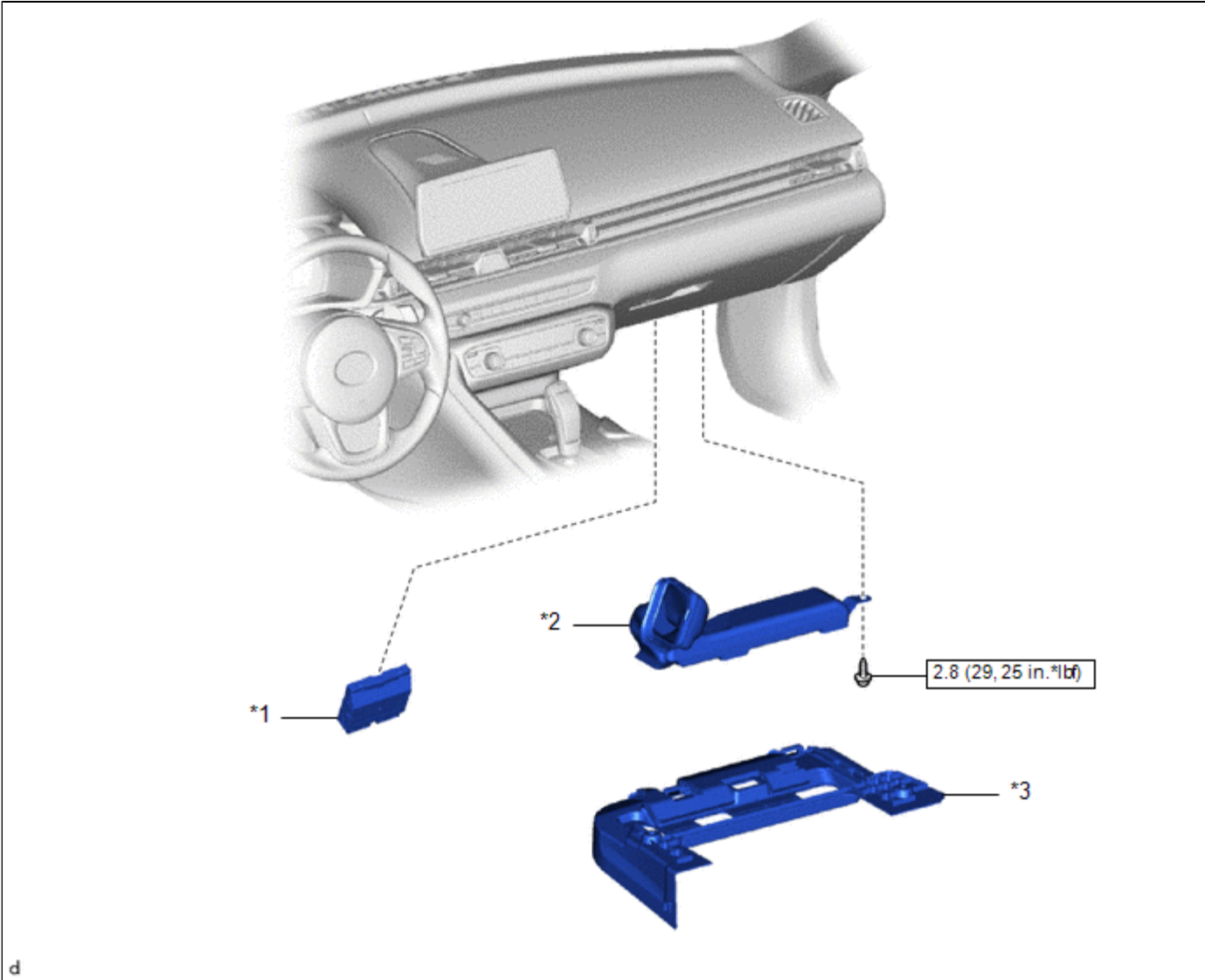


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCA
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING AMPLIFIER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIR CONDITIONING AMPLIFIER ASSEMBLY	*2	NO. 2 AIR DUCT
*3	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING AMPLIFIER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

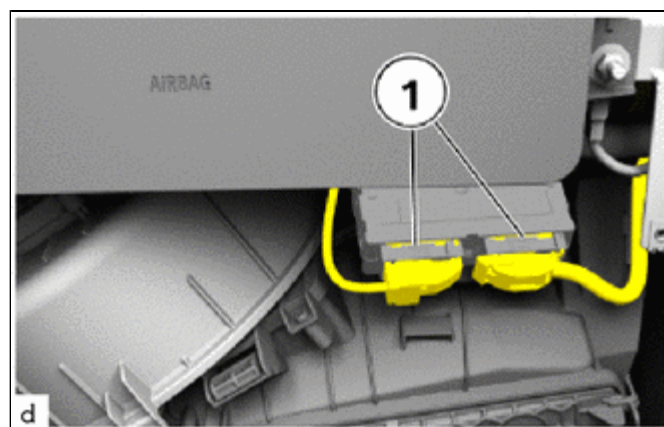
Click here [INFO](#)

2. REMOVE NO. 2 AIR DUCT

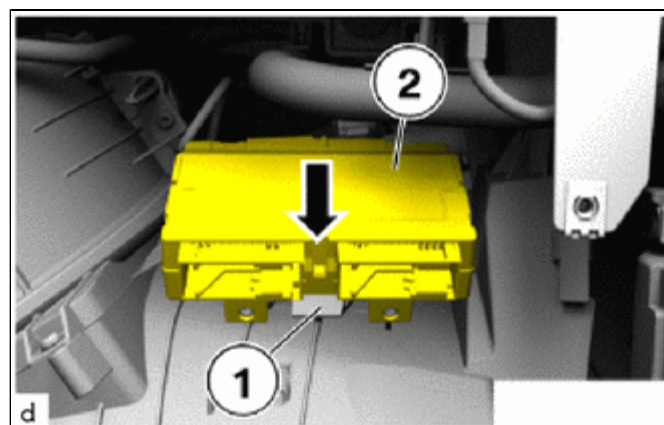
Click here [INFO](#)

3. REMOVE AIR CONDITIONING AMPLIFIER ASSEMBLY

(a) Disconnect the connectors (1).



(b) Disengage claw (1) and pull out the air conditioning amplifier assembly (2) in direction of arrow.



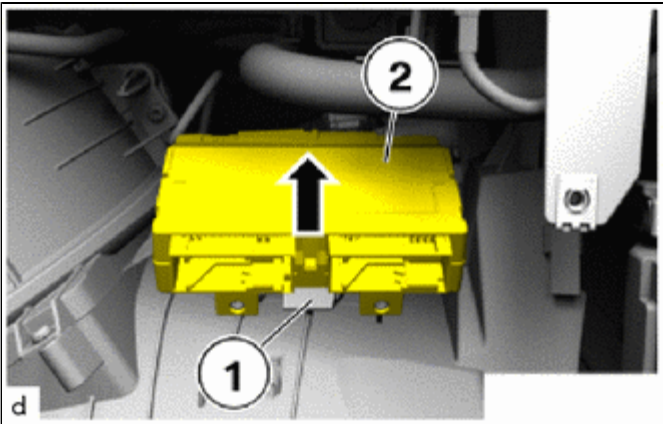
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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING AMPLIFIER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

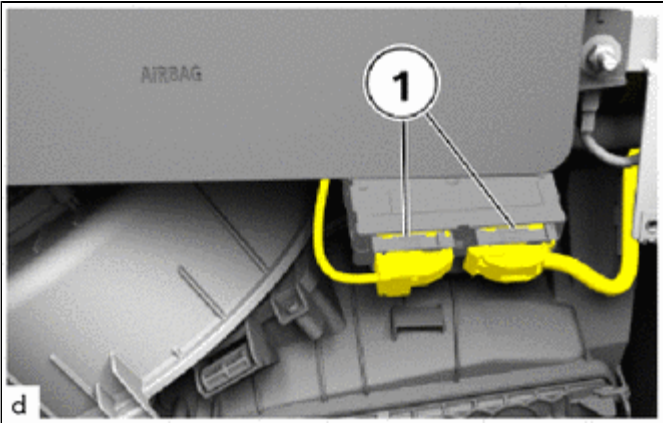
PROCEDURE

1. INSTALL AIR CONDITIONING AMPLIFIER ASSEMBLY

(a) Slide in the air conditioning amplifier assembly (2) in direction of arrow until the claw (1) engages.



(b) Connect the connectors (1).



2. INSTALL NO. 2 AIR DUCT

Click here [INFO](#)

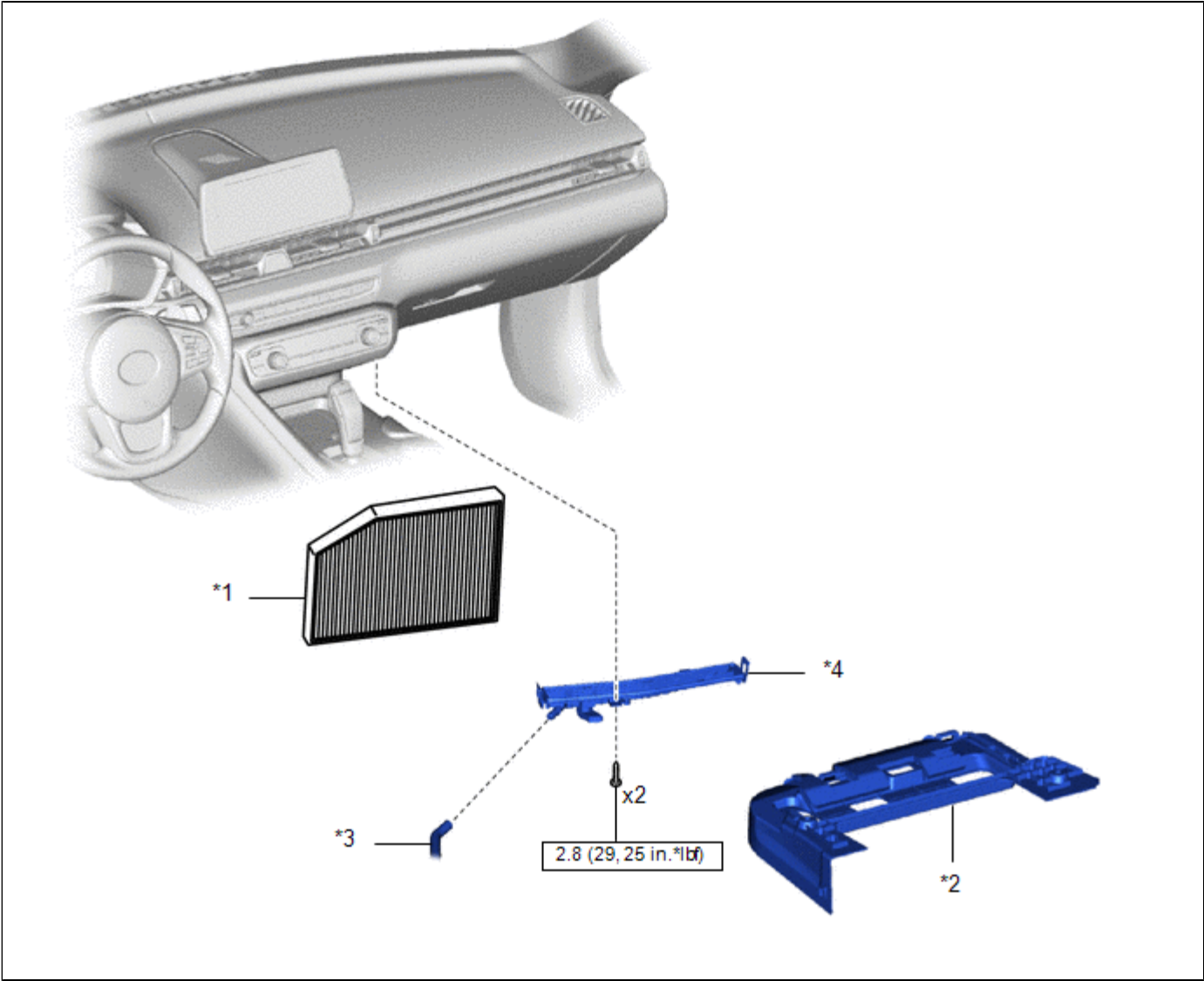
3. INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING FILTER: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CLEAN AIR FILTER	*2	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
*3	DRAIN COOLER HOSE	*4	COVER
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING FILTER: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING FILTER: INSTALLATION; 2020 MY Supra [03/2019 -]		

[INSTALLATION](#)

[CAUTION / NOTICE / HINT](#)

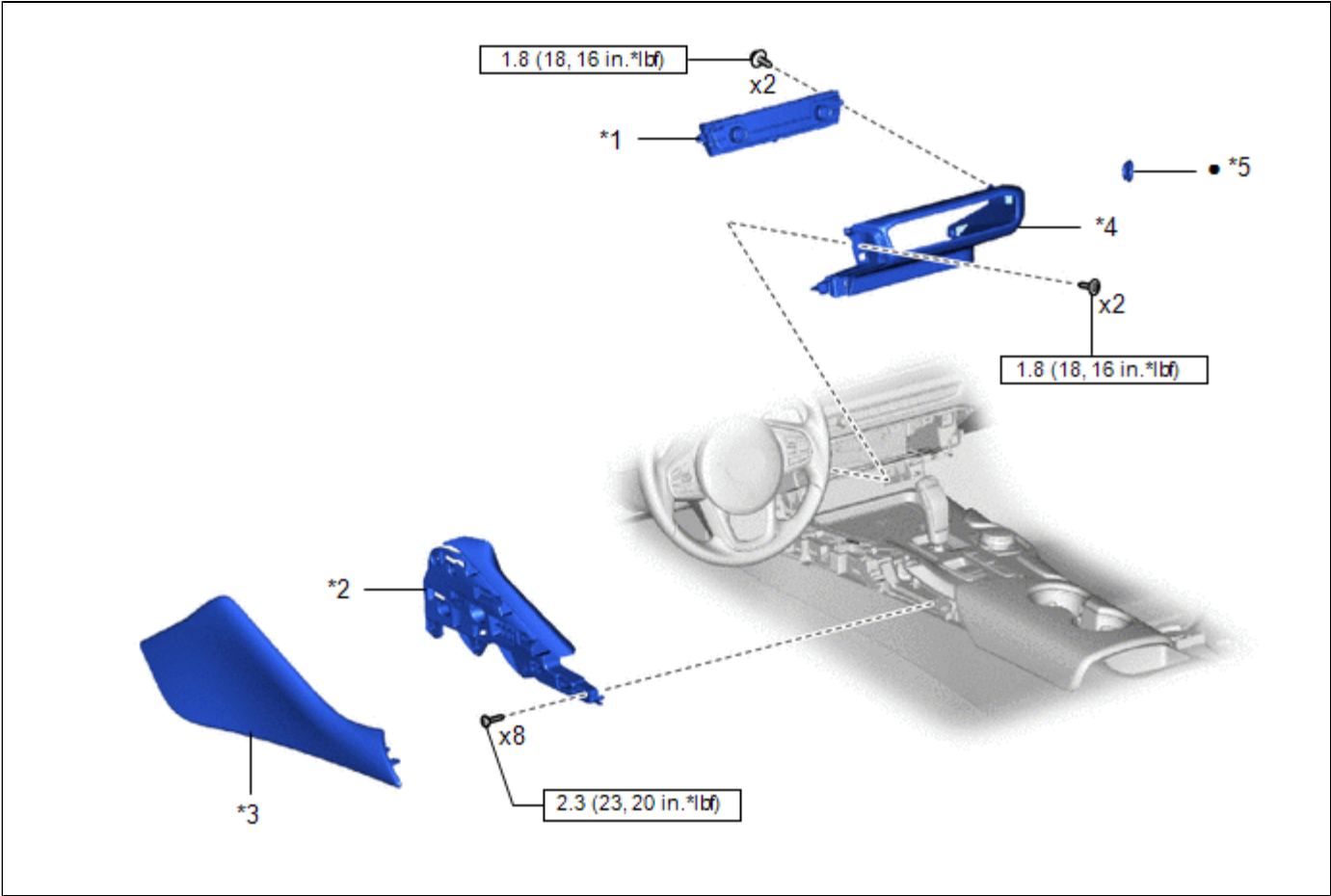
Click here [INFO](#)



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING PANEL: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIR CONDITIONING CONTROL ASSEMBLY	*2	CONSOLE PANEL AND CONSOLE PANEL RETAINER
*3	CONSOLE SIDE PANEL	*4	INSTRUMENT PANEL FINISH LOWER PANEL
*5	RUBBER PLUG	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING PANEL: 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. REMOVE CONSOLE SIDE PANEL

Click here [INFO](#)

2. REMOVE CONSOLE PANEL AND CONSOLE PANEL RETAINER

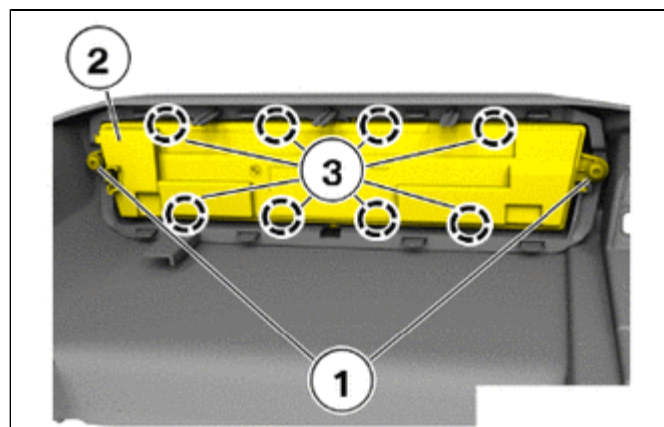
Click here [INFO](#)

3. REMOVE INSTRUMENT PANEL FINISH LOWER PANEL

Click here [INFO](#)

4. REMOVE AIR CONDITIONING CONTROL ASSEMBLY

(a) Remove the T20 screws (1).



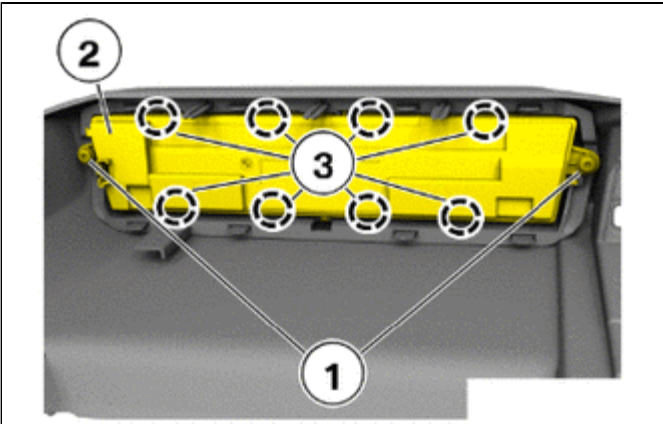
(b) Disengage air conditioning control assembly (2) at the claws (3) with a suitable tool and remove.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING PANEL: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL AIR CONDITIONING CONTROL ASSEMBLY



(a) Engage in the air conditioning control assembly (2) with the claws (3).

(b) Install the T20 screws (1).

Torque:
1.8 N·m {18 kgf·cm, 16 in·lbf}

2. INSTALL INSTRUMENT PANEL FINISH LOWER PANEL

Click here [INFO](#)

3. INSTALL CONSOLE PANEL AND CONSOLE PANEL RETAINER

Click here [INFO](#)

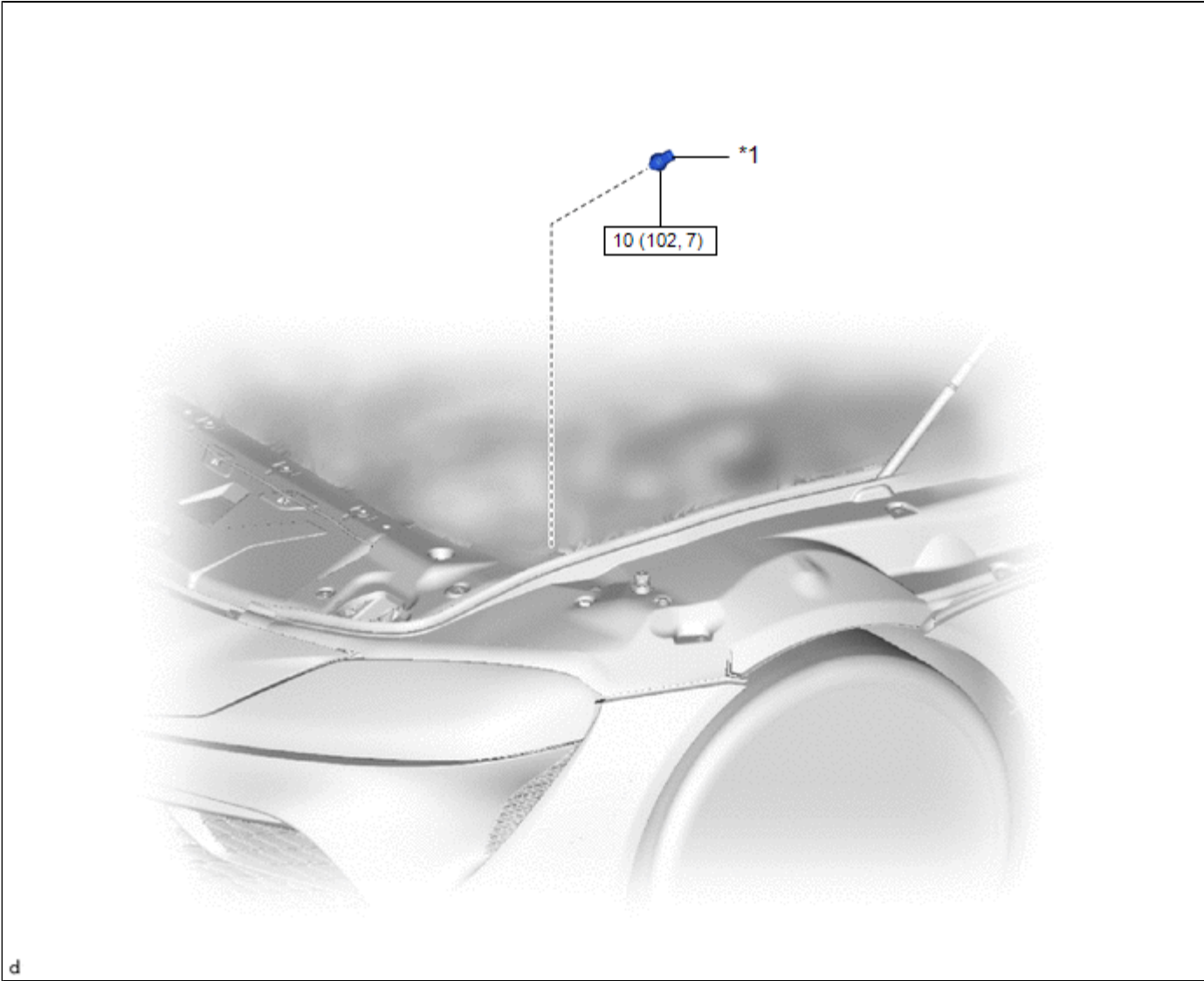
4. INSTALL CONSOLE SIDE PANEL

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING PRESSURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIR CONDITIONER PRESSURE SENSOR	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING PRESSURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. RECOVER REFRIGERANT FROM REFRIGERATION SYSTEM

Click here [INFO](#)

2. REMOVE RADIATOR RESERVE TANK ASSEMBLY

Click here [INFO](#)

3. REMOVE AIR CONDITIONER PRESSURE SENSOR

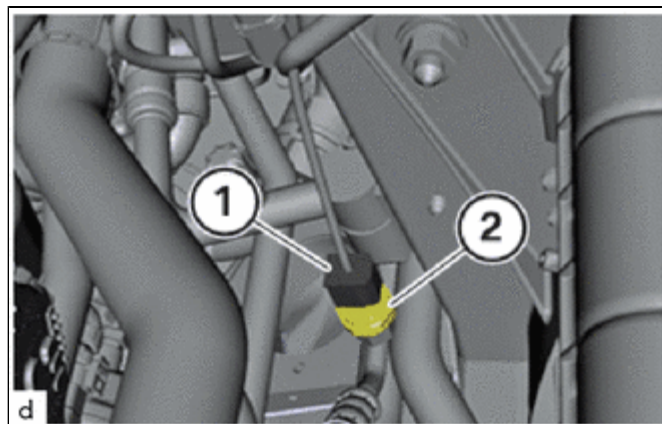
CAUTION:

- Residual pressure in the air conditioning.

Danger of injury.

- Wear safety goggles and protective gloves when disconnecting the refrigerant line.
- Seal refrigerant lines with seal plugs.

(a) Disconnect the connector (1).



(b) Using a 24 mm deep socket wrench, remove the air conditioner pressure sensor (2).

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Title: HEATING / AIR CONDITIONING: AIR CONDITIONING PRESSURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL AIR CONDITIONER PRESSURE SENSOR

(a) Using a 24 mm deep socket wrench, install the air conditioner pressure sensor.

Torque:

10 N·m {102 kgf·cm, 7 ft·lbf}

(b) Connect the connector.

2. INSTALL RADIATOR RESERVE TANK ASSEMBLY

Click here [INFO](#)

3. CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT

Click here [INFO](#)



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Title: HEATING / AIR CONDITIONING: AIR CONDITIONING SYSTEM: PRECAUTION; 2020 MY Supra [03/2019 -]		

PRECAUTION

REFRIGERANT CIRCUIT IS UNDER HIGH PRESSURE

- If the service valve caps on the service valves are difficult to open, there is a danger of injury from leaking valve inserts.

REPAIRS MAY ONLY BE CARRIED OUT ON A DEPRESSURIZED REFRIGERANT CIRCUIT

- Before conducting repairs, check the actual pressure drop.

AVOID CONTACT WITH REFRIGERANT AND COMPRESSOR OIL

- Pay attention to the safety information for dealing with coolant.
- Follow safety information:

Click here [INFO](#)

RESTART ENGINE ONLY WHEN AIR CONDITIONING HAS BEEN CORRECTLY FILLED

ALWAYS USE NEW O-RINGS EACH TIME A/C CONNECTIONS ARE OPENED

- They must not be coated.

OPEN THE REFRIGERANT CIRCUIT FOR AS SHORT A PERIOD AS POSSIBLE

DURING THE ENTIRE FILLING PROCEDURE THE VEHICLE MUST STAND ON THE FLOOR

FILLING A RAISED VEHICLE WILL RESULT IN INSUFFICIENT FILLING LEVELS

PERFORM A/C PERFORMANCE TEST IN EVENT OF CUSTOMER COMPLAINT

Click here [INFO](#)

INSTRUCTIONS FOR DRAWING OFF AIR CONDITIONING

- To help separation of refrigerant and compressor oil, run engine at low speed (800 to 1200 rpm) and with air conditioning switched on for a few minutes.
 - This limits the entrainment of compressor oil while it is drawn off.
- Drawn-off compressor oil must be changed and reintroduced via the refrigerant recovery unit.
- During drawing off, set the blower of the heating and air conditioning unit to the middle blower speed.
 - This ensures that drawing off is more effective since the pressure on the low pressure side increases.

INSTRUCTIONS FOR EVACUATING OFF AIR CONDITIONING

- Before each filling, evacuate the refrigerant circuit.
- Observe an evacuation time of at least 30 minutes.
- The evacuation procedure removes all traces of ambient air, water vapor and any other gases present from the air conditioning. This enables subsequent system filling with refrigerant.
- If the vacuum does not remain stable when the system is off, run the procedure for leaks in the refrigerant circuit.

Click here [INFO](#)

- During evacuation, set the blower of the heating and air conditioning unit to the middle blower speed.

(1) This ensures that evacuation is more effective since the pressure on the low pressure side increases.

INSTRUCTIONS FOR FILLING AIR CONDITIONING

- (a) Before filling with refrigerant, replace the compressor oil entrained plus losses during drawing off.
- (b) Fill up the amount of refrigerant as per type plate.



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Title: HEATING / AIR CONDITIONING: AIR CONDITIONING SYSTEM: ON-VEHICLE INSPECTION; 2020 MY Supra [03/2019 -]		

ON-VEHICLE INSPECTION

CAUTION / NOTICE / HINT

NOTICE:

- Observe the following conditions prior to the air condition performance test:
 - Connect the Diagnosis system. Check the fault memory (no faults in the fault memory).
 - Vehicle management / Troubleshooting / Fault memory
 - Attach a thermometer with separate display element to the head restraint. Lay display element outwards out of passenger compartment.
 - Perform the test in a suitable workshop area at an ambient temperature above 18°C (64°F).
 - Vehicle temperature should be approximately the same as the ambient temperature in the workshop.
 - Engine must be at operating temperature.
 - Drive mode "ECO" must not be switched on.

PROCEDURE

1. INSPECT AIR CONDITION PERFORMANCE

(a) Warm up the engine.

(1) Check the engine warm-up condition.

HINT:

- Connect the diagnosis system to the vehicle and enter the following menus.
Vehicle information / Control unit list / DME / Call up control unit functions / Diagnostic request / Diagnostic request / 102 Coolant temperature

(b) Heat passenger compartment:

- (1) "A/C switch" is not activated during the heating process.
- (2) Close front door glass sub-assembly and doors.
- (3) Set air recirculation function.
- (4) Select air distribution mode for footwell and defrosting.
- (5) Maximum temperature setting.
- (6) Maximum blower speed.
- (7) Start engine.

(c) Cool down passenger compartment:

- (1) Switch on compressor with pulley assembly with "A/C switch" at a vehicle interior temperature of 45°C (113°F) (measured at the head restraint).

HINT:

- On vehicles with MAX-AC switch:
 - Activation of (MAX-AC) = (maximum cooling power)

(d) After 5 minutes, measure both ventilation temperatures with a thermometer at the same time (center, left and right fresh air grille). The measured temperature must be 16°C (61°F) or less. The difference between the right and left

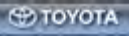
must not be greater than 2°C (36°F).

- (e) If one or both temperature specifications is not reached drain off heating and air conditioning system. Measure the amount of refrigerant drawn off and compare with the nominal fill amount.
- (f) Check whether refrigerant loss is present.
 - (1) If there is a permissible loss of refrigerant, fill the refrigerant circuit with the nominal fill amount.

