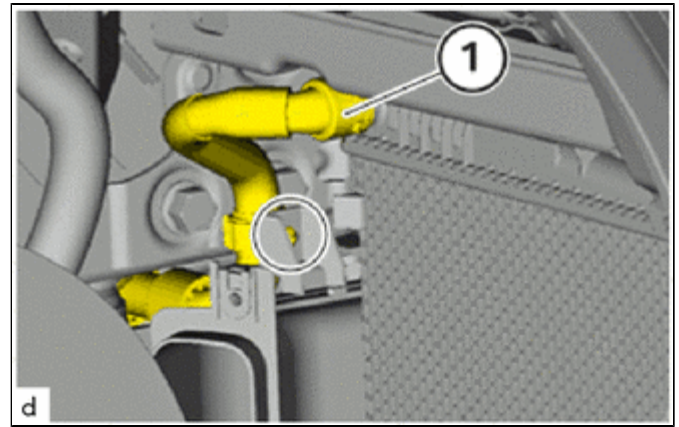
Risk of scalding!

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

NOTICE:

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

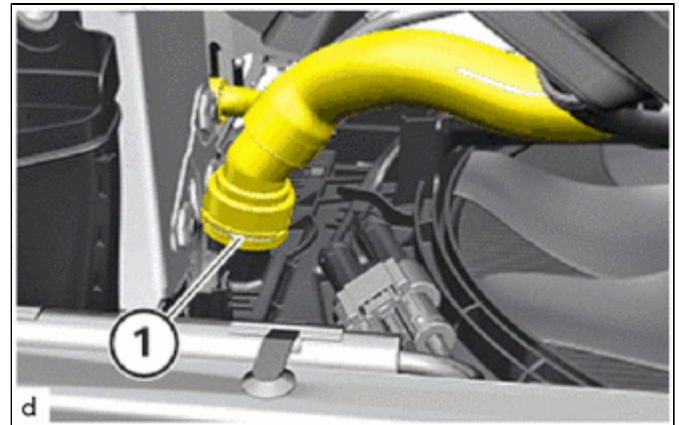
(a) Unlock and disconnect the No. 1 radiator hose (1).



(b) Catch and dispose of escaping coolant.

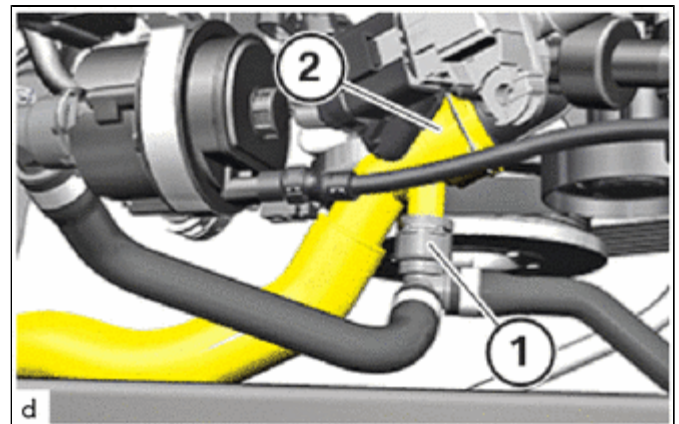
(c) Detach the clamp in the marked area.

(d) Unlock the No. 1 radiator hose (1) and disconnect it from the radiator.



(e) Catch and dispose of escaping coolant.

(f) Unlock the No. 3 radiator hose (1) and disconnect it from the No. 1 radiator hose (2).



(g) Catch and dispose of escaping coolant.

(h) Unlock the No. 1 radiator hose (2) and disconnect it off the coolant pump.

(i) Catch and dispose of escaping coolant.

(j) Guide the No. 1 radiator hose (2) out and remove.



TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR HOSE (for Lower Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

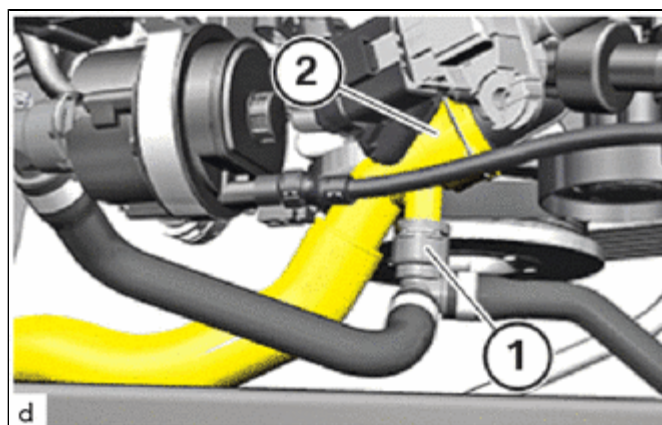
PROCEDURE

1. INSTALL NO. 1 RADIATOR HOSE

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

(a) Insert and install the No. 1 radiator hose (2).

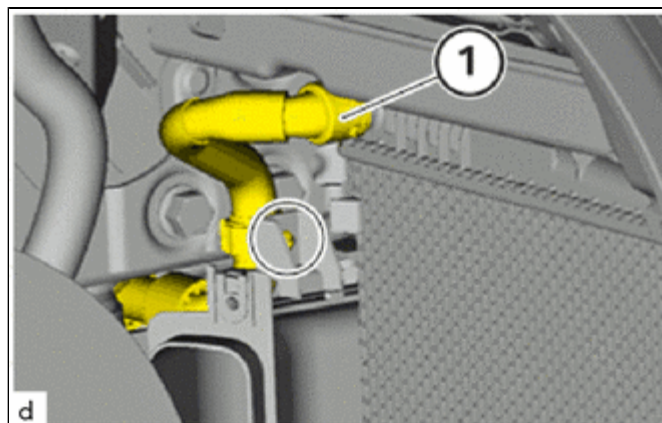


(b) Connect and lock the No. 1 radiator hose (2) to the coolant pump.

(c) Connect the No. 3 radiator hose (1) to the No. 1 radiator hose (2) and lock.

(d) Connect No. 1 radiator hose and lock.

(e) Connect No. 1 radiator hose (1) and lock.



(f) Mount the clamp in the marked area.

2. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

3. INSTALL FRONT FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

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

4. INSTALL WHEEL ASSEMBLY

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

5. ADD ENGINE COOLANT (for High Temperature)

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

6. INSPECT FOR COOLANT LEAK (for High Temperature)

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

7. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

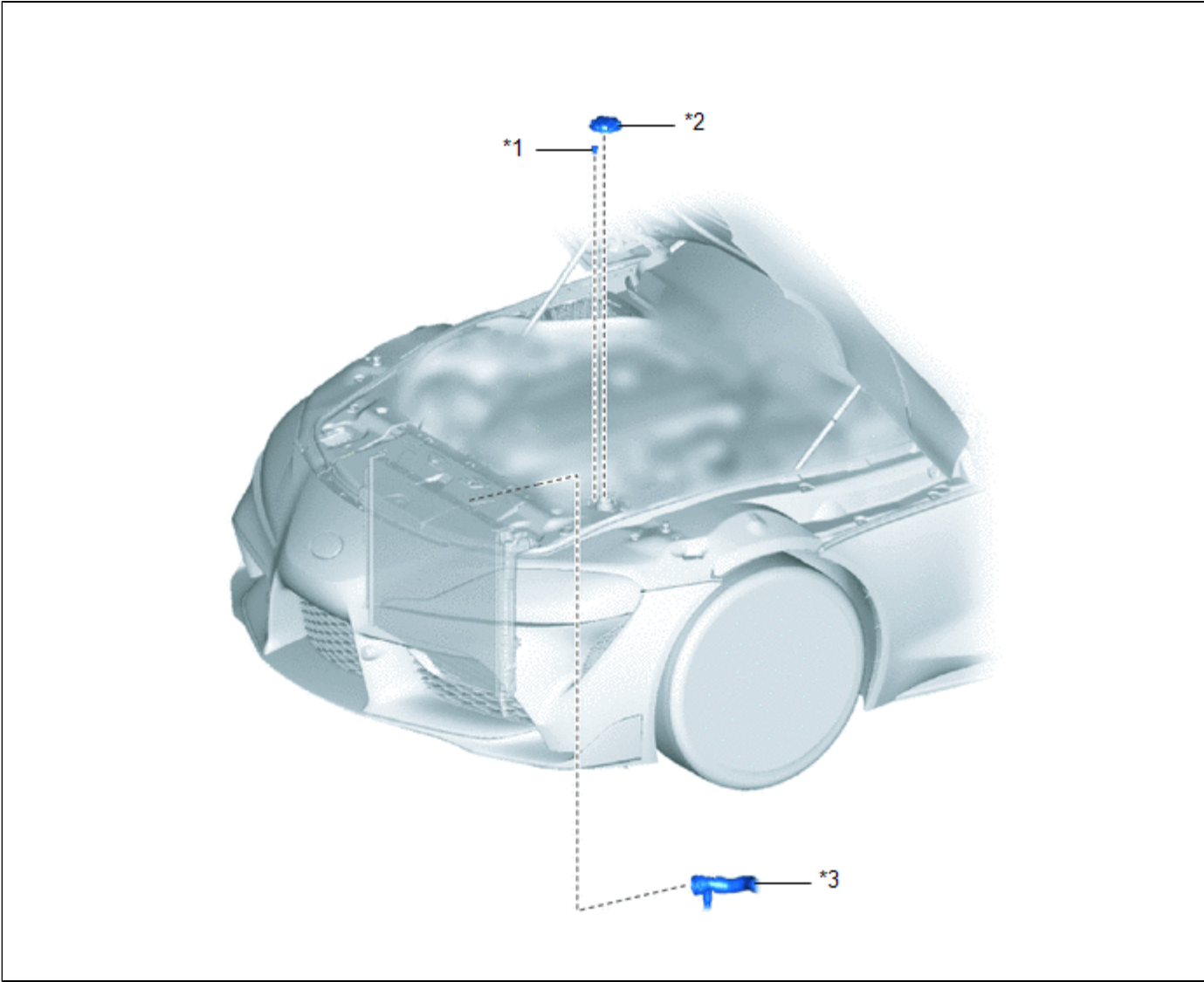
[Click here](#) [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBK
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR HOSE (for Upper Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

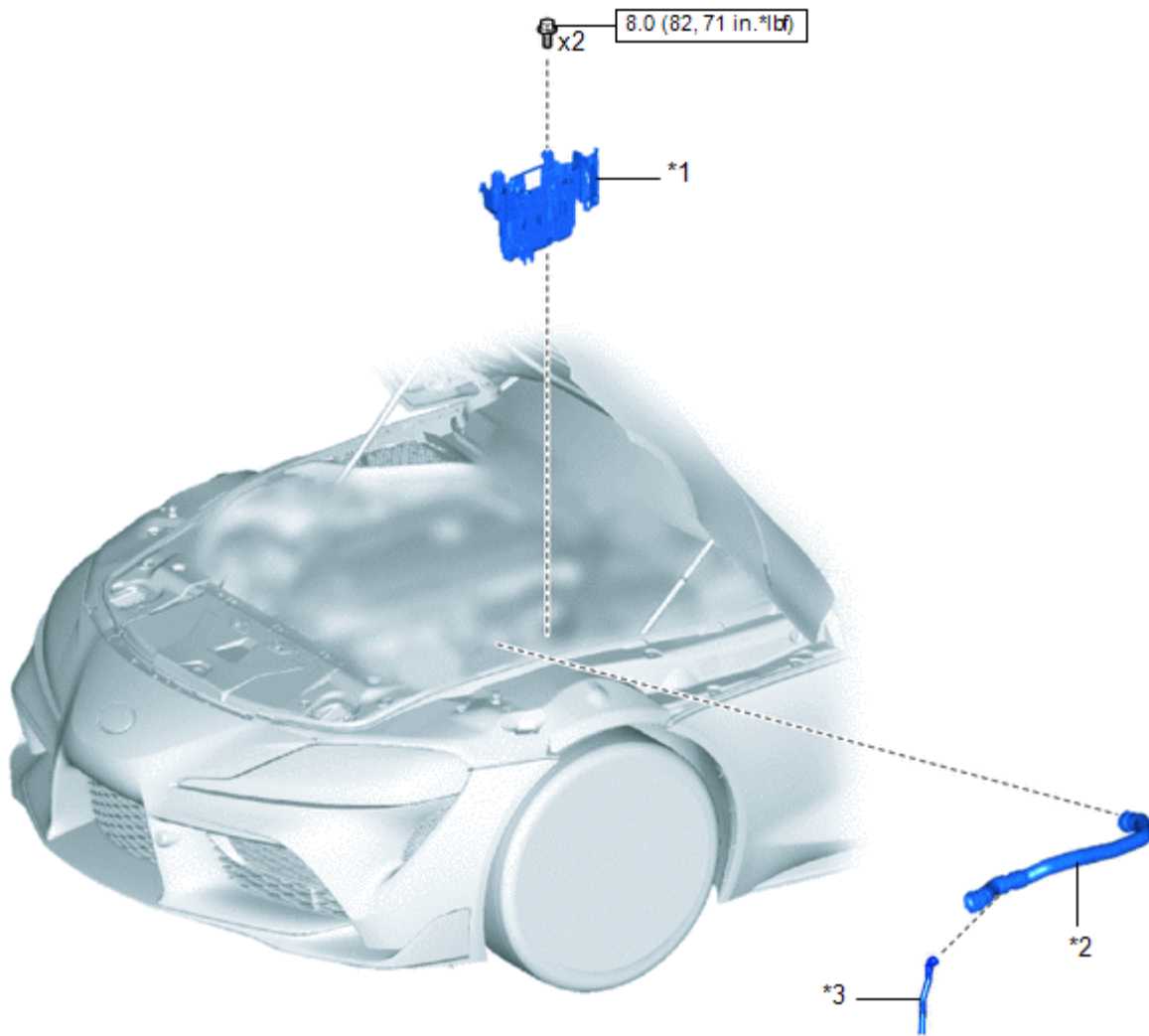
COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	ENGINE ROOM ECM BOX	*2	NO. 2 RADIATOR HOSE
*3	RADIATOR HOSE SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR HOSE (for Upper Side): 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.

NOTICE:

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

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

3. REMOVE NO. 1 INTEGRATION RELAY

Click here [INFO](#)

4. REMOVE ENGINE ROOM ECM BOX

Click here [INFO](#)

5. REMOVE NO. 2 RADIATOR HOSE

CAUTION:

- Hot fluids.

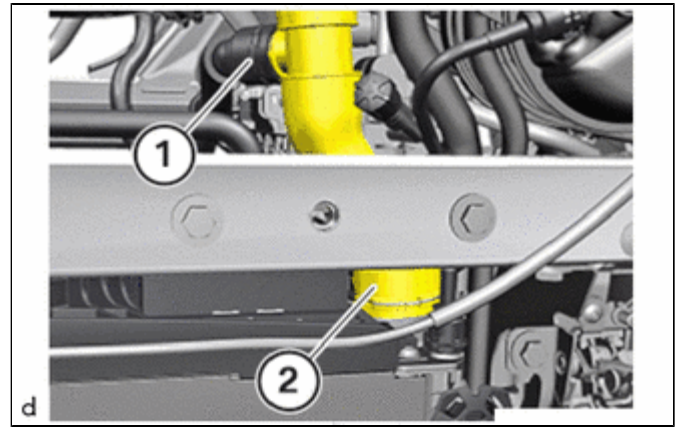
Risk of scalding!

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

NOTICE:

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

(a) Unlock and disconnect the radiator hose sub-assembly (1).

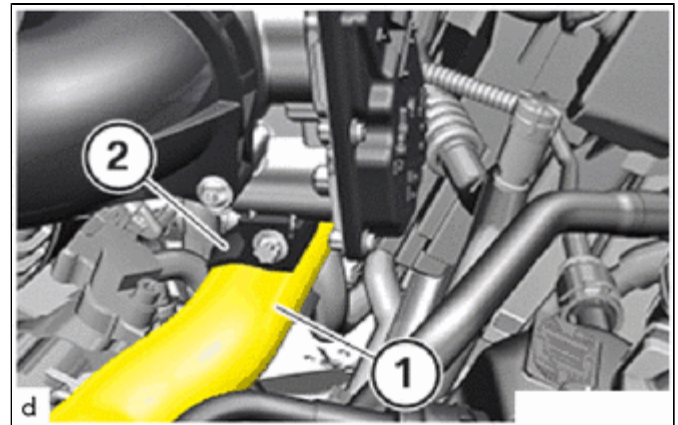


(b) Catch and dispose of escaping coolant.

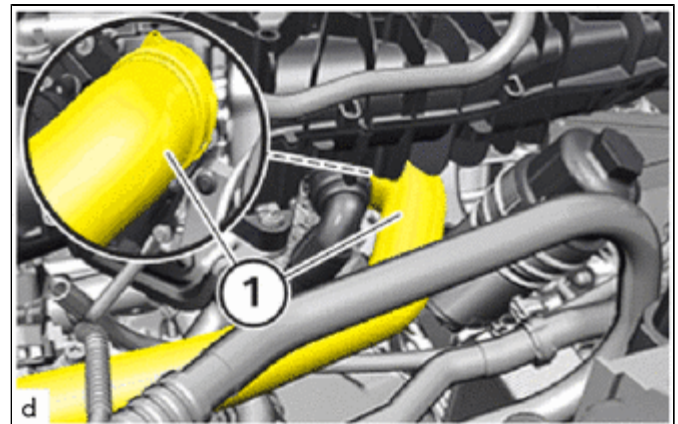
(c) Unlock and disconnect the No. 2 radiator hose (2).

(d) Catch and dispose of escaping coolant.

(e) Unclip the No. 2 radiator hose (1) from the holder (2).



(f) Unlock the No. 2 radiator hose (1) below the intake manifold and disconnect it from the water valve with bracket assembly.



(g) Catch and dispose of escaping coolant.

(h) Guide the No. 2 radiator hose (1) out and remove.

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RADIATOR HOSE (for Upper Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

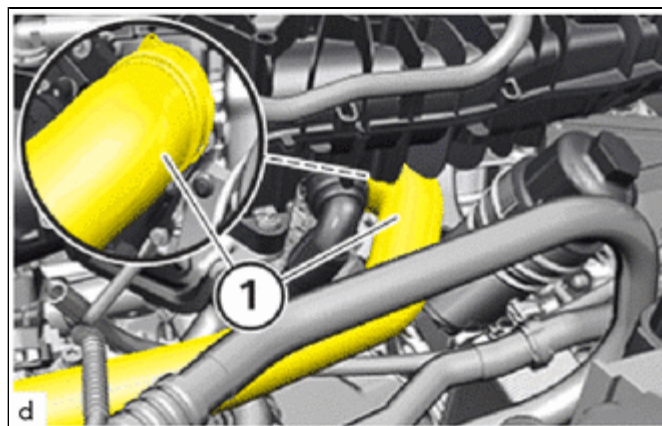
PROCEDURE

1. INSTALL NO. 2 RADIATOR HOSE

HINT:

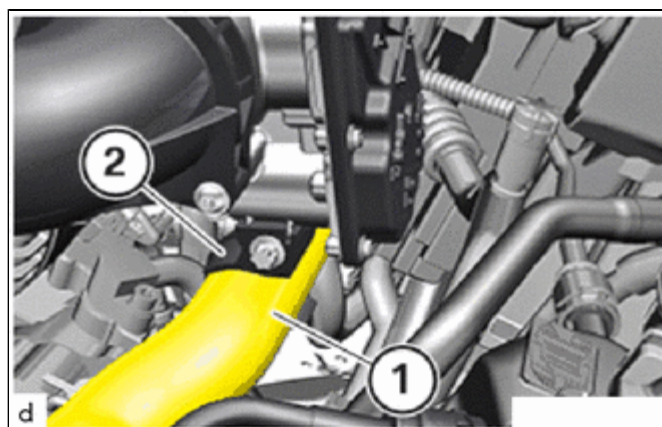
Make sure that the connections are locked correctly. The locks must engage audibly.

(a) Insert and install the No. 2 radiator hose (1).



(b) Connect the No. 2 radiator hose (1) below the intake manifold to the water valve with bracket assembly and lock.

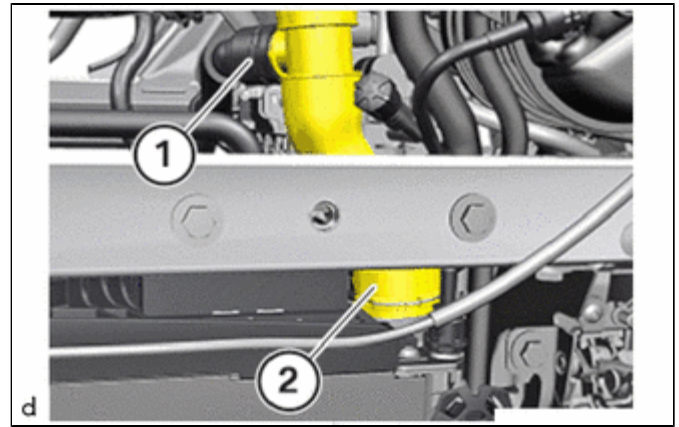
(1) Make sure you can hear the No. 2 radiator hose (1) lock.