Click here [INFO](#)

- (2) If there is an impermissible loss of refrigerant, check the refrigerant circuit for tightness. After rectifying the leak, fill the refrigerant circuit with the nominal fill amount.

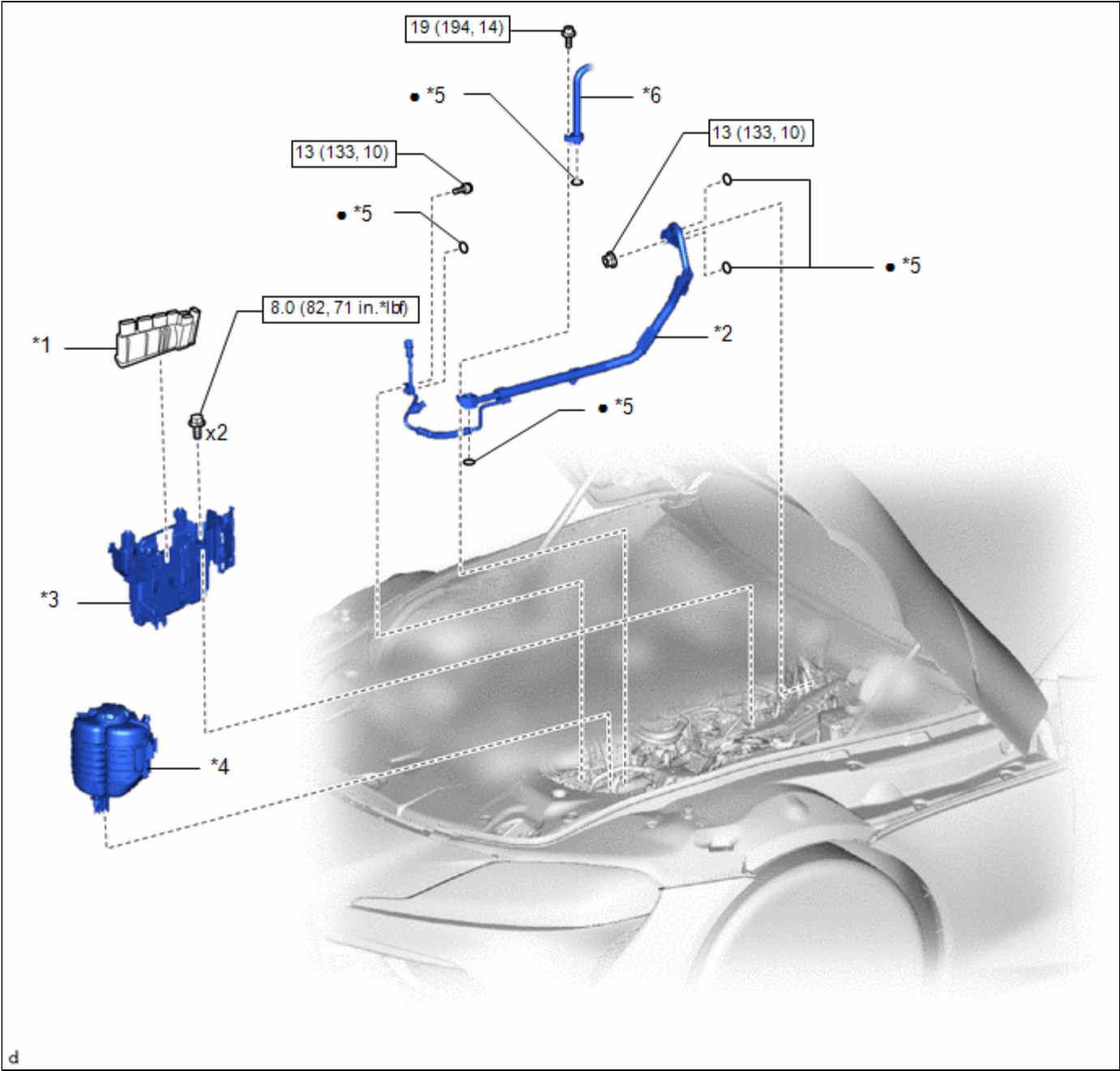
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Title: HEATING / AIR CONDITIONING: AIR CONDITIONING UNIT: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

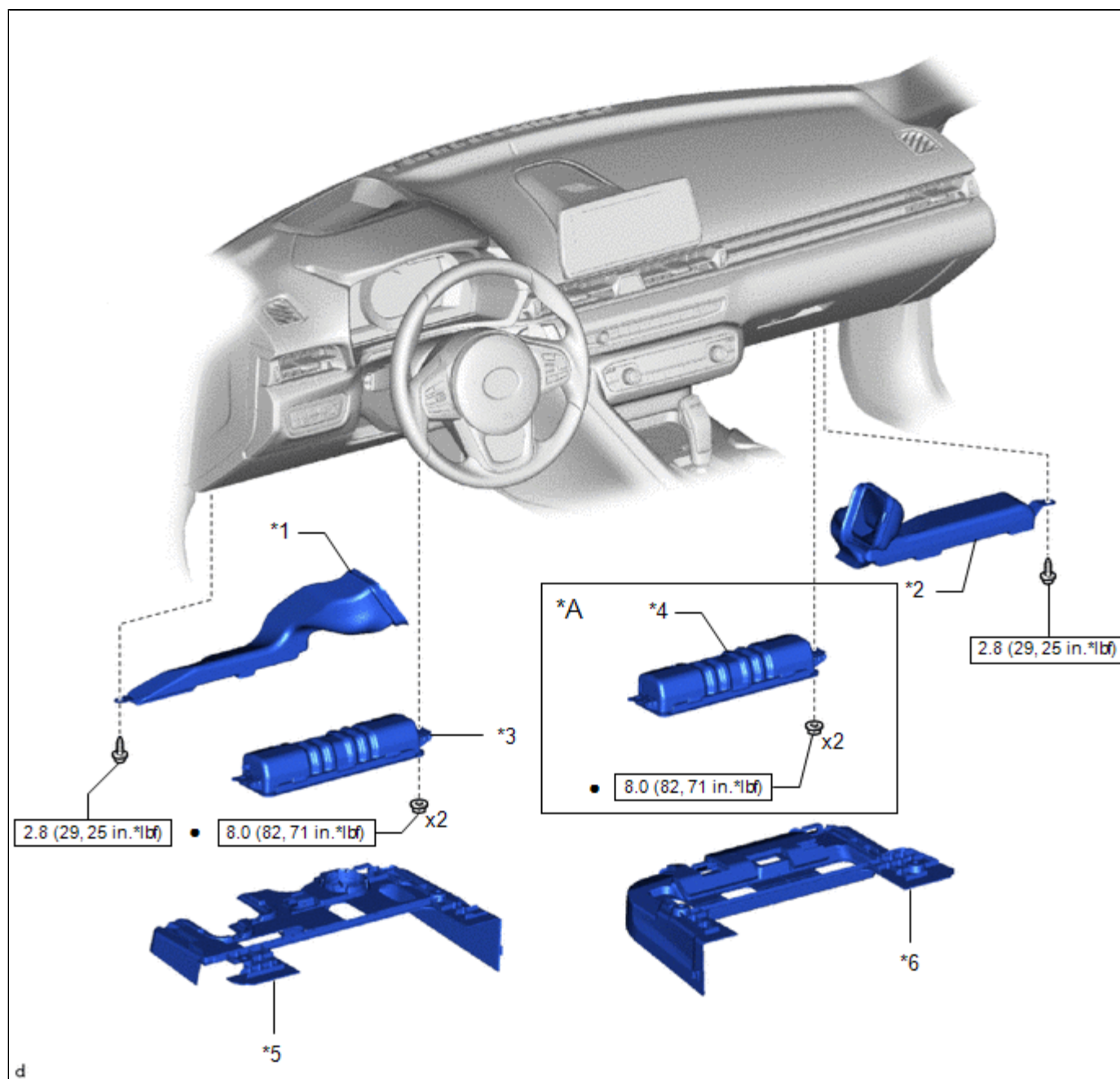
ILLUSTRATION



*1	NO. 1 INTEGRATION RELAY	*2	AIR CONDITIONER TUBE ASSEMBLY
*3	ENGINE ROOM ECM BOX	*4	RADIATOR RESERVE TANK ASSEMBLY
*5	O-RING	*6	SUCTION PIPE SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	●	Non-reusable part



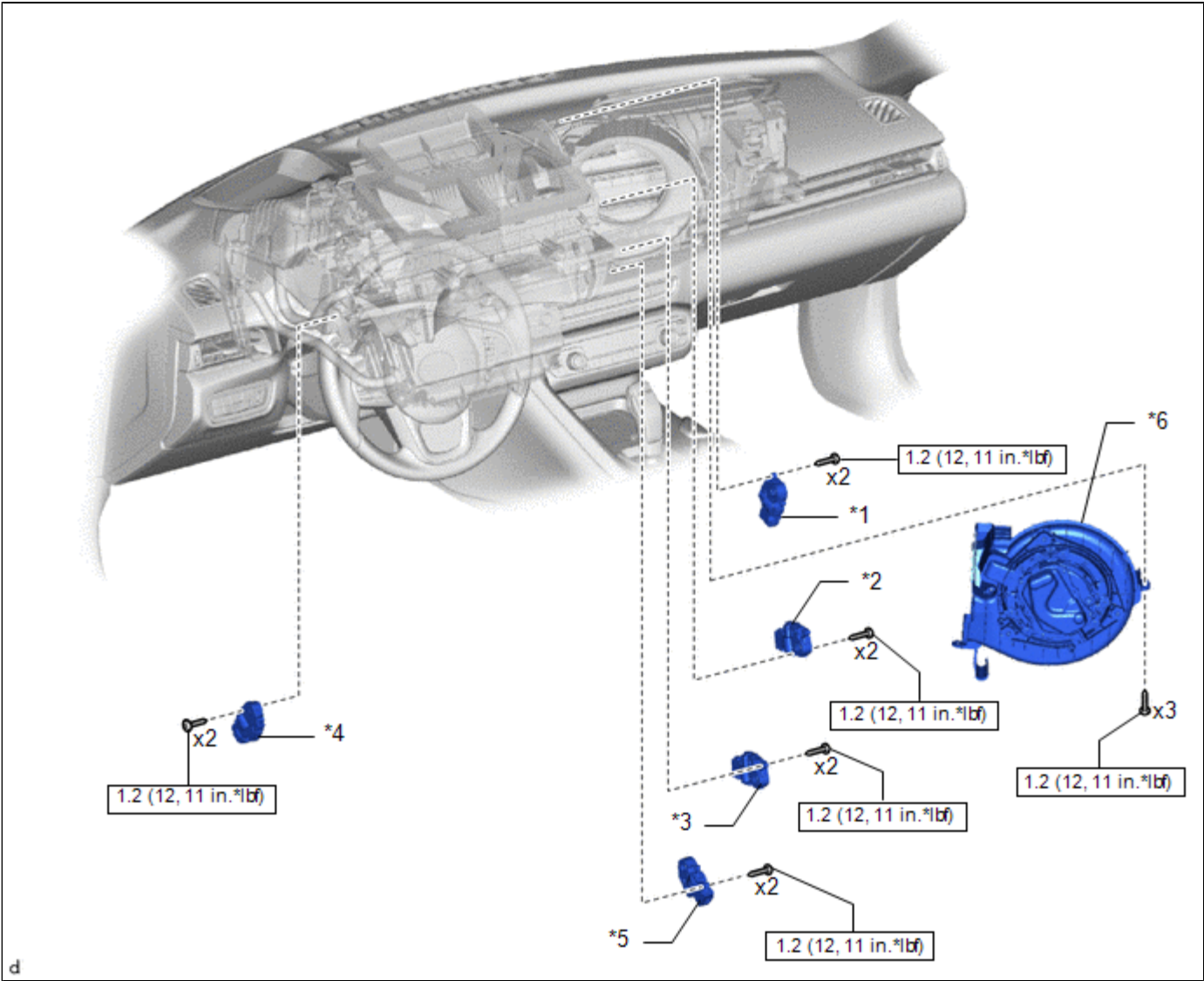
ILLUSTRATION



*A	w/ Passenger Side Knee Airbag	-	-
*1	NO. 1 AIR DUCT	*2	NO. 2 AIR DUCT
*3	LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY	*4	LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY
*5	NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY	*6	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified	•	Non-reusable part

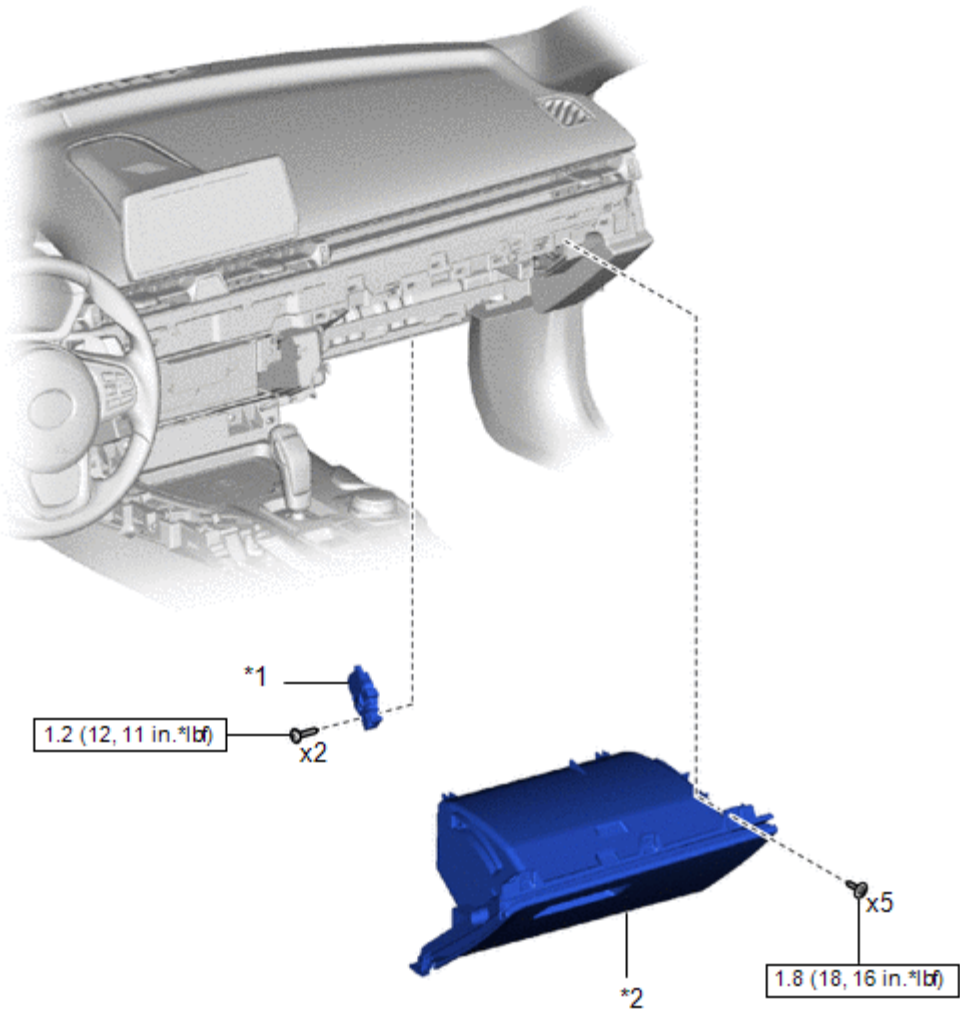
	torque		
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ILLUSTRATION



*1	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M61)	*2	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M7a)
*3	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M69)	*4	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M23a)
*5	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M83a)	*6	BLOWER WITH FAN MOTOR SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

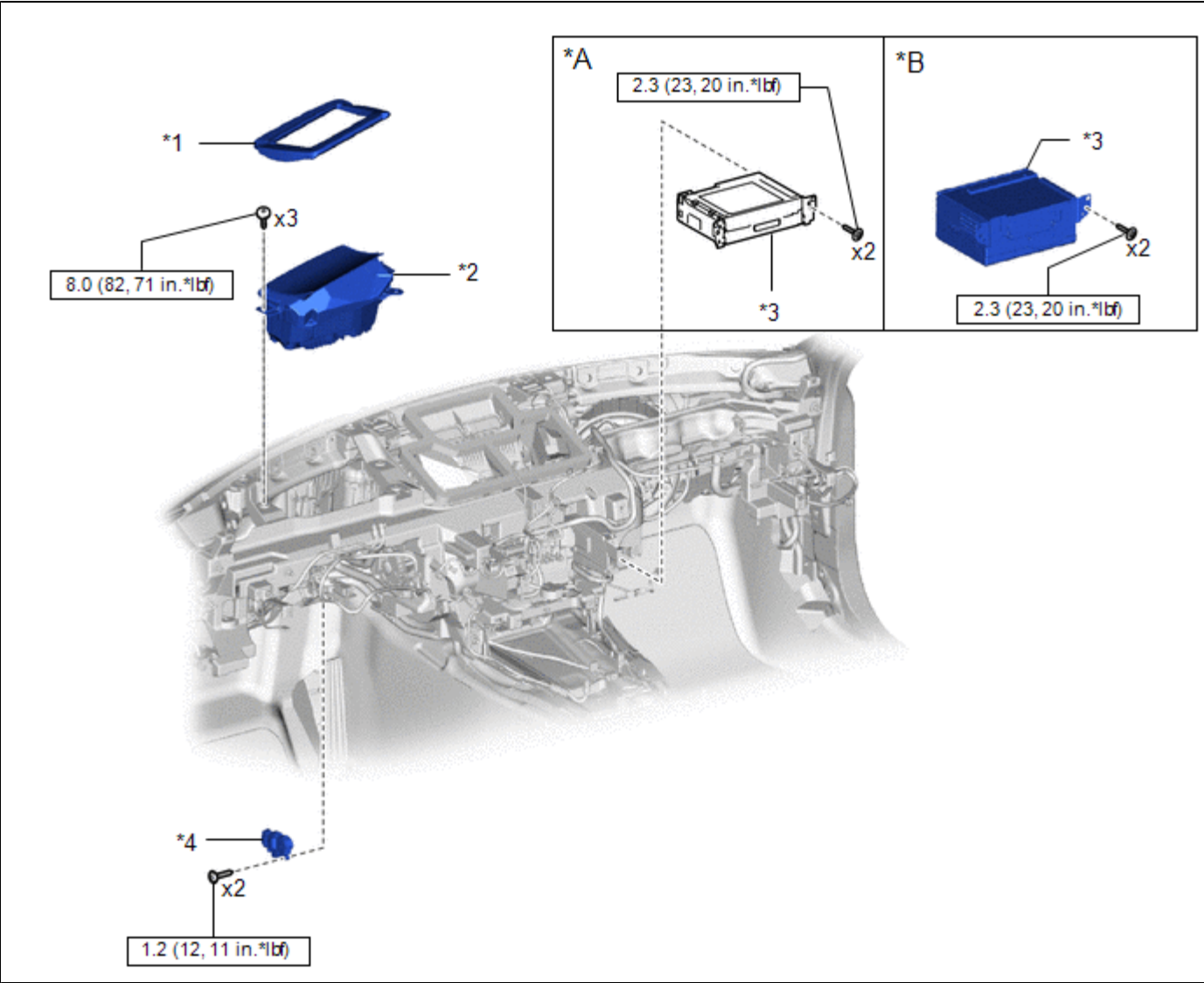
ILLUSTRATION



d

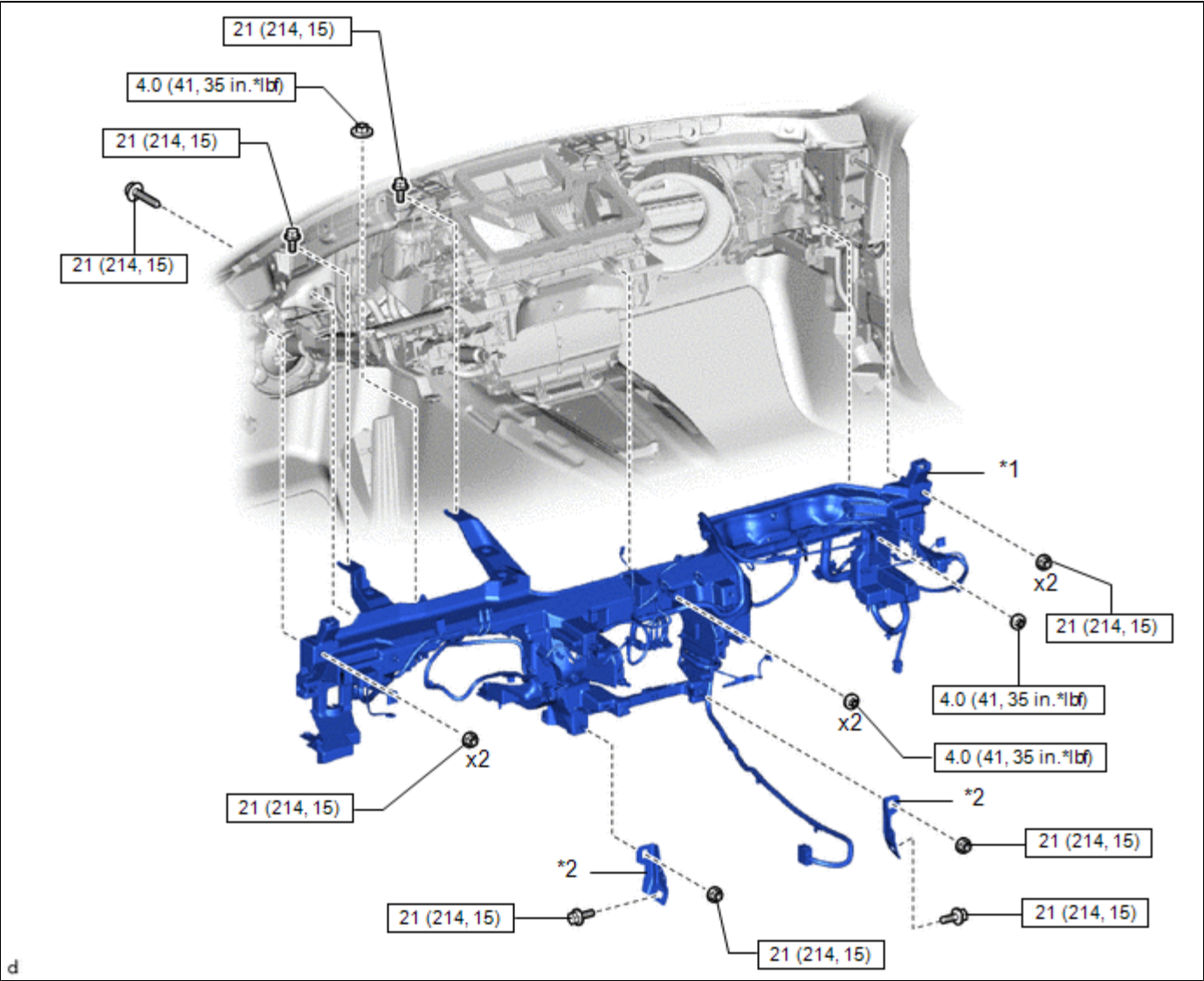
*1	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M16)	*2	GLOVE COMPARTMENT DOOR ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



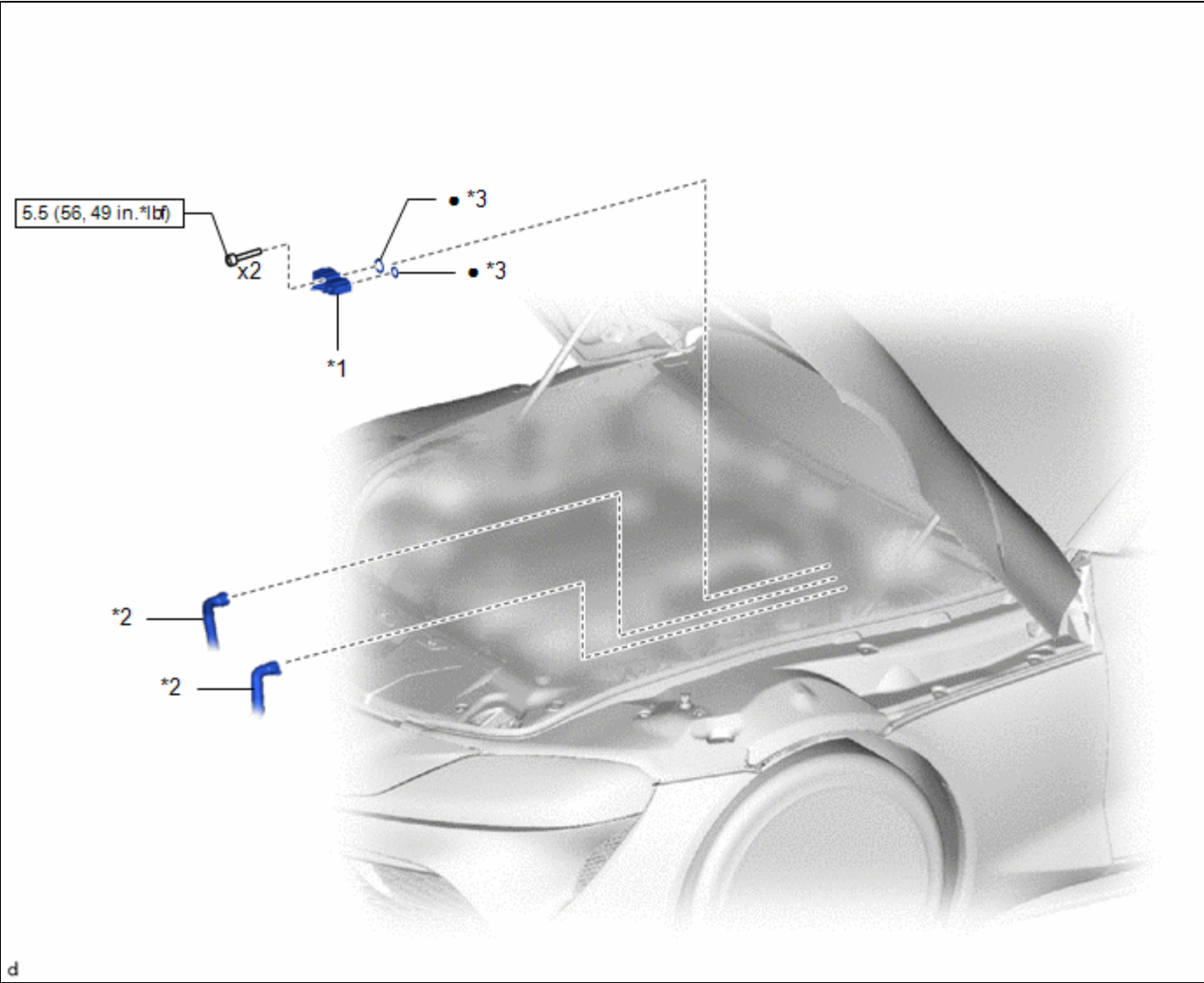
*A	w/o Navigation System	*B	w/ Navigation System
*1	NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL	*2	METER MIRROR SUB-ASSEMBLY
*3	RADIO RECEIVER ASSEMBLY	*4	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M21b)
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



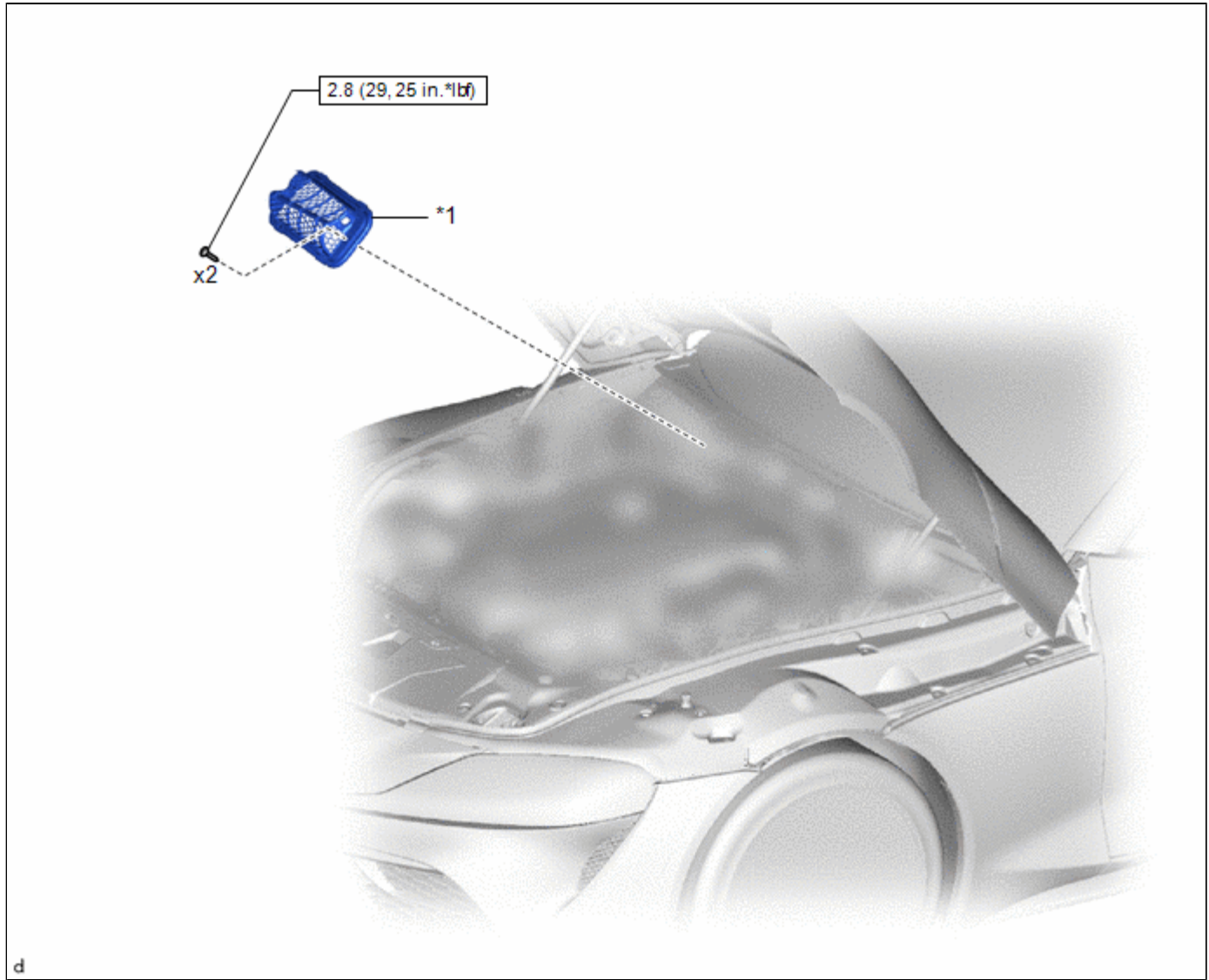
*1	INSTRUMENT PANEL REINFORCEMENT SUB-ASSEMBLY	*2	NO. 1 INSTRUMENT PANEL BRACKET
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	COOLER EXPANSION VALVE	*2	HEATER WATER HOSE
*3	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

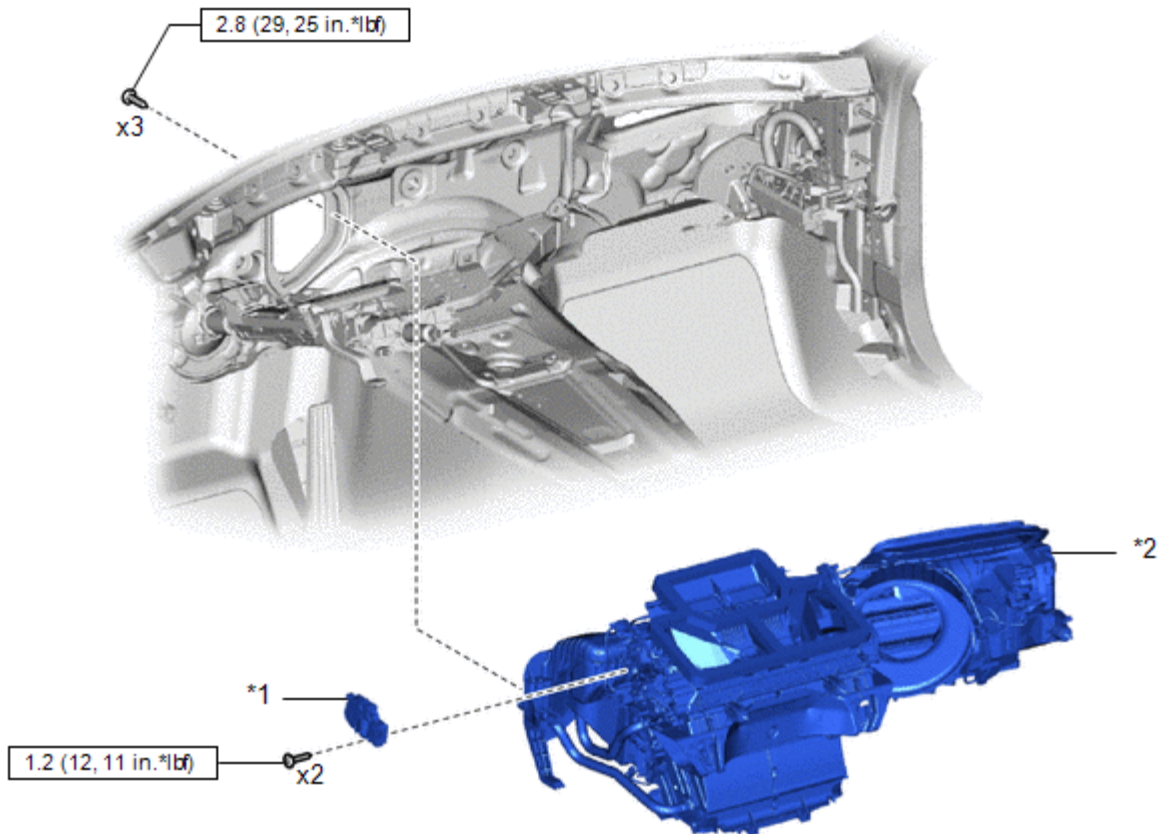
ILLUSTRATION



d

*1	NO. 1 AIR DUCT SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

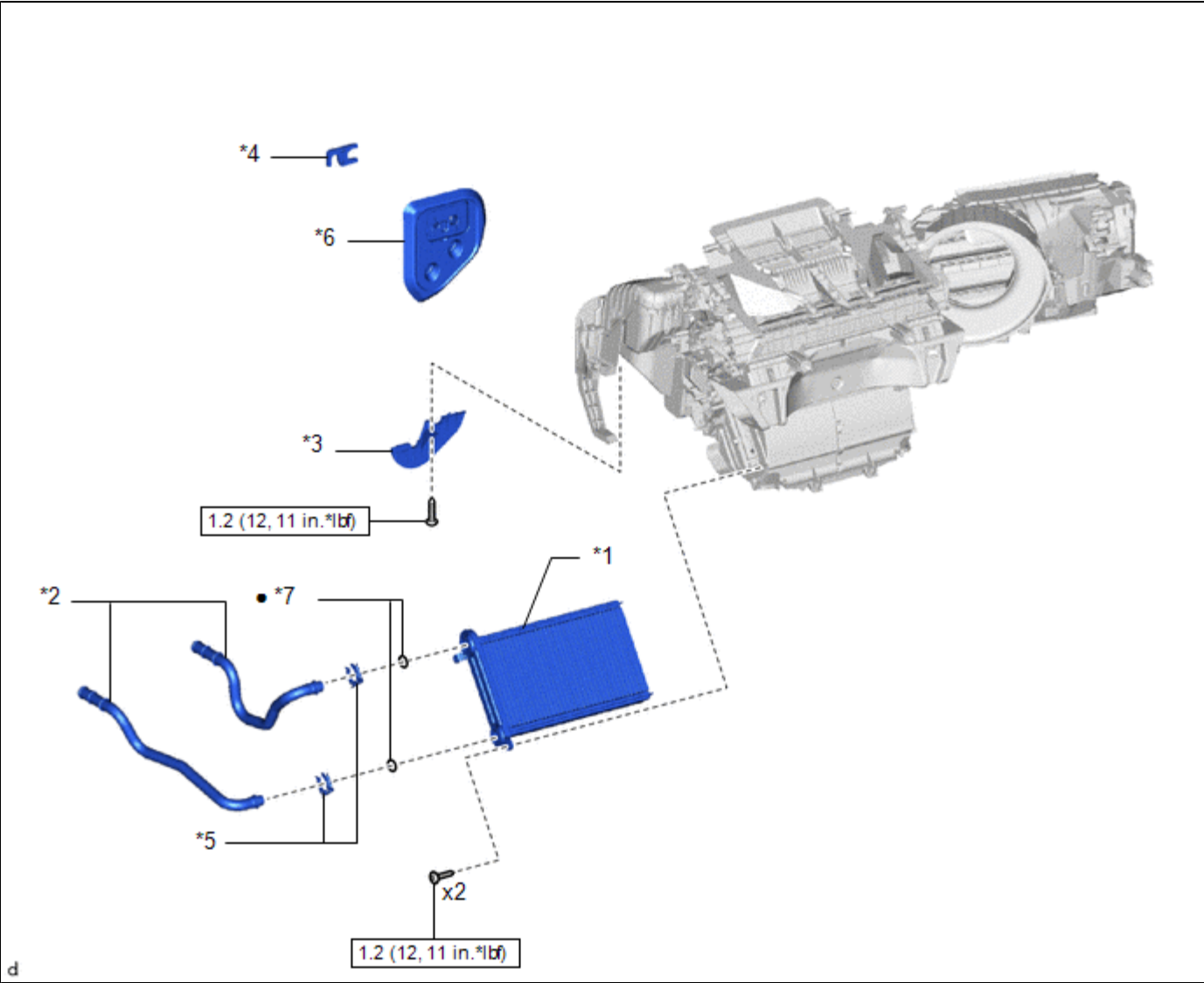
ILLUSTRATION



d

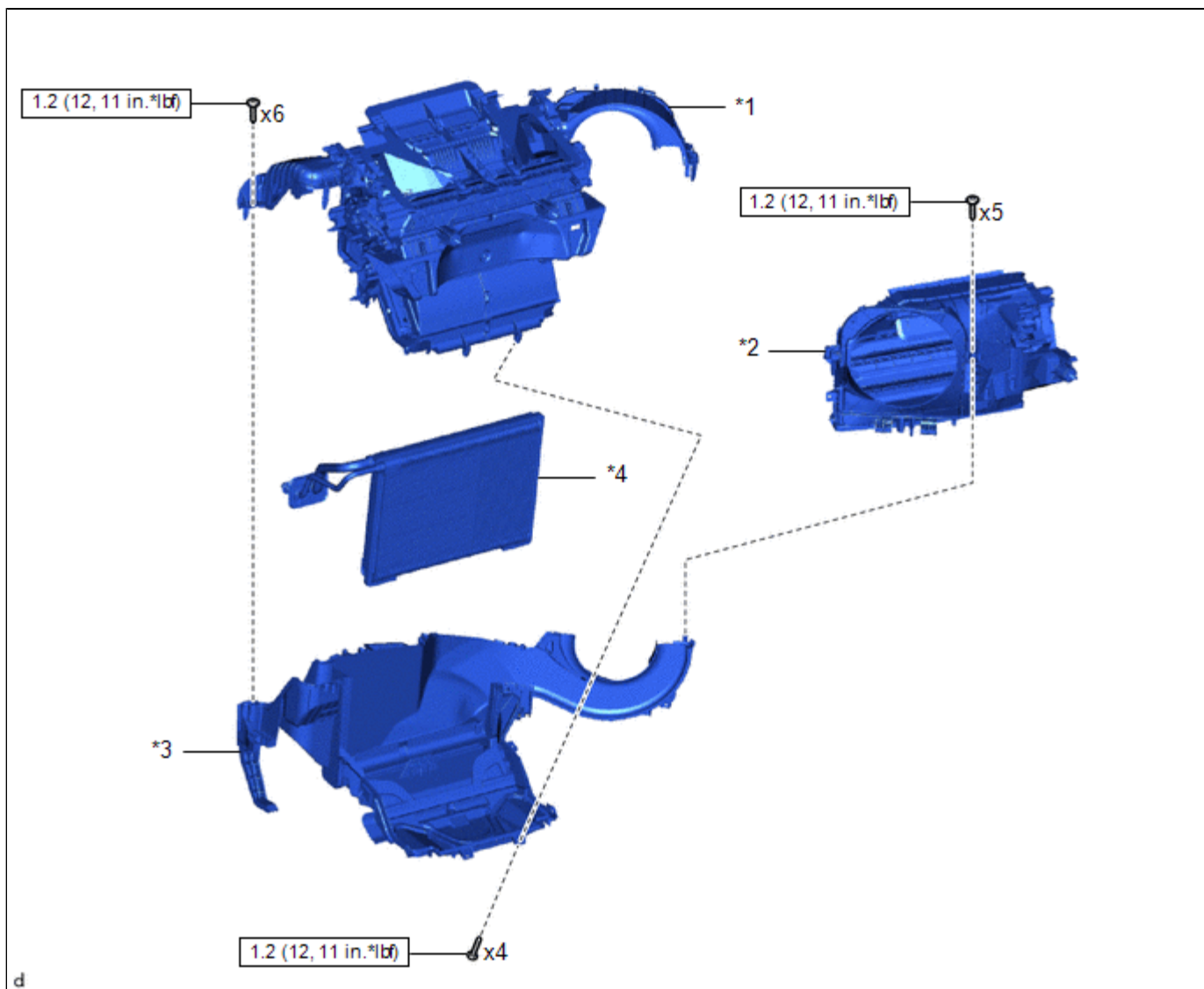
*1	NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M9)	*2	AIR CONDITIONING UNIT ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



*1	HEATER RADIATOR UNIT SUB-ASSEMBLY	*2	WATER PIPE SUB-ASSEMBLY
*3	WATER PIPE SUB-ASSEMBLY HOLDER	*4	MOUNTING PLATE
*5	RETAINING CLIP	*6	SEAL
*7	O-RING	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

ILLUSTRATION



*1	AIR CONDITIONING RADIATOR ASSEMBLY	*2	BLOWER HOUSING
*3	LOWER RADIATOR CASE SUB-ASSEMBLY	*4	NO. 1 COOLER EVAPORATOR SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-



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Title: HEATING / AIR CONDITIONING: AIR CONDITIONING UNIT: ON-VEHICLE CLEANING; 2020 MY Supra [03/2019 -]		

ON-VEHICLE CLEANING

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger of life-threatening injuries.



- Work on pyrotechnic parts may only be carried out by competent and properly trained persons.
- Replace damaged or fallen parts.
- Disconnect the battery lead from the battery before carrying out any work on the airbag.
- Only lay the airbag unit with the upholstery (airbag) facing upwards.
- For further information see: Safety instructions for handling components with gas generators.

Click here [INFO](#)

NOTICE:

- Damage to the air conditioning.

The use of a non-approved clean air filter can lead to functional impairment of the air conditioner.

- Only operate the air conditioner with the prescribed clean air filter.

HINT:

Air conditioning is set to recirculation mode.

PROCEDURE

1. REMOVE FRONT FLOOR COVER

Click here [INFO](#)

2. REMOVE NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE GLOVE COMPARTMENT DOOR ASSEMBLY

Click here [INFO](#)

4. REMOVE CLEAN AIR FILTER

Click here [INFO](#)

5. REMOVE LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w / Passenger Side Knee Airbag)

Click here [INFO](#)

6. REMOVE BLOWER WITH FAN MOTOR SUB-ASSEMBLY

Click here [INFO](#)

7. CLEAN NO. 1 COOLER EVAPORATOR SUB-ASSEMBLY

CAUTION:

- Health impairment in contact with liquids.
 - Observe safety instructions on the containers and comply with them.
 - Only carry out work with appropriate personal protective equipment.

HINT:

Park the vehicle at a suitable washing area, as the effluent cleaning agent escapes through the condensation drain on the transmission tunnel.

(a) Fill the cleaner in special tool 9 429 217.

SST: 09800-WA190

Cleaner:

Air Conditioning System Cleaner

(b) Connect special tool 2 222 502 with special tool 9 429 217.

SST: 09800-WA250

SST: 09800-WA190

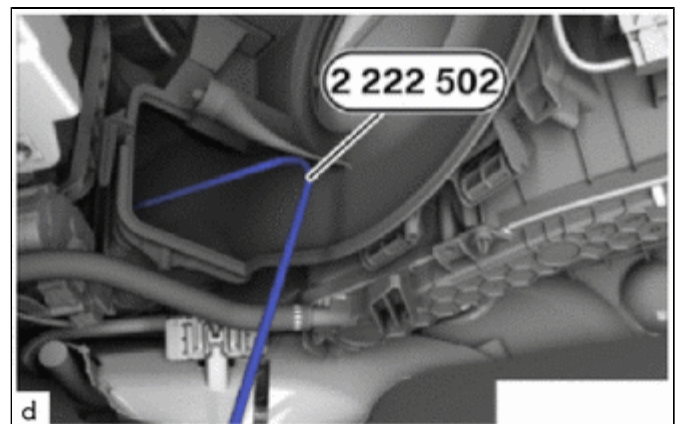
(c) Build pressure in special tool 9 429 217.

(d) Close all ventilation vents.

(e) Cover the carpet in the work area.

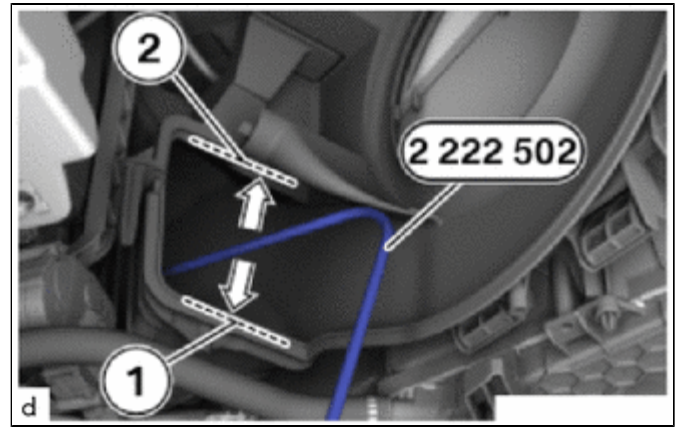
(f) Insert special tool 2 222 502 into the opening of the housing as shown.

SST: 09800-WA250



- (g) Move the special tool 2 222 502 in the opening of the housing in the directions of the arrows from the lower edge (1) to the upper edge (2).

SST: 09800-WA250



- (h) Move special tool 2 222 502 back and forth until the cleaner has been completely sprayed.

SST: 09800-WA250

- (i) After cleaning, drain vehicle for approx. 5 minutes.

8. INSTALL BLOWER WITH FAN MOTOR SUB-ASSEMBLY

Click here [INFO](#)

9. INSTALL LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w / Passenger Side Knee Airbag)

Click here [INFO](#)

10. INSTALL CLEAN AIR FILTER

Click here [INFO](#)

11. INSTALL GLOVE COMPARTMENT DOOR ASSEMBLY

Click here [INFO](#)

12. INSTALL NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

13. INSTALL FRONT FLOOR COVER

Click here [INFO](#)

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING UNIT: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits. Risk of fire.

- Detach battery earth lead from battery.

- Airbag unit.

Danger. Life-threatening injuries.



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

Click here [INFO](#)

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- Scratches.

Tools and sharp-edged components can cause scratches.

- Protect working area.
- Handle tools and components carefully.

PROCEDURE

1. RECOVER REFRIGERANT FROM REFRIGERATION SYSTEM

Click here [INFO](#)

2. DRAIN ENGINE COOLANT

Click here [INFO](#)

3. REMOVE UPPER CENTER FRONT SUSPENSION BRACE

Click here [INFO](#)

4. REMOVE ECM

Click here [INFO](#)

5. REMOVE NO. 1 INTEGRATION RELAY

Click here [INFO](#)

6. REMOVE ENGINE ROOM ECM BOX

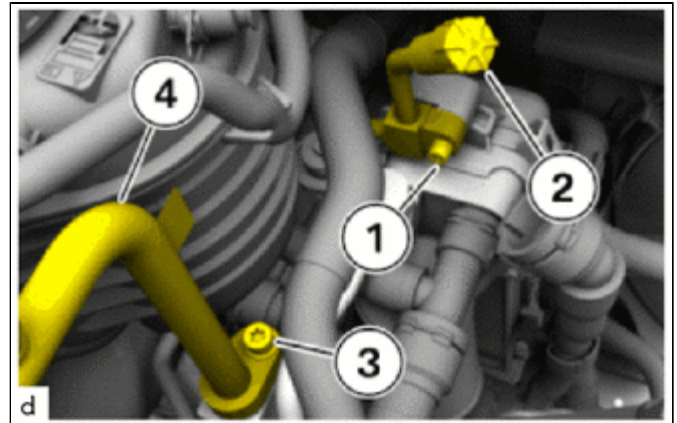
Click here [INFO](#)

7. REMOVE RADIATOR RESERVE TANK ASSEMBLY

Click here [INFO](#)

8. SEPARATE AIR CONDITIONER TUBE ASSEMBLY

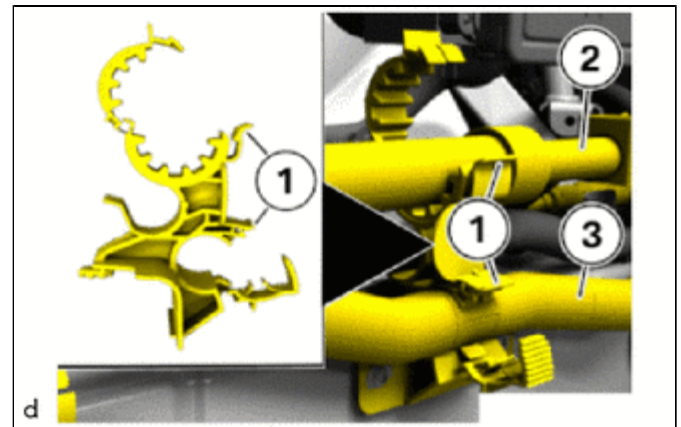
(a) Remove T30 bolt (1) and remove air conditioner tube assembly (2).



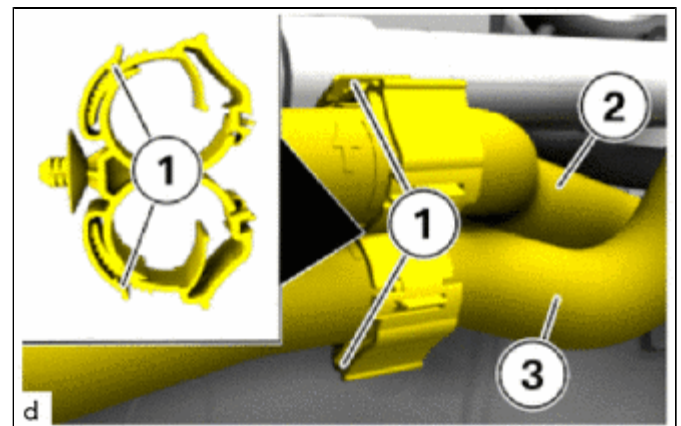
(b) Remove T45 bolt (3) and remove the suction pipe sub-assembly (4).

(c) Remove the O-rings.

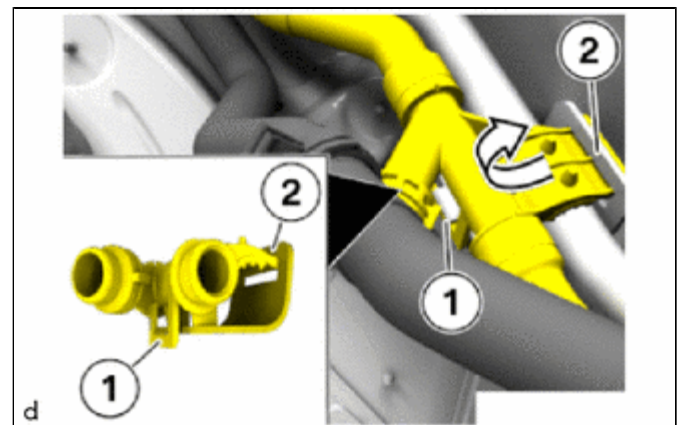
(d) Unlock the holder with the catches (1) and open.



(e) Remove the air conditioner tube assembly (2) and the heater water hose (3) from the holder.



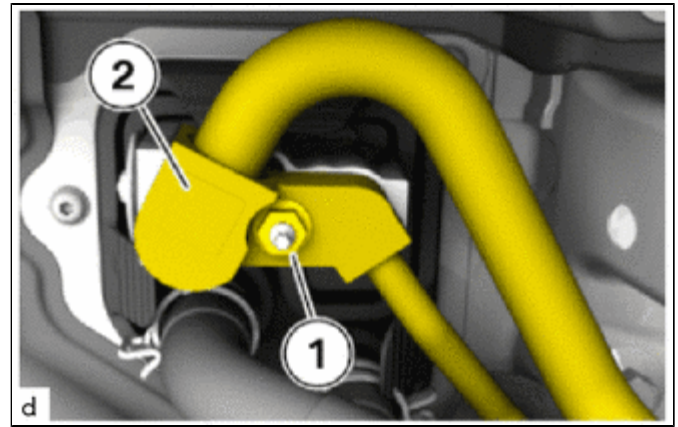
(g) Remove the heater water hose (2) and (3) from the holder.



(h) Remove catch (1).

(i) Feed the heater water hose in the direction of the arrow from the receptacle on the air conditioner tube assembly (2).

(j) Remove nut (1).



(k) Disconnect the air conditioner tube assembly (2) from the cooler expansion valve.

(l) Remove the O-ring.

9. REMOVE NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

10. REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

11. REMOVE LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY

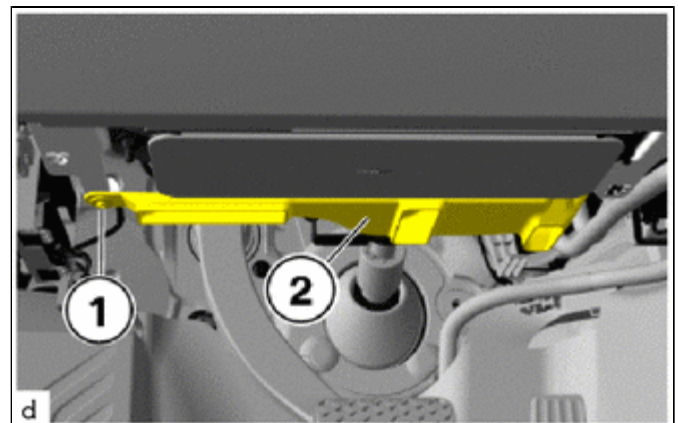
Click here [INFO](#)

12. REMOVE LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w / Passenger Side Knee Airbag)

Click here [INFO](#)

13. REMOVE NO. 1 AIR DUCT

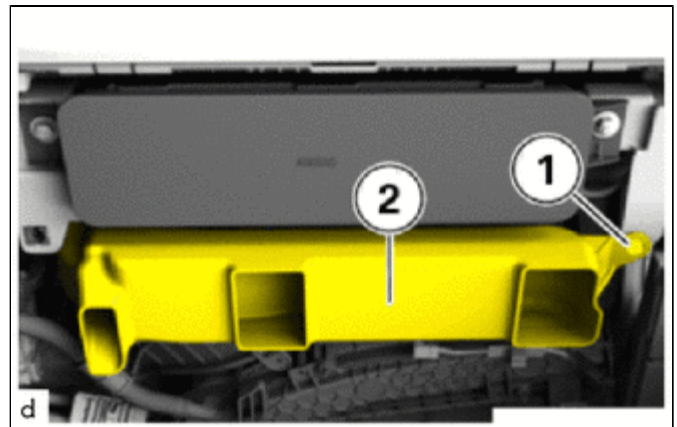
(a) Remove screw (1).



(b) Remove No. 1 air duct (2).

14. REMOVE NO. 2 AIR DUCT

(a) Remove screw (1).

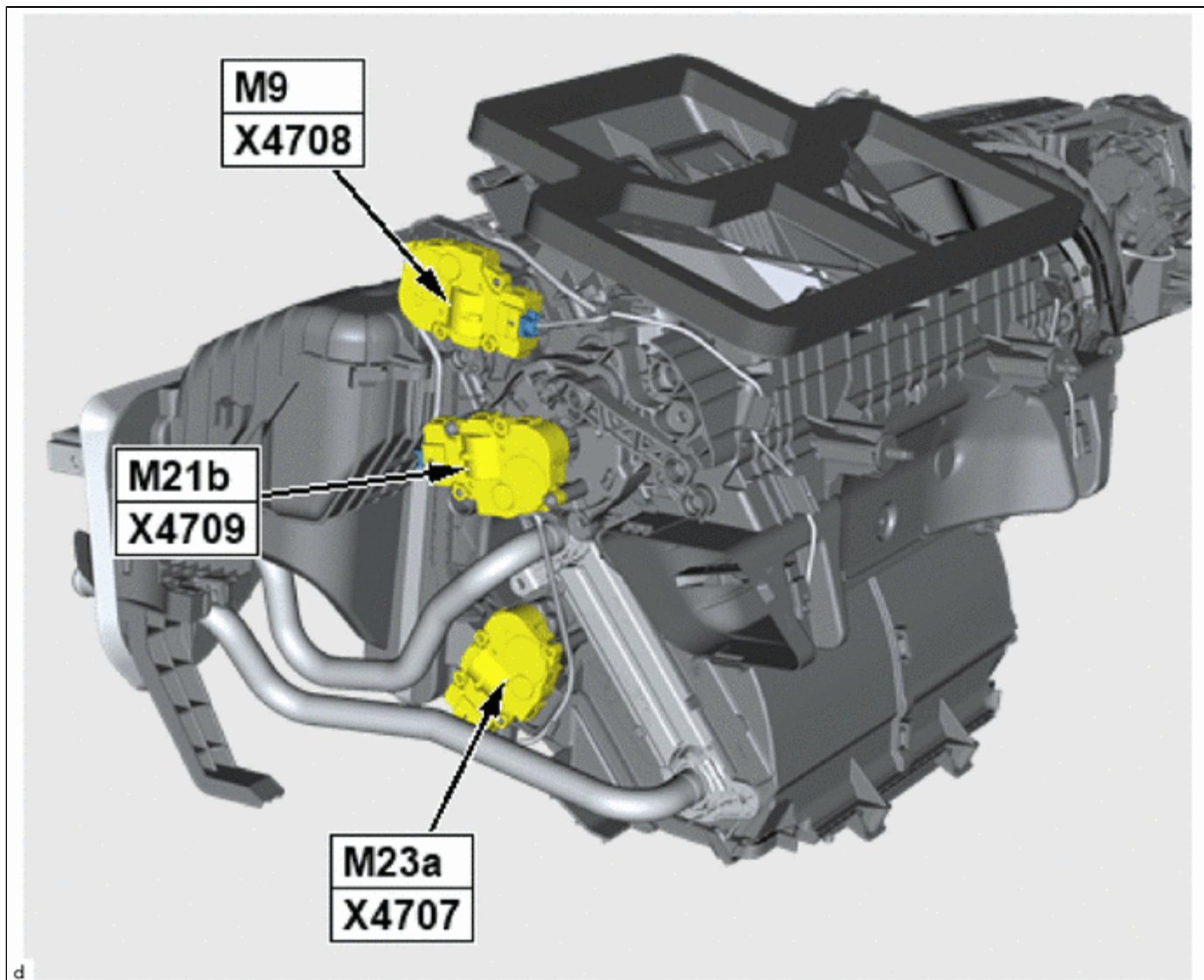


(b) Remove No. 2 air duct (2).

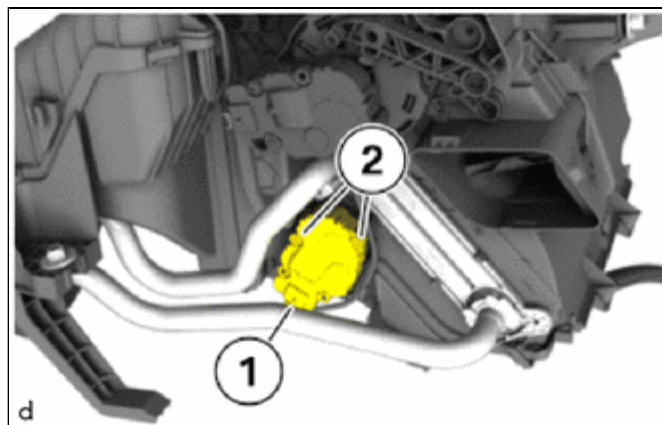
15. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M23a)

HINT:

Overview of No. 1 air conditioning radiator damper servo sub-assembly of air conditioning unit assembly:



(a) Disconnect the connector (1).