(c) Clip No. 2 radiator hose (1) into the holder (2).

(d) Connect No. 2 radiator hose (2) and lock.

- (1) Make sure you can hear the No. 2 radiator hose (2) lock.



(e) Connect radiator hose sub-assembly (1) and lock.

- (1) The radiator hose sub-assembly (1) must audibly engage.

2. INSTALL ENGINE ROOM ECM BOX

Click here [INFO](#)

3. INSTALL NO. 1 INTEGRATION RELAY

Click here [INFO](#)

4. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

5. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

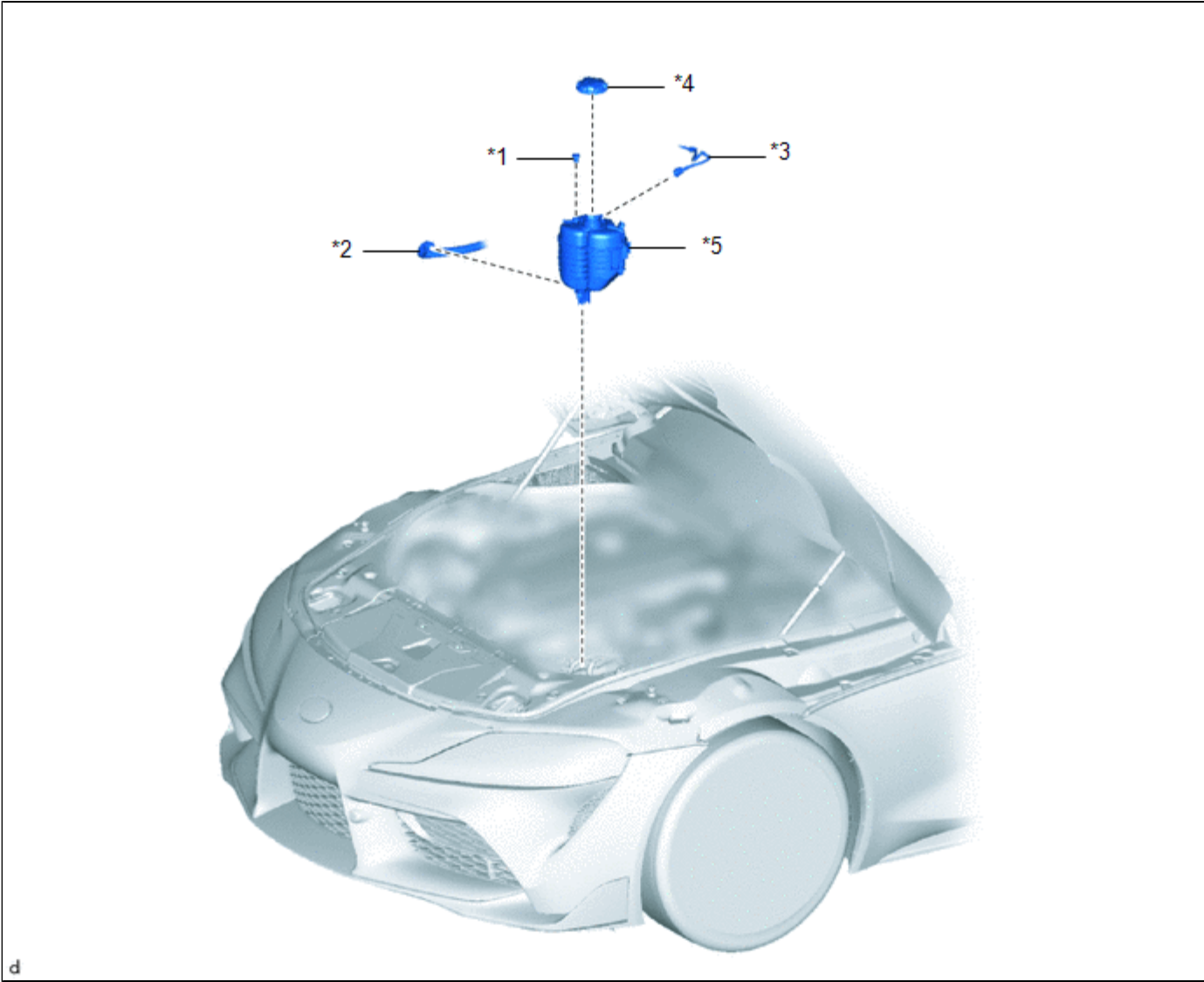
6. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RESERVOIR TANK (for High Temperature): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	HEATER WATER HOSE
*3	RADIATOR RESERVE TANK HOSE	*4	RESERVE TANK CAP SUB-ASSEMBLY
*5	RADIATOR RESERVE TANK ASSEMBLY	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RESERVOIR TANK (for High Temperature): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. REMOVE RADIATOR RESERVE TANK ASSEMBLY

CAUTION:

- Hot surfaces.

Risk of burning!

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

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

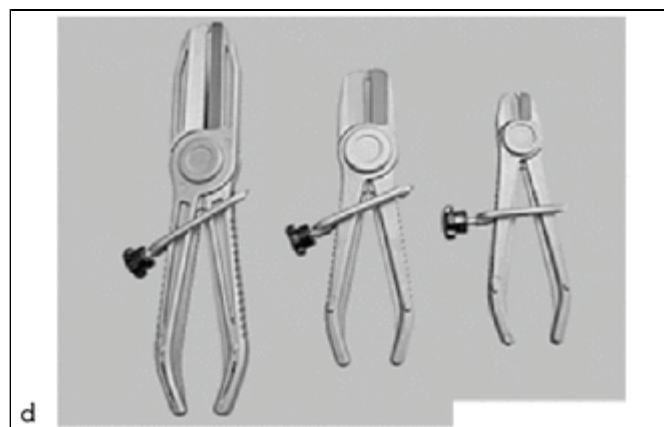
When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

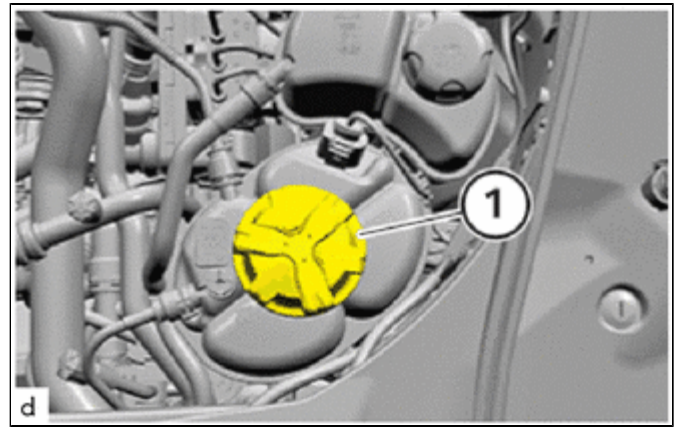
- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Disconnect the coolant lines with the special tool.

SST: 09900-WA090

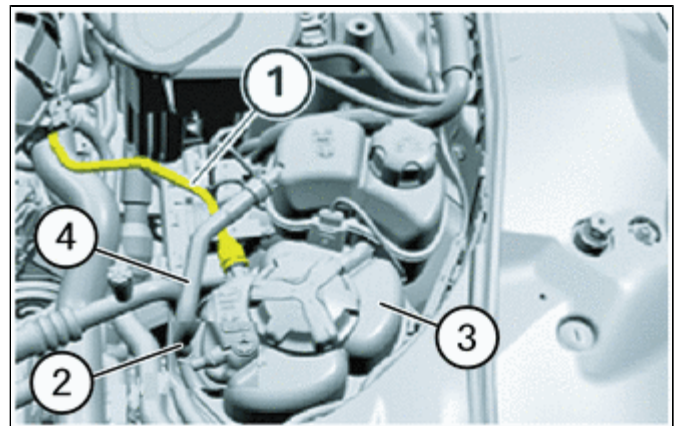


(b) Loosen reserve tank cap sub-assembly (1).



(c) Draw off the coolant with a conventional pump.

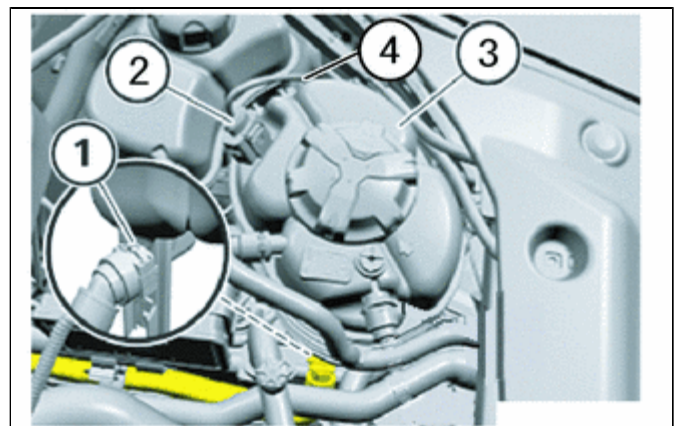
(d) Disconnect the radiator reserve tank hose (1) with the disconnection tool.



(e) Disengage the clamp (2) to disconnect the No. 5 water by-pass hose (4) from the radiator reserve tank assembly (3).

(f) Unlock and disconnect the radiator reserve tank hose (1).

(g) Catch and dispose of escaping coolant.



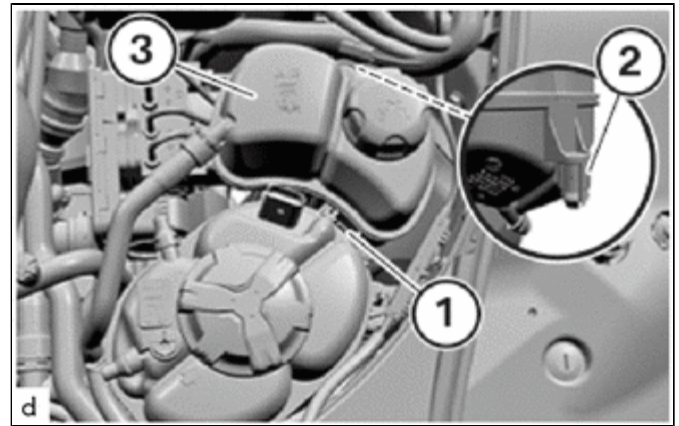
(h) Disconnect the heater water hose (1) with the disconnection tool.

(i) Unlock and disconnect the heater water hose (1).

(j) Catch and dispose of escaping coolant.

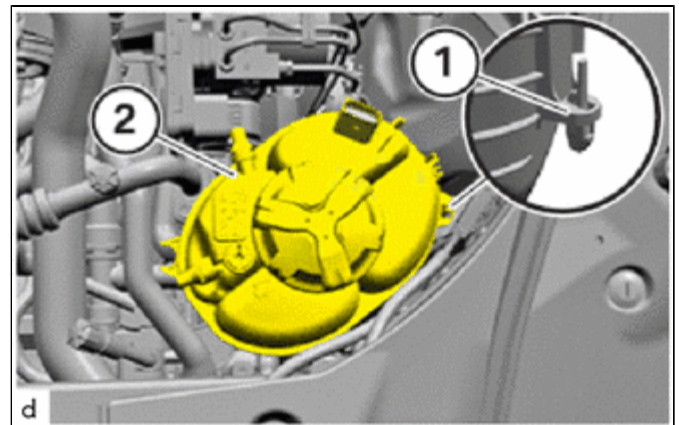
- (k) Disengage the clamp (4) to disconnect the wire harness from the radiator reserve tank assembly (3).
- (l) Disconnect the connector (2) from the radiator reserve tank assembly (3).

- (m) Unlock the lock (1).



- (n) Pull the journal (2) of the radiator reserve tank sub-assembly (3) out of the rubber mount.
- (o) Remove the radiator reserve tank sub-assembly (3) and set it aside.

- (p) Unlock the lock (1) and remove the radiator reserve tank assembly (2).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RESERVOIR TANK (for High Temperature): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

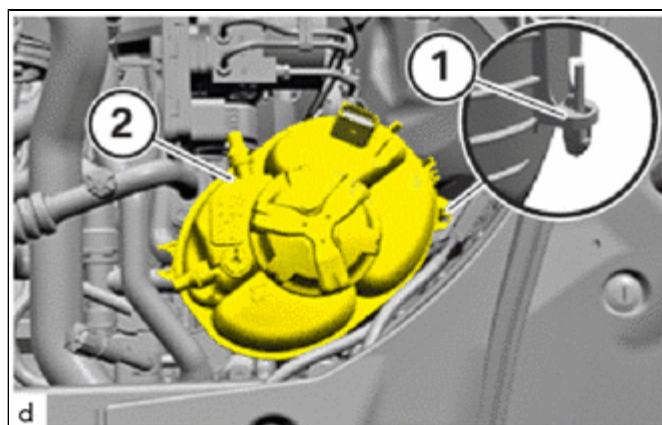
1. INSTALL RADIATOR RESERVE TANK ASSEMBLY

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

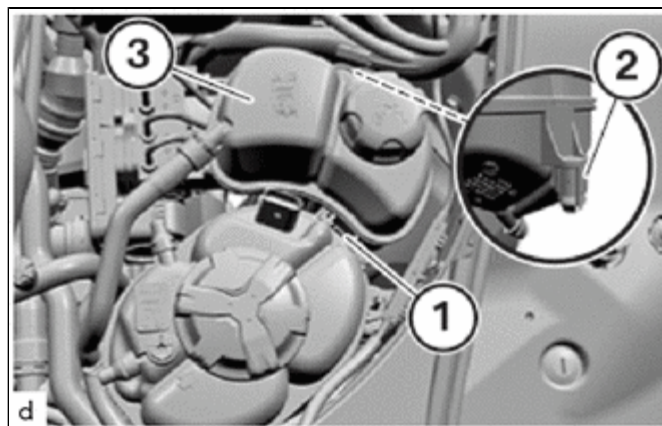
- (a) Guide the radiator reserve tank assembly (2) into the guide.

(1) The lock (1) must audibly engage.



- (b) Guide the radiator reserve tank sub-assembly (3) with the journal (2) into the rubber mount and install.

(1) The rubber mount must engage audibly.

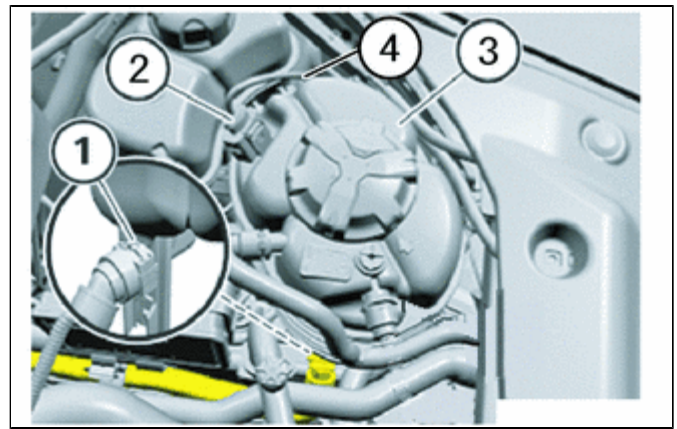


- (c) Make sure that the lock (1) engages correctly.

- (d) Connect the connector (2) to the radiator reserve tank

assembly (3) and lock.

(1) The connector (2) must engage audibly.



(e) Engage the clamp (4) to connect the wire harness to the radiator reserve tank assembly (3).

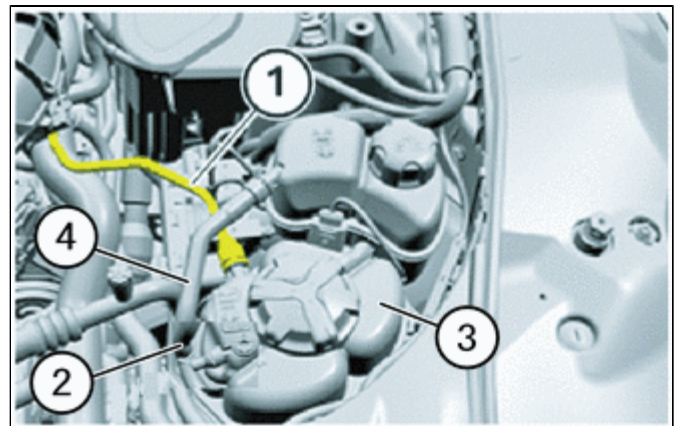
(f) Connect and lock the heater water hose (1).

(1) The heater water hose (1) must audibly engage.

(g) Remove the disconnection tool from the heater water hose (1) and guide it out.

(h) Connect and lock the radiator reserve tank hose (1).

(1) The radiator reserve tank hose (1) must audibly engage.



(i) Engage the clamp (2) to connect the No. 5 water by-pass hose to the radiator reserve tank assembly (3).

(j) Remove the disconnection tool from the radiator reserve tank hose (1) and guide it out.

(k) Top up the coolant to the maximum mark.

(l) Close the reserve tank cap sub-assembly until the arrows are flush.

2. ADD ENGINE COOLANT (for High Temperature)

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:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

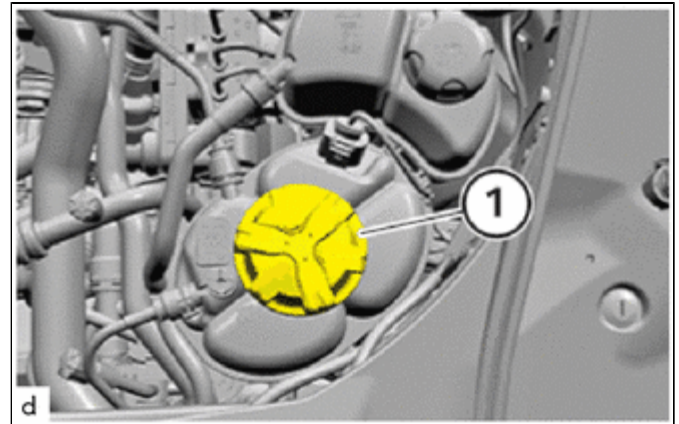
- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

HINT:

- Follow notes for repair work on the cooling system.
- For additional information.

Click here [INFO](#)

(a) Loosen reserve tank cap sub-assembly (1).



(b) Check the coolant level in the radiator reserve tank assembly for the high-temperature coolant circuit and top up the coolant where required.

Cooling system, capacities, initial filling:
10.5 liters (11.1 US qts, 9.2 Imp. qts)

(1) Expendable materials : Antifreeze and Corrosion Inhibitor Frostox HT-12

HINT:

When using Antifreeze and Corrosion Inhibitor Frostox HT-12, dilute the Antifreeze and Corrosion Inhibitor Frostox HT-12 to 50% before using it.

(c) Close reserve tank cap sub-assembly (1).

(1) The arrows must be aligned.

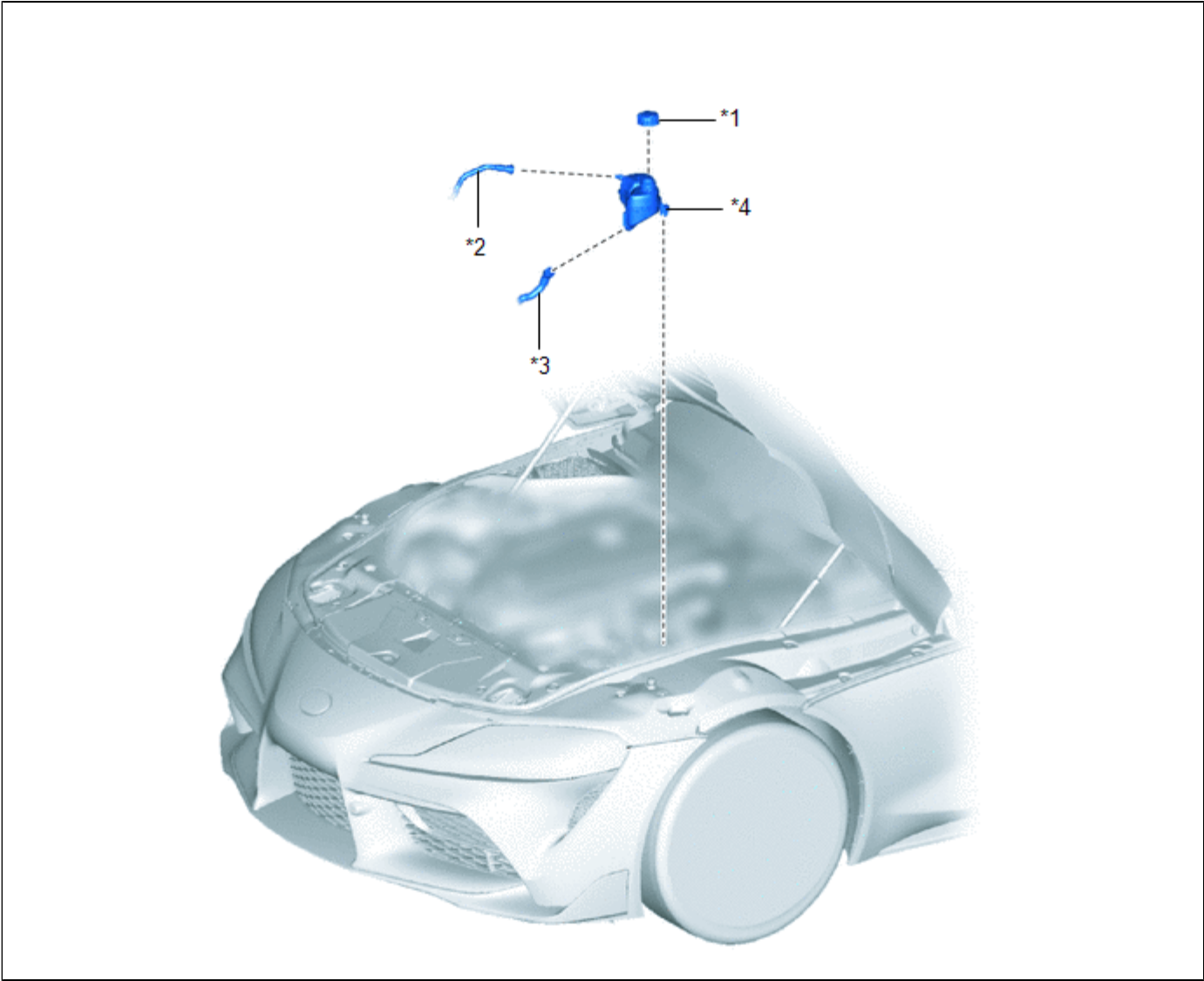
3. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RESERVOIR TANK (for Low Temperature): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	RADIATOR RESERVE TANK CAP SUB-ASSEMBLY	*2	NO. 5 WATER BY-PASS HOSE
*3	NO. 6 WATER BY-PASS HOSE	*4	RADIATOR RESERVE TANK SUB-ASSEMBLY

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RESERVOIR TANK (for Low Temperature): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. REMOVE LOW TEMPERATURE RADIATOR RESERVE TANK SUB-ASSEMBLY

CAUTION:

- Hot surfaces.