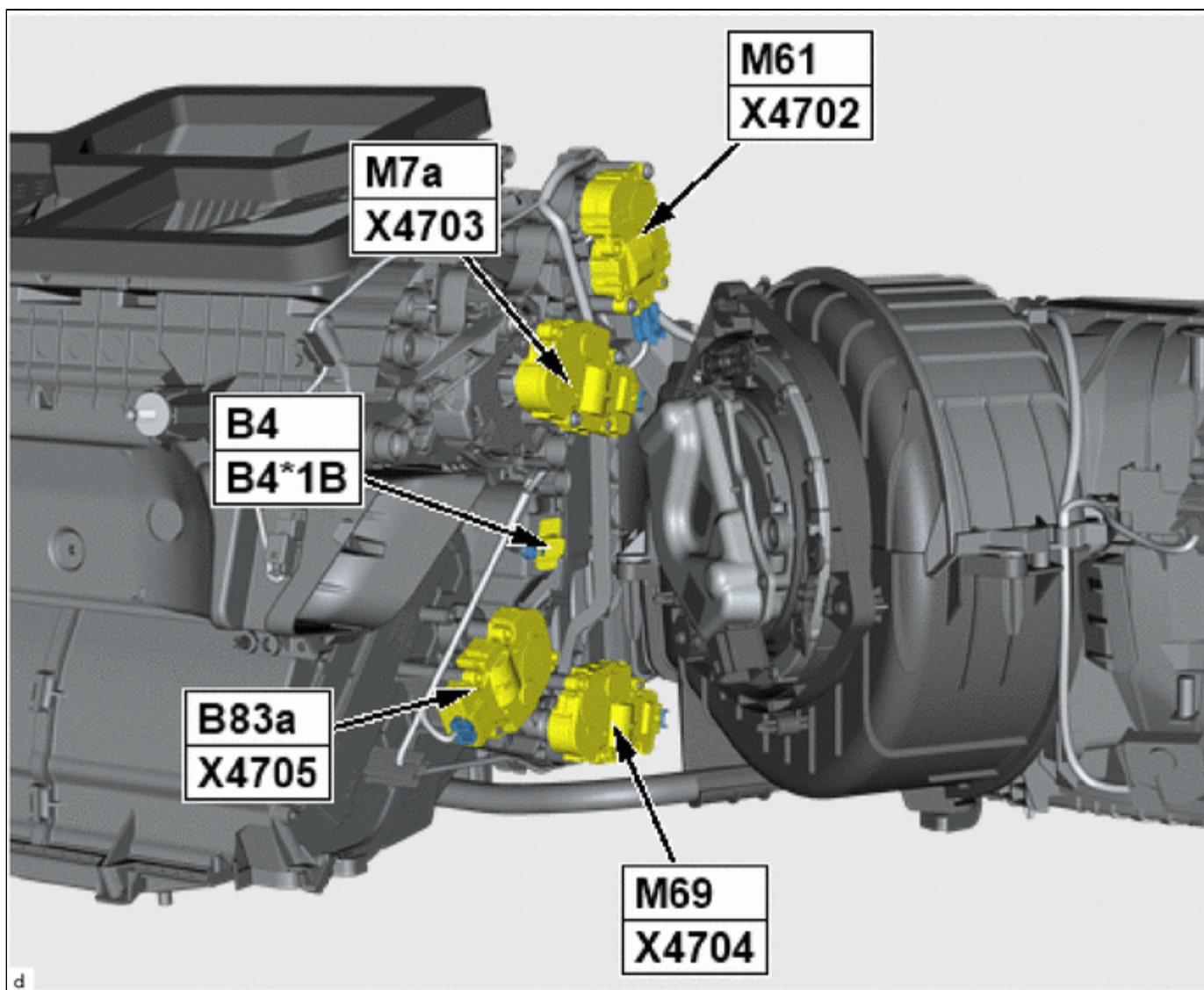
(b) Remove T20 screws (2).

(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M23a).

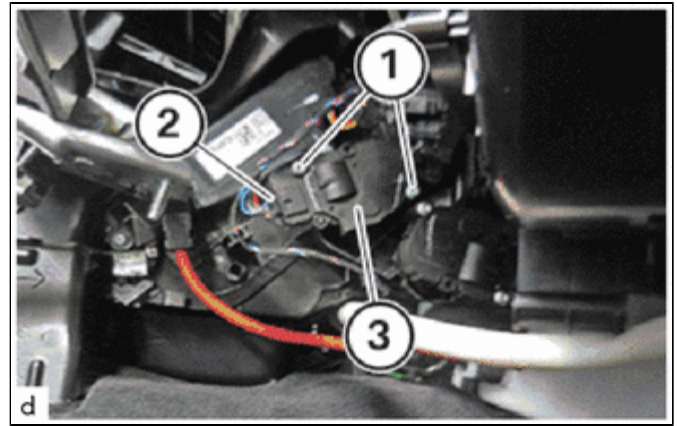
16. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M83a)

HINT:

Overview of No. 1 air conditioning radiator damper servo sub-assembly of air conditioning unit assembly:



(a) Disconnect the connector (2).



(b) Remove T20 screws (1).

(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M83a) (3).

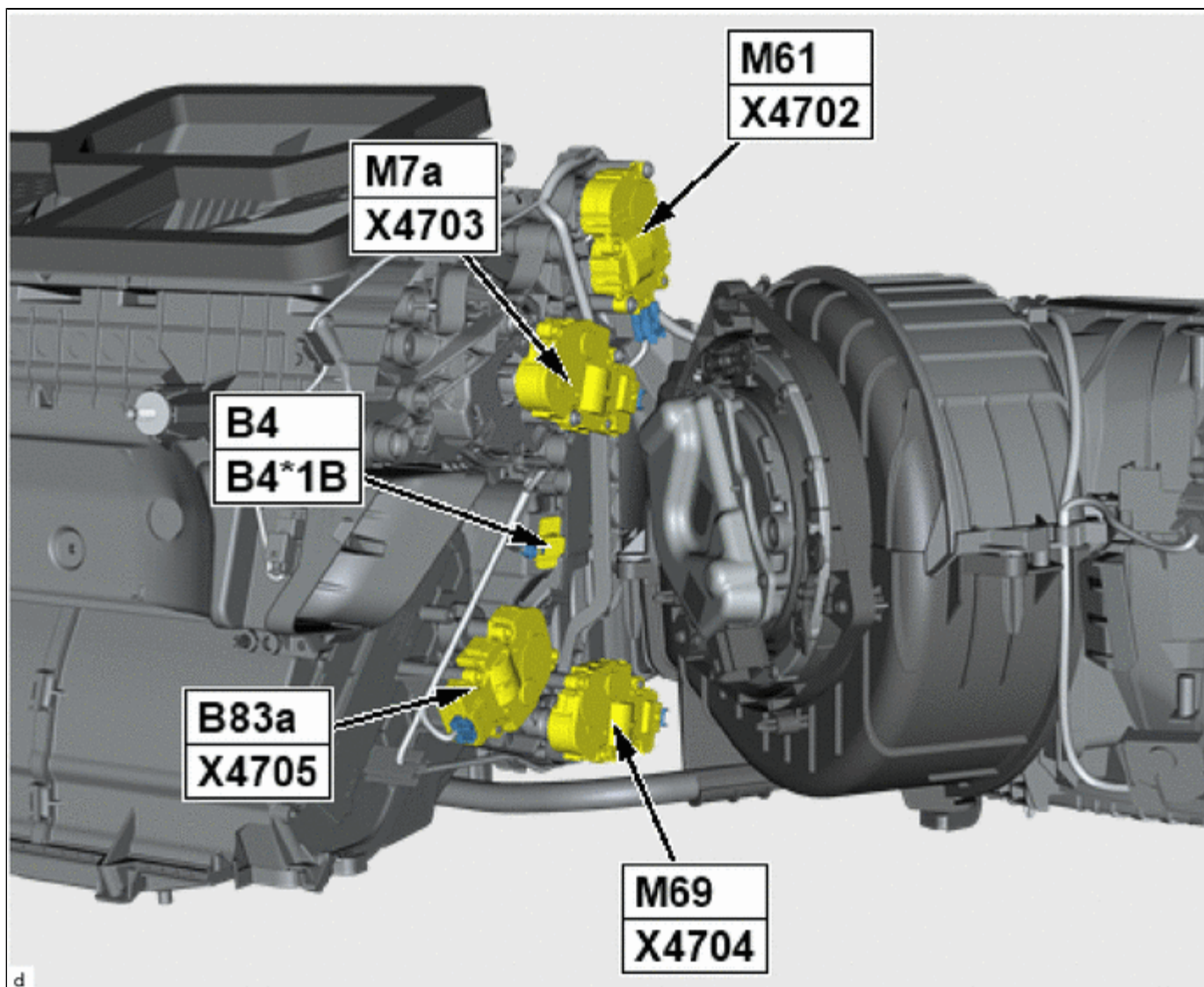
17. REMOVE BLOWER WITH FAN MOTOR SUB-ASSEMBLY

Click here [INFO](#)

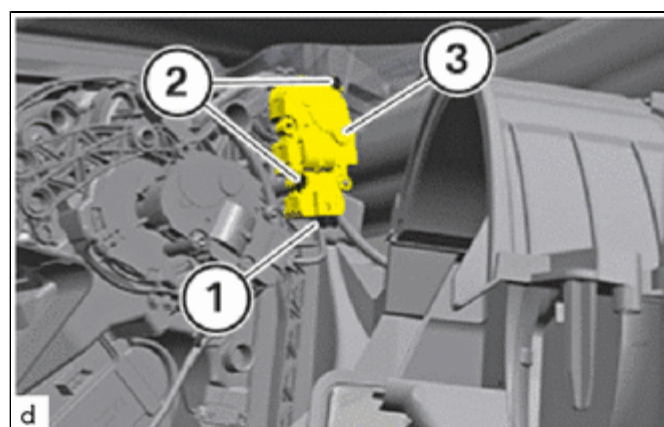
18. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M61)

HINT:

Overview of No. 1 air conditioning radiator damper servo sub-assembly of air conditioning unit assembly:



(a) Disconnect the connector (1).



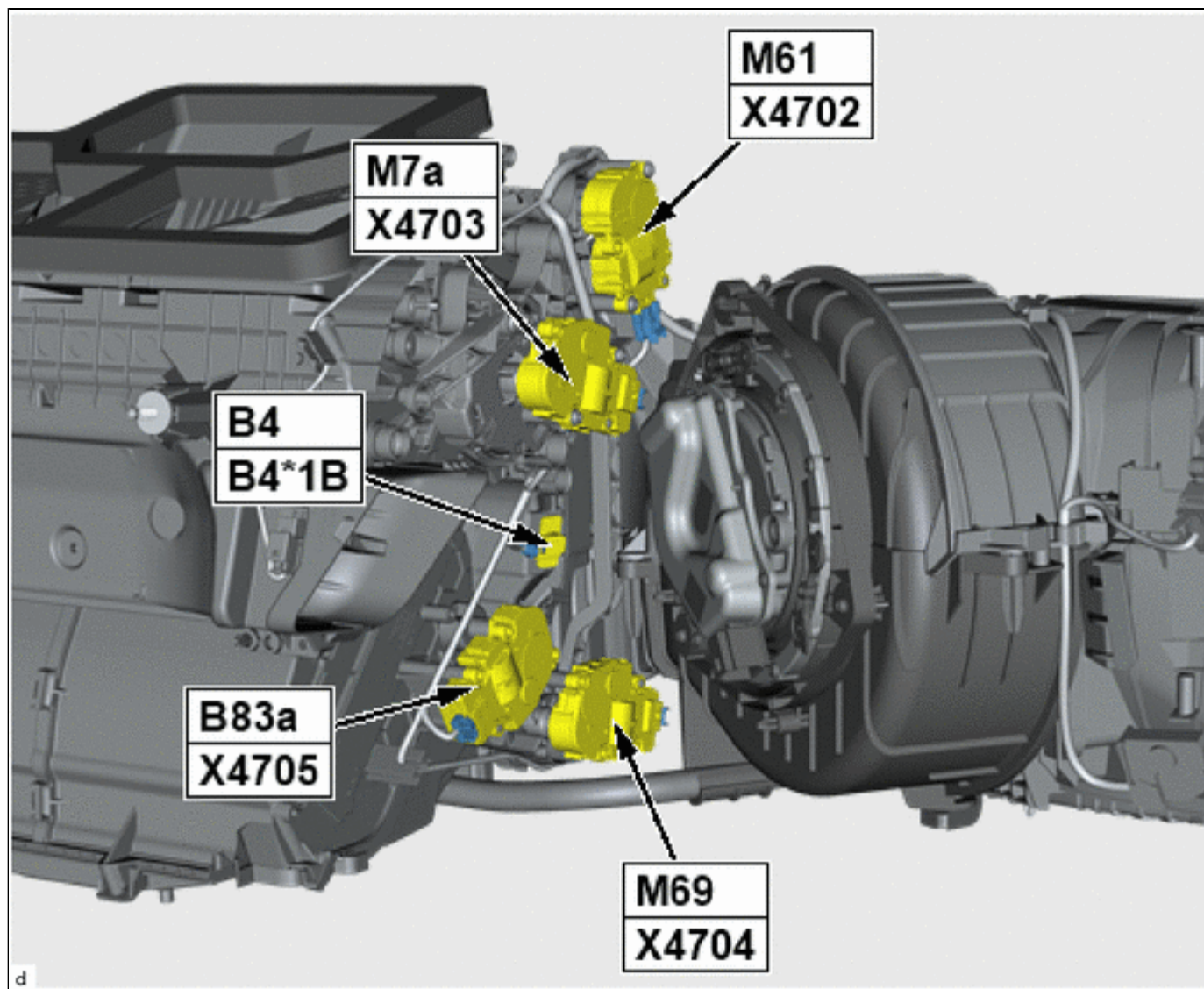
(b) Remove T20 screws (2).

(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M61) (3).

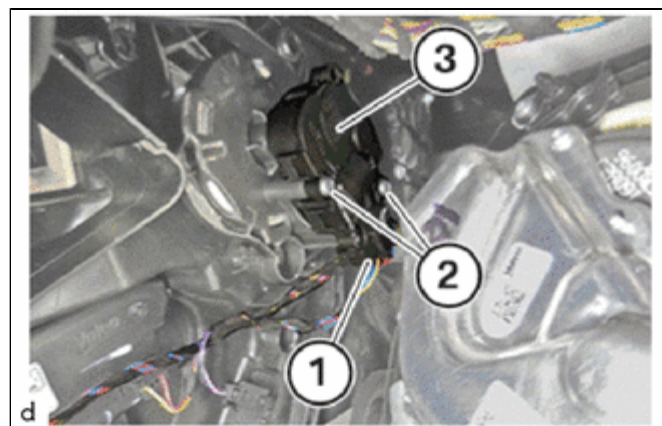
19. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M7a)

HINT:

Overview of No. 1 air conditioning radiator damper servo sub-assembly of air conditioning unit assembly:



(a) Disconnect the connector (1).



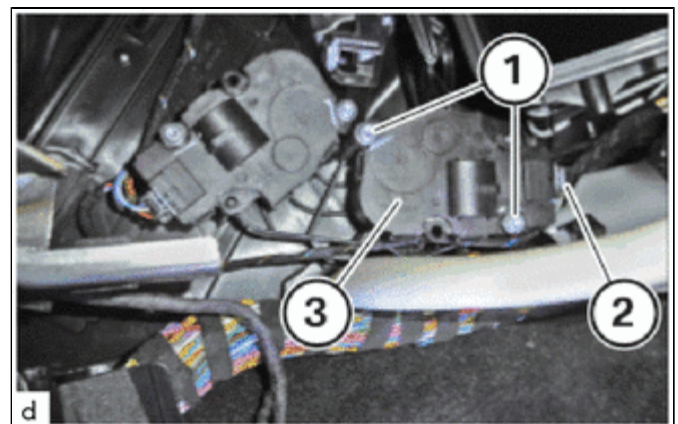
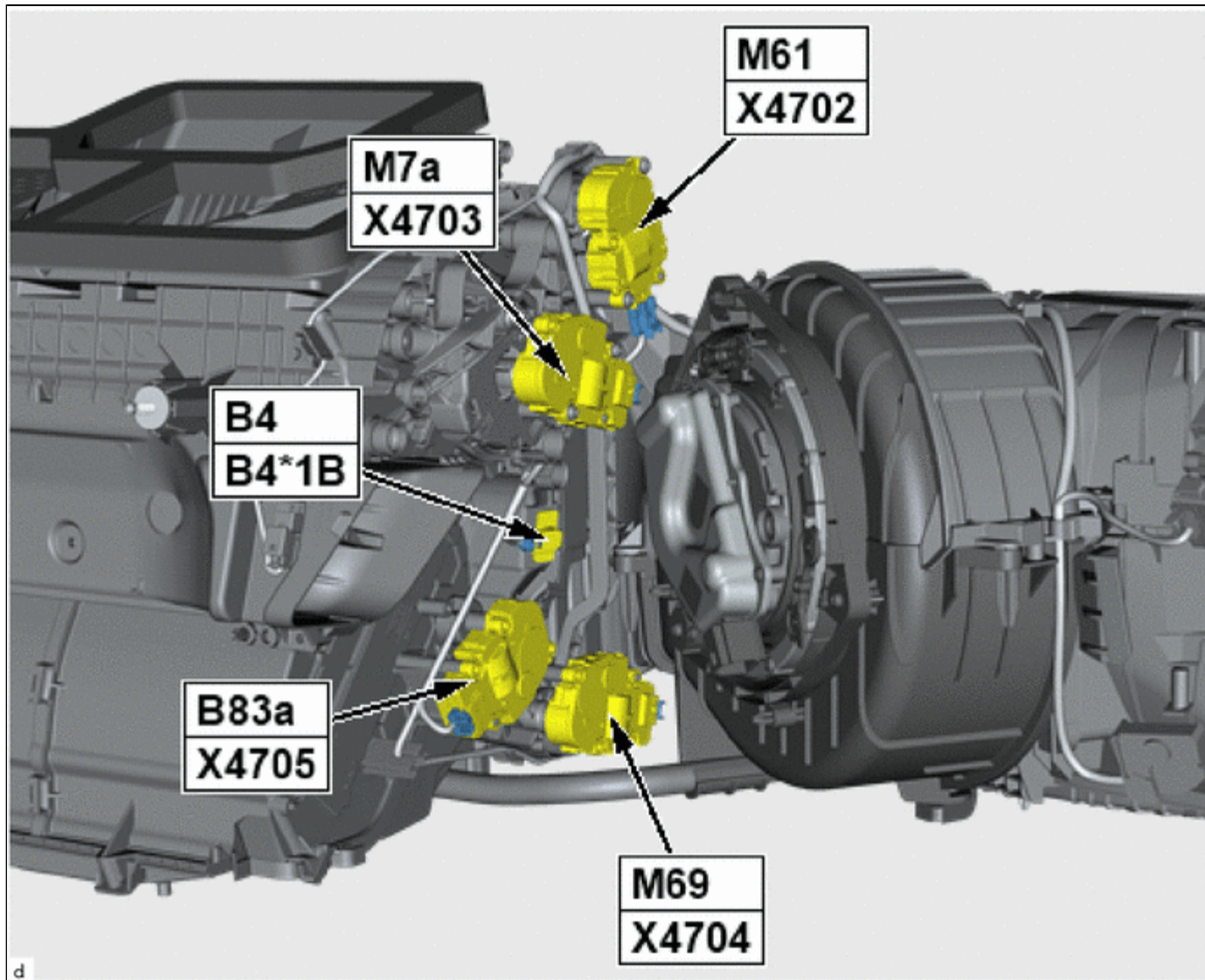
(b) Remove T20 screws (2).

(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M7a) (3).

20. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M69)

HINT:

Overview of No. 1 air conditioning radiator damper servo sub-assembly of air conditioning unit assembly:



(a) Disconnect the connector (2).

(b) Remove T20 screws (1).

(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M69) (3).

21. REMOVE NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

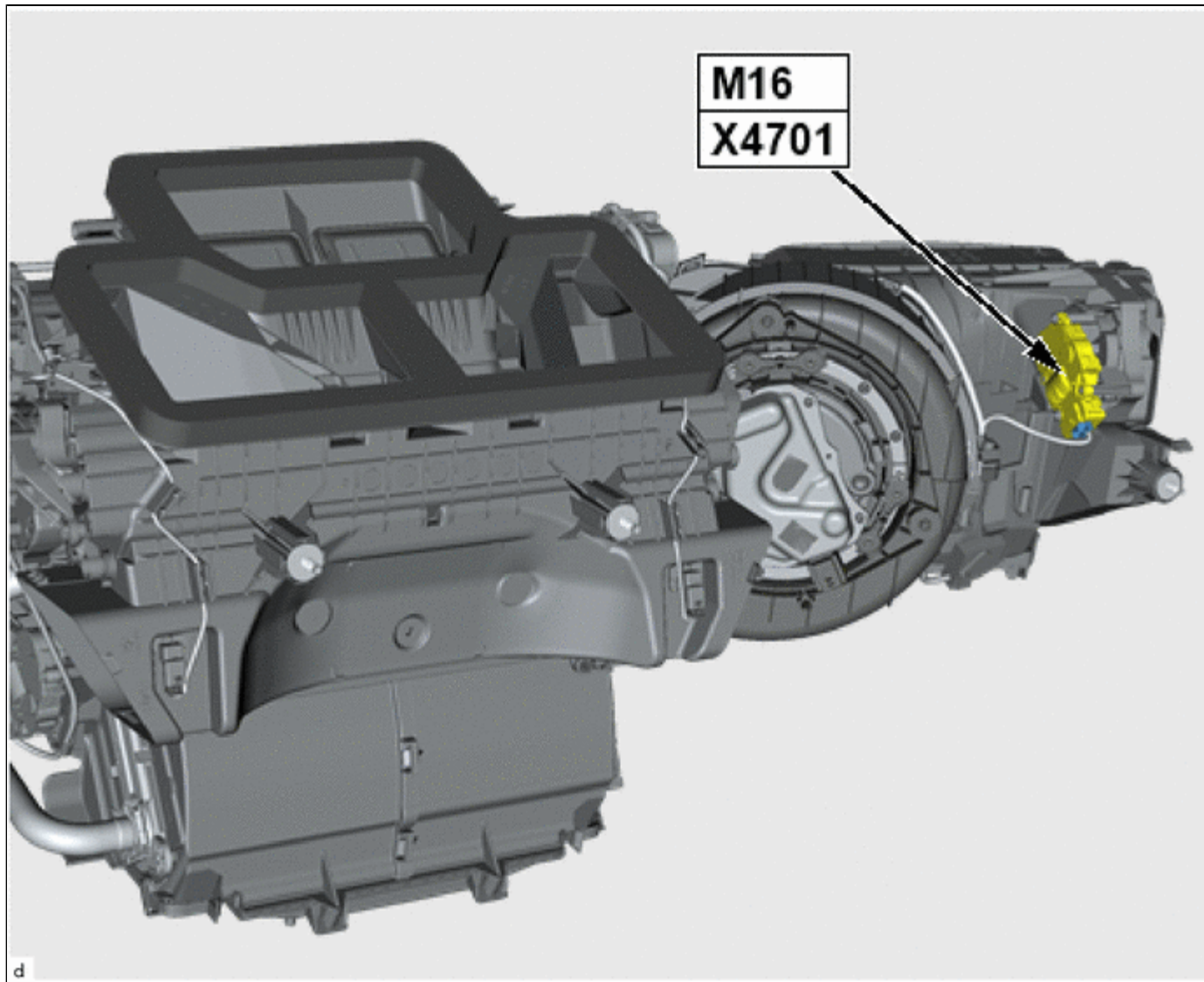
22. REMOVE GLOVE COMPARTMENT DOOR ASSEMBLY

Click here [INFO](#)

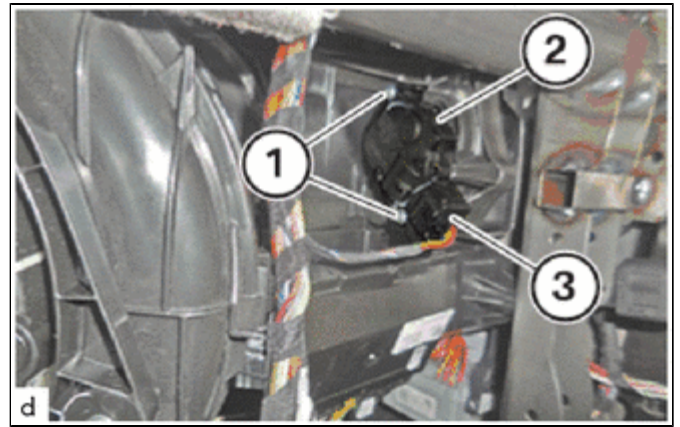
23. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M16)

HINT:

Overview of No. 1 air conditioning radiator damper servo sub-assembly of air conditioning unit assembly:



(a) Disconnect the connector (3).



(b) Remove T20 screws (1).

(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M16) (2).

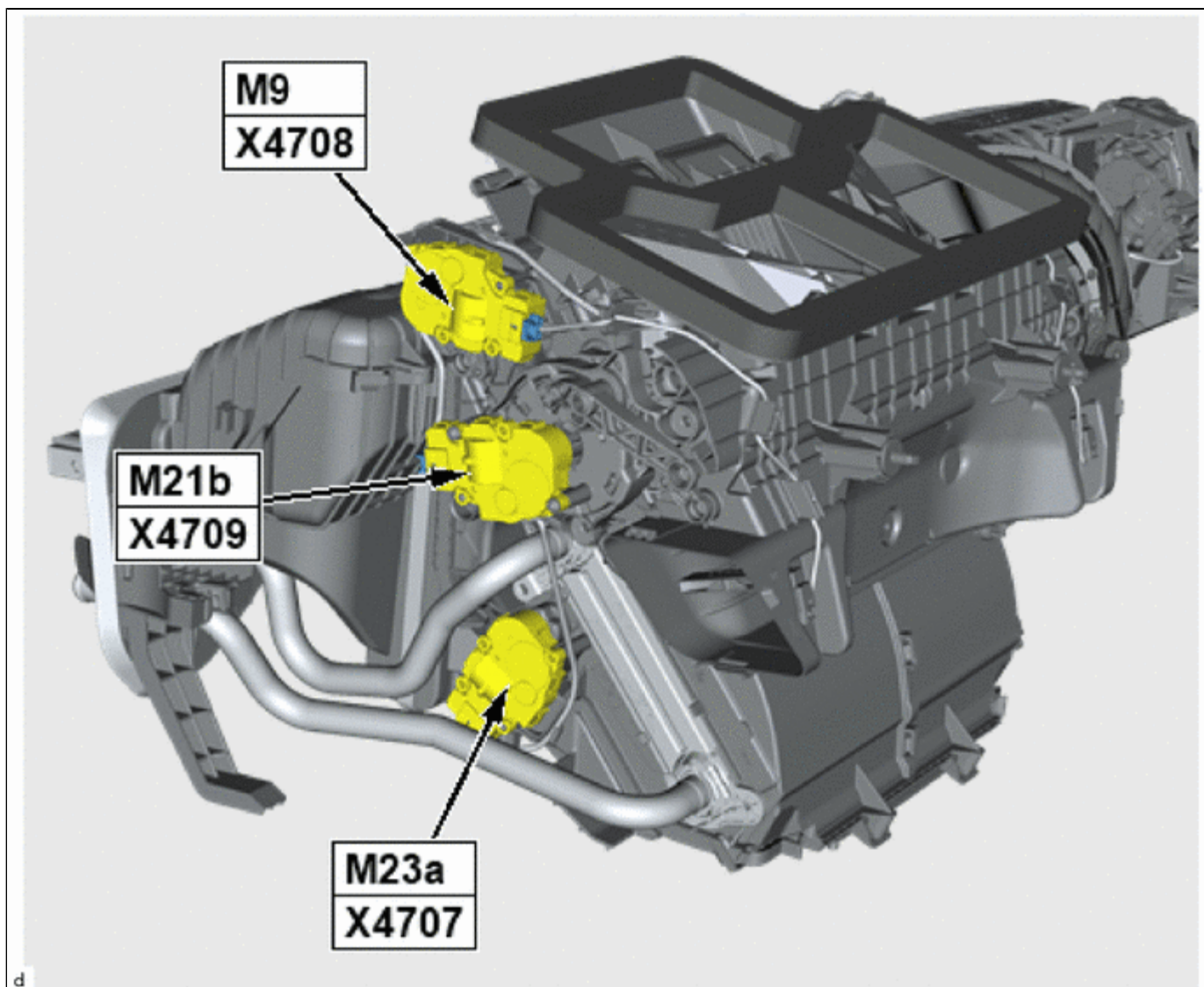
24. REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY

Click here [INFO](#)

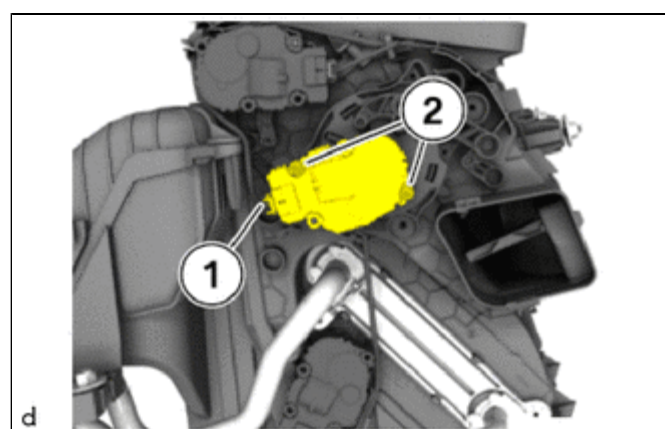
25. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M21b)

HINT:

Overview of No. 1 air conditioning radiator damper servo sub-assembly of air conditioning unit assembly:



(a) Disconnect the connector (1).



(b) Remove T20 screws (2).

(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M21b).