Risk of burning!

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

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

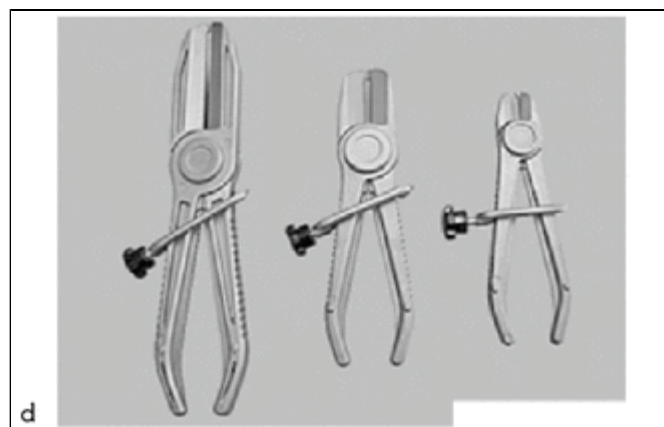
When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

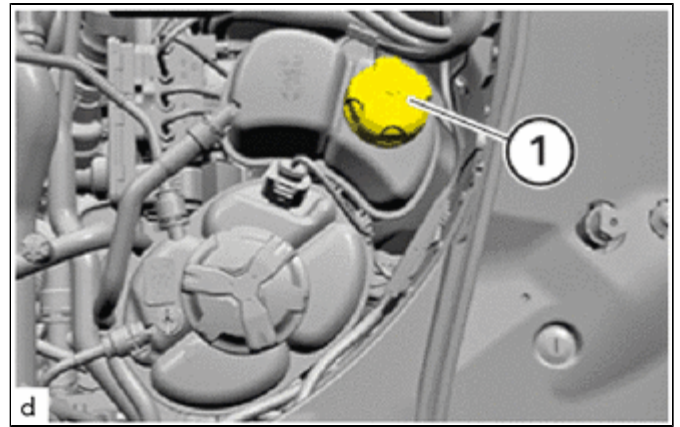
- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Disconnect the coolant lines with the special tool.

SST: 09900-WA090

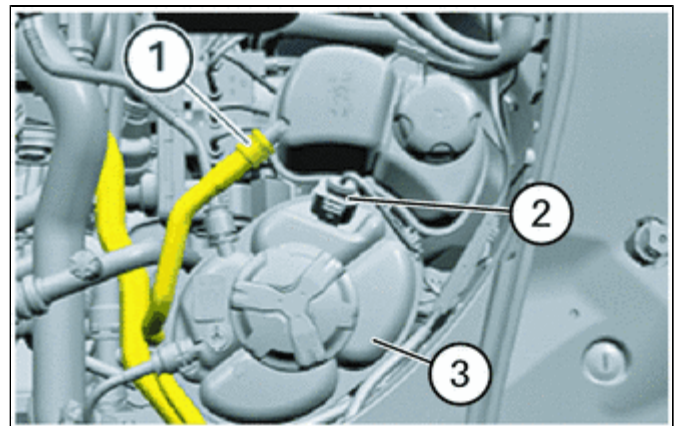


(b) Loosen radiator reserve tank cap sub-assembly (1).



(c) Draw off the coolant with a conventional pump.

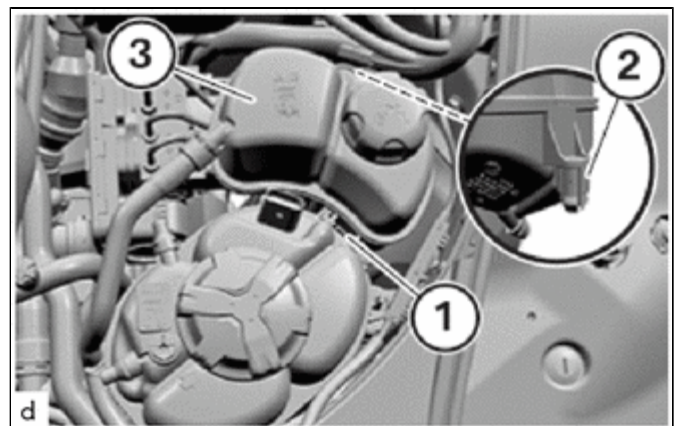
(d) Disconnect the No. 5 water by-pass hose (1) with the disconnection tool.



(e) Unlock and disconnect the No. 5 water by-pass hose (1).

(f) Catch and dispose of escaping coolant.

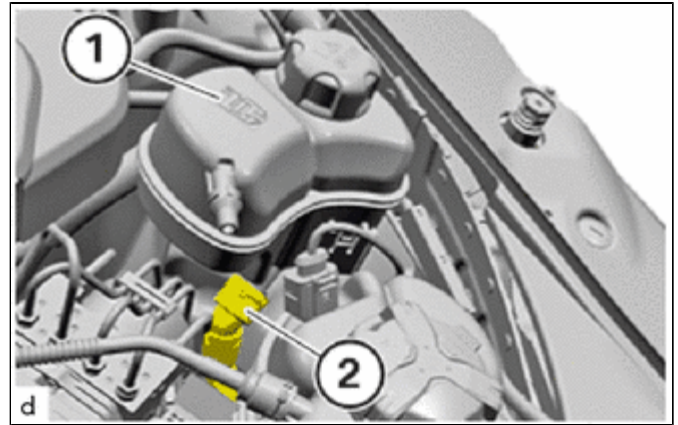
(g) Disconnect the connector (2) from the radiator reserve tank assembly (3).



(h) Unlock the lock (1).

(i) Detach the journal (2) of the radiator reserve tank sub-assembly (3) from the rubber mount.

- (j) Pull the radiator reserve tank sub-assembly (1) up until the No. 6 water by-pass hose (2) is accessible.



- (k) Disconnect the No. 6 water by-pass hose (2) with the disconnection tool.
- (l) Unlock and disconnect the No. 6 water by-pass hose (2).
- (m) Catch and dispose of escaping coolant.
- (n) Guide out and remove the radiator reserve tank sub-assembly (1).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): RESERVOIR TANK (for Low Temperature): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

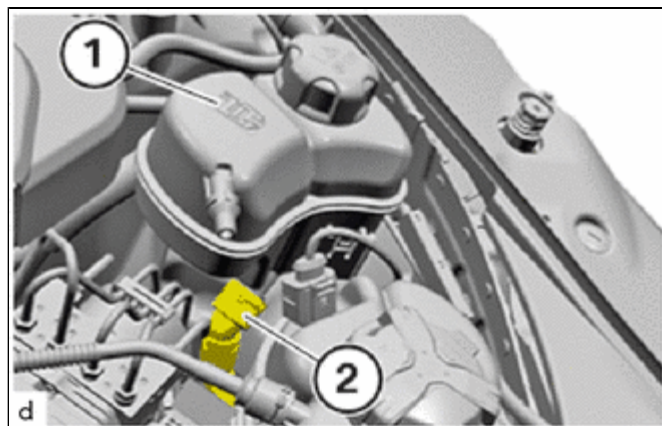
PROCEDURE

1. INSTALL LOW TEMPERATURE RADIATOR RESERVE TANK SUB-ASSEMBLY

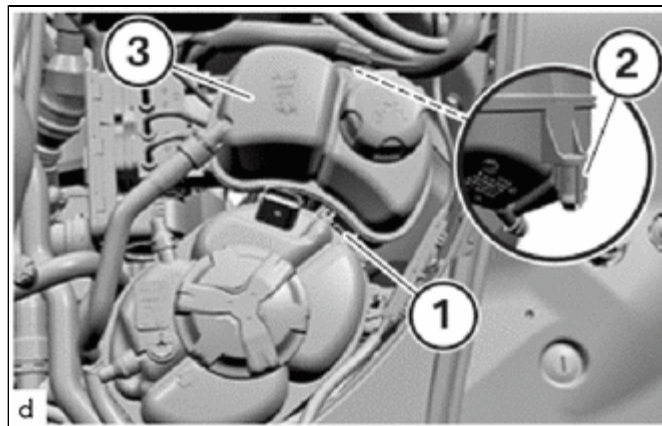
HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.

- (a) Connect the No. 6 water by-pass hose (2) to the radiator reserve tank sub-assembly (1) and lock.
- (1) The No. 6 water by-pass hose (2) must audibly engage.



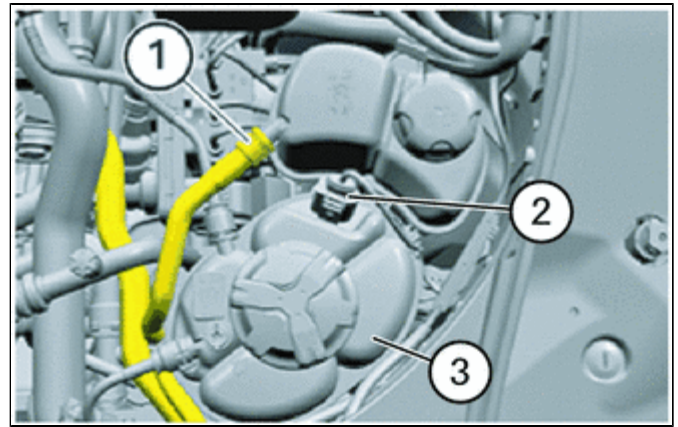
- (b) Guide in and install the radiator reserve tank sub-assembly (3).
- (1) The journal (2) must engage audibly in the rubber mount.



- (c) Make sure that the lock (1) engages correctly.

- (d) Connect and lock the No. 5 water by-pass hose (1).

(1) The No. 5 water by-pass hose (1) must audibly engage.



(e) Guide out and remove the disconnection tool.

(f) Connect the connector (2) to the radiator reserve tank assembly (3) and lock.

(g) Top up the coolant to the maximum mark.

(h) Close radiator reserve tank cap sub-assembly.

2. ADD ENGINE COOLANT (for Low Temperature)

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:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

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

HINT:

- Follow notes for repair work on the cooling system.
- For additional information.

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

(a) Loosen radiator reserve tank cap sub-assembly.

(b) Check the coolant level in the radiator reserve tank sub-assembly for the low-temperature coolant circuit and top up the coolant, if necessary.

Cooling system, capacities, initial filling:

4.0 liters (4.2 US qts, 3.5 Imp. qts)

(1) Expendable materials : Antifreeze and Corrosion Inhibitor Frostox HT-12

HINT:

When using Antifreeze and Corrosion Inhibitor Frostox HT-12, dilute the Antifreeze and Corrosion Inhibitor Frostox HT-12 to 50% before using it.

(c) Close radiator reserve tank cap sub-assembly.

(1) The arrows must be aligned.

3. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

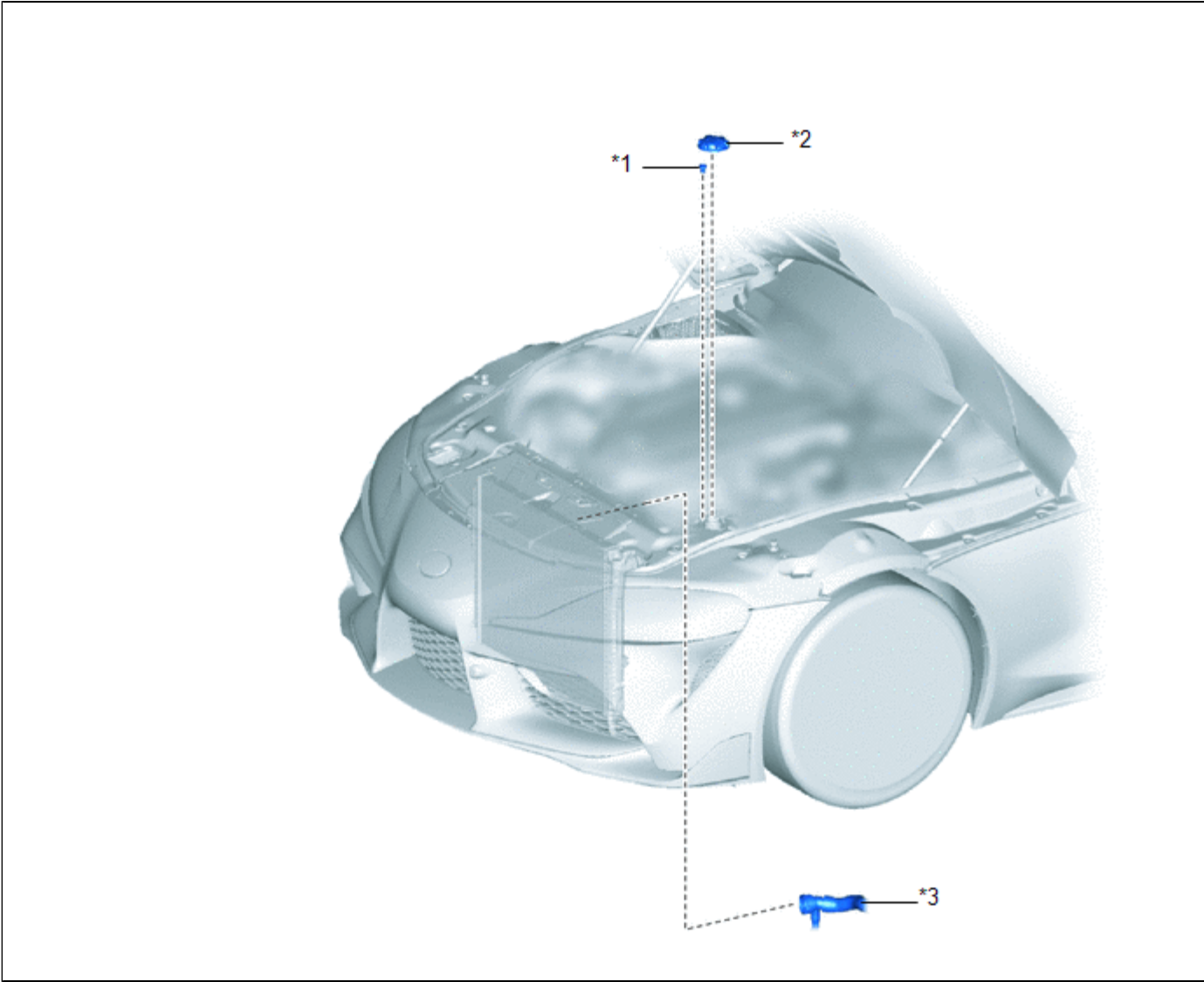
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB8
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR (for LH Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

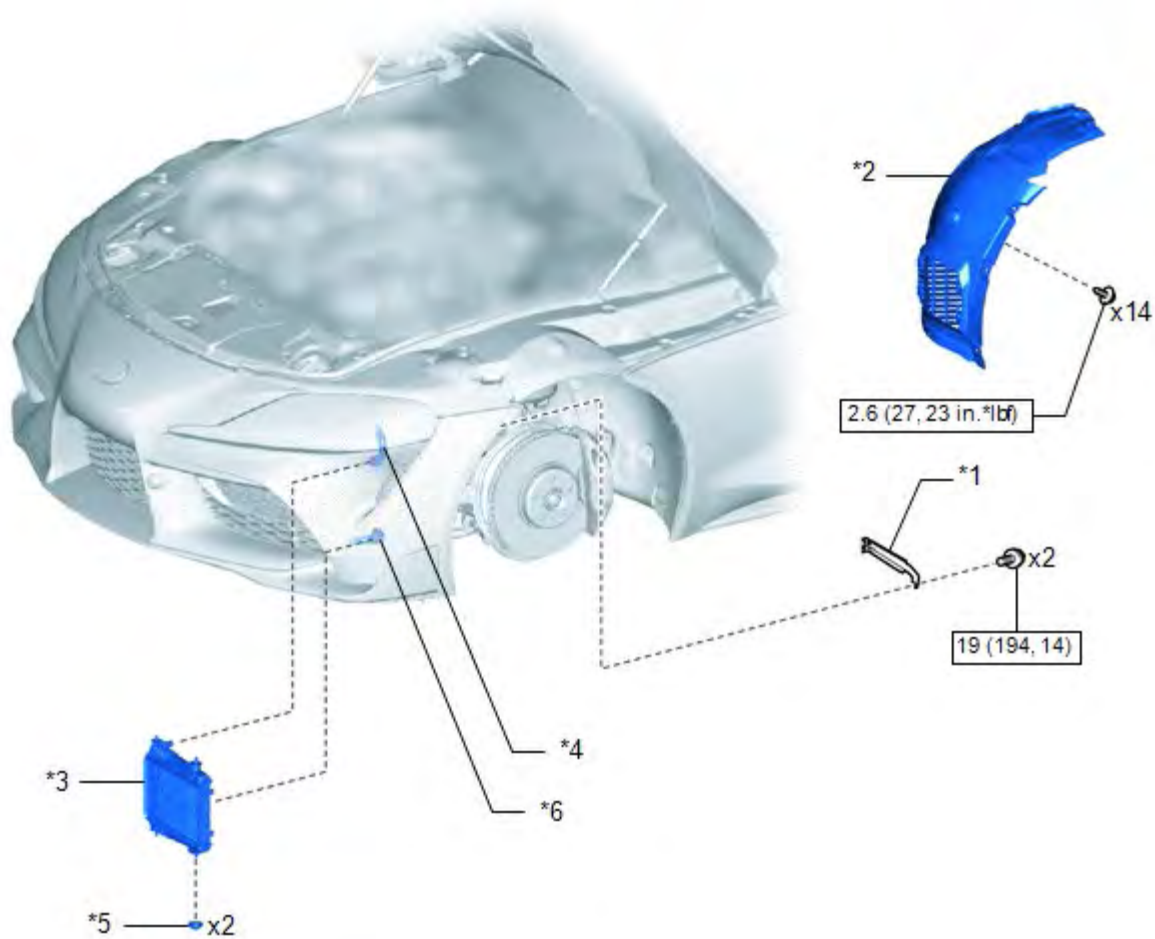
COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	FRONT BUMPER REINFORCEMENT SUPPORT LH	*2	FRONT FENDER LINER LH
*3	SUB RADIATOR	*4	NO. 3 RADIATOR HOSE
*5	SUB RADIATOR SUPPORT	*6	RADIATOR HOSE SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR (for LH Side): 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.

- Hot surfaces.

Risk of burning!

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

HINT:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

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

PROCEDURE

1. REMOVE WHEEL ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT FENDER LINER LH

Click here [INFO](#)

3. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

4. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

5. REMOVE SUB RADIATOR ASSEMBLY

CAUTION:

- Hot fluids.

Risk of scalding!

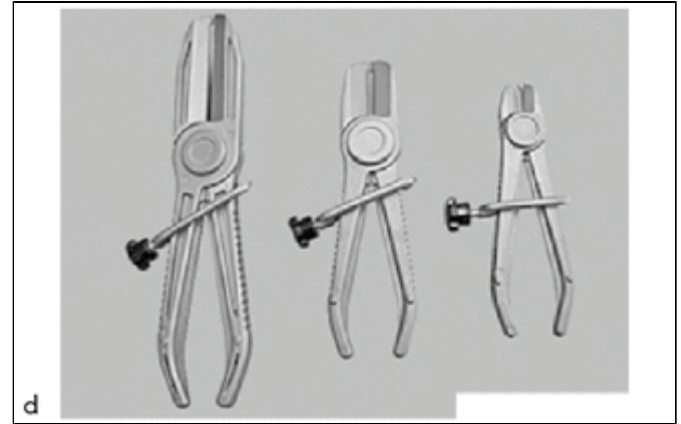
- Conduct all work in the vehicle wearing appropriate personal protective equipment only.

NOTICE:

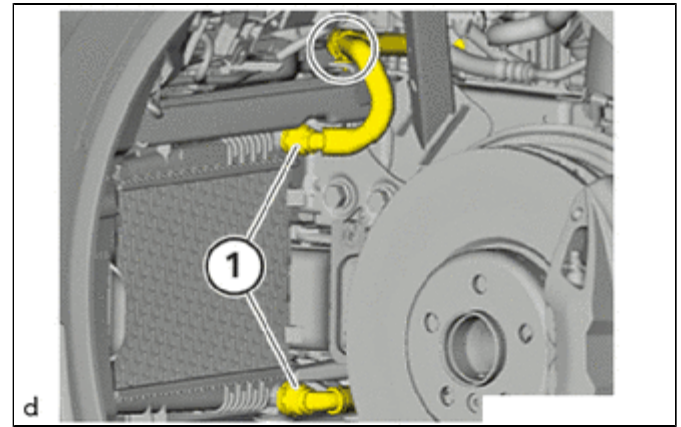
- Damage to wires when disconnecting connectors and plug connections.
 - Sheared wires can cause a short circuit.
 - Do not pull on the wires when disconnecting connectors and plug connections.
- Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Disconnect the coolant lines with the special tool.

SST: 09900-WA090



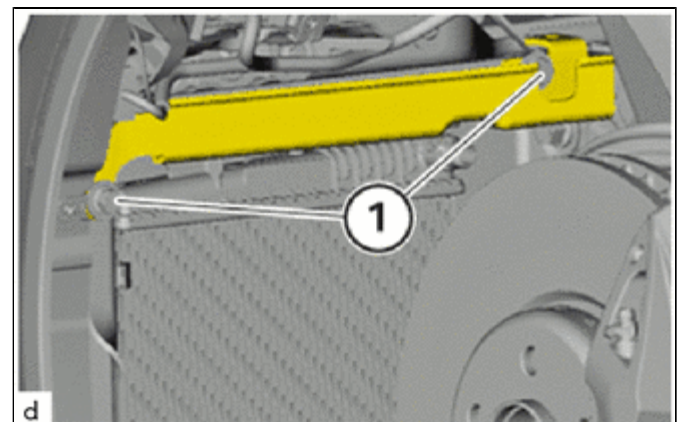
(b) Unlock and disconnect radiator hose sub-assembly and No. 3 radiator hose (1).



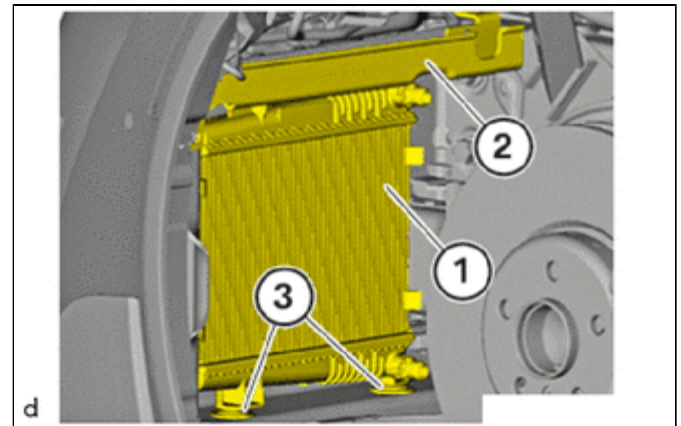
(c) Catch and dispose of escaping coolant.

(d) Detach the clip in the marked area.

(e) Loosen T45 bolts (1).



- (f) Guide the sub radiator assembly (1) with the front bumper reinforcement support LH (2) out and remove it.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR (for LH Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

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

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

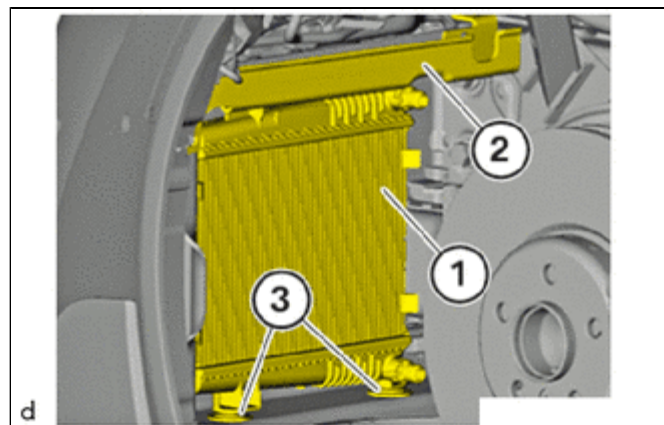
In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

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

PROCEDURE

1. INSTALL SUB RADIATOR ASSEMBLY

- (a) Guide in the sub radiator assembly (1) with the front bumper reinforcement support LH (2) and install.

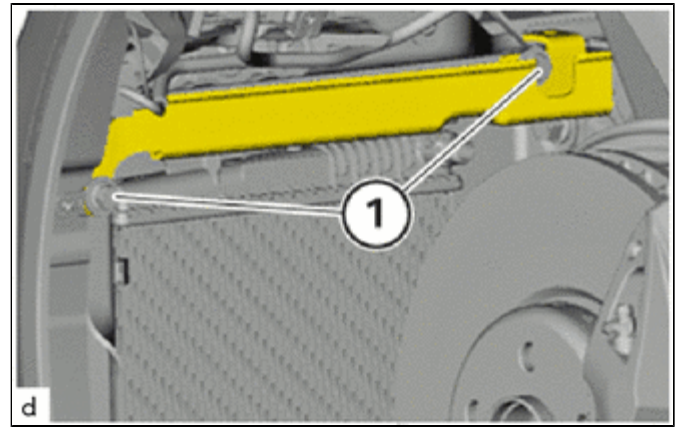


- (b) Make sure you can feel the sub radiator supports (3) engage in the body.

- (c) Tighten the T45 bolts (1).

Torque:

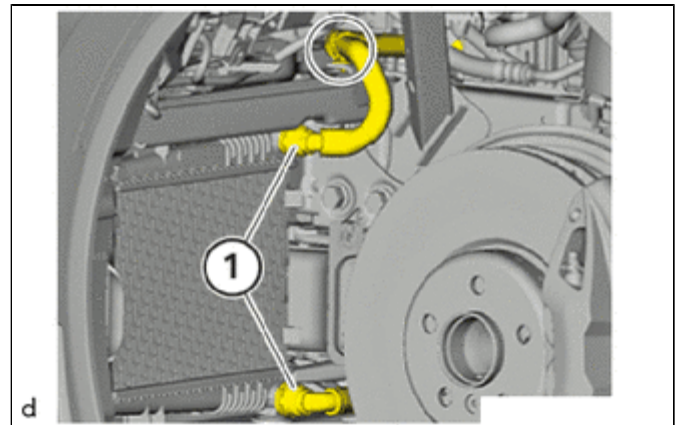
19 N·m { 194 kgf·cm, 14 ft·lbf }



(d) Connect and lock the radiator hose sub-assembly and No. 3 radiator hose (1).

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.



(e) Detach the special tool from the radiator hose sub-assembly and No. 3 radiator hose (1) and guide out.

(f) Mount the clip in the marked area.

2. INSTALL FRONT FENDER LINER LH

Click here [INFO](#)

3. INSTALL WHEEL ASSEMBLY

Click here [INFO](#)

4. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

5. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

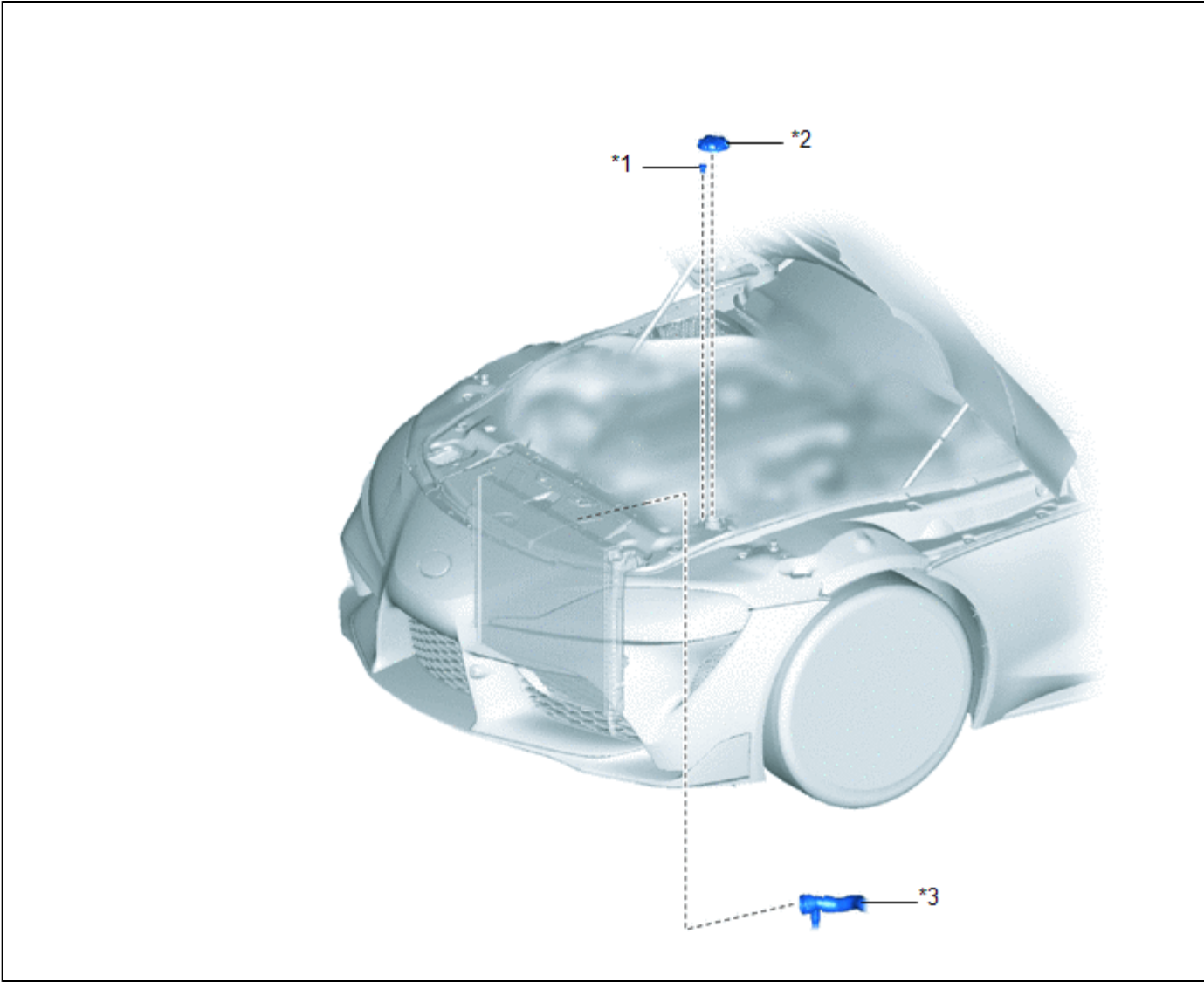
6. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR (for RH Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

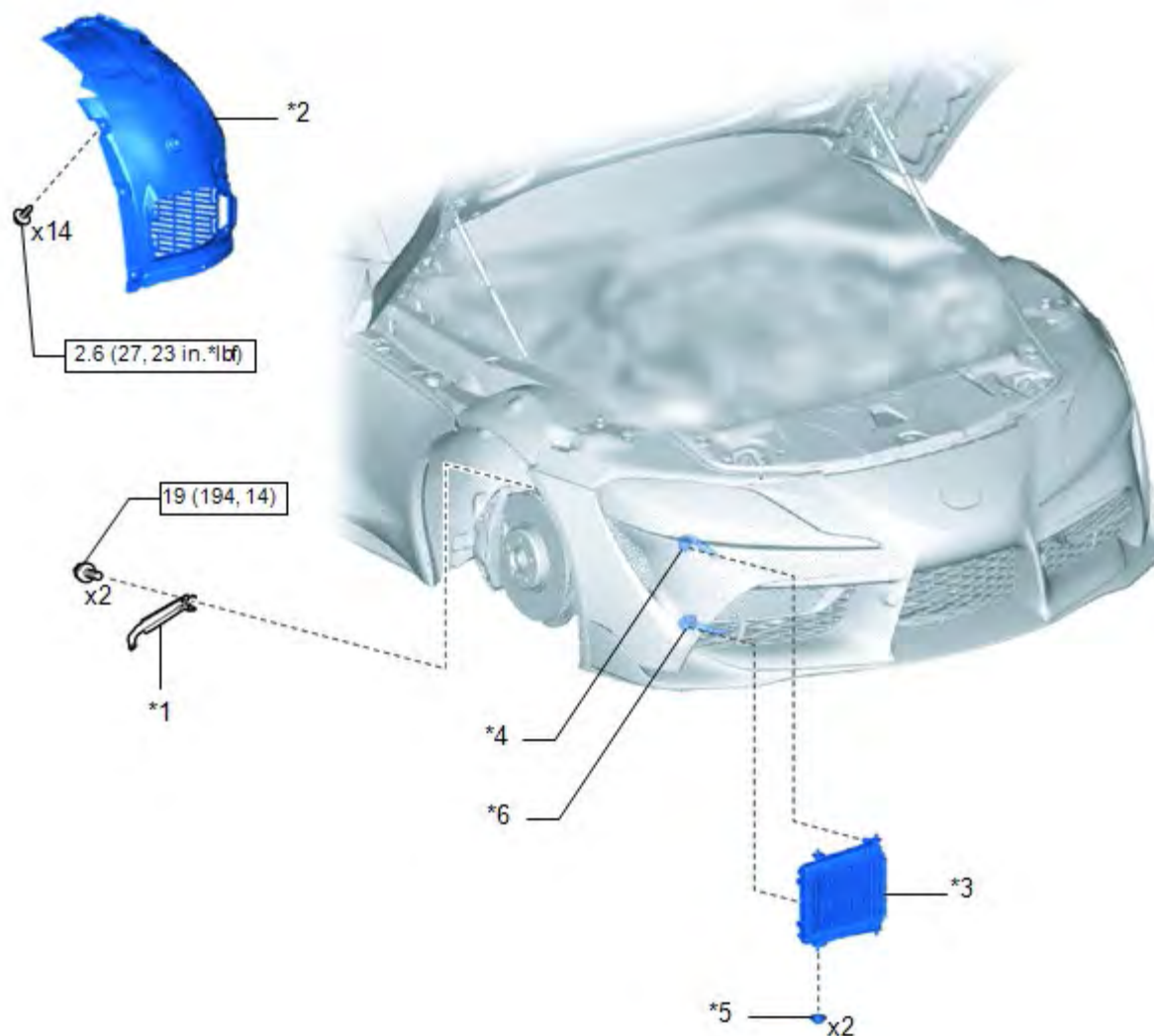
COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	FRONT BUMPER REINFORCEMENT SUPPORT RH	*2	FRONT FENDER LINER RH
*3	SUB RADIATOR	*4	NO. 1 RADIATOR HOSE
*5	SUB RADIATOR SUPPORT	*6	RADIATOR HOSE SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBC
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR (for RH Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

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

- Hot fluids.

Risk of scalding!

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

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

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

PROCEDURE

1. REMOVE WHEEL ASSEMBLY

Click here [INFO](#)

2. REMOVE FRONT FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

Click here [INFO](#)

3. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

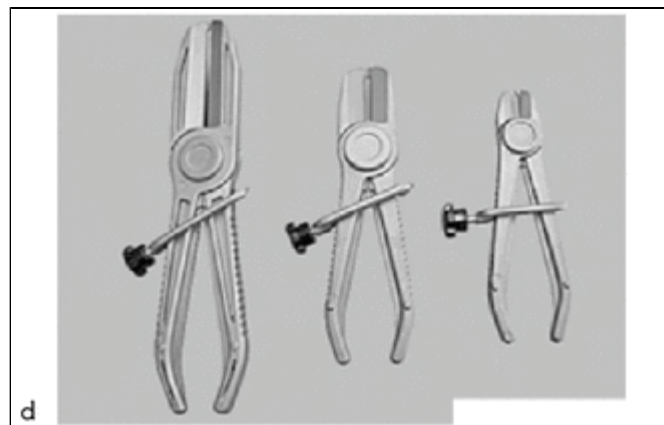
4. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

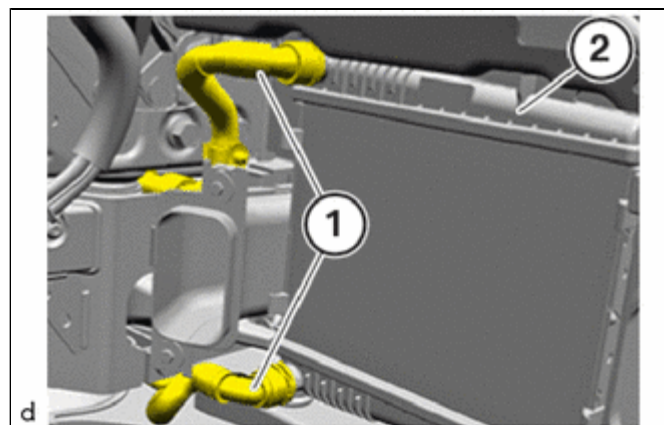
5. REMOVE SUB RADIATOR ASSEMBLY

(a) Disconnect the coolant lines with the special tool.

SST: 09900-WA090

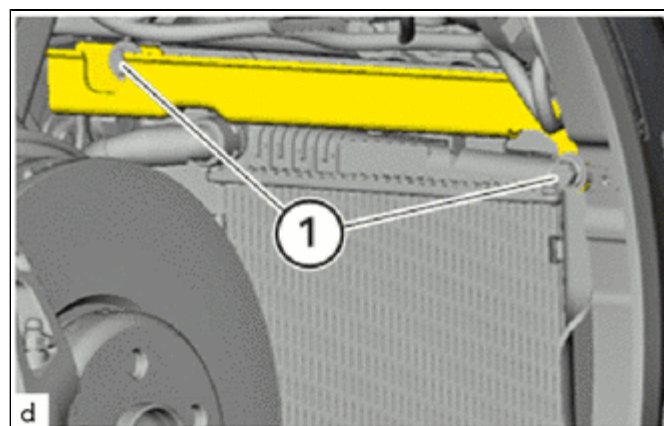


(b) Unlock the No. 1 radiator hose and radiator hose sub-assembly (1) and detach them from the sub radiator (2).

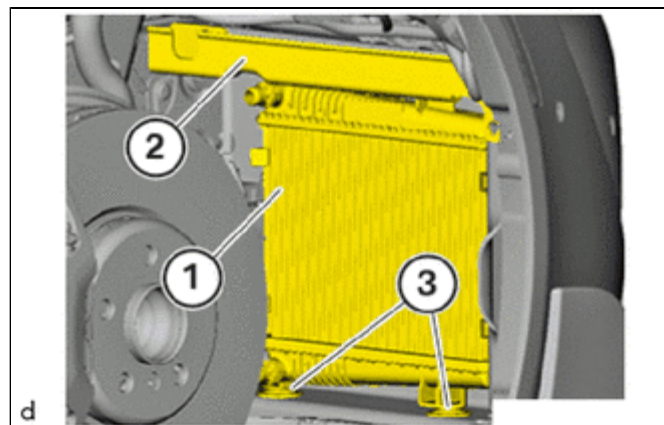


(c) Catch and dispose of escaping coolant.

(d) Loosen T45 bolts (1).



(e) Guide the sub radiator assembly (1) with the front bumper reinforcement support RH (2) out and remove it.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR (for RH Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

CAUTION / NOTICE / HINT

CAUTION:

- Hot surfaces.

Risk of burning!

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

NOTICE:

- Life-long fill of coolant!
- Do not reuse used coolant.

When replacing and removing components which rely on the corrosion protection effect of the coolant, it is essential to change the coolant. The cooling system must therefore be emptied and refilled.

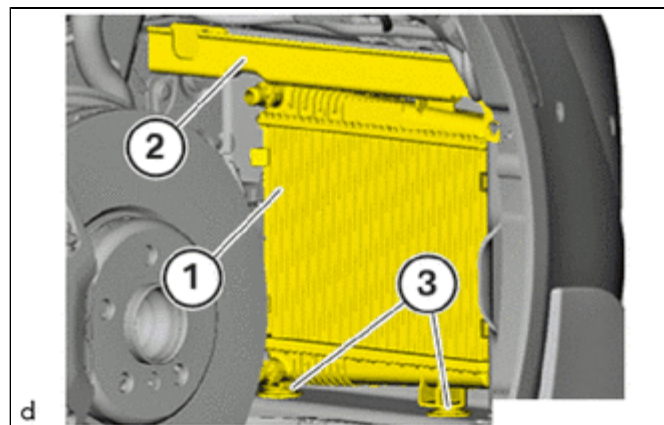
In the case of other removal work involving the draining of part quantities of coolant, the coolant level must be topped up with new coolant.