26. REMOVE RADIO RECEIVER ASSEMBLY (w / o Navigation System)

Click here [INFO](#)

27. REMOVE RADIO RECEIVER ASSEMBLY (w / Navigation System)

Click here [INFO](#)

28. REMOVE NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL

Click here [INFO](#)

29. REMOVE METER MIRROR SUB-ASSEMBLY

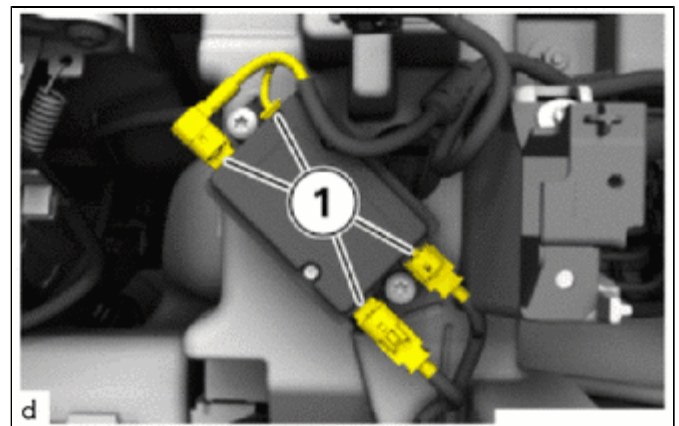
Click here [INFO](#)

30. SEPARATE STEERING COLUMN ASSEMBLY

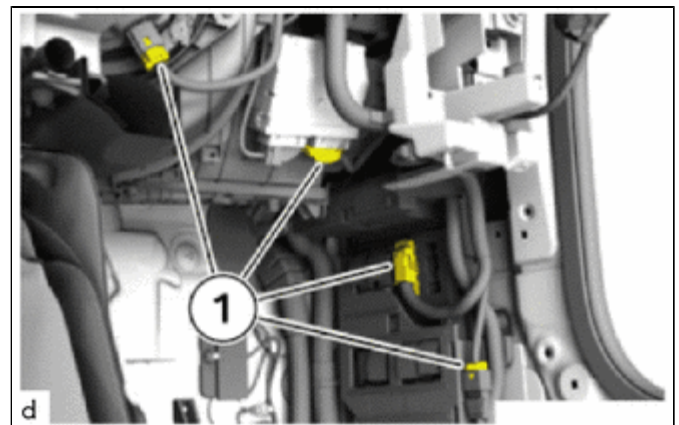
Click here [INFO](#)

31. REMOVE INSTRUMENT PANEL REINFORCEMENT SUB-ASSEMBLY

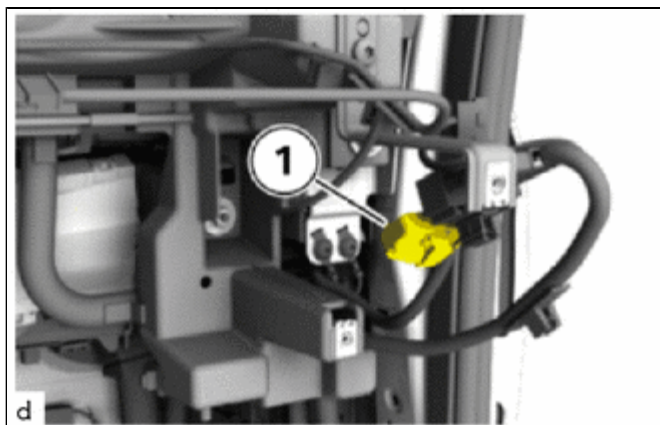
(a) Disconnect the connectors (1).



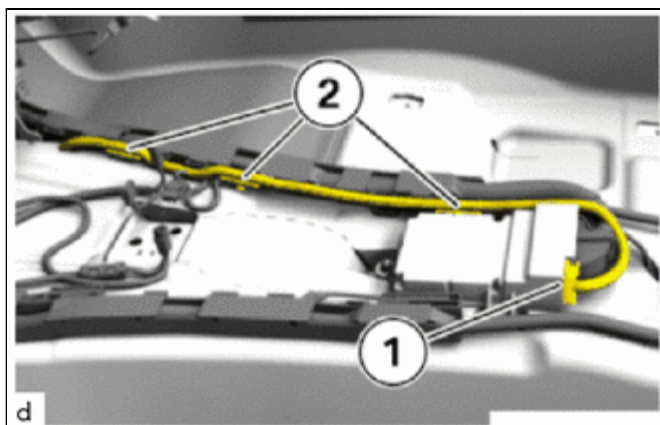
(b) Disconnect the connectors (1).



(c) Disconnect the connector (1).

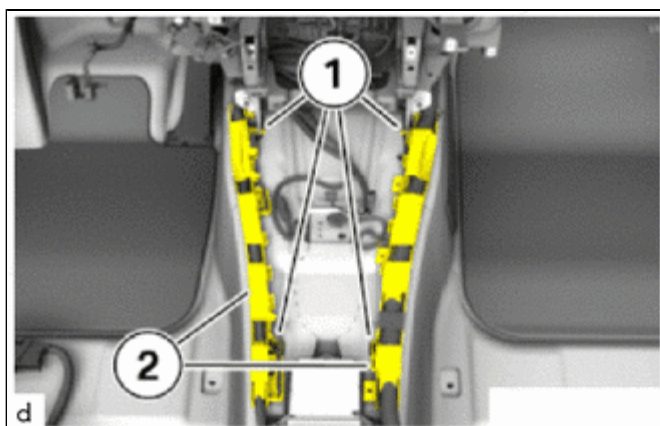


(d) Disconnect the connector (1).

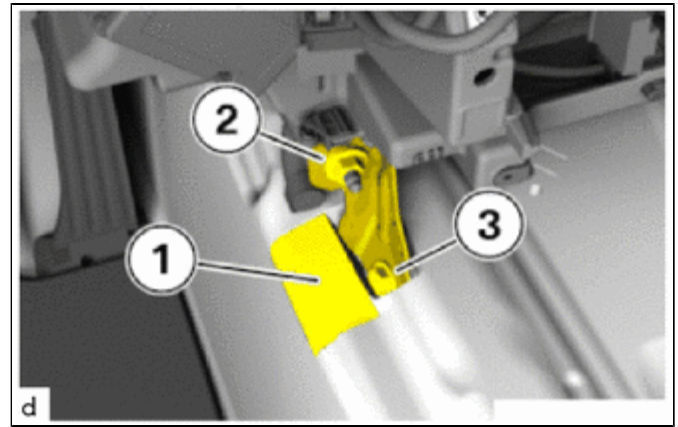


(e) Disengage the clamps (2) and move the cable harness aside.

(f) Disengage the claws (1) and put the cable ducts (2) aside.



(g) Fold the carpet (1) to the side in the marked area.

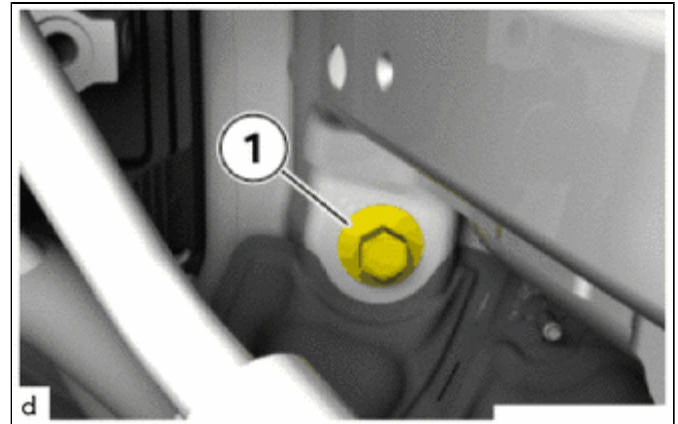


(h) Remove the No. 1 instrument panel bracket with the nut (2) and bolt (3).

HINT:

- The right-hand side component is shown. The procedure on the right is identical.
- Carry out the work steps on the left and right side.

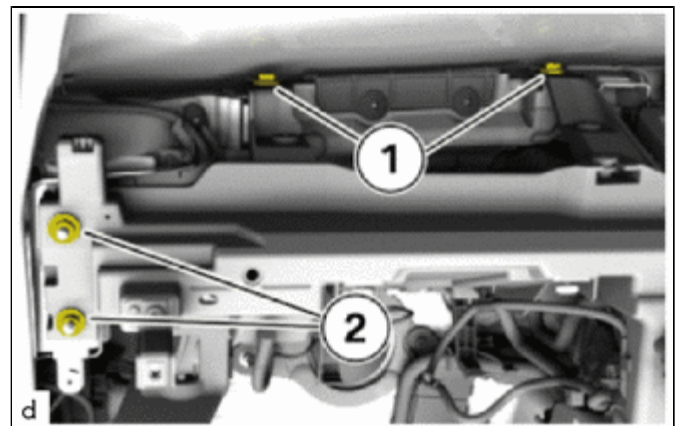
(i) Using a socket wrench 16 mm, remove the bolt (1) in the engine compartment.



(j) Loosen bolts (1) a few turns.

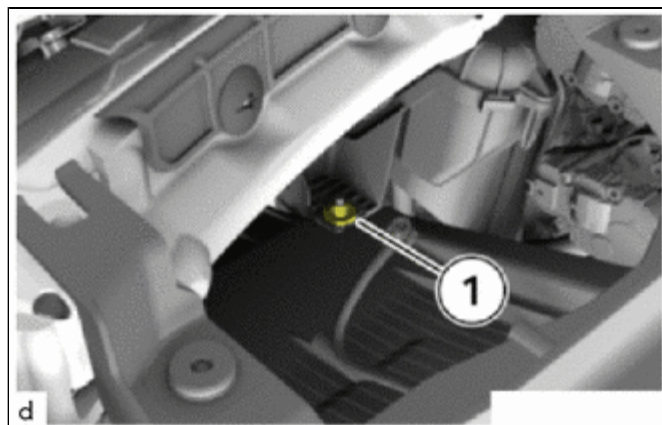
NOTICE:

Do not remove the bolts (1).

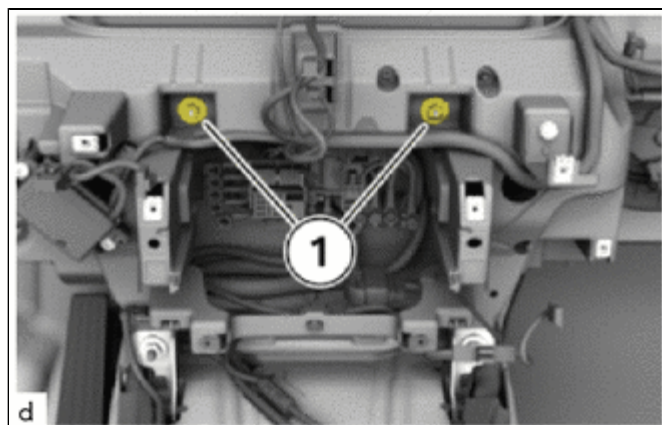


(k) Remove nuts (2).

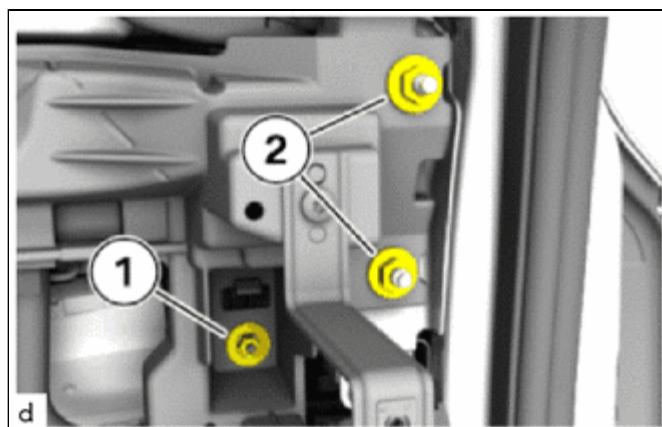
(l) Remove nut (1).



(m) Remove nuts (1).



(n) Remove nuts (1) and (2).



(o) Carefully feed out the instrument panel reinforcement sub-assembly with the wiring harness to the rear.

NOTICE:

Conduct the following operation with the assistance of a second person.

(p) Carefully remove the instrument panel reinforcement sub-assembly including vehicle wiring harness from the vehicle interior.

NOTICE:

Conduct the following operation with the assistance of a second person.

32. REMOVE COOLER EXPANSION VALVE

Click here [INFO](#)

33. REMOVE AIR CONDITIONING UNIT ASSEMBLY

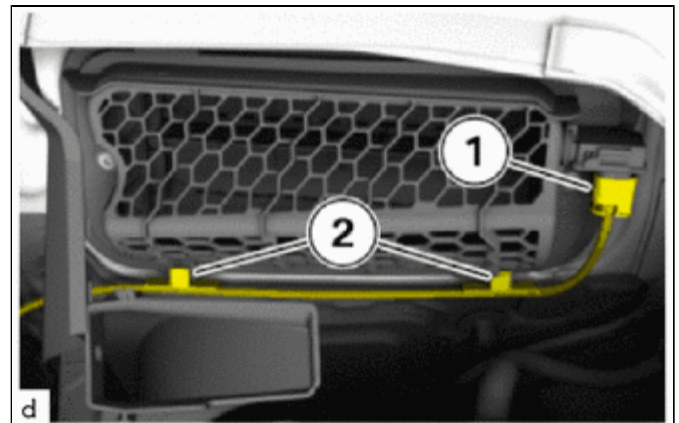
- (a) Slide the hose clamps (1) to disconnect the heater water hoses.

NOTICE:

Prepare a drain pan or cloth in case the coolant leaks.

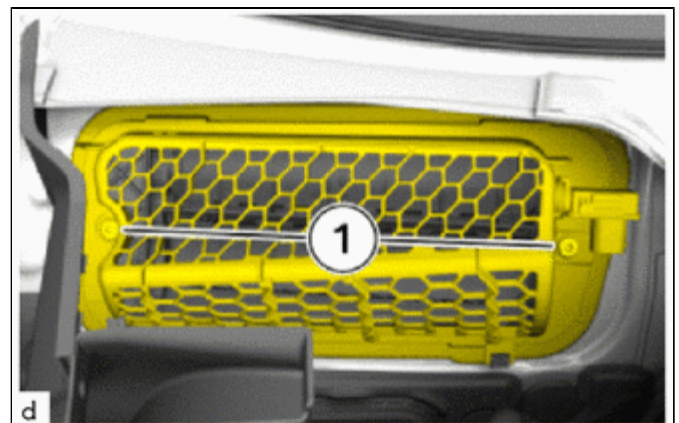


- (b) Disconnect the connector (1).

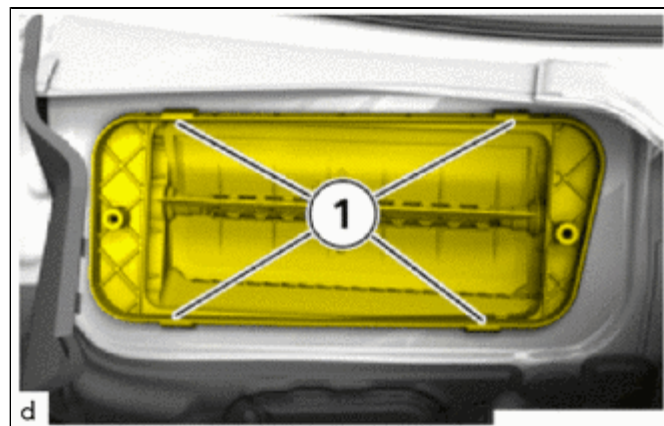


- (c) Disengage the clamps (2) and put the cable harness aside.

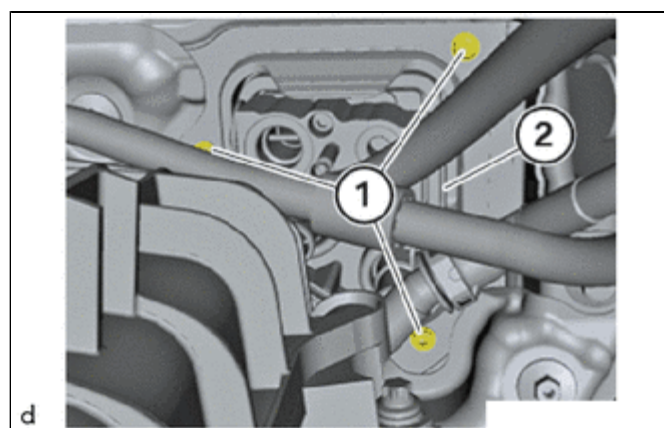
- (d) Remove T25 screws (1) and remove No. 1 air duct sub-assembly.



(e) Disengage the claws (1) on the air conditioning unit assembly.



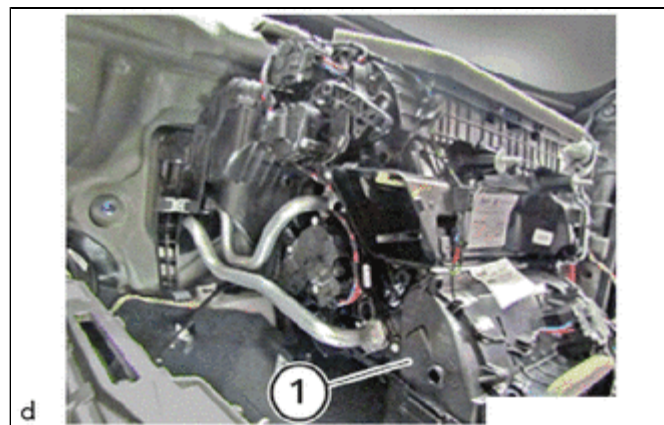
(f) Remove T25 screws (1) from air conditioning unit assembly (2).



(g) Remove air conditioning unit assembly (1).

NOTICE:

Protect carpet in footwell against escaping coolant.



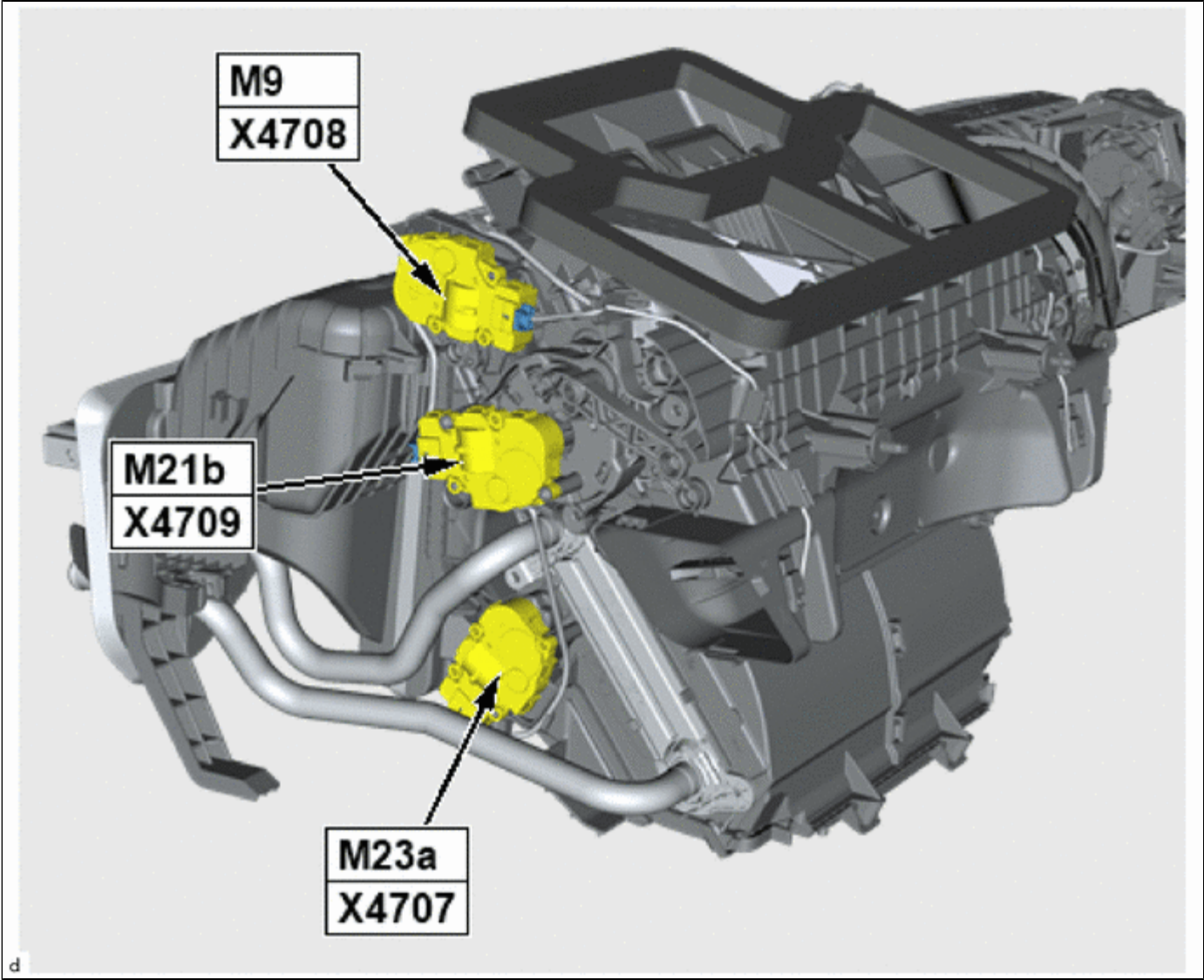
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCB9
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING UNIT: DISASSEMBLY; 2020 MY Supra [03/2019 -]		

DISASSEMBLY

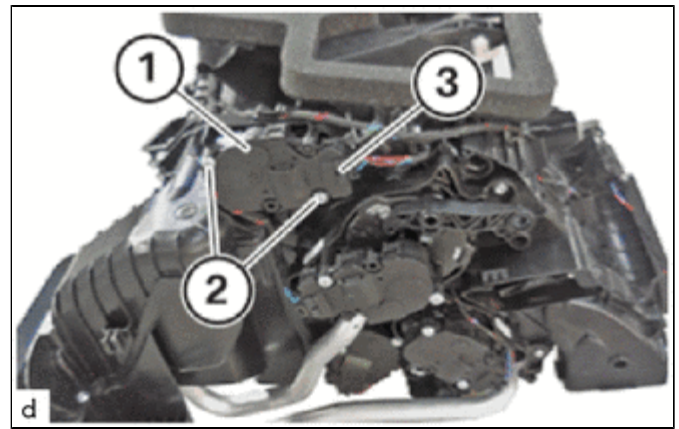
PROCEDURE

1. REMOVE NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M9)

HINT:
Overview of No. 1 air conditioning radiator damper servo sub-assembly:



(a) Disconnect the connector (3).



(b) Remove T20 screws (2).

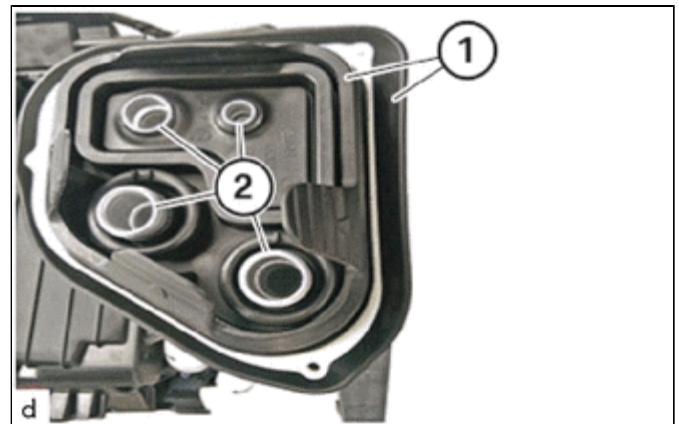
(c) Remove No. 1 air conditioning radiator damper servo sub-assembly (M9) (1).

2. REMOVE WATER PIPE SUB-ASSEMBLY

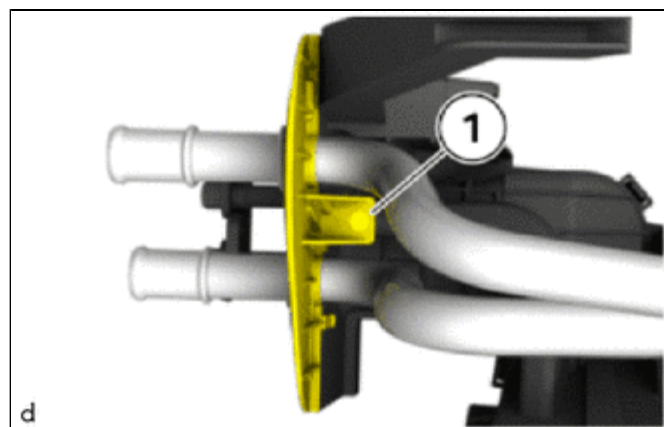
(a) Remove mounting plate (1).



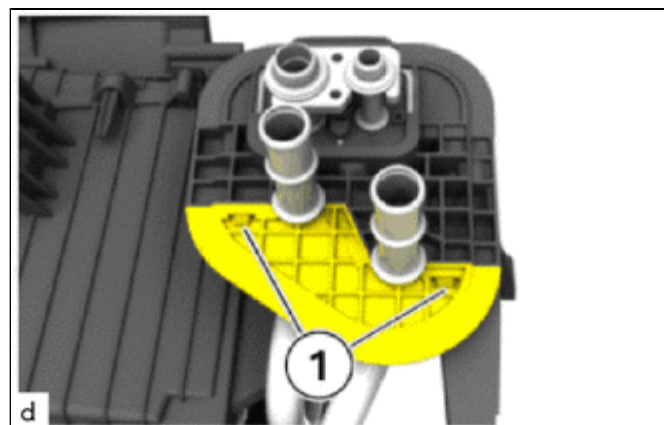
(b) Remove the seals (1) from the pipes (2) and remove them completely.



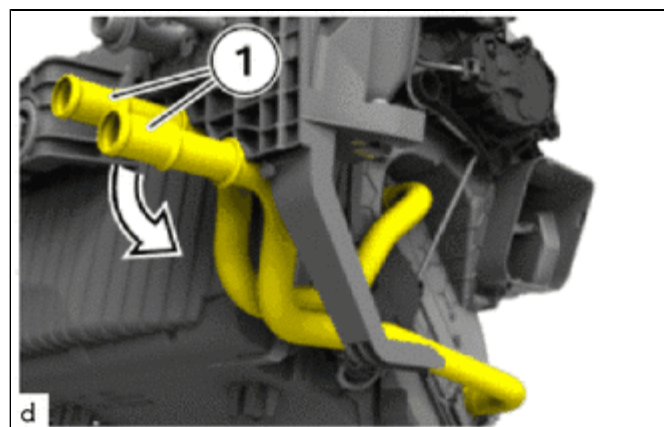
(c) Remove T20 screw (1).



(d) Disengage claws (1) and remove the water pipe sub-assembly holder.



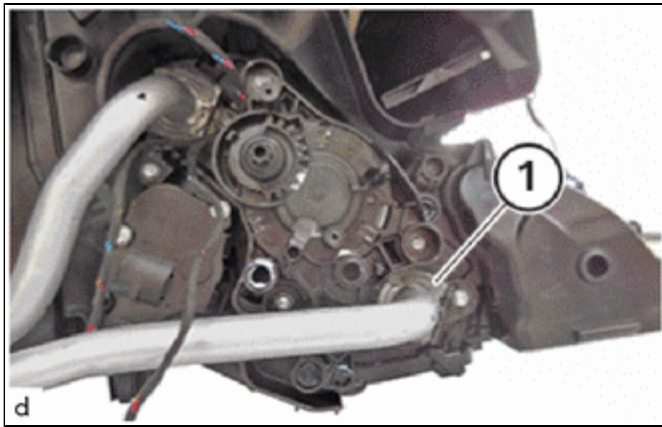
(e) Turn the water pipe sub-assembly (1) downwards in the direction of the arrow.



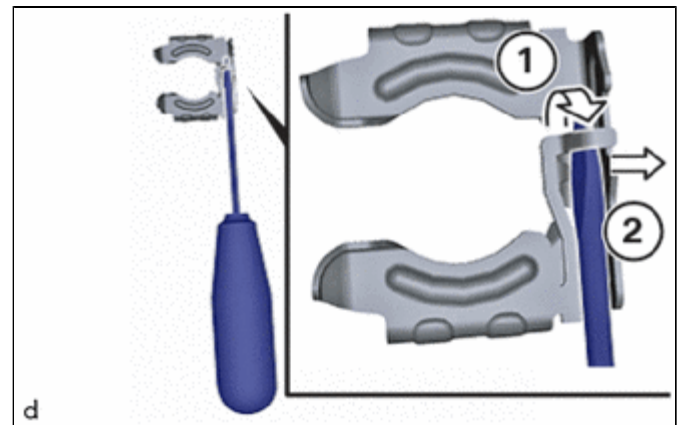
(f) Remove retaining clip (1) as in following operation.

HINT:

Use the same procedure as for the opposite side.



(1) Disengage retaining clip (1) using screwdriver upwards.



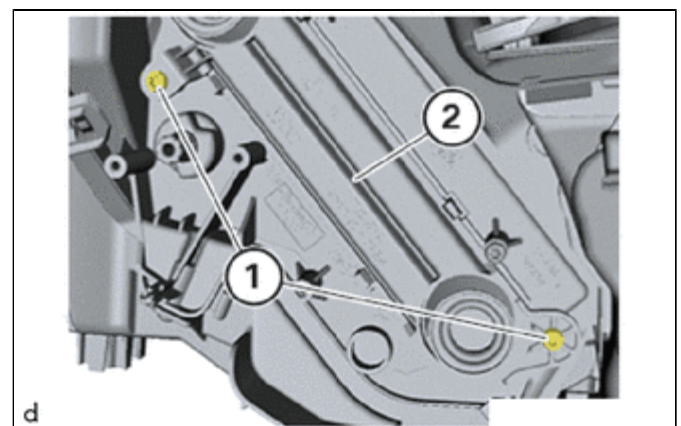
(2) Slide retaining clip (2) using screwdriver to one side.

(g) Remove the 2 water pipe sub-assemblies.

(h) Remove the 2 O-rings.

3. REMOVE HEATER RADIATOR UNIT SUB-ASSEMBLY

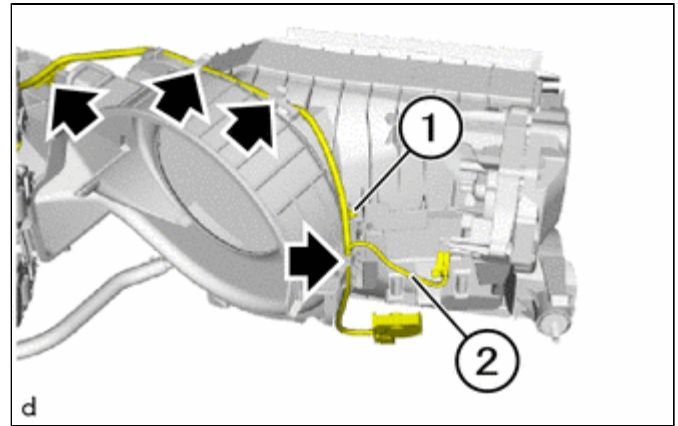
(a) Remove T20 screws (1).



(b) Remove the heater radiator unit sub-assembly (2).

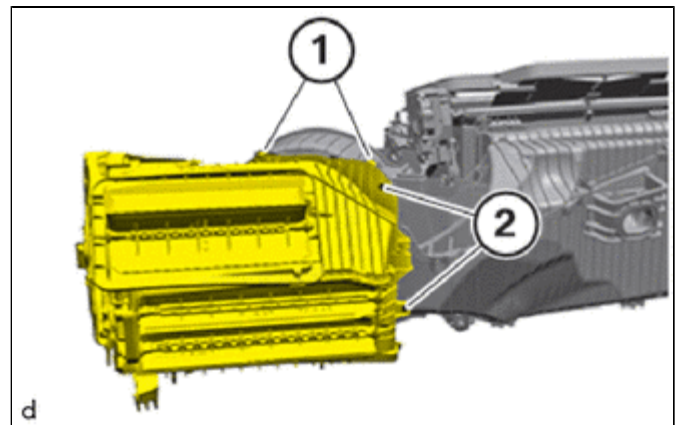
4. REMOVE NO. 1 COOLER EVAPORATOR SUB-ASSEMBLY

(a) Remove T20 screw (1).

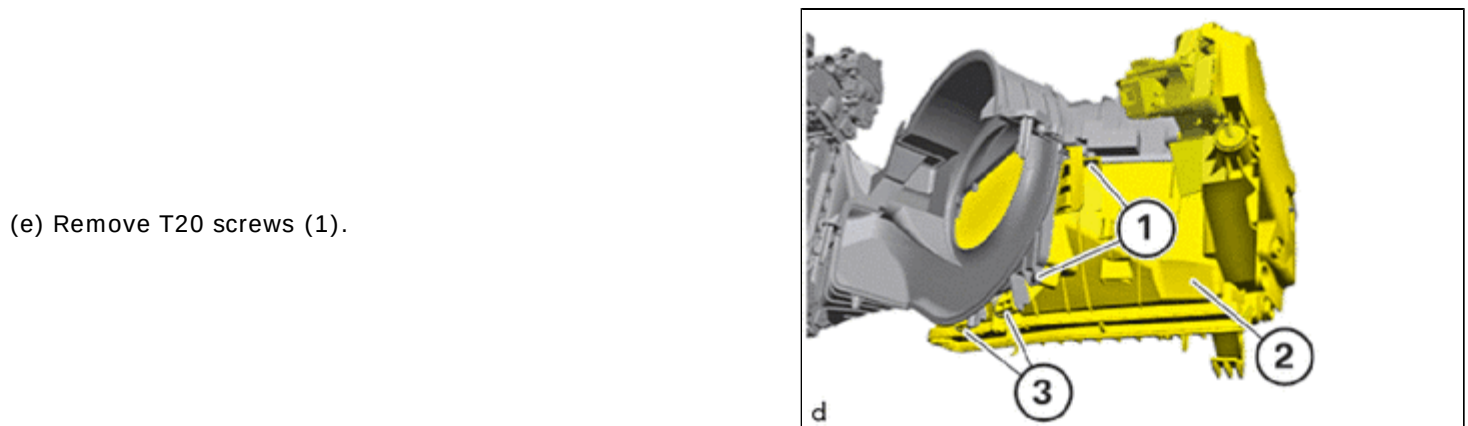


(b) Disconnect the cable (2) from the guides (arrows) and place to one side.

(c) Disengage the claws (1).



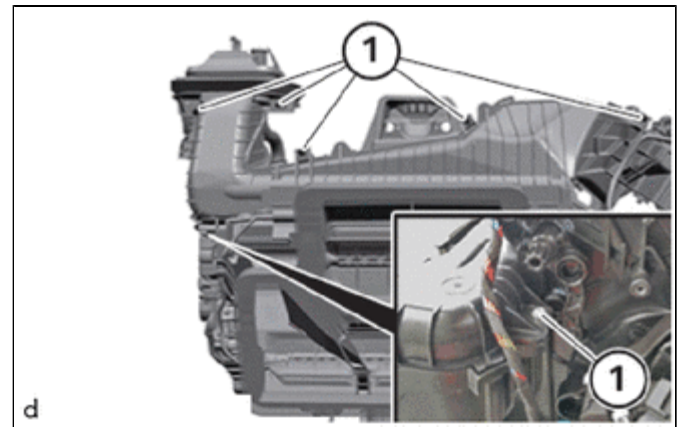
(d) Remove T20 screws (2).



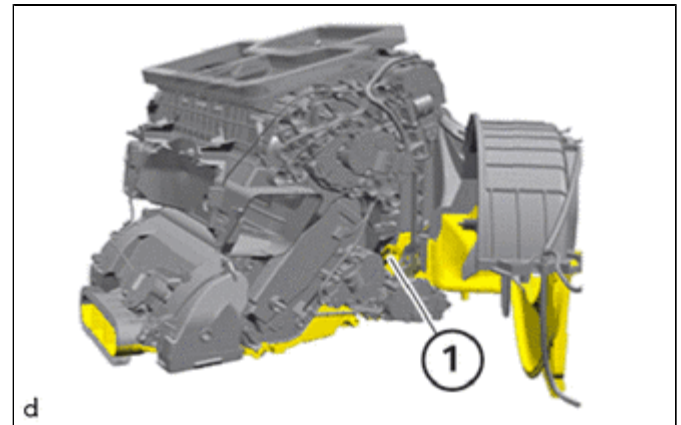
(e) Remove T20 screws (1).

(f) Remove the blower housing (2) slightly and disengage from the hooks (3).

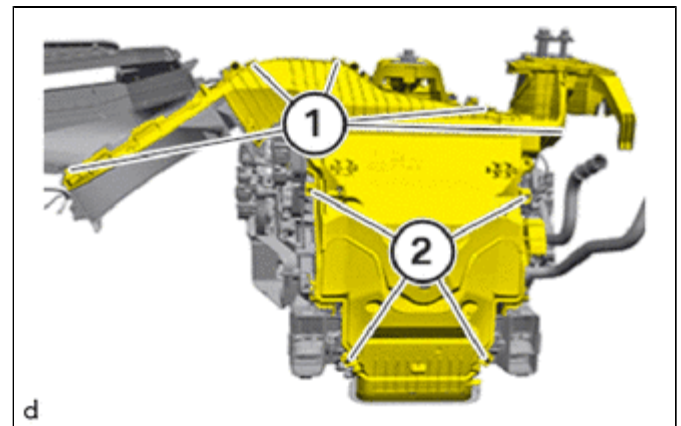
(g) Remove T20 screws (1).



(h) Disengage the claw (1).

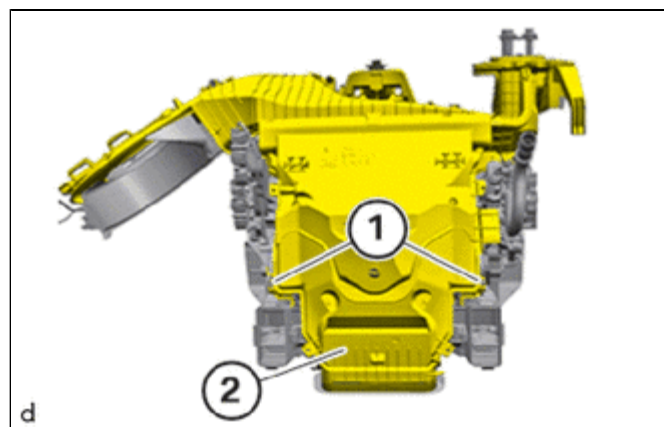


(i) Disengage the claws (1).

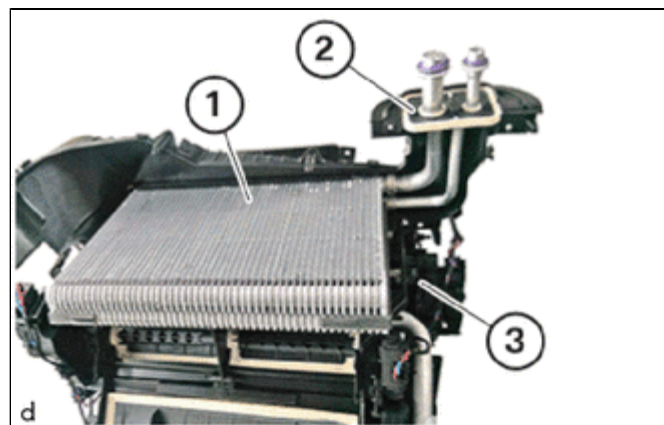


(j) Remove T20 screws (2).

(k) Disengage the claws (1) and guide out the lower radiator case sub-assembly (2) and remove it.



(l) Remove the No. 1 cooler evaporator sub-assembly (1) with the seal (2) from the air conditioning radiator assembly (3).



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REASSEMBLY

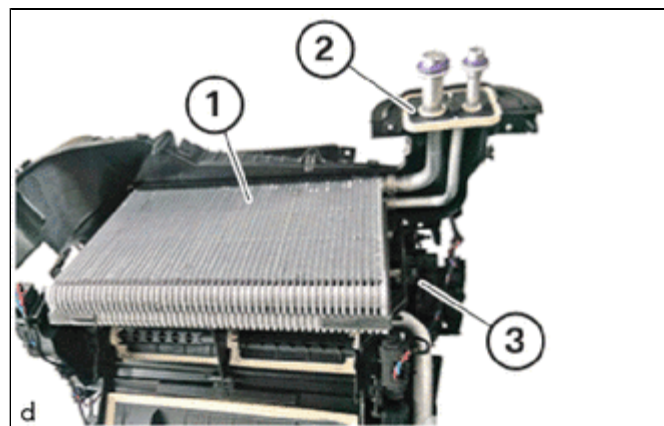
PROCEDURE

1. INSTALL NO. 1 COOLER EVAPORATOR SUB-ASSEMBLY

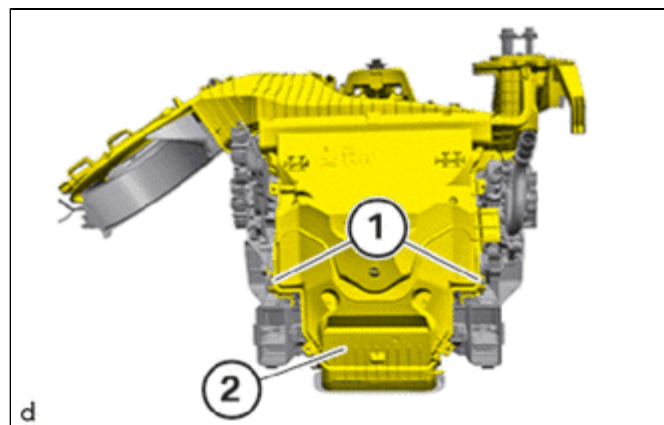
- (a) Install the No. 1 cooler evaporator sub-assembly (1) in the air conditioning radiator assembly (3) correctly.

HINT:

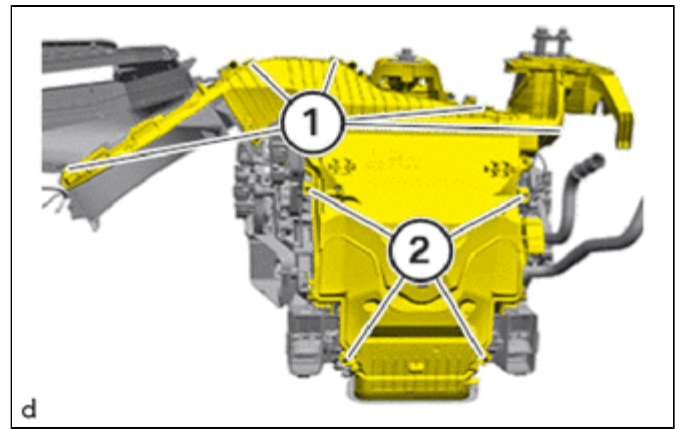
Make sure that the seal (2) is positioned correctly.



- (b) Correctly feed in lower radiator case sub-assembly (2) and engage at the claws (1).



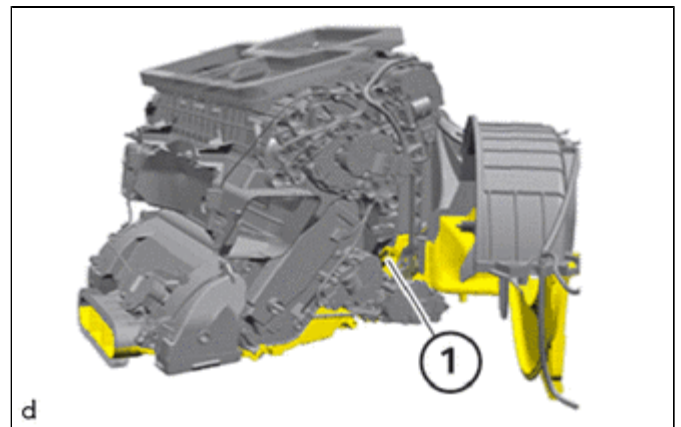
- (c) Engage claws (1).



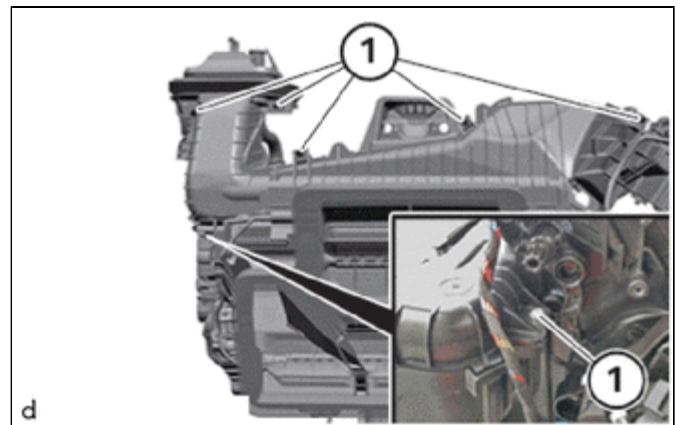
(d) Tighten T20 screws (2).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}



(e) Engage claw (1).

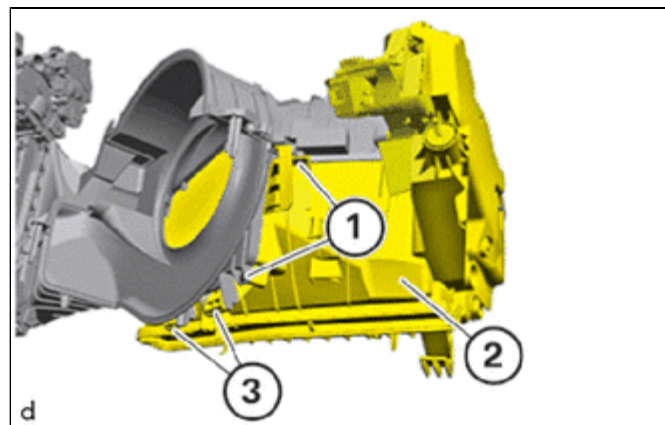


(f) Tighten the T20 screws (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(g) Install blower housing (2) onto the hooks (3) and position correctly.

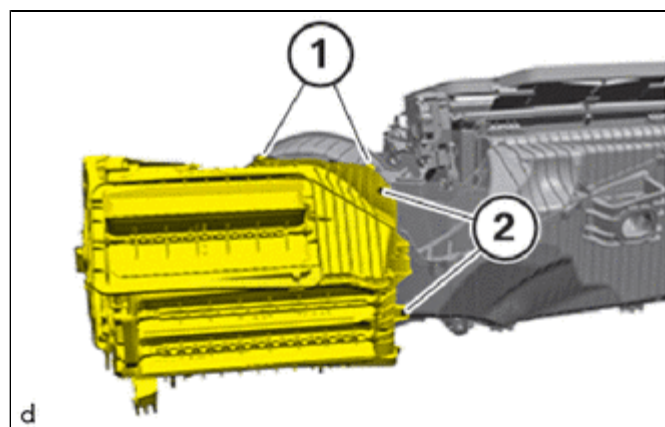


(h) Tighten the T20 screws (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(i) Engage claws (1).

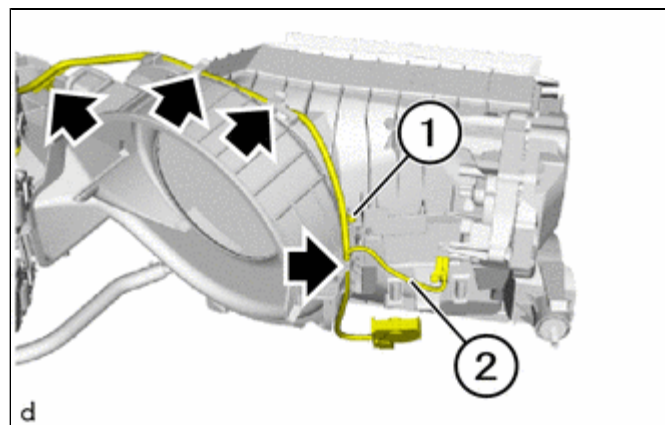


(j) Tighten T20 screws (2).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(k) Connect cable (2) at the guides (arrows).



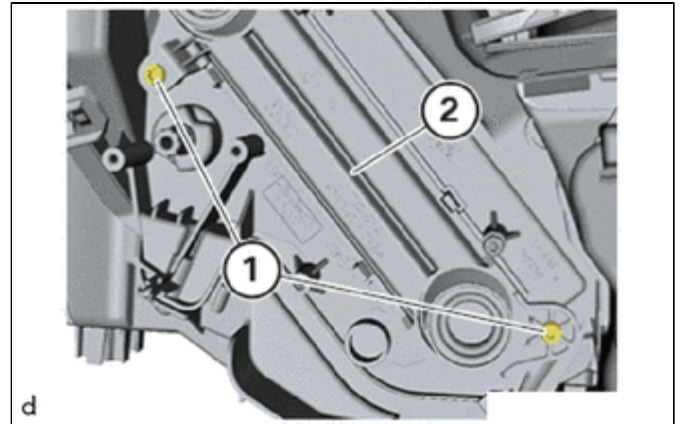
(l) Tighten T20 screw (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

2. INSTALL HEATER RADIATOR UNIT SUB-ASSEMBLY

(a) Install heater radiator unit sub-assembly (2).



(b) Tighten the T20 screws (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

3. INSTALL WATER PIPE SUB-ASSEMBLY

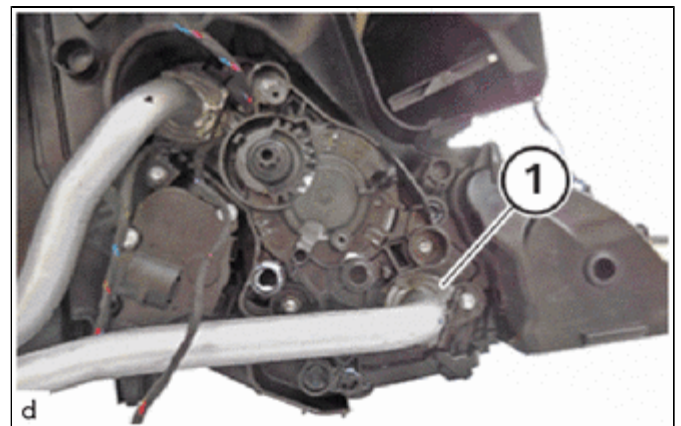
(a) Replace the 2 O-rings.

(b) Connect the 2 water pipe sub-assemblies.

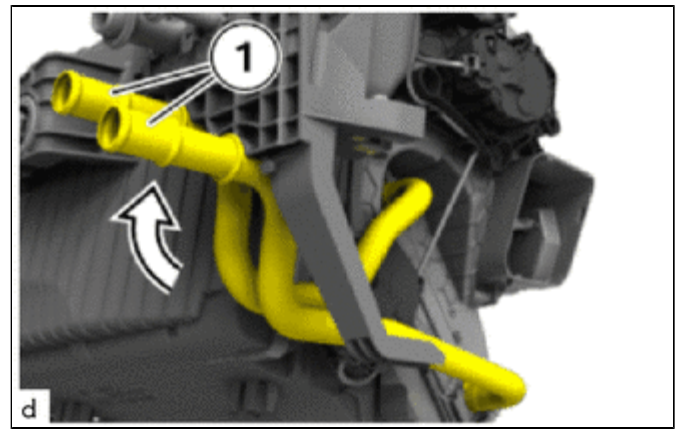
(c) Secure the water pipe sub-assembly with the retaining clip (1).

HINT:

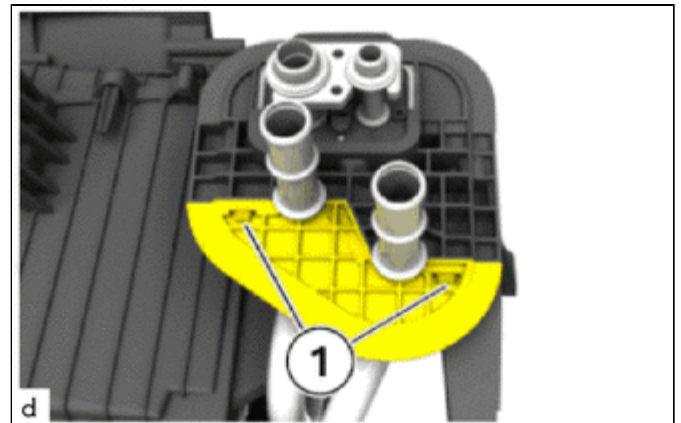
Use the same procedure as for the opposite side.



(d) Turn the water pipe sub-assembly (1) back to their original position in the direction of the arrow.



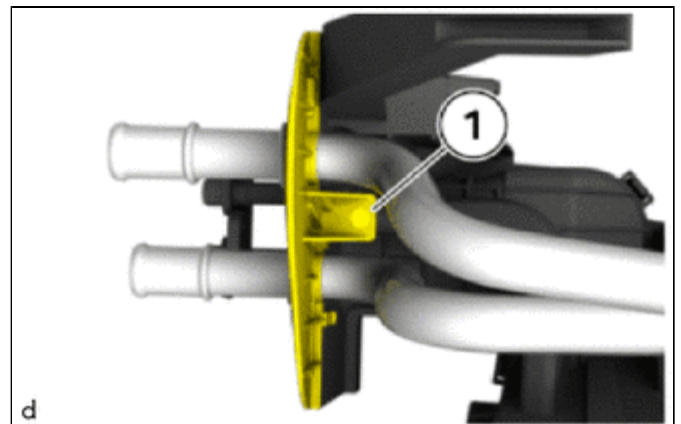
(e) Install the water pipe sub-assembly holder and engage the claws (1).



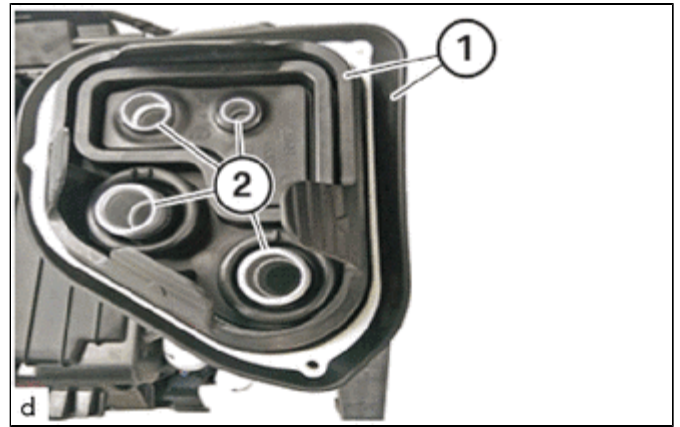
(f) Tighten T20 screw (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}



(g) Thread the seals (1) completely over the pipes (2) and position them correctly.

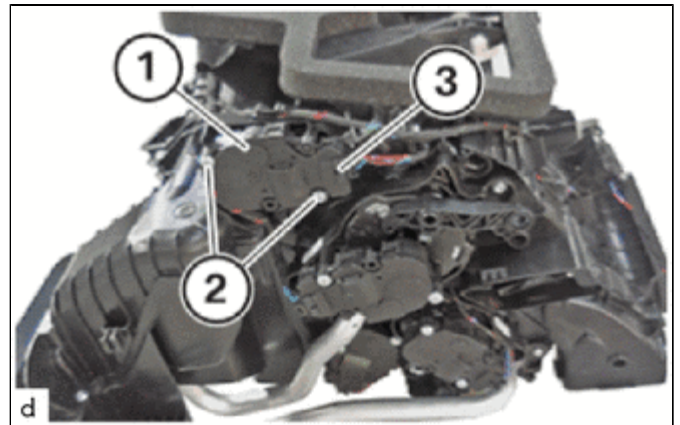


(h) Install mounting plate (1).



4. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M9)

(a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M9) (1).



(b) Tighten T20 screws (2).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(c) Connect the connector (3).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBB
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AIR CONDITIONING UNIT: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

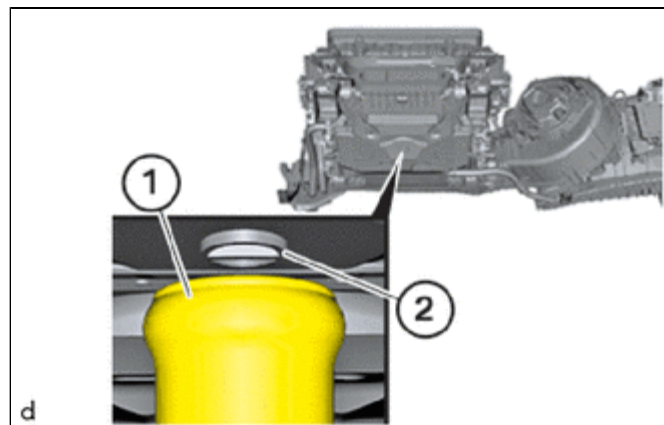
1. INSTALL AIR CONDITIONING UNIT ASSEMBLY

(a) Install the air conditioning unit assembly.

(b) Ensure correct fit of condensate drain (2) on grommet (1).

NOTICE:

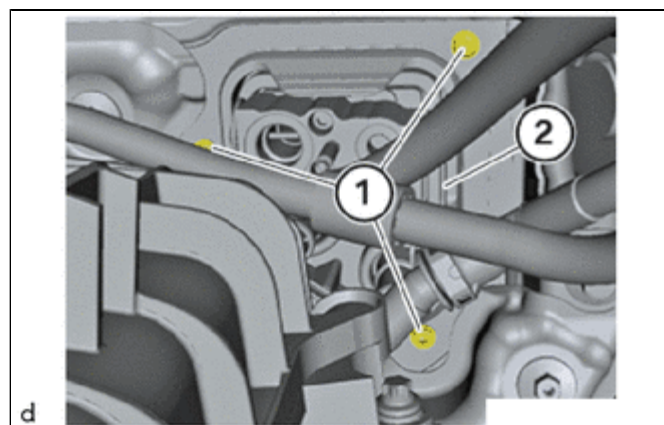
- Damage caused by water ingress into the vehicle.
Water ingress into the vehicle may result in damage to components, malfunctions and corrosion.
- Perform visual inspection after installing the air conditioning unit assembly (2).
- Only use undamaged components.



(c) Tighten T25 screws (1) of air conditioning unit assembly (2).

Torque:

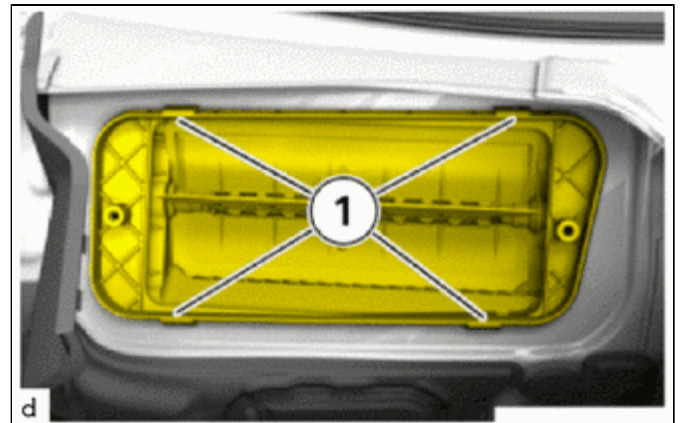
2.8 N·m {29 kgf·cm, 25 in·lbf}



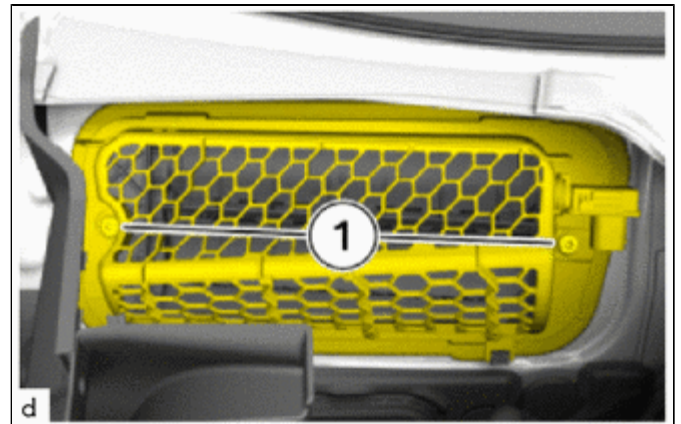
(d) Correctly push on the heater water hoses and secure the hose clamps (1).



(e) Fasten the air conditioning unit assembly with the claws (1).



(f) Install No. 1 air duct sub-assembly.