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

PROCEDURE

1. INSTALL SUB RADIATOR ASSEMBLY

- (a) Guide in sub radiator assembly (1) with the front bumper reinforcement support RH (2) and install.

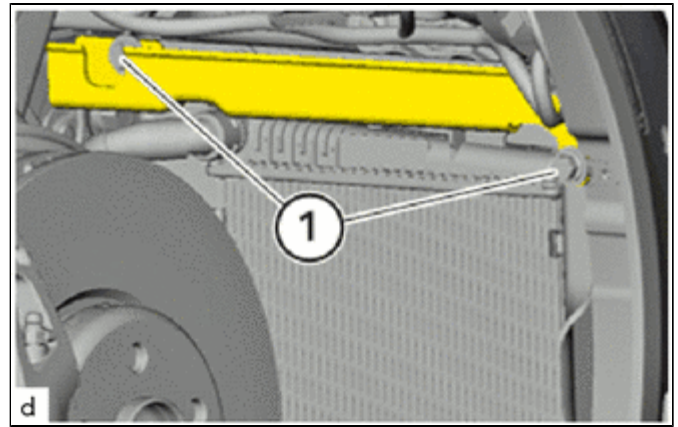


- (b) Make sure you can feel the sub radiator supports (3) engage in the body.

- (c) Tighten the T45 bolts (1).

Torque:

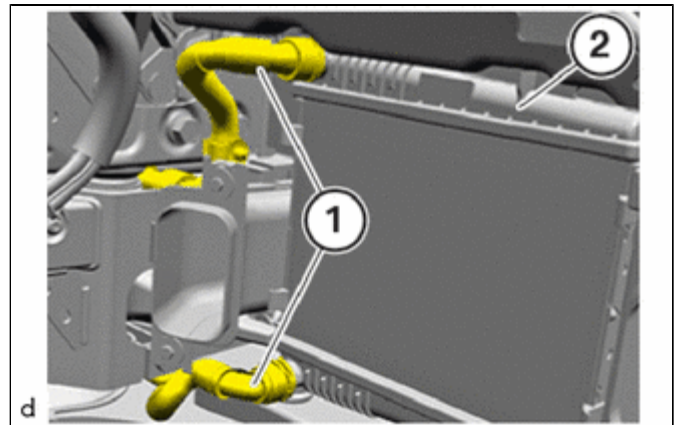
19 N·m {194 kgf·cm, 14 ft·lbf}



(d) Connect the No. 1 radiator hose and radiator hose sub-assembly (1) to the sub radiator (2) and lock.

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.



(e) Detach the special tool from the No. 1 radiator hose and radiator hose sub-assembly (1) and guide out.

2. INSTALL FRONT FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

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

3. INSTALL WHEEL ASSEMBLY

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

4. ADD ENGINE COOLANT (for High Temperature)

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

5. INSPECT FOR COOLANT LEAK (for High Temperature)

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

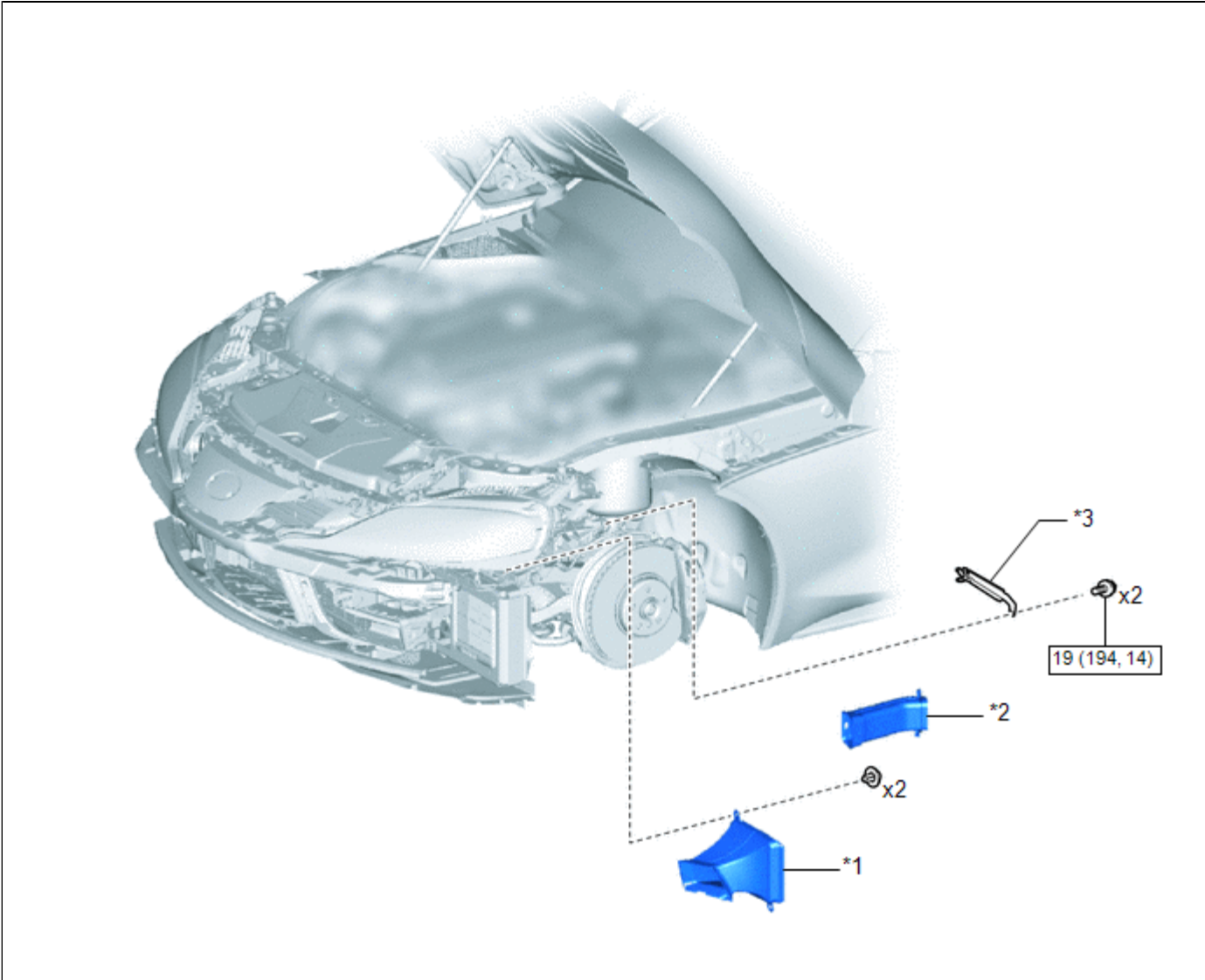
6. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

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

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR AIR DUCT (for LH Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	SUB RADIATOR AIR DUCT LH	*2	AIR INTAKE DUCT LH
*3	FRONT BUMPER REINFORCEMENT SUPPORT LH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB3
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR AIR DUCT (for LH Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

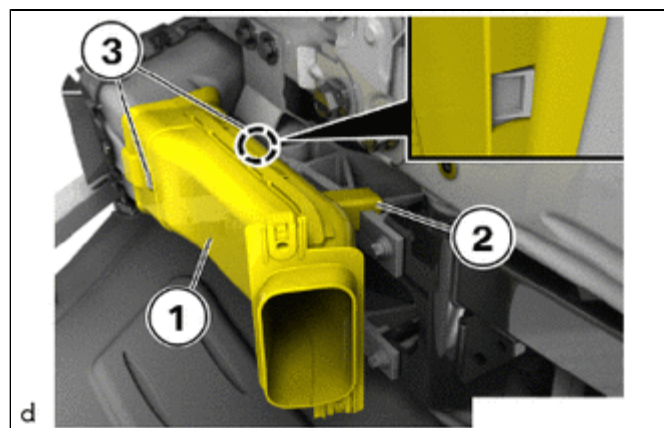
PROCEDURE

1. REMOVE FRONT BUMPER ASSEMBLY

Click here [INFO](#)

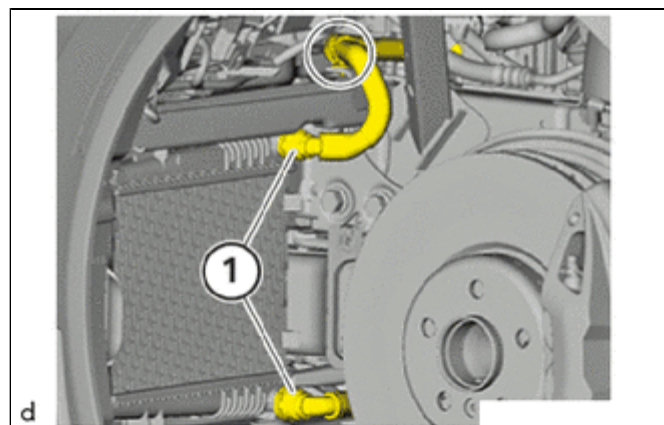
2. REMOVE AIR INTAKE DUCT LH

(a) Air intake duct LH (1) with the guide (2), detach it from the latch mechanisms (3) to the rear and remove.



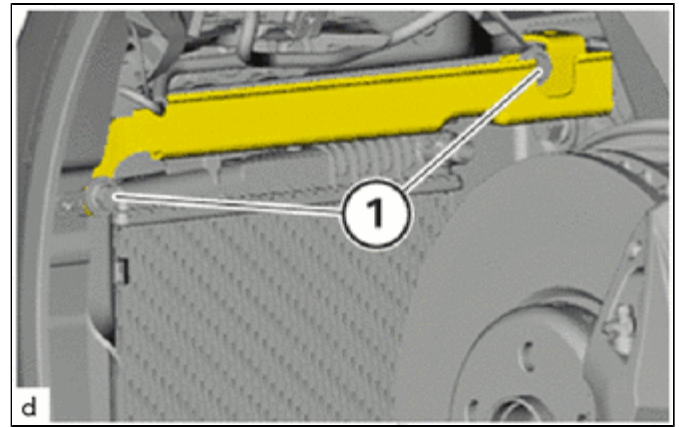
3. SEPARATE SUB RADIATOR ASSEMBLY

(a) Do not disconnect coolant lines (1).

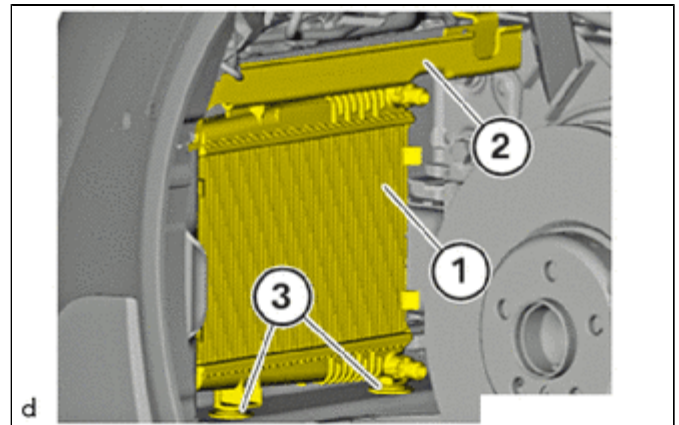


(b) Detach the clip in the marked area.

(c) Loosen T45 bolts (1).

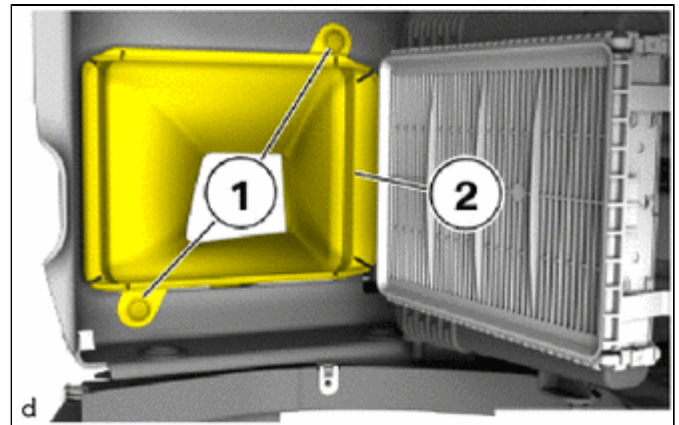


(d) Guide the sub radiator assembly (1) with the front bumper reinforcement support LH (2) out and tie it to the side.



4. REMOVE SUB RADIATOR AIR DUCT LH

(a) Detach expanding clips (1) and remove the sub radiator air duct LH (2).



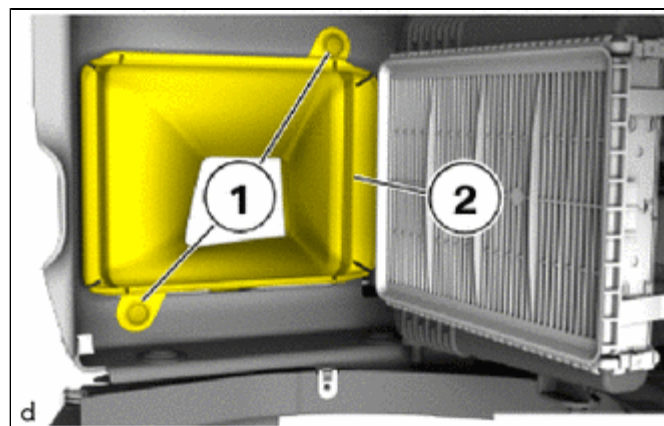
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB4
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR AIR DUCT (for LH Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

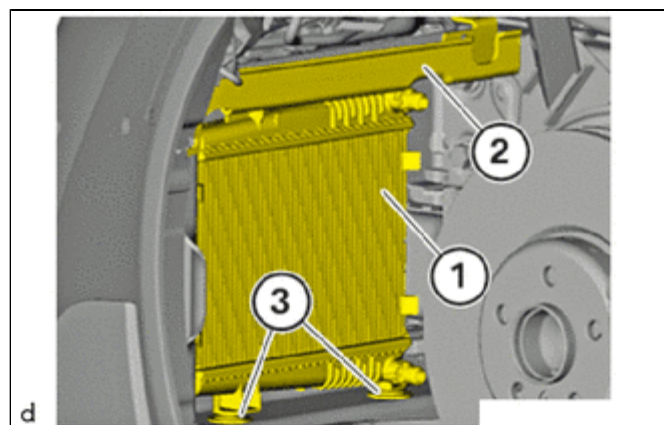
1. INSTALL SUB RADIATOR AIR DUCT LH

- (a) Position the air duct for sub radiator air duct LH (2) and fasten the expanding clips (1).



2. INSTALL SUB RADIATOR ASSEMBLY

- (a) Guide in the sub radiator assembly (1) with the front bumper reinforcement support LH (2) and install.

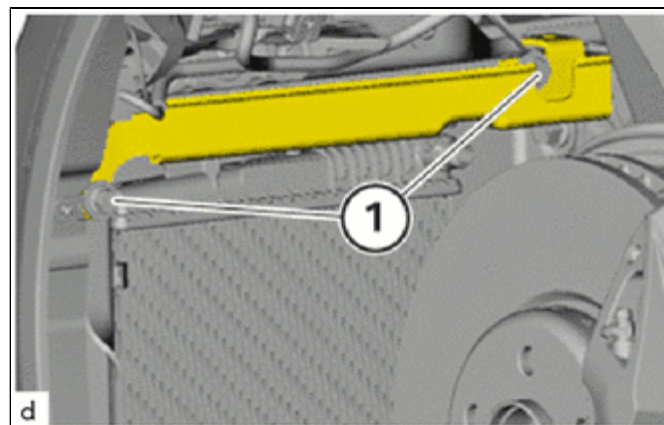


- (b) Make sure you can feel the sub radiator supports (3) engage in the body.

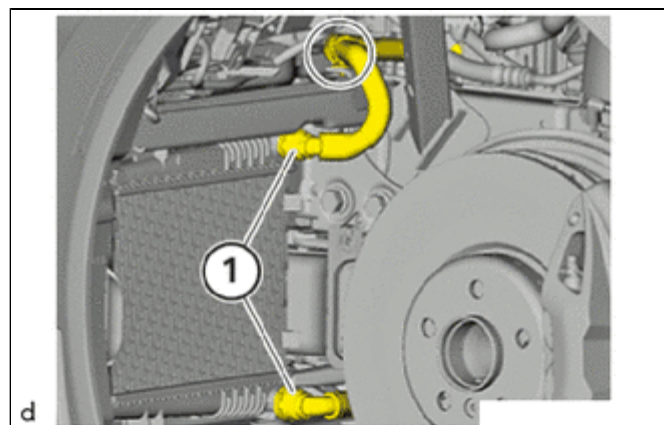
- (c) Tighten the T45 bolts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}



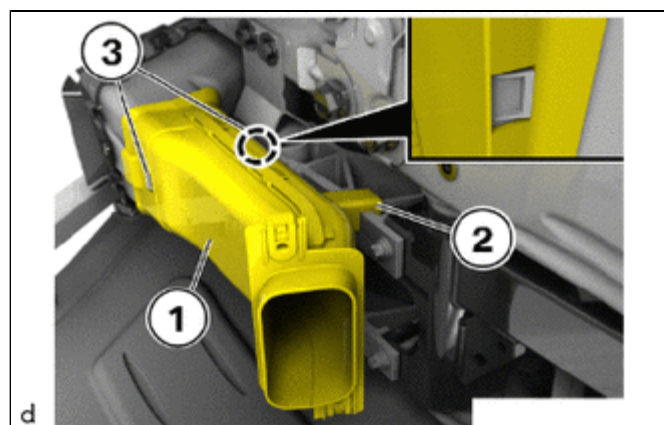
(d) Do not disconnect coolant lines (1).



(e) Mount the clip in the marked area.

3. INSTALL AIR INTAKE DUCT LH

(a) Position air intake duct LH (1) with the guide (2) correctly and clip into the latch mechanism (3).