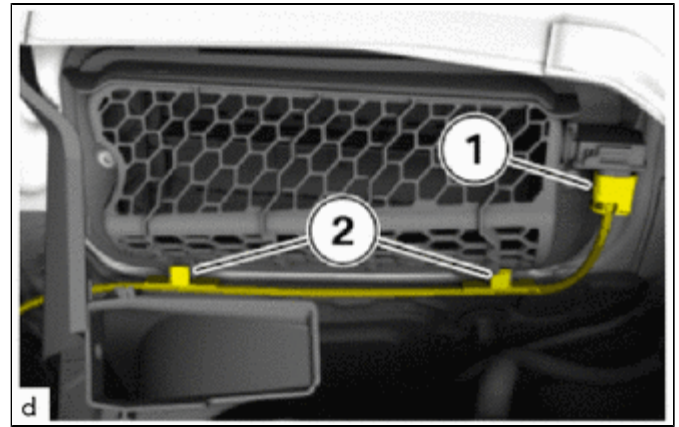


(g) Tighten T25 screws (1).

Torque:

2.8 N·m {29 kgf·cm, 25 in·lbf}

(h) Connect the connector (1).



(i) Engage the clamps (2).

2. INSTALL COOLER EXPANSION VALVE

Click here [INFO](#)

3. INSTALL INSTRUMENT PANEL REINFORCEMENT SUB-ASSEMBLY

(a) Carefully insert the instrument panel reinforcement sub-assembly and connect all connectors at the same time.

NOTICE:

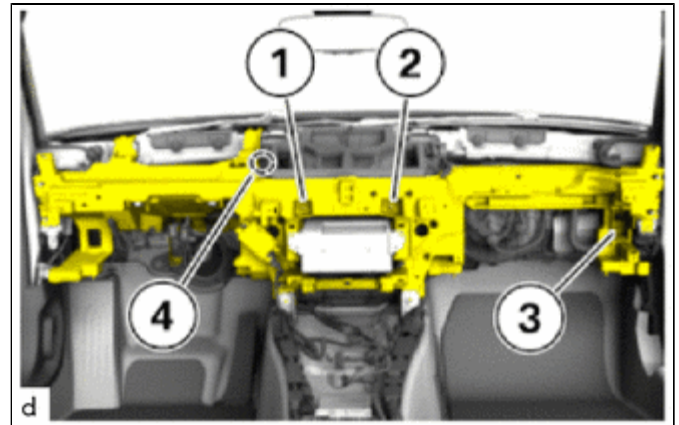
Conduct the following operation with the assistance of a second person.

(b) Install the air conditioning unit assembly to the instrument panel reinforcement sub-assembly first.

(c) Tighten the nuts in the order shown in the illustration.

Torque:

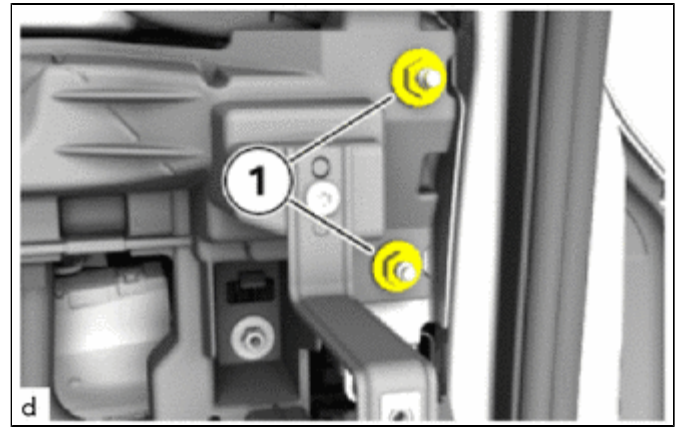
4.0 N·m {41 kgf·cm, 35 in·lbf}



(d) Tighten nuts (1).

Torque:

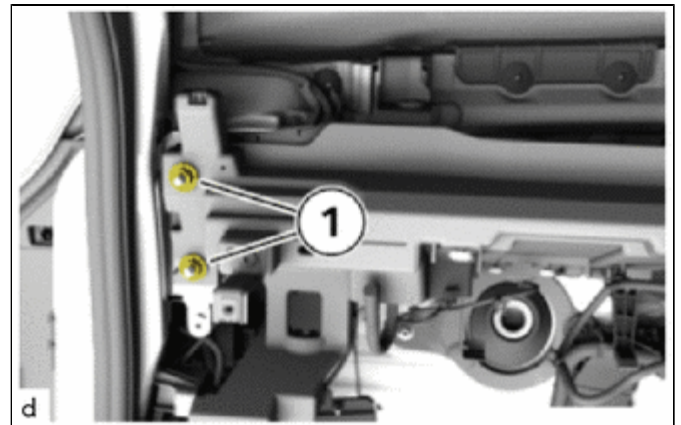
21 N·m {214 kgf·cm, 15 ft·lbf}



(e) Tighten nuts (1).

Torque:

21 N·m {214 kgf·cm, 15 ft·lbf}



(f) Using a socket wrench 16 mm, tighten bolt.

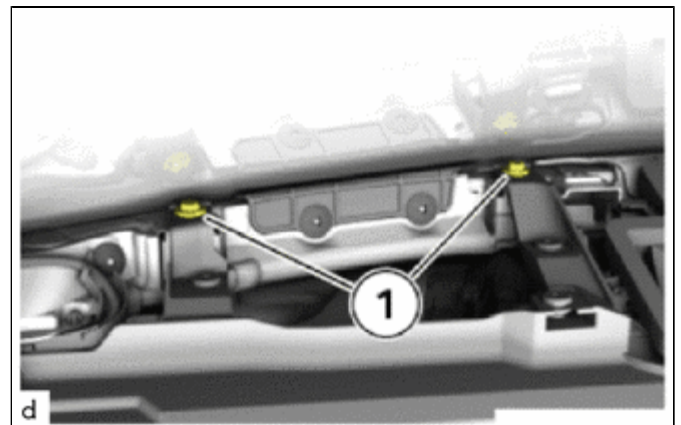
Torque:

21 N·m {214 kgf·cm, 15 ft·lbf}

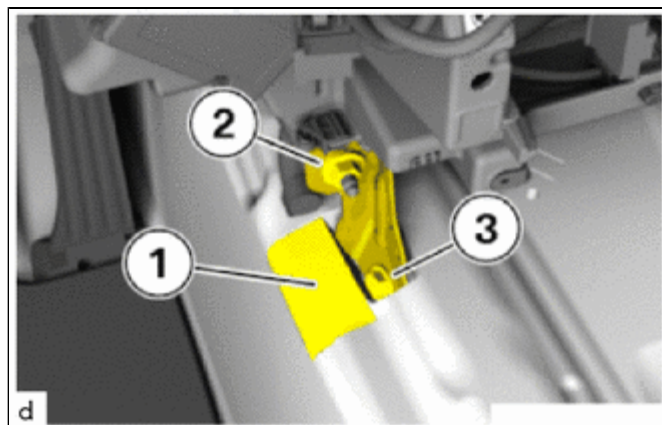
(g) Tighten bolts (1).

Torque:

21 N·m {214 kgf·cm, 15 ft·lbf}



(h) Place the carpet (1) in the marked area to the side and install the No. 1 instrument panel bracket.



(i) Tighten bolt (3).

Torque:

21 N·m {214 kgf·cm, 15 ft·lbf}

(j) Tighten nut (2).

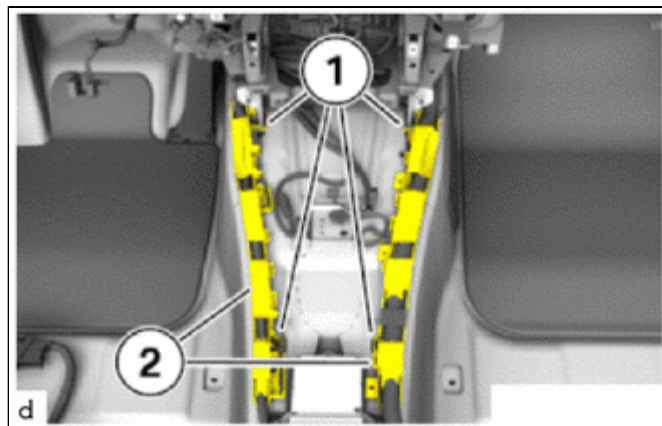
Torque:

21 N·m {214 kgf·cm, 15 ft·lbf}

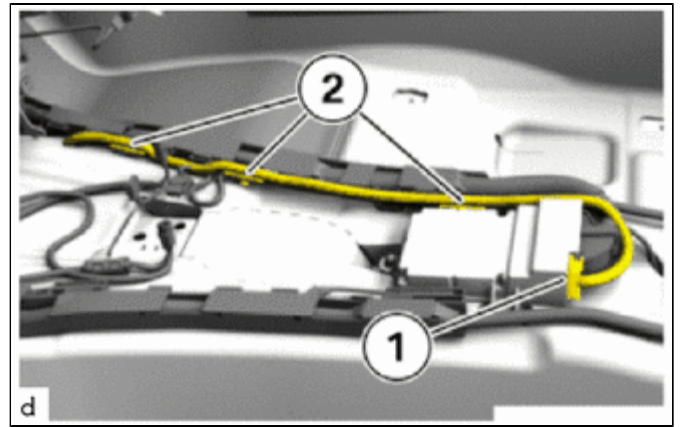
HINT:

- The right-hand side component is shown. The procedure on the right is identical.
- Carry out the work steps on the left and right side.

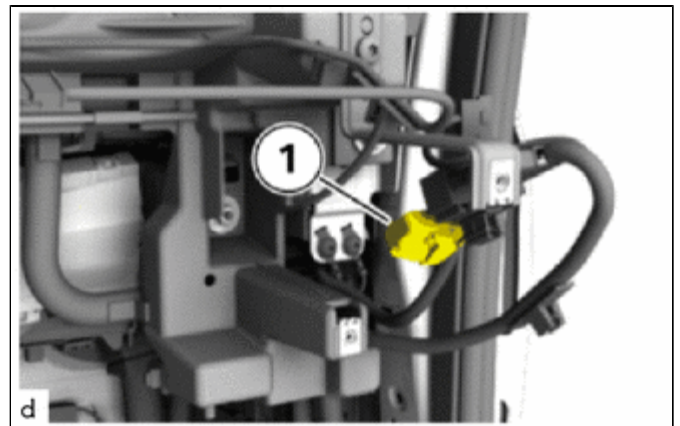
(k) Install the cable ducts (2) and engage the claws (1).



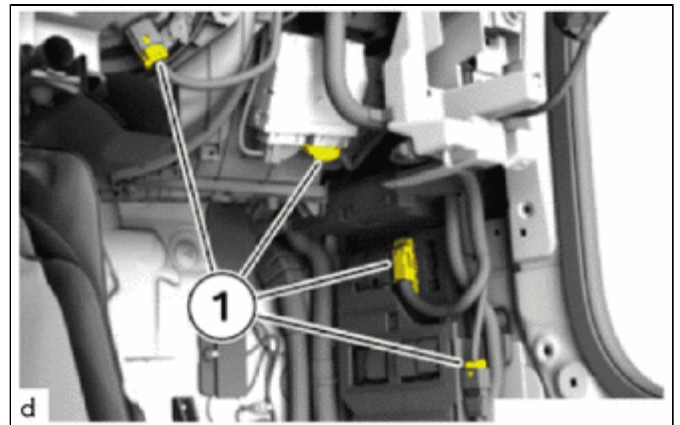
(l) Connect the cable harness and engage the clamps (2).



(m) Connect the connector (1).

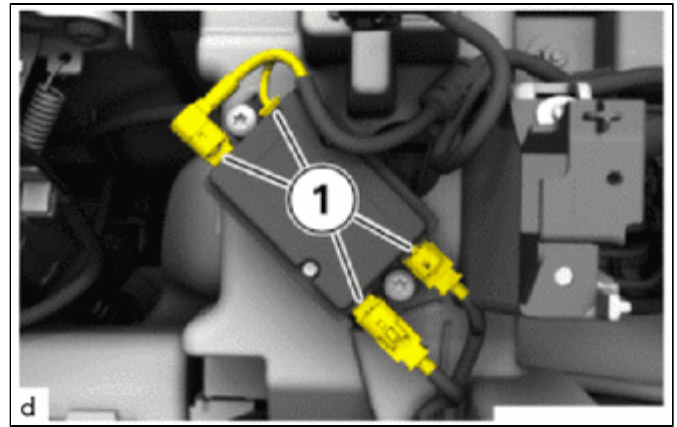


(n) Connect the connector (1).



(o) Connect the connectors (1).

(p) Connect the connectors (1).



4. CONNECT STEERING COLUMN ASSEMBLY

Click here [INFO](#)

5. INSTALL METER MIRROR SUB-ASSEMBLY

Click here [INFO](#)

6. INSTALL NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL

Click here [INFO](#)

7. INSTALL RADIO RECEIVER ASSEMBLY (w/o Navigation System)

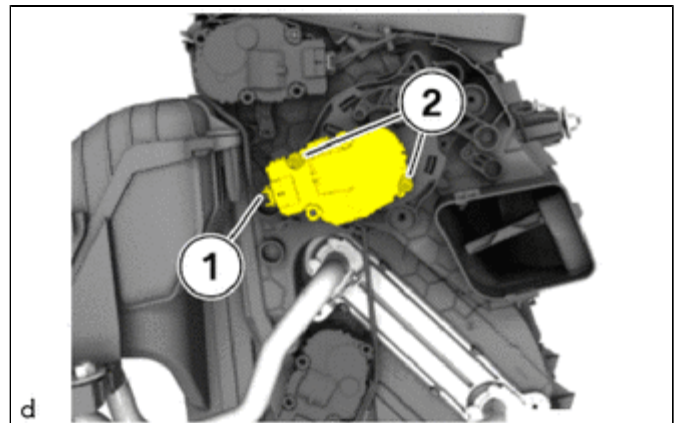
Click here [INFO](#)

8. INSTALL RADIO RECEIVER ASSEMBLY (w/ Navigation System)

Click here [INFO](#)

9. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M21b)

(a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M21b).



(b) Tighten T20 screws (2).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

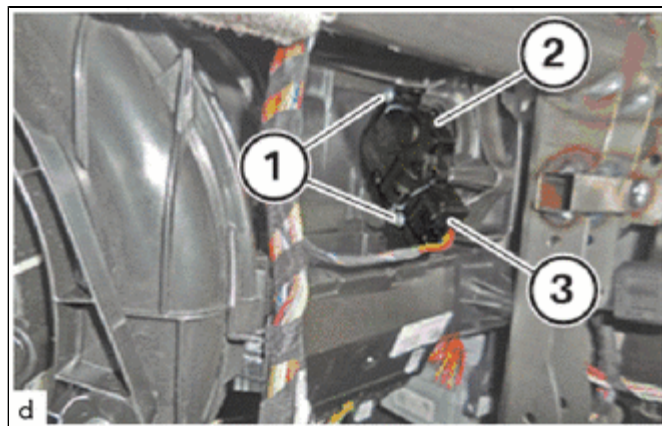
(c) Connect the connector (1).

10. INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY

Click here [INFO](#)

11. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M16)

- (a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M16) (2).



- (b) Tighten T20 screws (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

- (c) Connect the connector (3).

12. INSTALL GLOVE COMPARTMENT DOOR ASSEMBLY

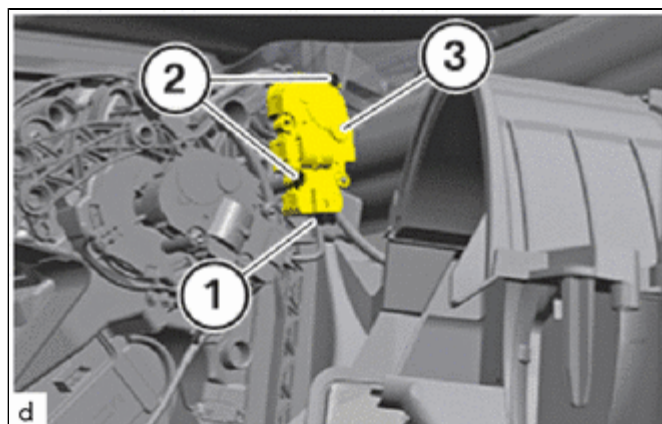
Click here [INFO](#)

13. INSTALL NO. 1 INSTRUMENT PANEL GARNISH SUB-ASSEMBLY

Click here [INFO](#)

14. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M61)

- (a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M61) (3).



- (b) Tighten T20 screws (2).

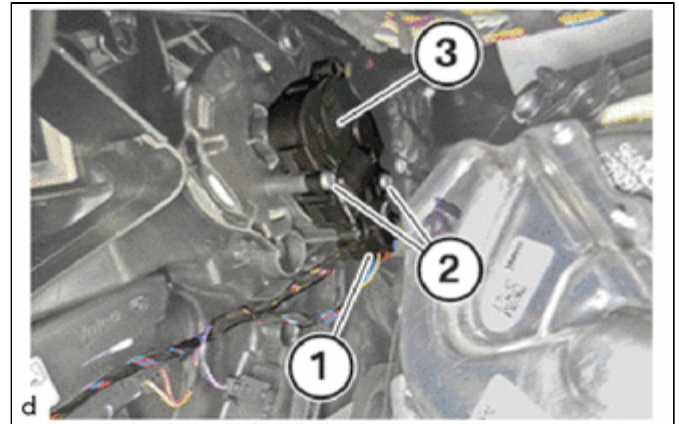
Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(c) Connect the connector (1).

15. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M7a)

(a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M7a) (3).



(b) Tighten T20 screws (2).

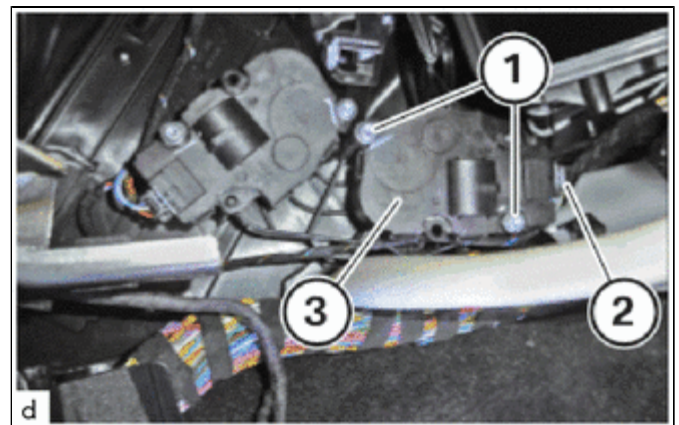
Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(c) Connect the connector (1).

16. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M69)

(a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M69) (3).



(b) Tighten T20 screws (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

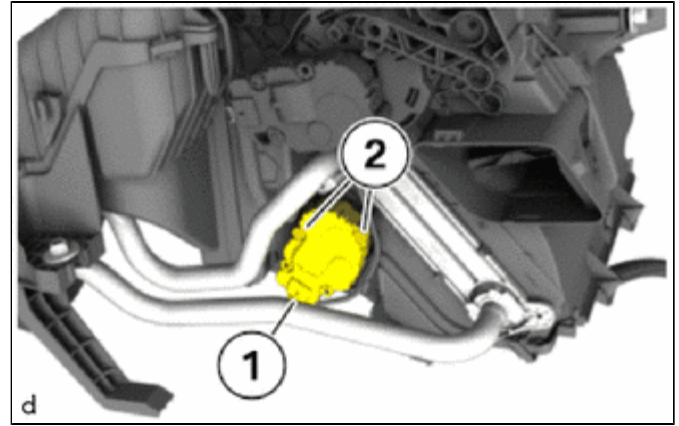
(c) Connect the connector (2).

17. INSTALL BLOWER WITH FAN MOTOR SUB-ASSEMBLY

Click here [INFO](#)

18. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M23a)

- (a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M23a).



- (b) Tighten T20 screws (2).

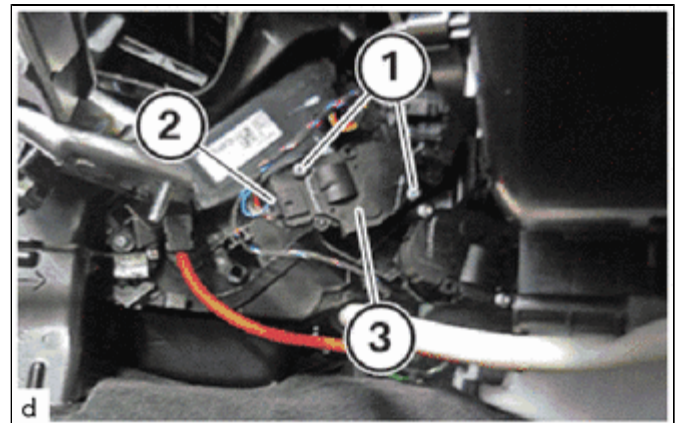
Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

- (c) Connect the connector (1).

19. INSTALL NO. 1 AIR CONDITIONING RADIATOR DAMPER SERVO SUB-ASSEMBLY (M83a)

- (a) Install the No. 1 air conditioning radiator damper servo sub-assembly (M83a) (3).



- (b) Tighten T20 screws (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

- (c) Connect the connector (2).

20. INSTALL NO. 1 AIR DUCT

- (a) Install No. 1 air duct.
(b) Tighten screw.

Torque:

2.8 N·m {29 kgf·cm, 25 in·lbf}

21. INSTALL NO. 2 AIR DUCT

- (a) Install No. 2 air duct.
(b) Tighten screw.

Torque:

2.8 N·m {29 kgf·cm, 25 in·lbf}

22. INSTALL LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY

Click here [INFO](#)

23. INSTALL LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w / Passenger Side Knee Airbag)

Click here [INFO](#)

24. INSTALL NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

25. INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

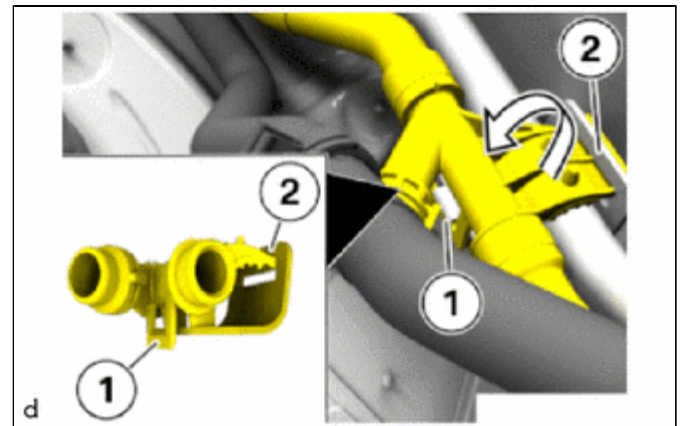
26. CONNECT AIR CONDITIONER TUBE ASSEMBLY

- (a) Replace O-rings.
- (b) Install the air conditioner tube assembly on the cooler expansion valve.
- (c) Tighten nut.

Torque:

13 N·m {133 kgf·cm, 10 ft·lbf}

- (d) Thread the heater water hose into the receptacle of the air conditioner tube assembly (2) in the direction of the arrow.

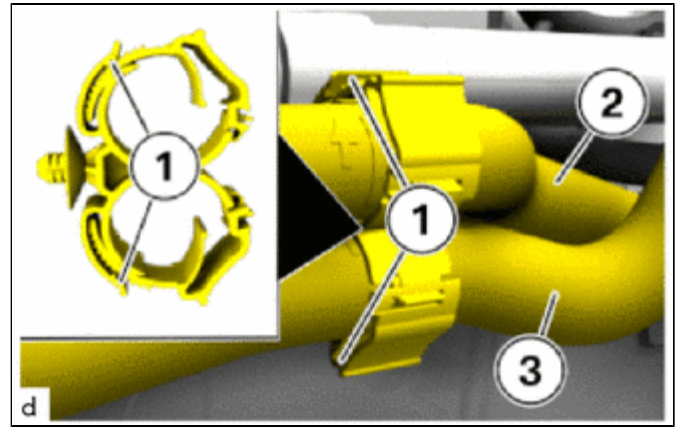


- (e) Engage the catch (1).

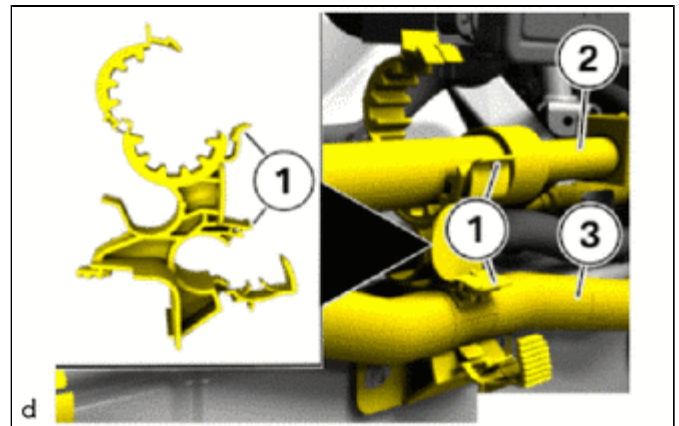
- (f) Connect the heater water hose (2) and (3) in the holder with the catches (1).

HINT:

Check holder with catches (1) for damage, replace if necessary.

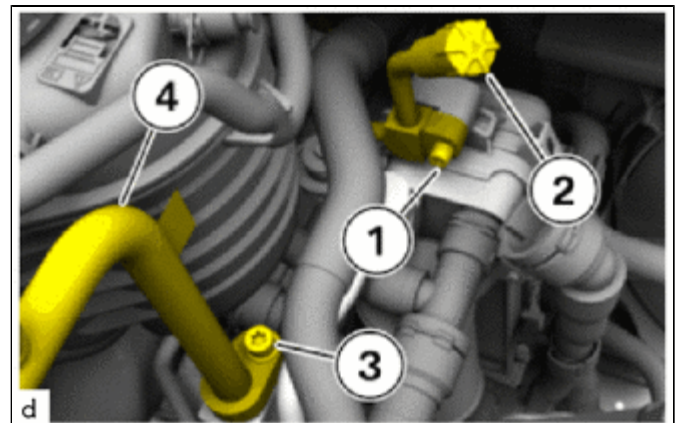


(g) Engage the notches (1).



(h) Install the air conditioner tube assembly (2) and the heater water hose (3) in the holder.

(i) Engage the notches (1).



(j) Replace O-rings.

(k) Install the suction pipe sub-assembly (4) and tighten the T45 bolt (3).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(l) Install the air conditioner tube assembly (2) and tighten the T30 bolt (1).

Torque:

13 N·m {133 kgf·cm, 10 ft·lbf}

27. INSTALL RADIATOR RESERVE TANK ASSEMBLY

Click here [INFO](#)

28. INSTALL ENGINE ROOM ECM BOX

Click here [INFO](#)

29. INSTALL NO. 1 INTEGRATION RELAY

Click here [INFO](#)

30. INSTALL ECM

Click here [INFO](#)

31. INSTALL UPPER CENTER FRONT SUSPENSION BRACE

Click here [INFO](#)

32. ADD ENGINE COOLANT

Click here [INFO](#)

33. CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT

Click here [INFO](#)

34. CHECK WIPER AND WASHER SYSTEM

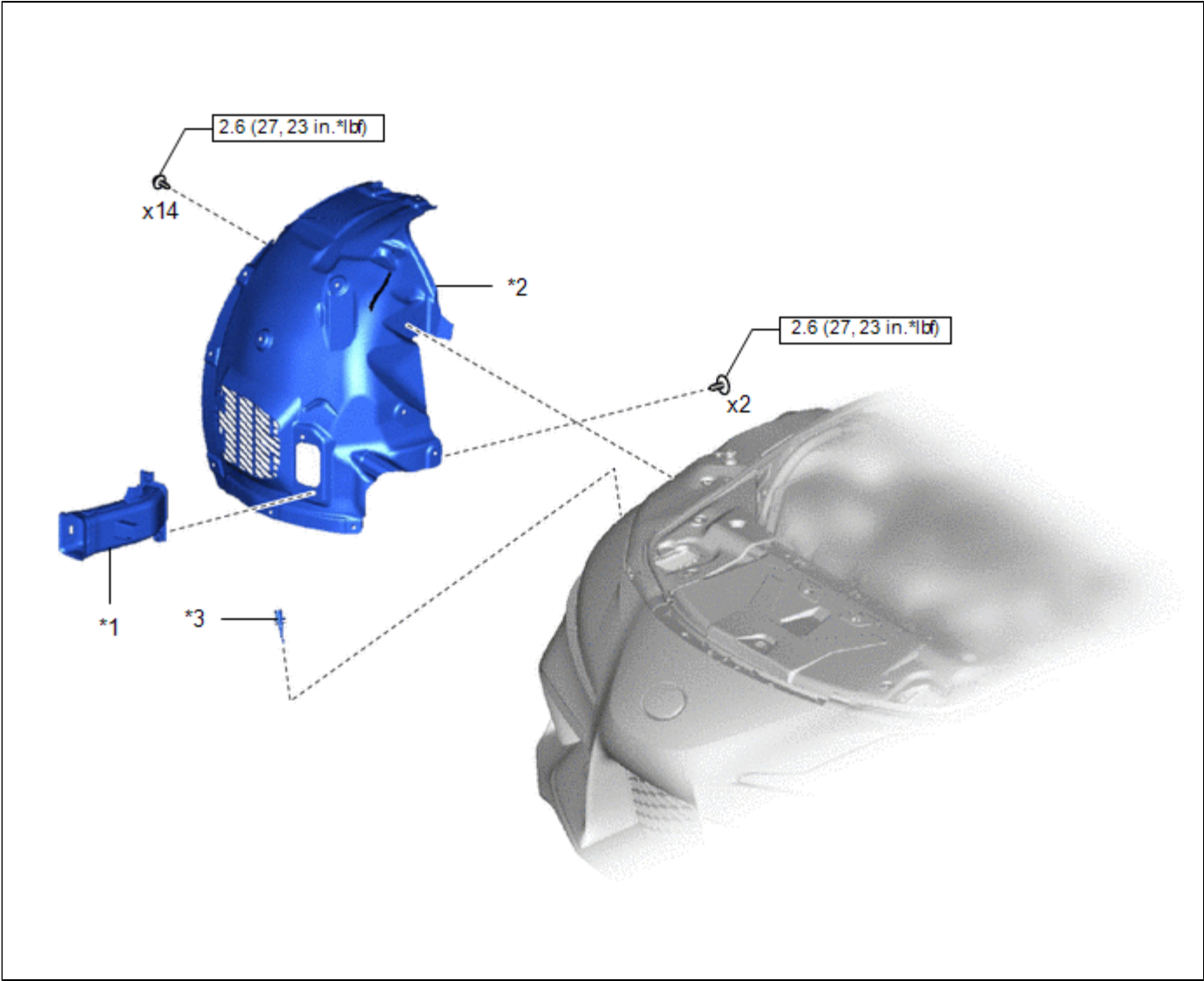
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBV
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AMBIENT TEMPERATURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	AIR INTAKE DUCT RH	*2	FRONT FENDER LINER RH
*3	TEMPERATURE SENSOR ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBW
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AMBIENT TEMPERATURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT WHEEL RH

Click here [INFO](#)

2. REMOVE FRONT FENDER LINER RH

HINT:

Use the same procedure as for the LH side.