4. INSTALL FRONT BUMPER ASSEMBLY

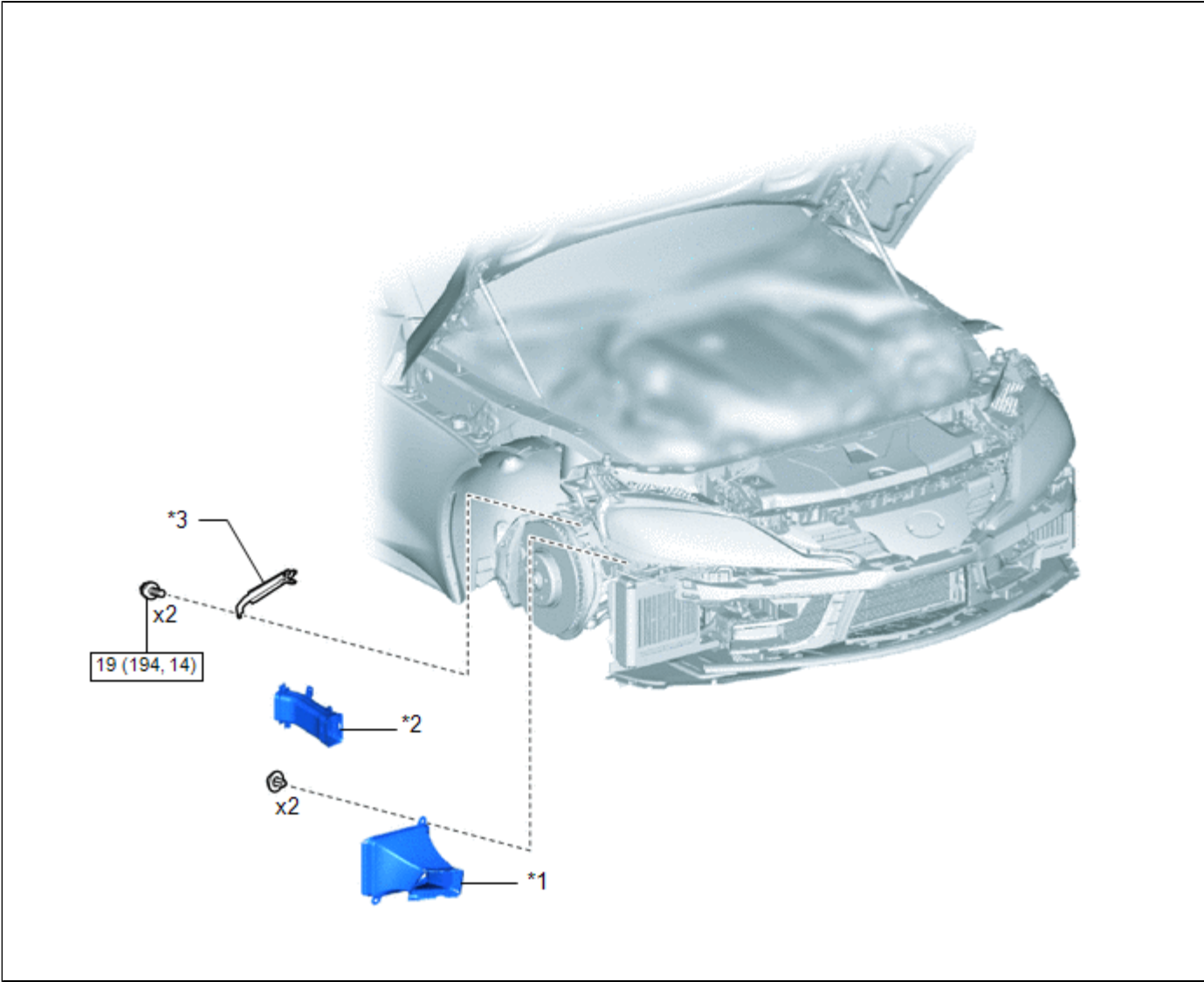
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR AIR DUCT (for RH Side): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	SUB RADIATOR AIR DUCT RH	*2	AIR INTAKE DUCT RH
*3	FRONT BUMPER REINFORCEMENT SUPPORT RH	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB6
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR AIR DUCT (for RH Side): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

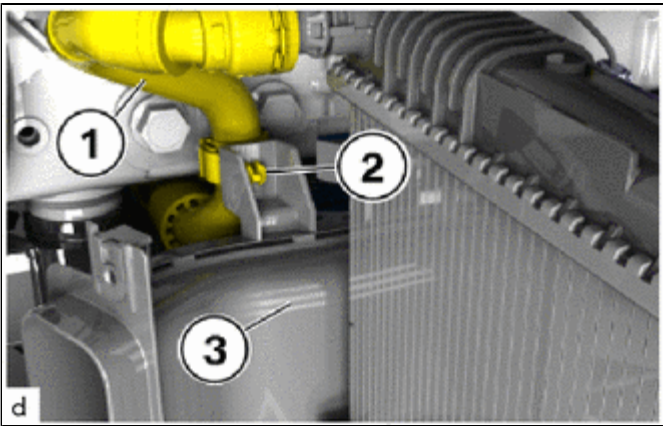
PROCEDURE

1. REMOVE FRONT BUMPER ASSEMBLY

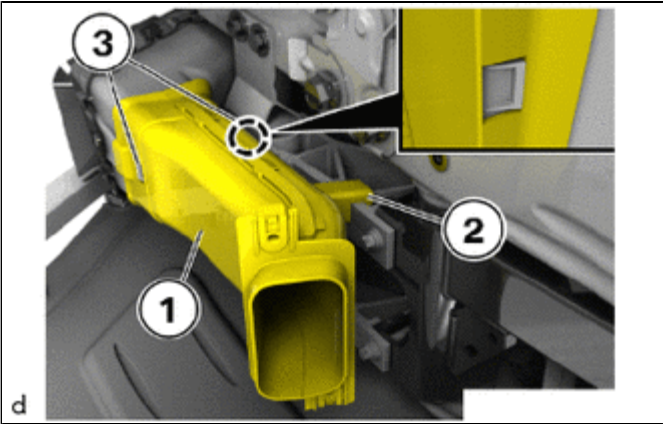
Click here [INFO](#)

2. REMOVE AIR INTAKE DUCT RH

(a) Unclip No. 1 radiator hose (1) and holder (2) from the air intake duct RH (3).

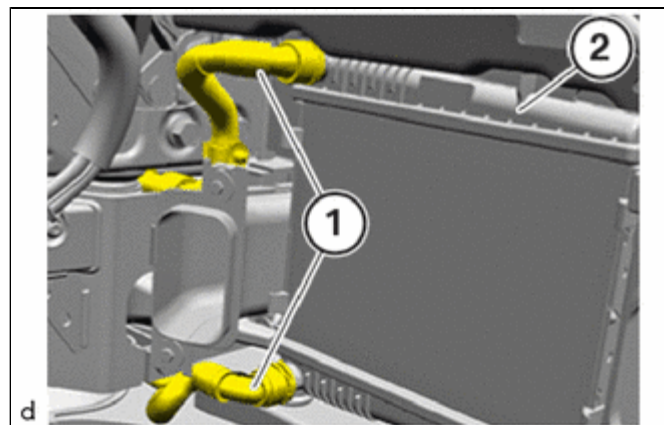


(b) Air intake duct RH (1) with the guide (2), detach it from the latch mechanisms (3) to the rear and remove.

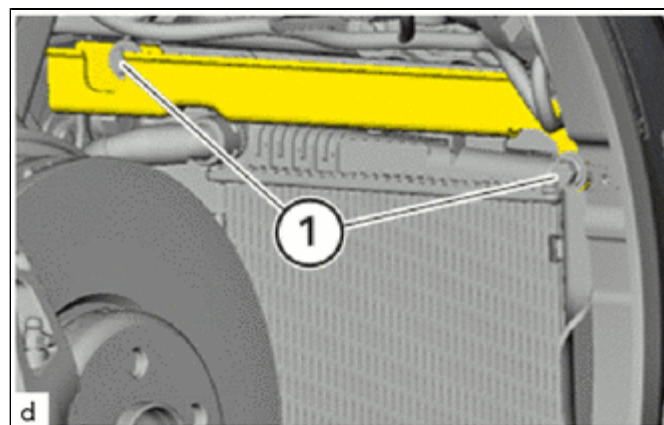


3. SEPARATE SUB RADIATOR ASSEMBLY

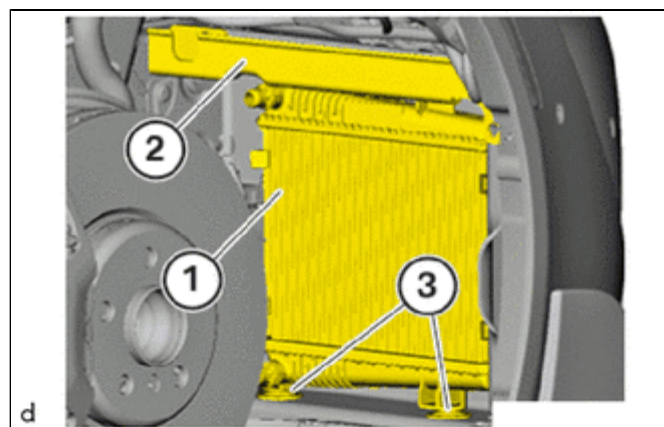
(a) Do not disconnect coolant lines (1) from the sub radiator (2).



(b) Loosen T45 bolts (1).

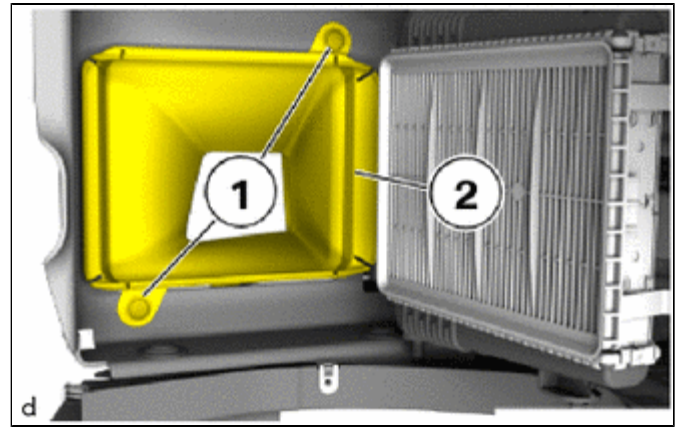


(c) Guide the sub radiator assembly (1) with the front bumper reinforcement support RH (2) out and tie it to the side.



4. REMOVE SUB RADIATOR AIR DUCT RH

(a) Remove the clips (1) and sub radiator air duct RH (2).



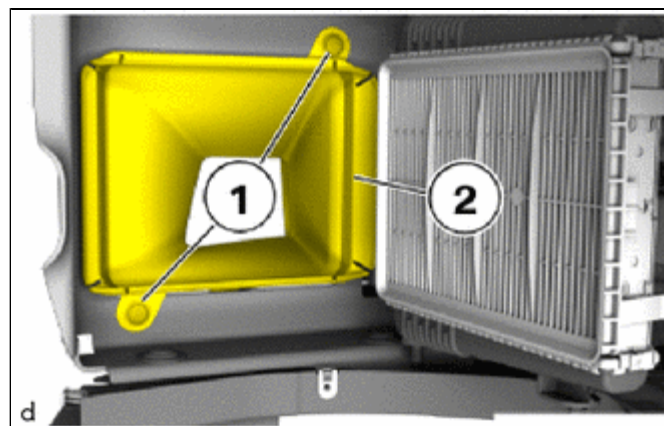
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDB7
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): SUB RADIATOR AIR DUCT (for RH Side): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

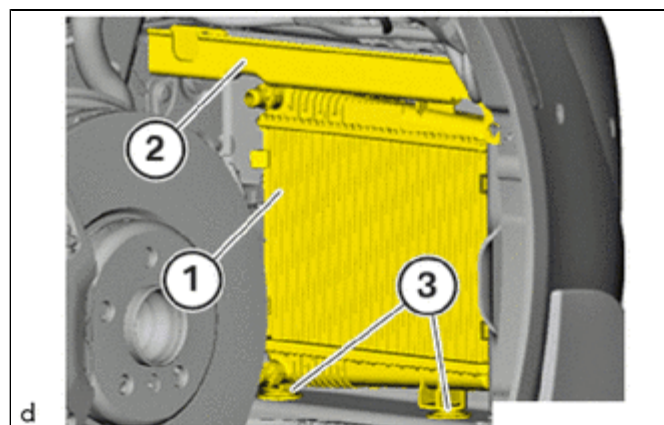
1. INSTALL SUB RADIATOR AIR DUCT RH

- (a) Position the air duct for the sub radiator air duct RH (2) and fasten the expanding clips (1).



2. INSTALL SUB RADIATOR ASSEMBLY

- (a) Guide in the sub radiator assembly (1) with the front bumper reinforcement support RH (2) and install.

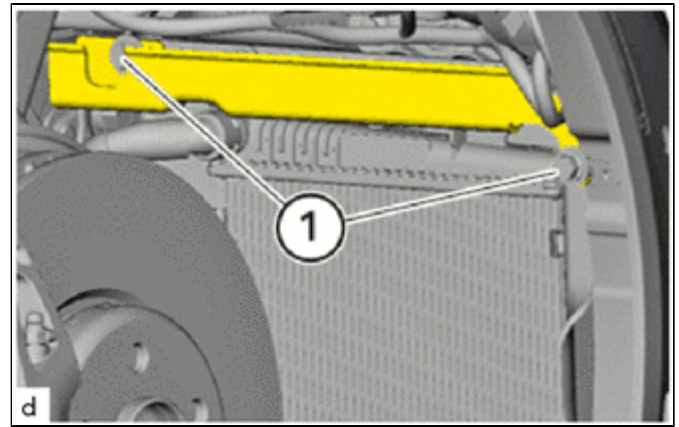


- (b) Make sure you can feel the sub radiator supports (3) engage in the body.

- (c) Tighten the T45 bolts (1).

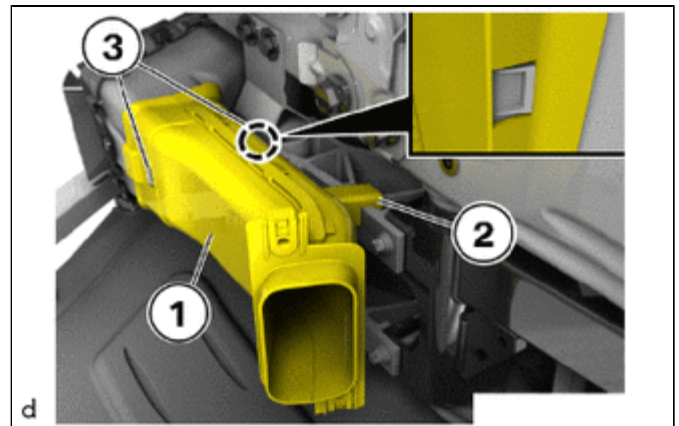
Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

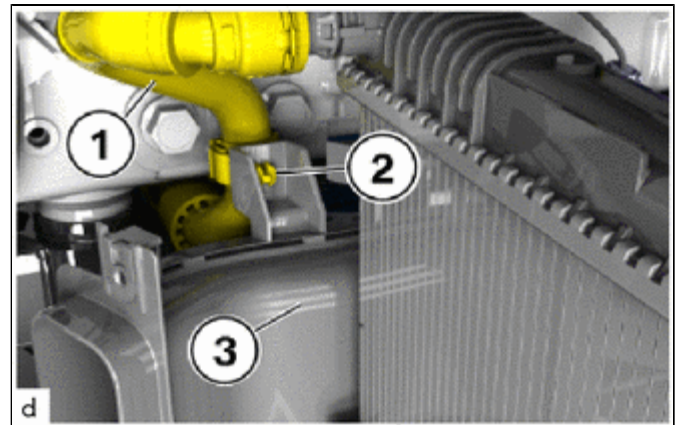


3. INSTALL AIR INTAKE DUCT RH

- (a) Position air intake duct RH (1) with the guide (2) correctly and clip into the latch mechanisms (3).

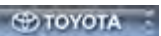


- (b) Clip in No. 1 radiator hose (1) with the holder (2) in the air intake duct RH (3).



4. INSTALL FRONT BUMPER ASSEMBLY

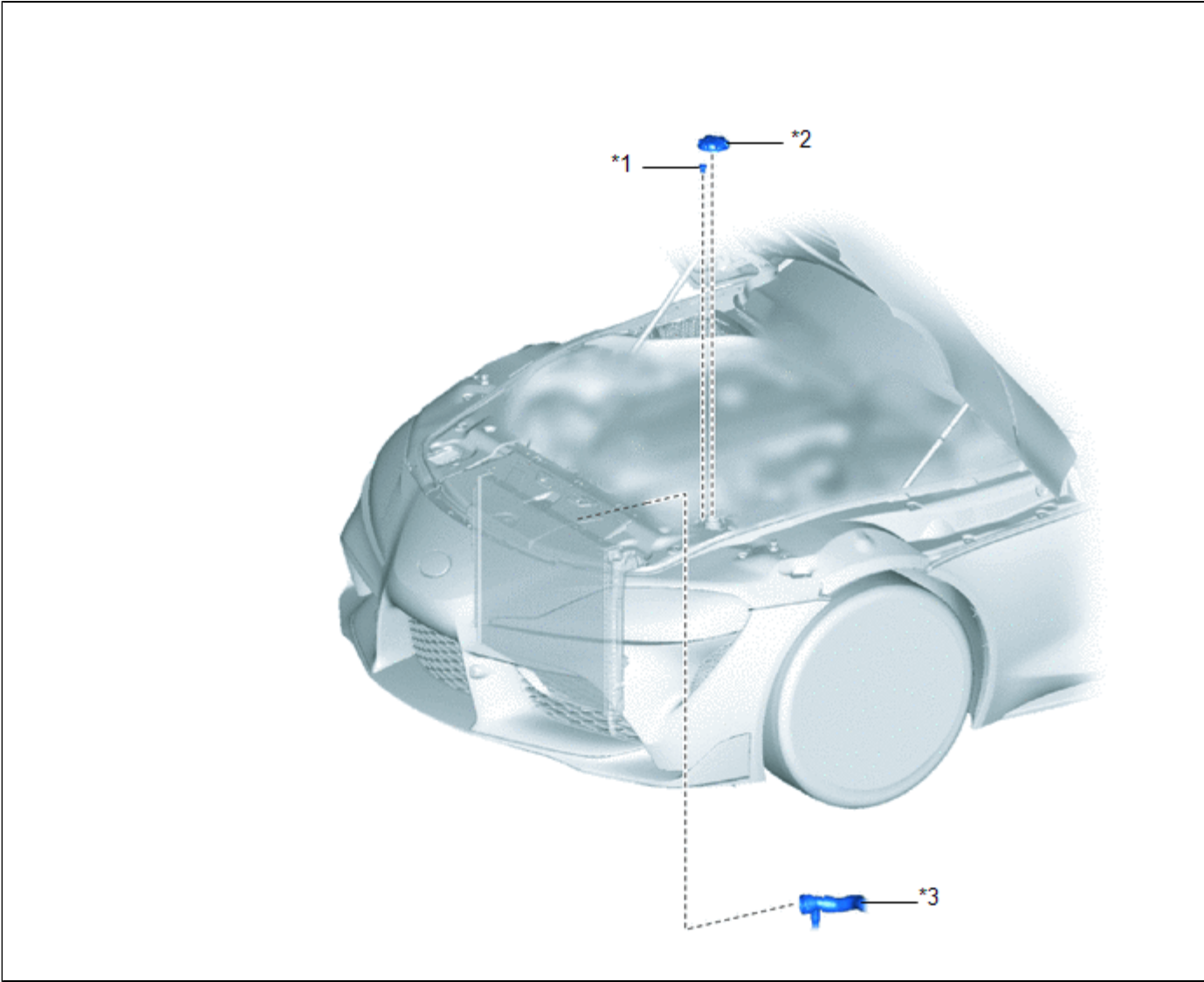
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDBZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): WATER INLET HOUSING: COMPONENTS; 2020 MY Supra [03/2019 -]		

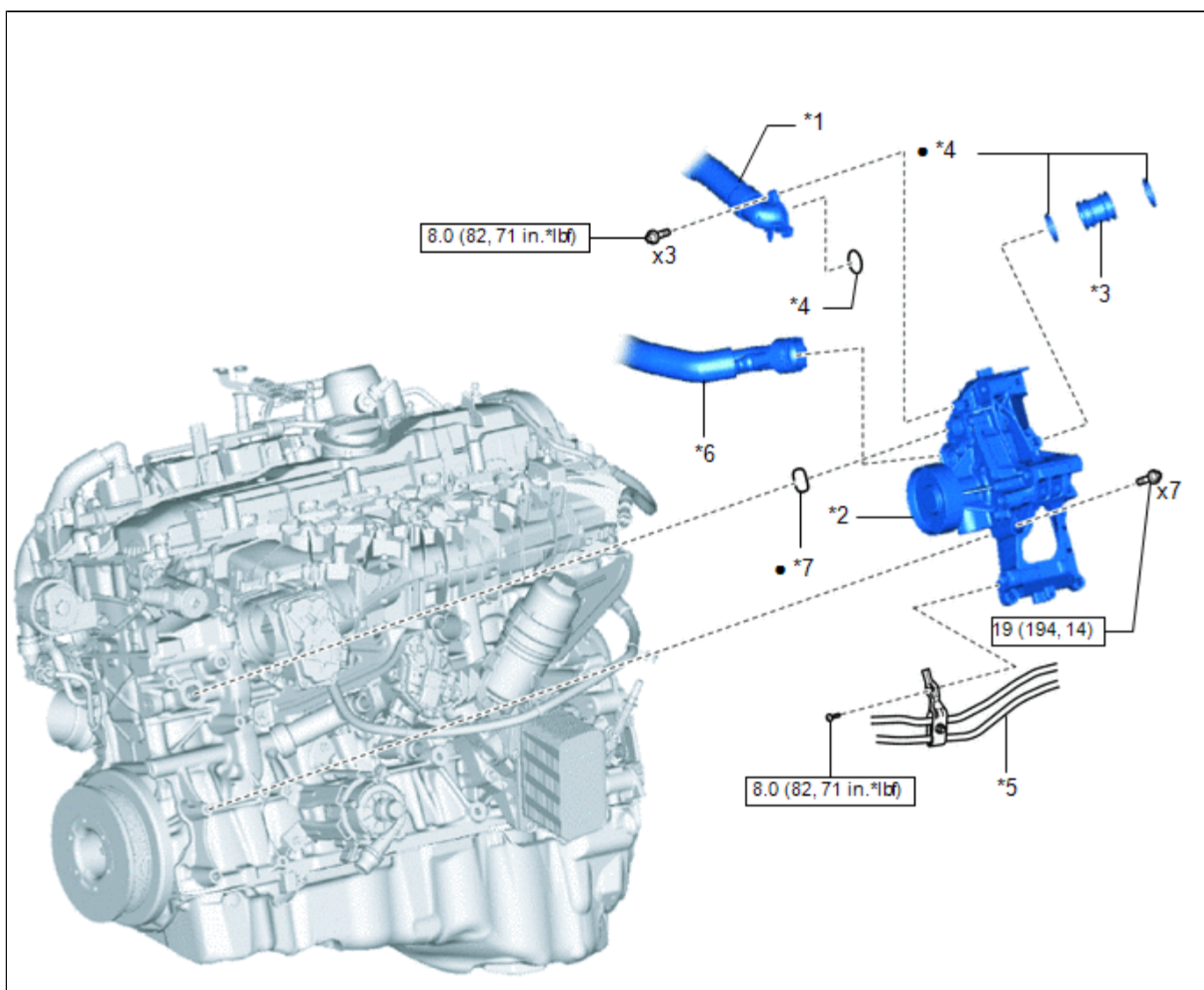
COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	NO. 2 WATER BY-PASS HOSE	*2	WATER INLET WITH WATER PUMP HOUSING SUB-ASSEMBLY
*3	WATER PIPE	*4	O-RING
*5	AUTOMATIC TRANSMISSION OIL COOLER TUBE CLAMP	*6	NO. 1 RADIATOR HOSE
*7	GASKET	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): WATER INLET HOUSING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. REMOVE COMPRESSOR WITH PULLEY ASSEMBLY

Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. REMOVE WATER INLET WITH WATER PUMP HOUSING SUB-ASSEMBLY

CAUTION:

- Hot fluids.

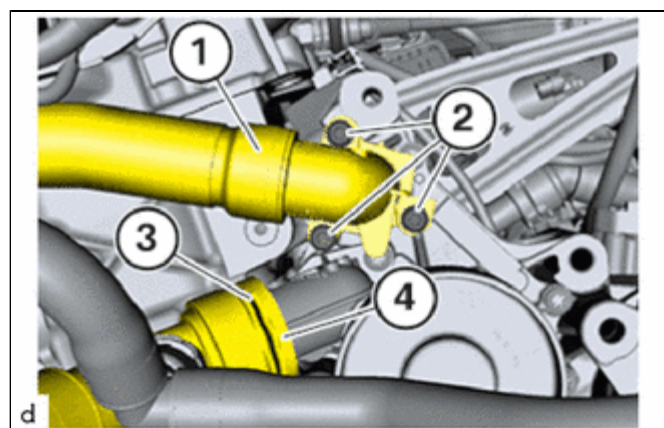
Risk of scalding!

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

NOTICE:

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

(a) Loosen T30 bolts (2).

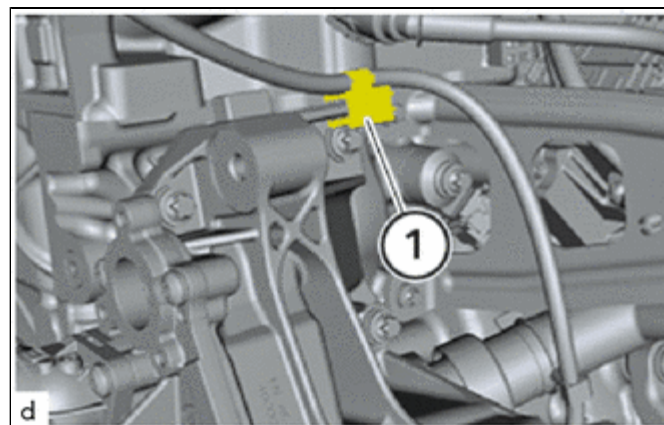


(b) Pull No. 2 water by-pass hose (1) out of the engine water pump assembly and set aside.

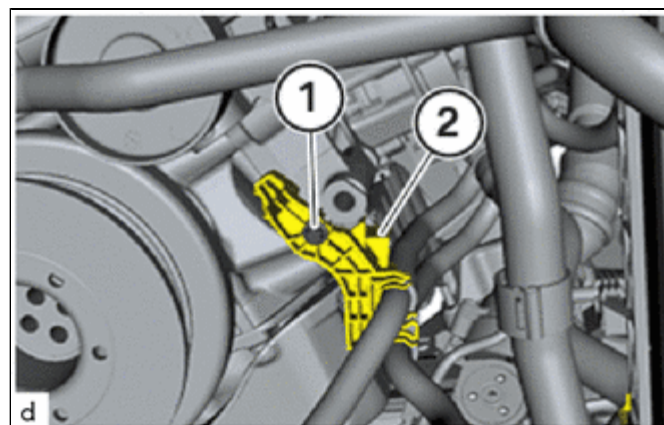
(c) Unlock the lock (3).

(d) Detach the No. 1 radiator hose (4) and set it aside.

(e) Loosen the cable clip (1).

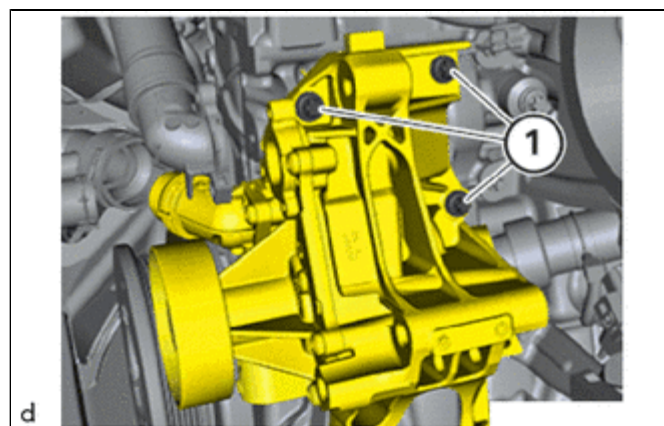


(f) Loosen E10 bolt (1).

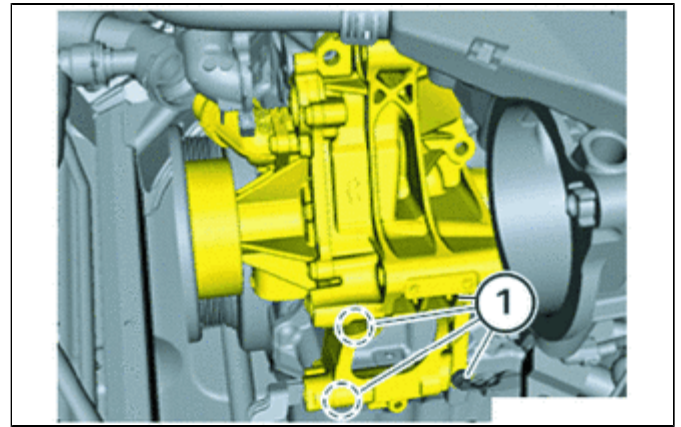


(g) Remove automatic transmission oil cooler tube clamp (2) and set aside.

(h) Loosen E10 bolts (1).

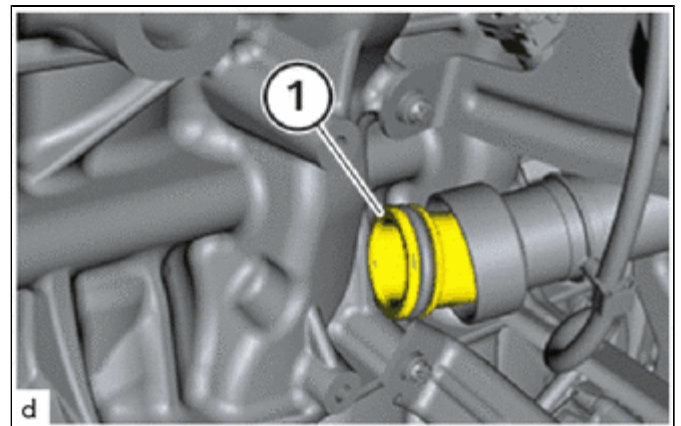


(i) Loosen E10 bolts (1).



(j) Guide out water inlet with water pump housing sub-assembly to the top.

(k) Remove water pipe (1).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC0
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): WATER INLET HOUSING: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

2. REMOVE COMPRESSOR WITH PULLEY ASSEMBLY

Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. REMOVE WATER INLET WITH WATER PUMP HOUSING SUB-ASSEMBLY

CAUTION:

- Hot fluids.

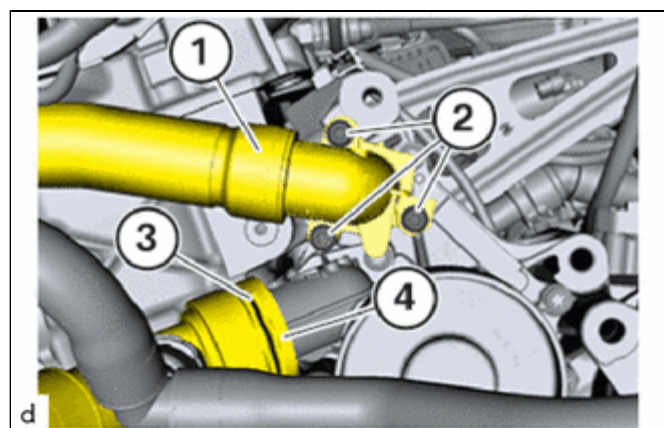
Risk of scalding!

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

NOTICE:

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

(a) Loosen T30 bolts (2).

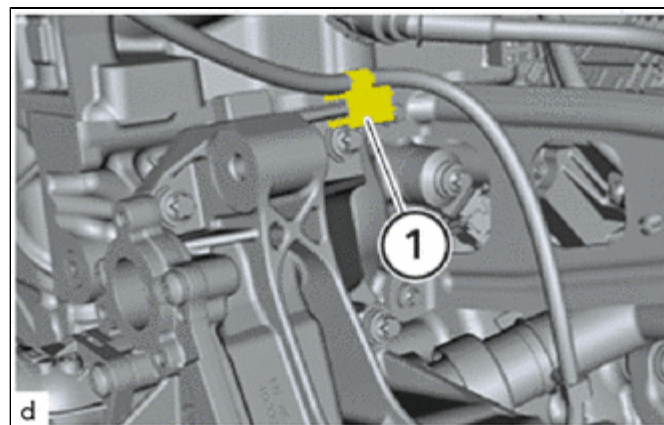


(b) Pull No. 2 water by-pass hose (1) out of the engine water pump assembly and set aside.

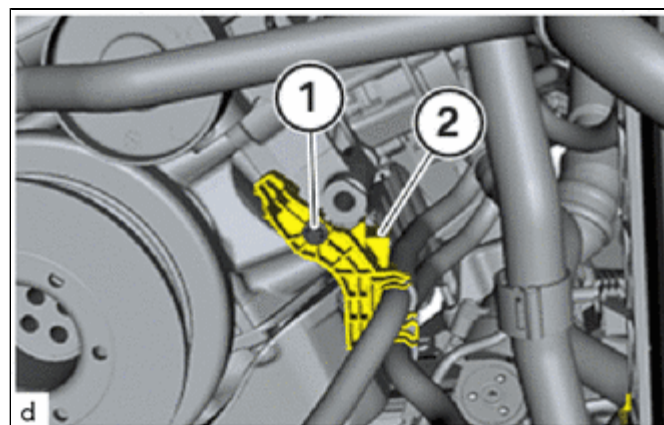
(c) Unlock the lock (3).

(d) Detach the No. 1 radiator hose (4) and set it aside.

(e) Loosen the cable clip (1).

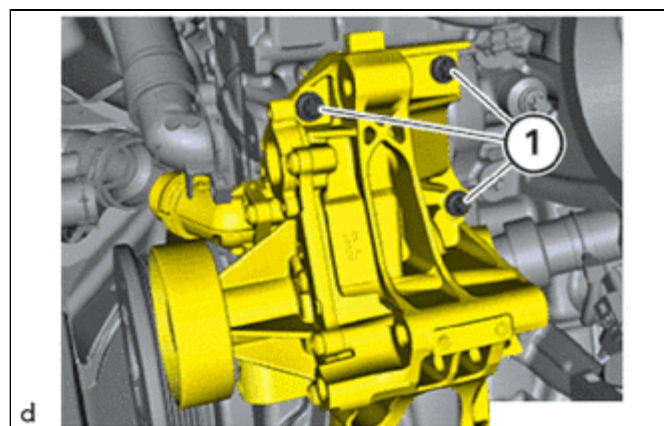


(f) Loosen E10 bolt (1).

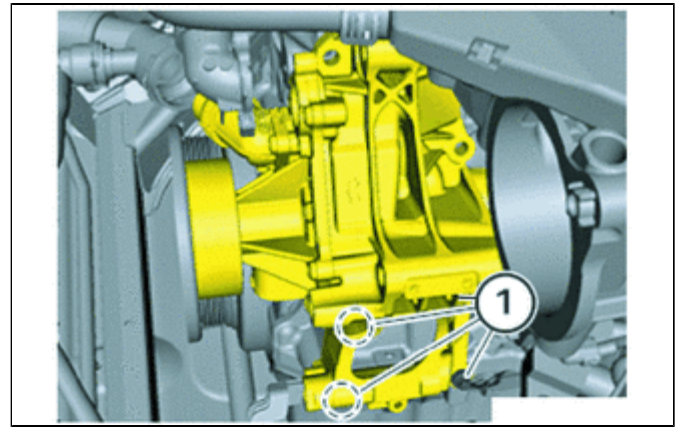


(g) Remove automatic transmission oil cooler tube clamp (2) and set aside.

(h) Loosen E10 bolts (1).

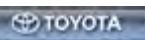
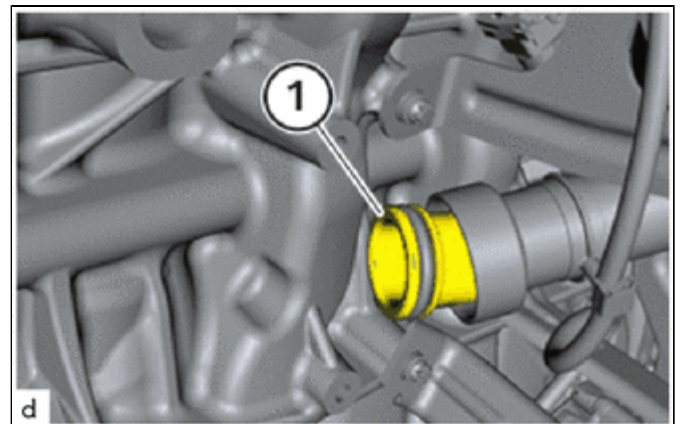


(i) Loosen E10 bolts (1).



(j) Guide out water inlet with water pump housing sub-assembly to the top.

(k) Remove water pipe (1).



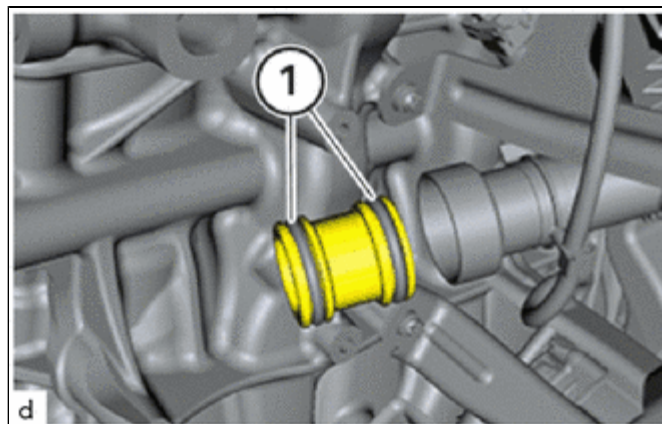
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDC1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): WATER INLET HOUSING: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

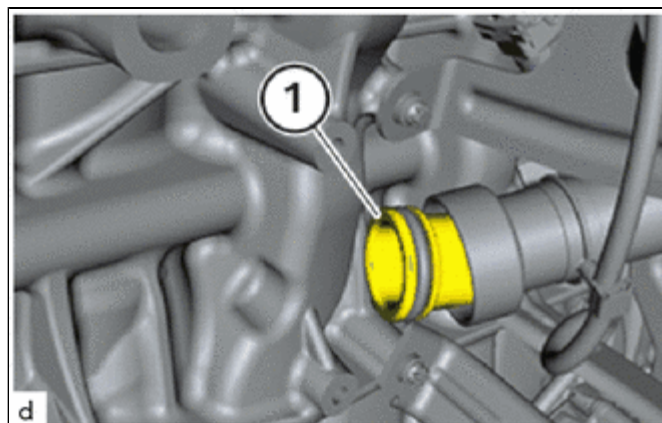
1. INSTALL WATER INLET WITH WATER PUMP HOUSING SUB-ASSEMBLY

(a) Replace the O-rings (1).

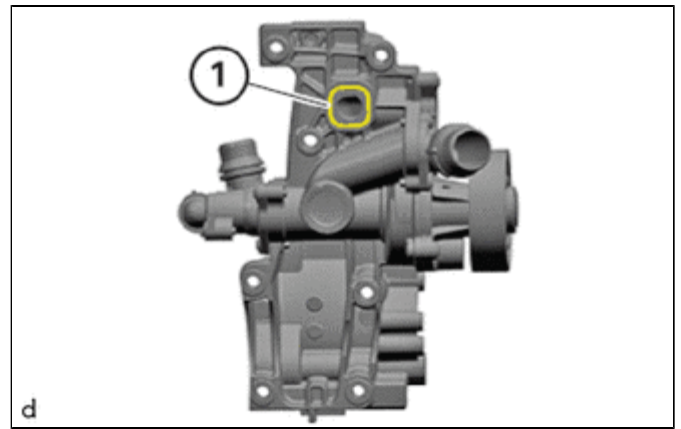


(b) Coat O-rings (1) with coolant for installation.

(c) Position water pipe (1) up at an angle.



(d) Replace the gasket (1).



(e) Insert and install the gasket (1) on the water inlet with water pump housing sub-assembly.

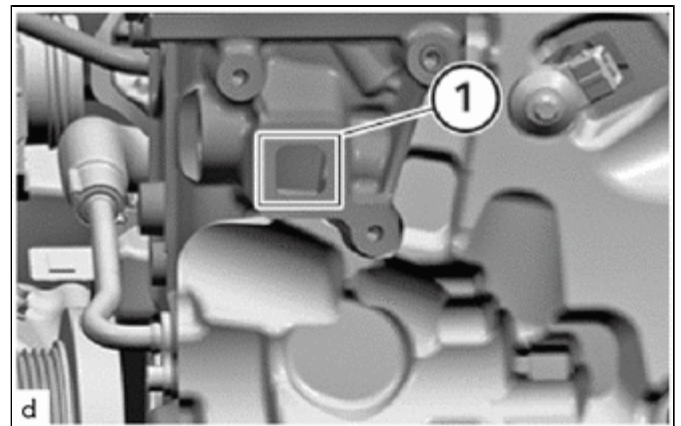
(f) Clean the sealing surface (1).

NOTICE:

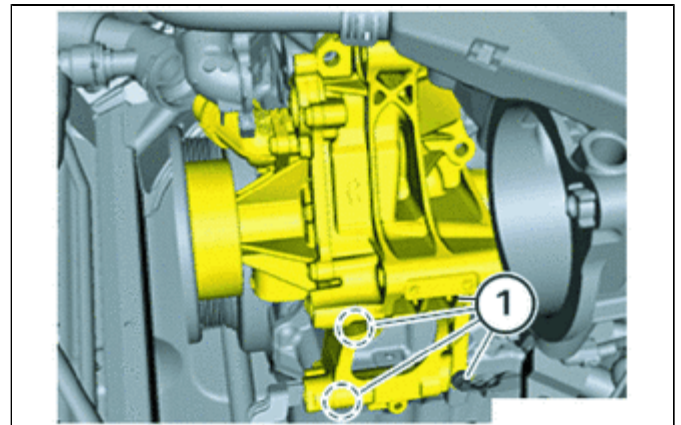
- Damage to the surface.

The use of metal-cutting tools (e.g. emery cloth) to clean the surfaces can damage them and lead to leaks or engine damage.

- Do not use any metal-cutting tools.



(g) Insert and install the water inlet with water pump housing sub-assembly.



(h) Tighten the E10 bolt (1).

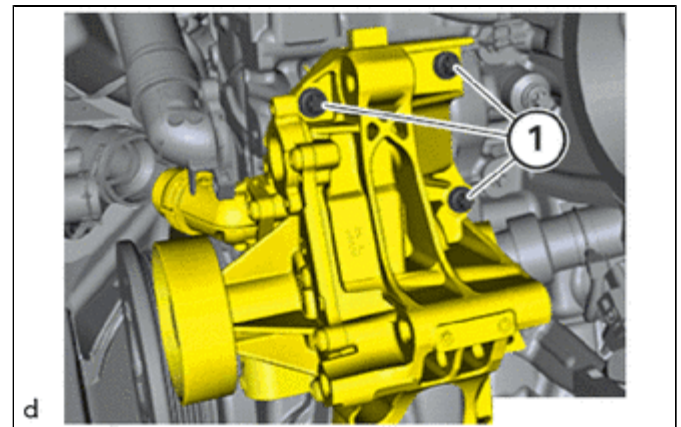
Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

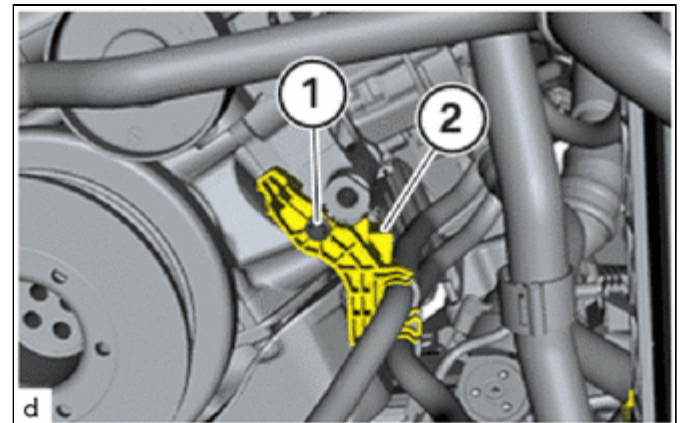
(i) Tighten the E10 bolts (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}



(j) Position automatic transmission oil cooler tube clamp (2).



(k) Tighten the E10 bolts (1).

Torque:

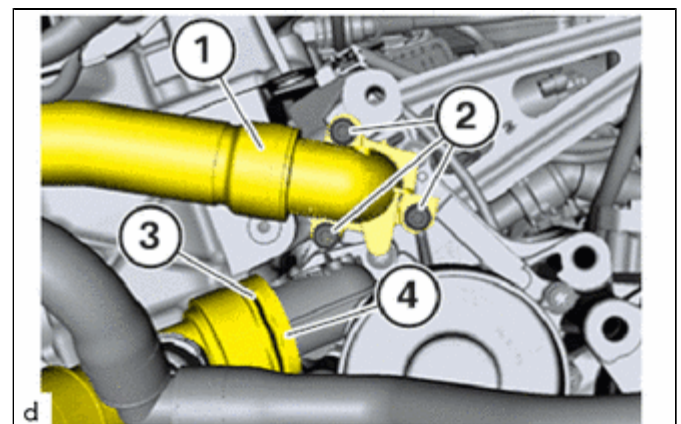
8.0 N·m {82 kgf·cm, 71 in·lbf}

(l) Mount cable clip.

(m) Connect No. 1 radiator hose (4).

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.



(n) Connect No. 2 water by-pass hose (1) on the engine water pump assembly.

(o) Tighten down T30 bolts (2).

Torque:

8.0 N·m { 82 kgf·cm, 71 in·lbf }

2. INSTALL COMPRESSOR WITH PULLEY ASSEMBLY

Click here [INFO](#)

3. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

5. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

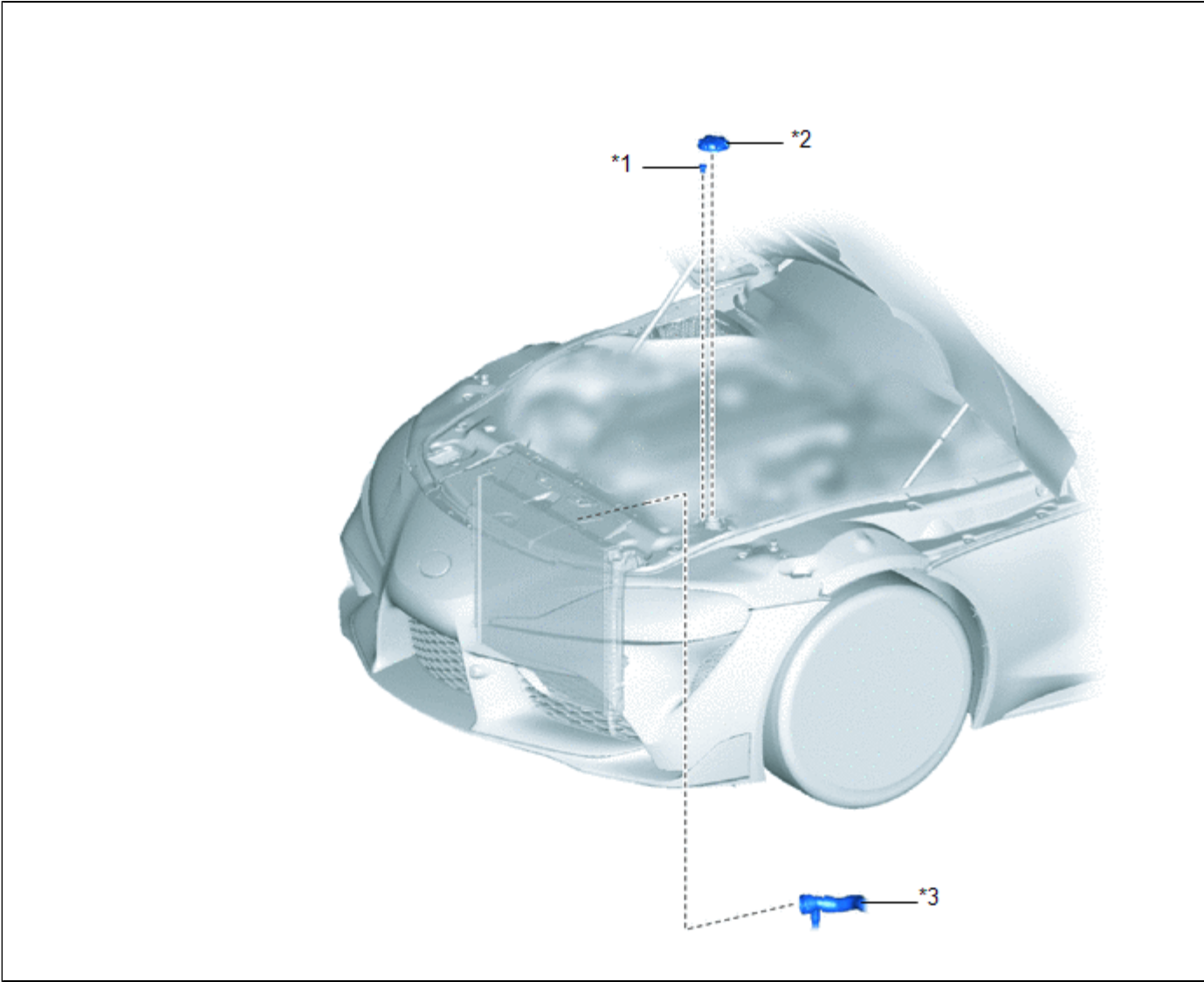
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): WATER PUMP: COMPONENTS; 2020 MY Supra [03/2019 -]		

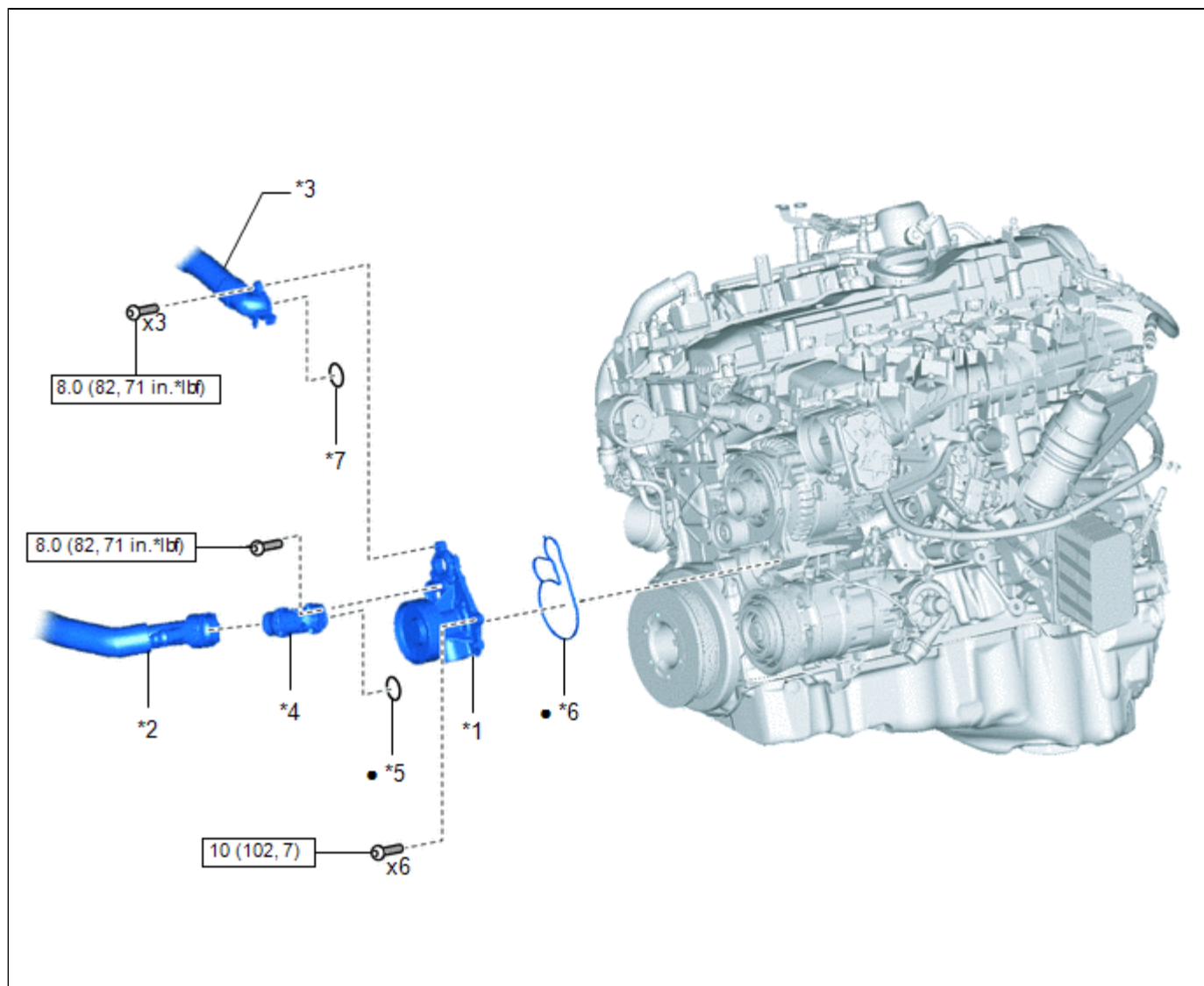
COMPONENTS

ILLUSTRATION



*1	BLEEDER SCREW	*2	RESERVE TANK CAP SUB-ASSEMBLY
*3	NO. 1 RADIATOR HOSE	-	-

ILLUSTRATION



*1	ENGINE WATER PUMP ASSEMBLY	*2	NO. 1 RADIATOR HOSE
*3	NO. 2 WATER BY-PASS HOSE	*4	WATER INLET
*5	WATER INLET O-RING	*6	WATER PUMP GASKET
*7	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): WATER PUMP: 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.

- Hot surfaces.

Risk of burning!

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

PROCEDURE

1. REMOVE NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

2. REMOVE FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. REMOVE FAN AND GENERATOR V BELT

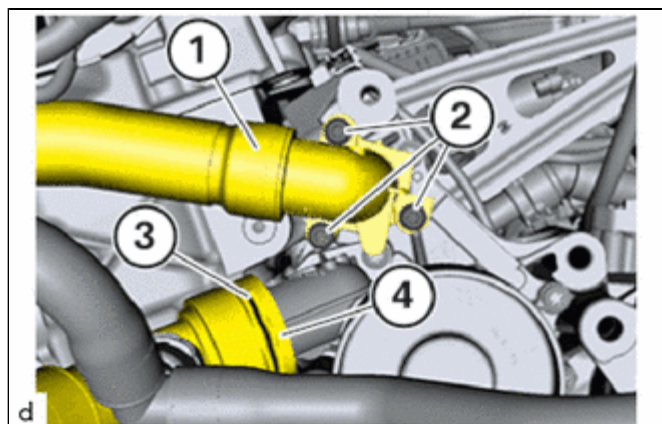
Click here [INFO](#)

5. REMOVE ENGINE WATER PUMP ASSEMBLY

NOTICE:

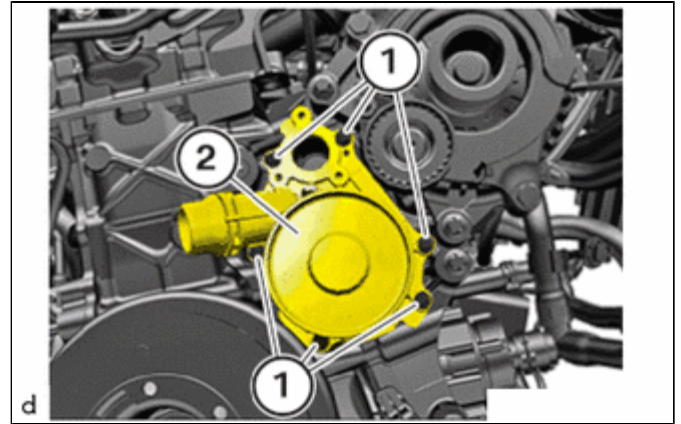
Collect and dispose of emerging fluids. Observe country-specific waste disposal regulations.

(a) Loosen T30 bolts (2).



- (b) Pull the No. 2 water by-pass hose (1) out of the engine water pump assembly and set aside.
- (c) Unlock the lock (3).
- (d) Detach the No. 1 radiator hose (4) and set it aside.

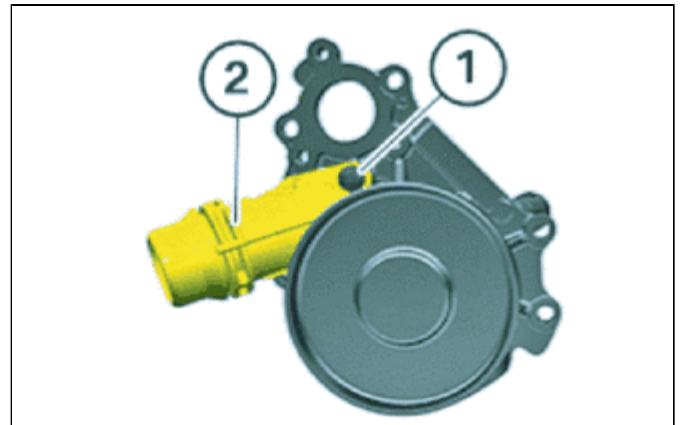
- (e) Loosen T30 bolts (1).



- (f) Pull the engine water pump assembly (2) out of the water inlet with water pump housing sub-assembly and remove to the top.

6. REMOVE WATER INLET

- (a) Loosen T30 bolt (1).



- (b) Remove water inlet (2).

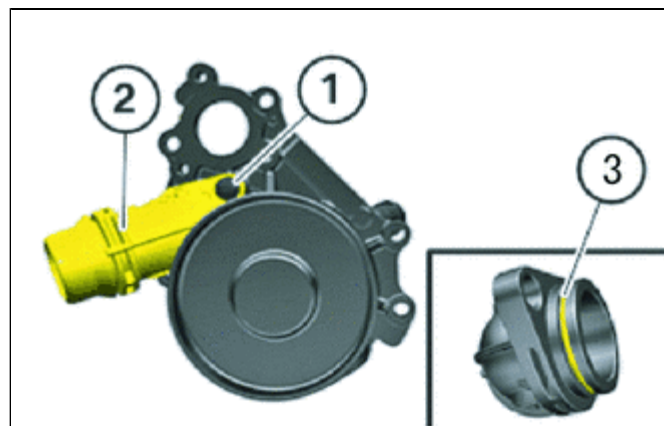
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JDAP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: B58 (COOLING): WATER PUMP: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL WATER INLET

(a) Replace the O-ring (3).



(b) Install water inlet (2) in the new engine water pump assembly

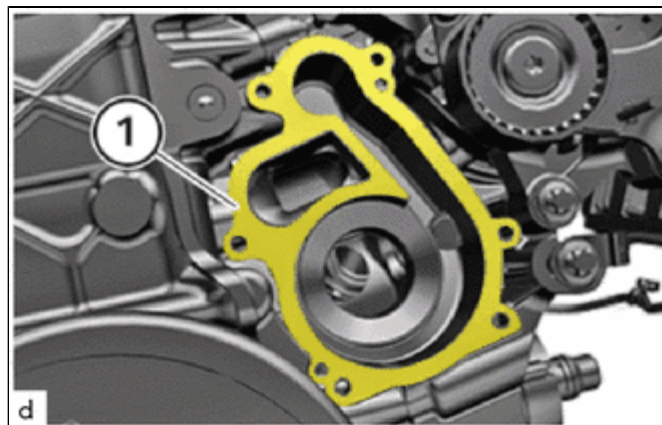
(c) Tighten down T30 bolt (1).

Torque:

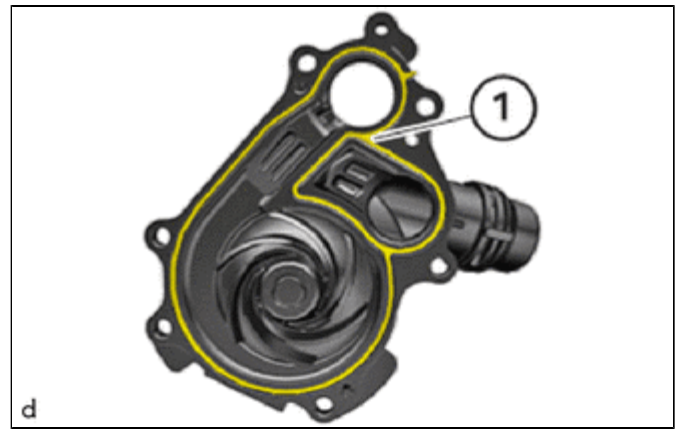
8.0 N·m {82 kgf·cm, 71 in·lbf}

2. INSTALL ENGINE WATER PUMP ASSEMBLY

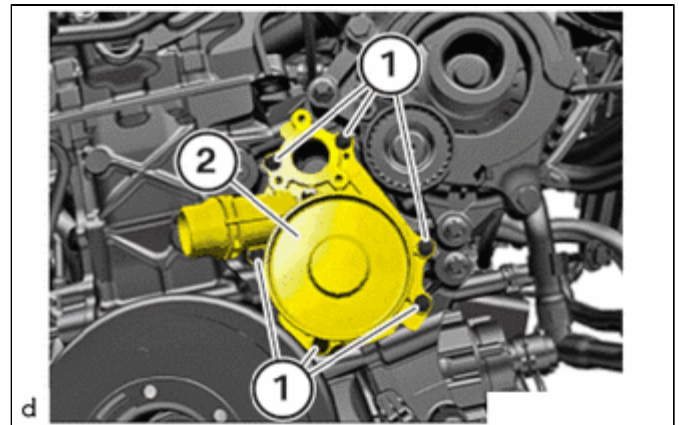
(a) Clean sealing surface (1).



(b) Replace the water pump gasket (1).



(c) Install engine water pump assembly (2) in the water inlet with water pump housing sub-assembly.

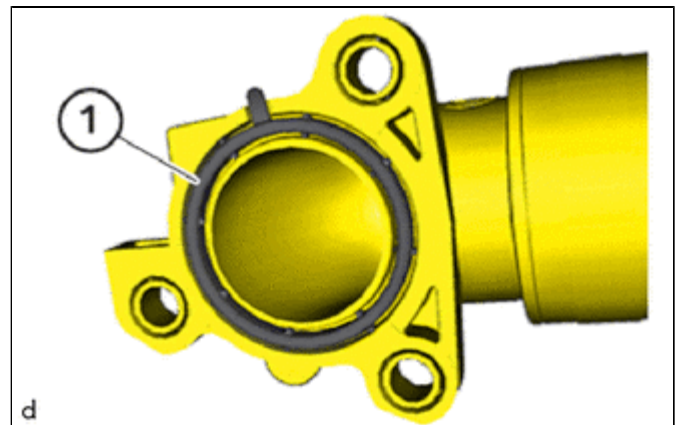


(d) Tighten the T30 bolts (1).

Torque:

10 N·m {102 kgf·cm, 7 ft·lbf}

(e) Replace the O-ring (1).

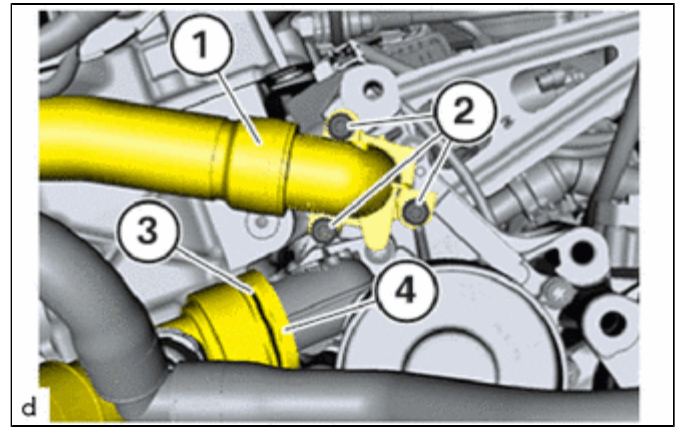


(f) Clean sealing surface of the engine water pump assembly.

(g) Connect No. 1 radiator hose (4).

HINT:

Make sure that the connections are locked correctly. The locks must engage audibly.



(h) Connect No. 2 water by-pass hose (1) on the engine water pump assembly.

(i) Tighten down T30 bolts (2).

Torque:

8.0 N·m { 82 kgf·cm, 71 in·lbf }

3. INSTALL FAN AND GENERATOR V BELT

Click here [INFO](#)

4. INSTALL NO. 2 AIR CLEANER HOSE

Click here [INFO](#)

5. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

6. INSPECT FOR COOLANT LEAK (for High Temperature)

Click here [INFO](#)

7. INSTALL FRONT SUSPENSION MEMBER LOWER PROTECTOR

Click here [INFO](#)