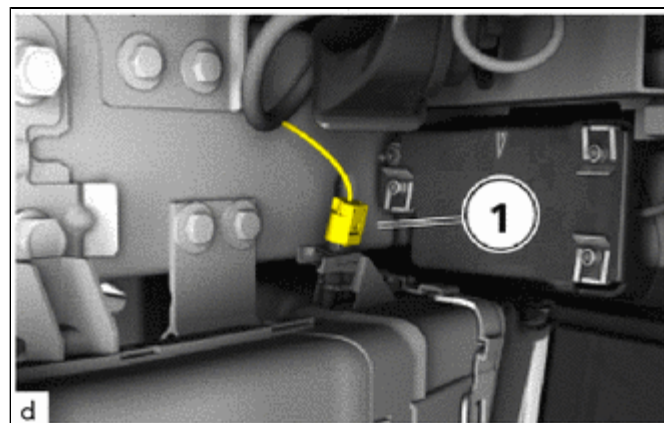
Click here [INFO](#)

3. REMOVE AIR INTAKE DUCT RH

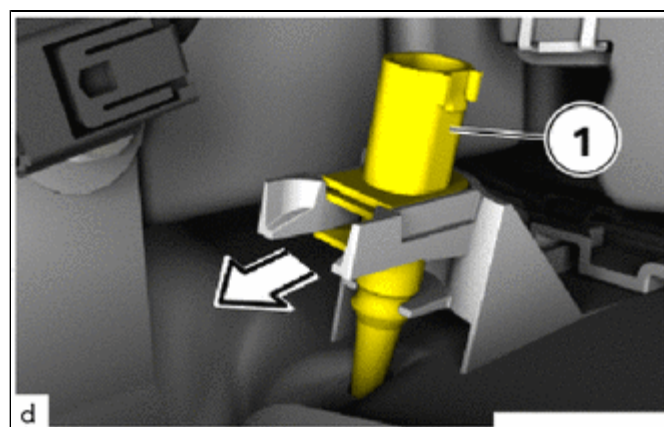
Click here [INFO](#)

4. REMOVE TEMPERATURE SENSOR ASSEMBLY

(a) Disconnect the connector (1).



(b) Disengage temperature sensor assembly (1) in the direction of the arrow and remove upwards.





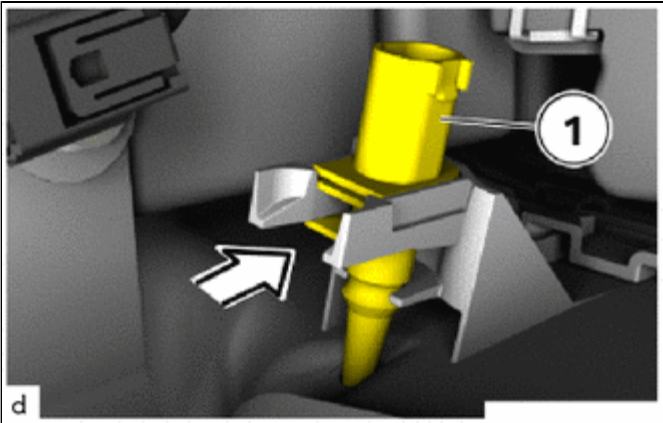
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: AMBIENT TEMPERATURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL TEMPERATURE SENSOR ASSEMBLY

- (a) Install temperature sensor assembly (1) into the bore from above and engage in the direction of the arrow.



- (b) Connect the connector.

2. INSTALL AIR INTAKE DUCT RH

Click here [INFO](#)

3. INSTALL FRONT FENDER LINER RH

HINT:

Use the same procedurure as for the LH side.

Click here [INFO](#)

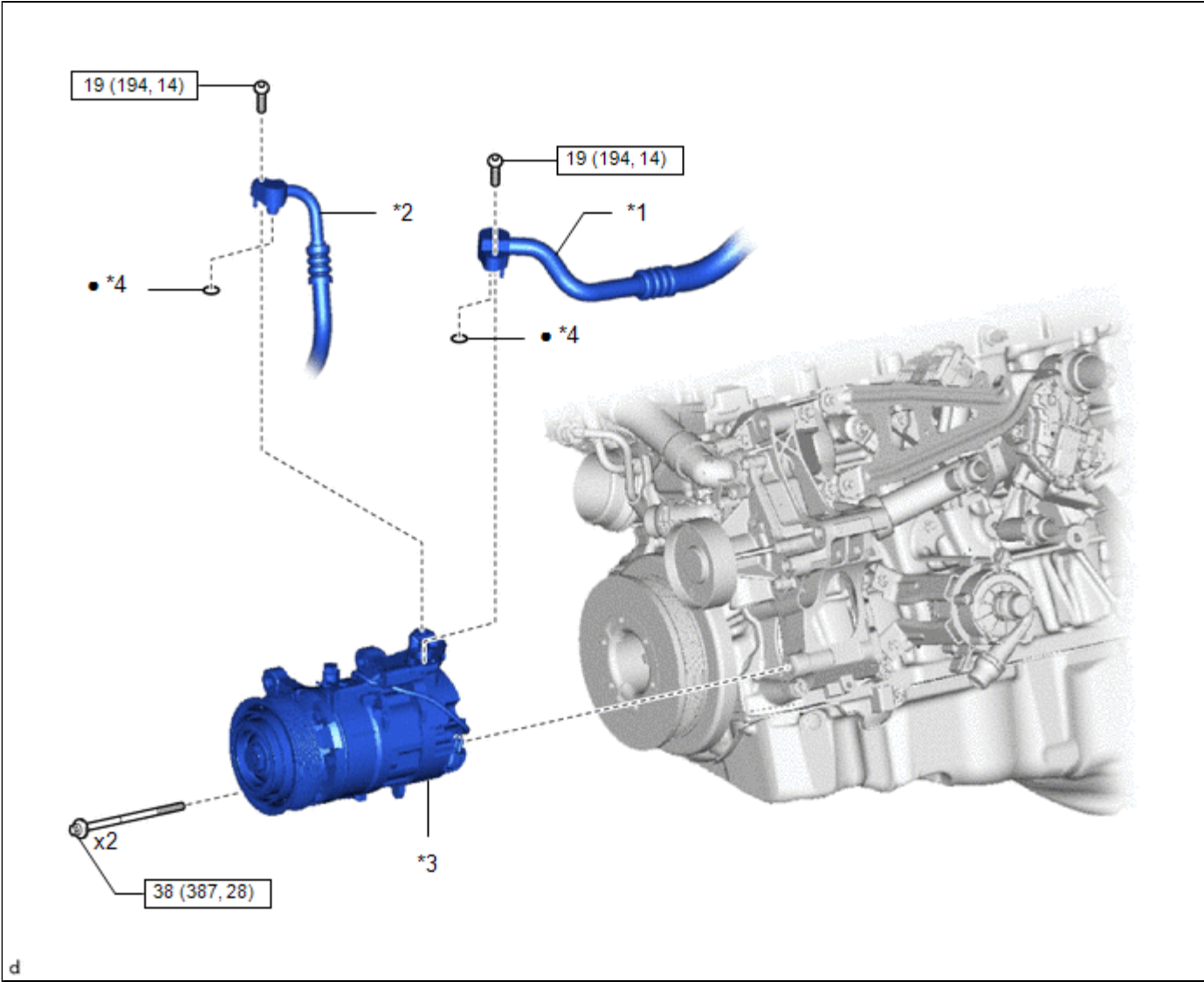
4. INSTALL FRONT WHEEL RH

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: COMPRESSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	SUCTION PIPE SUB-ASSEMBLY	*2	DISCHARGE TUBE G
*3	COMPRESSOR WITH PULLEY ASSEMBLY	*4	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: RM100000001JCBN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: COMPRESSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits. Risk of fire.

- Detach battery earth lead from battery.

- Refrigerant circuit under high pressure.

Danger of injury.

- Note and follow safety information on containers.
- Avoid contact with refrigerant; wear safety goggles and protective gloves.
- For more information see:

- Handling refrigerant:

Click here [INFO](#)

- Notes on repair work on air conditioning:

Click here [INFO](#)

NOTICE:

- External damage to compressor with pulley assembly.

Excessive force applied during removal will result in damage to the compressor with pulley assembly.

- Remove the compressor with pulley assembly without damaging it and without applying external force.
- Avoid impacts/knocks to plastic belt pulley (caused by tools, contact with base).

HINT:

- If mechanical failure of the compressor with pulley assembly occurs resulting in chips entering the refrigerant circuit, replace the following parts: compressor with pulley assembly, cooler condenser assembly with desiccant insert, line to cooler condenser assembly and compressor oil.
- 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 minutes. This protects the components. In this case, replacing the electric fan will not remedy the problem.

PROCEDURE

1. RECOVER REFRIGERANT FROM REFRIGERATION SYSTEM

Click here [INFO](#)

2. REMOVE FAN WITH MOTOR ASSEMBLY

Click here [INFO](#)

3. REMOVE GENERATOR ASSEMBLY

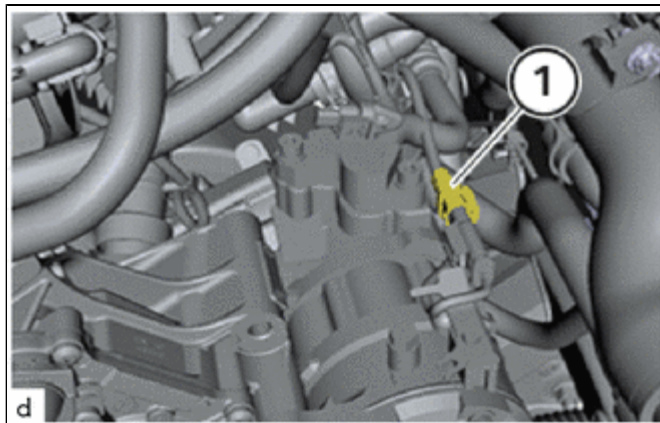
Click here [INFO](#)

4. REMOVE COMPRESSOR WITH PULLEY ASSEMBLY

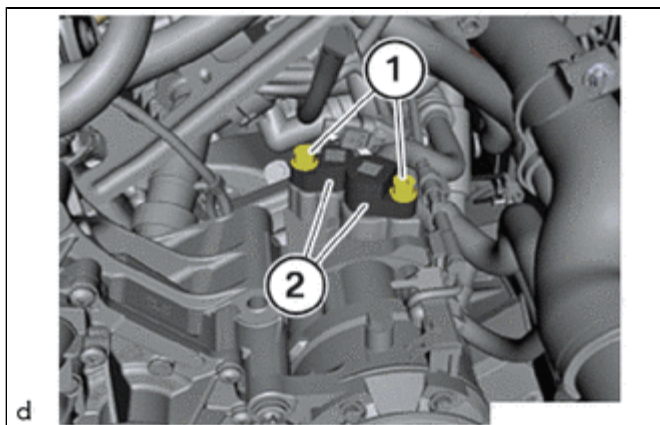
CAUTION:

- Danger of injury.
 - Wear safety goggles and protective gloves when disconnecting the refrigerant line.
 - Seal refrigerant lines with seal plugs.

(a) Disconnect the connector (1).



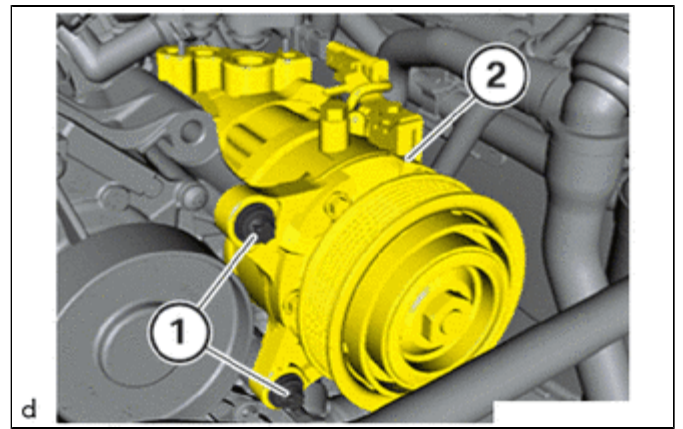
(b) Remove T45 bolt (1) to disconnect the suction pipe sub-assembly (2).



(c) Remove T45 bolt (1) to disconnect the discharge tube G (2).

(d) Remove the O-rings.

(e) Remove E12 bolts (1).



(f) Feed out and remove the compressor with pulley assembly (2).

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: COMPRESSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. ADJUST COMPRESSOR OIL (for Type A)

NOTICE:

- A new compressor with pulley assembly is filled with compressor oil at the factory. The amount of compressor oil in a new compressor with pulley assembly corresponds to the amount of compressor oil for the entire new and unfilled refrigerant circuit.
- When the compressor with pulley assembly is replaced, it is essential to adapt the amount of compressor oil.

HINT:

- The following procedure only applies when a new compressor with pulley assembly has a label with the amount of compressor oil.
- The compressor oil amount specification is located on the label on the compressor with pulley assembly.
- The position of the label can vary depending on the compressor with pulley assembly.
- The compressor oil specification on the label is in g, ml or cc. The cc are specified throughout these repair instructions for adjusting the amount of compressor oil, as g and ml closely correspond to cc.

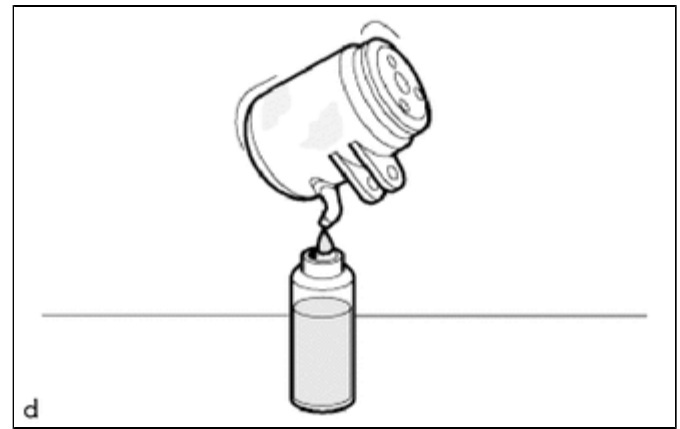
(a) Step 1

- (1) Read and record amount of compressor oil specified on the previous compressor with pulley assembly.
- (2) If no label is present, continue with step 3, case 1.
- (3) Read and record amount of compressor oil specified on a new compressor with pulley assembly.
- (4) Compare both amounts of compressor oil with each other.
- (5) Amount of compressor oil specified on the previous and a new compressor with pulley assembly is same. In this case, continue with step 3, case 1.
- (6) Amount of compressor oil specified on the previous and a new compressor with pulley assembly is not the same.
 - Amount of compressor oil specified on the previous compressor with pulley assembly is higher than on a new compressor with pulley assembly. Difference is not taken into account. In this case, continue with step 3, case 1.
 - Amount of compressor oil specified on the previous compressor with pulley assembly is lower than on a new compressor with pulley assembly: Generate and record the difference between both amounts of compressor oil. Then, continue with step 3, case 2.
- (7) Example:
 - Amount of compressor oil specified on the previous compressor with pulley assembly 110 g (3.88 oz).
 - Amount of compressor oil specified on a new compressor with pulley assembly 150 g (5.29 oz).
 - $150 \text{ g (5.29 oz)} - 110 \text{ g (3.88 oz)} = 40 \text{ g (1.41 oz)}$ approximately 40 cc (1.35 fl.oz).
 - Record the difference 40 cc (1.35 fl.oz).

(b) Step 2

- (1) Open the oil filler plug.

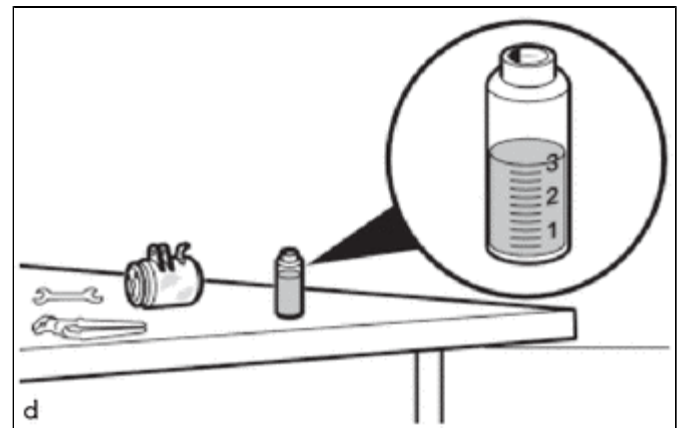
- (2) Transfer all of the compressor oil remaining in the previous compressor with pulley assembly into a measuring cup via the oil filler plug.



- (3) Turn the belt pulley during draining.

(c) Step 3

- (1) Read the drained amount of compressor oil from the previous compressor with pulley assembly on the measuring cup.



(2) Case 1:

- Add 10 cc (0.338 fl.oz) extra to the amount of compressor oil read as a precautionary allowance.
- Record at least but a total of 50 cc (1.69 fl.oz).

(3) Example:

- 20 cc (0.676 fl.oz) read at measuring cup.
- 20 cc (0.676 fl.oz) + 10 cc (0.338 fl.oz) precautionary allowance = 30 cc (1.01 fl.oz) (below 50 cc (1.69 fl.oz)).
- Amount of compressor oil determined for a new compressor with pulley assembly = 50 cc (1.69 fl.oz).

(4) Case 2:

- Add 10 cc (0.338 fl.oz) extra to the amount of compressor oil read as a precautionary allowance.
- To this add the difference.
- Record at least but a total of 50 cc (1.69 fl.oz).

(5) Example:

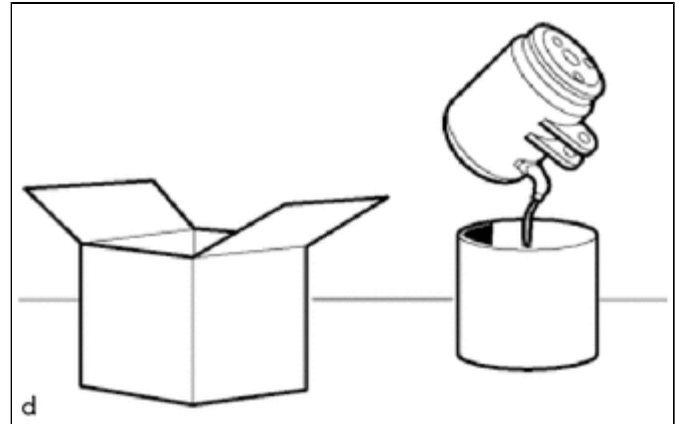
- Difference = 40 cc (1.35 fl.oz).
- 20 cc (0.676 fl.oz) read at measuring cup.
- 20 cc (0.676 fl.oz) + 10 cc (0.338 fl.oz) precautionary allowance = 30 cc (1.01 fl.oz).
- 30 cc (1.01 fl.oz) + 40 cc (1.35 fl.oz) difference = 70 cc (2.37 fl.oz) (above 50 cc (1.69 fl.oz)).

- Amount of compressor oil determined for a new compressor with pulley assembly = 70 cc (2.37 fl.oz).

(d) Step 4

- (1) Open the oil filler plug.

- (2) Drain the following amount of compressor oil from a new compressor with pulley assembly into a clean measuring cup.



- (3) Amount of compressor oil to be drained from a new compressor with pulley assembly = amount of compressor oil on the label for a new compressor with pulley assembly - amount of compressor oil determined for a new compressor with pulley assembly.

- (4) Example:

- Amount on a new compressor with pulley assembly compressor oil label: 150 cc (5.07 fl.oz).
- Amount of compressor oil determined for a new compressor with pulley assembly: 50 cc (1.69 fl.oz).
- Amount of compressor oil to be drained = 150 cc (5.07 fl.oz) - 50 cc (1.69 fl.oz) = 100 cc (3.38 fl.oz).
- 100 cc (3.38 fl.oz) must be drained from a new compressor with pulley assembly.

- (5) Replace the sealing ring.

- (6) Tighten oil filler plug.

Torque:

30 N·m {306 kgf·cm, 22 ft·lbf}

- (7) Immediately after draining, the remaining compressor oil must be filled into the refrigerant recovery unit expansion tank.
- (8) The remaining compressor oil must be disposed of correctly if it is not immediately filled into the expansion tank of the refrigerant recovery unit.
- (9) Compressor oil drained from the previous compressor with pulley assembly must not be reused and must be disposed of correctly.

2. ADJUST COMPRESSOR OIL (for Type B)

NOTICE:

- A new compressor with pulley assembly is filled with compressor oil at the factory. The amount of compressor oil in a new compressor with pulley assembly corresponds to the amount of compressor oil for the entire new and unfilled refrigerant circuit.
- When the compressor with pulley assembly is replaced, it is essential to adapt the amount of compressor oil.

HINT:

The following procedure only applies if a new compressor with pulley assembly has a label indicating the amount of compressor oil.

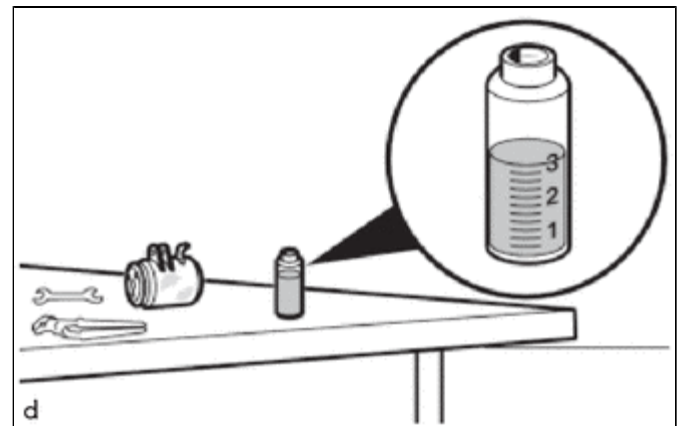
- (a) Open the oil filler plug.

- (b) Transfer all of the compressor oil remaining in the previous compressor with pulley assembly into a measuring cup via the oil filler plug.



- (c) Turn the belt pulley during draining.

- (d) Read the drained amount of compressor oil from the previous compressor with pulley assembly on the measuring cup.



- (e) Add 10 cc (0.338 fl.oz) extra to the recorded amount of compressor oil as a precautionary allowance, but record at least a total of 50 cc (1.69 fl.oz).

- (f) Example:

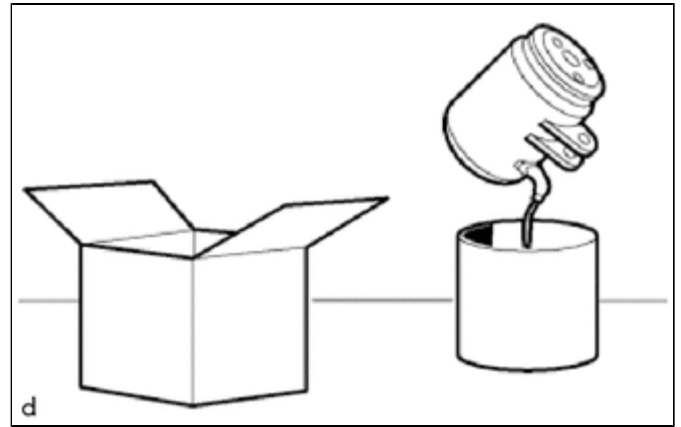
(1) 20 cc (0.676 fl.oz) read at measuring cup.

(2) 20 cc (0.676 fl.oz) + 10 cc (0.338 fl.oz) precautionary allowance = 30 cc (1.01 fl.oz) (below 50 cc (1.69 fl.oz)).

(3) Amount of compressor oil to be filled in a new compressor with pulley assembly = 50 cc (1.69 fl.oz).

- (g) Open the oil filler plug.

- (h) Drain the entire compressor oil from a new compressor with pulley assembly into a clean collecting vessel.



- (i) Turn the belt pulley during draining.
- (j) Immediately fill the amount of compressor oil to be filled from the collecting vessel into a clean measuring cup.
- (k) Fill the amount of compressor oil to be filled from the measuring cup into a new compressor with pulley assembly.
- (l) Renew the sealing ring.
- (m) Tighten oil filler plug.

Torque:

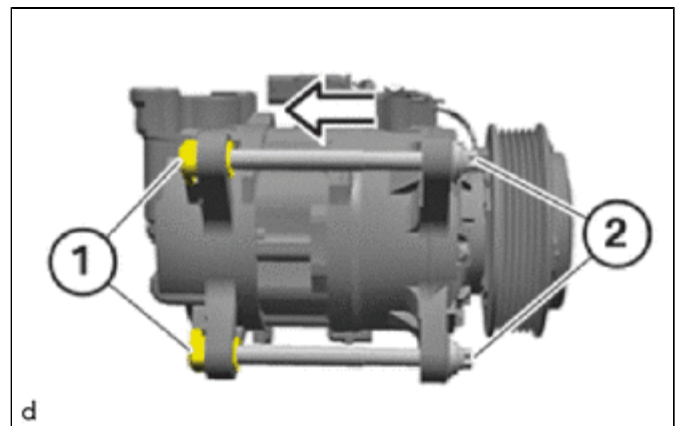
30 N·m {306 kgf·cm, 22 ft·lbf}

- (n) Immediately after draining, the remaining compressor oil must be filled into the refrigerant recovery unit expansion tank.
- (o) The remaining compressor oil must be disposed of correctly if it is not immediately filled into the expansion tank of the refrigerant recovery unit.
- (p) Compressor oil drained from the previous compressor with pulley assembly must not be reused and must be disposed of correctly.

3. INSTALL COMPRESSOR WITH PULLEY ASSEMBLY

- (a) Prepare for the installation of the compressor with pulley assembly.

- (1) Install the E12 bolts (2) into the threaded support sleeve (1).

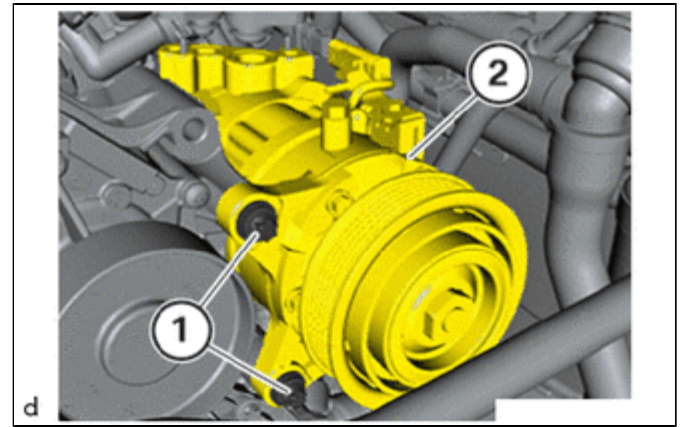


- (2) Slightly press back the threaded support sleeve (1) in the direction of the arrow with the E12 bolts (2).
- (3) Remove the E12 bolts (2) from the threaded support sleeve (1) again.

(b) Install the compressor with pulley assembly (2) with the E12 bolts (1).

Torque:

38 N·m {387 kgf·cm, 28 ft·lbf}

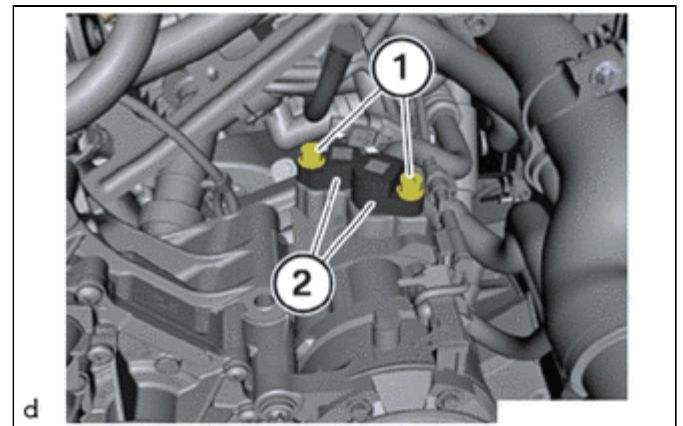


(c) Replace O-rings.

(d) Install the suction pipe sub-assembly (2) with the T45 bolt (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}



(e) Install the discharge tube G (2) with the T45 bolt (1).

Torque:

19 N·m {194 kgf·cm, 14 ft·lbf}

(f) Connect the connector.

4. INSTALL GENERATOR ASSEMBLY

Click here [INFO](#)

5. INSTALL FAN WITH MOTOR ASSEMBLY

Click here [INFO](#)

6. CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT

Click here [INFO](#)

7. WARM UP COMPRESSOR

NOTICE:

- Mechanical damage to a new compressor with pulley assembly.

An increased quantity of compressor oil in a new compressor with pulley assembly can cause mechanical damage.

- Perform the running-in procedure.
- Do not exceed the idle speed during running-in.

HINT:

The running-in procedure for a new compressor with pulley assembly can either be performed manually or using the diagnosis system.

(a) Manual:

- (1) Switch off the air conditioning.
- (2) Set all ventilation outlets in the instrument panel to "OPEN".
- (3) Start the engine and allow the idle speed to stabilize.
- (4) Set the blower output to a minimum of 75% of the maximum blower output.
- (5) Switch on the air conditioning and allow the engine to run at idle speed for a minimum of 2 minutes.
- (6) Switch off the air conditioning and blower.
- (7) Stop engine.

(b) Connect the diagnosis system to the vehicle and enter the following menus:

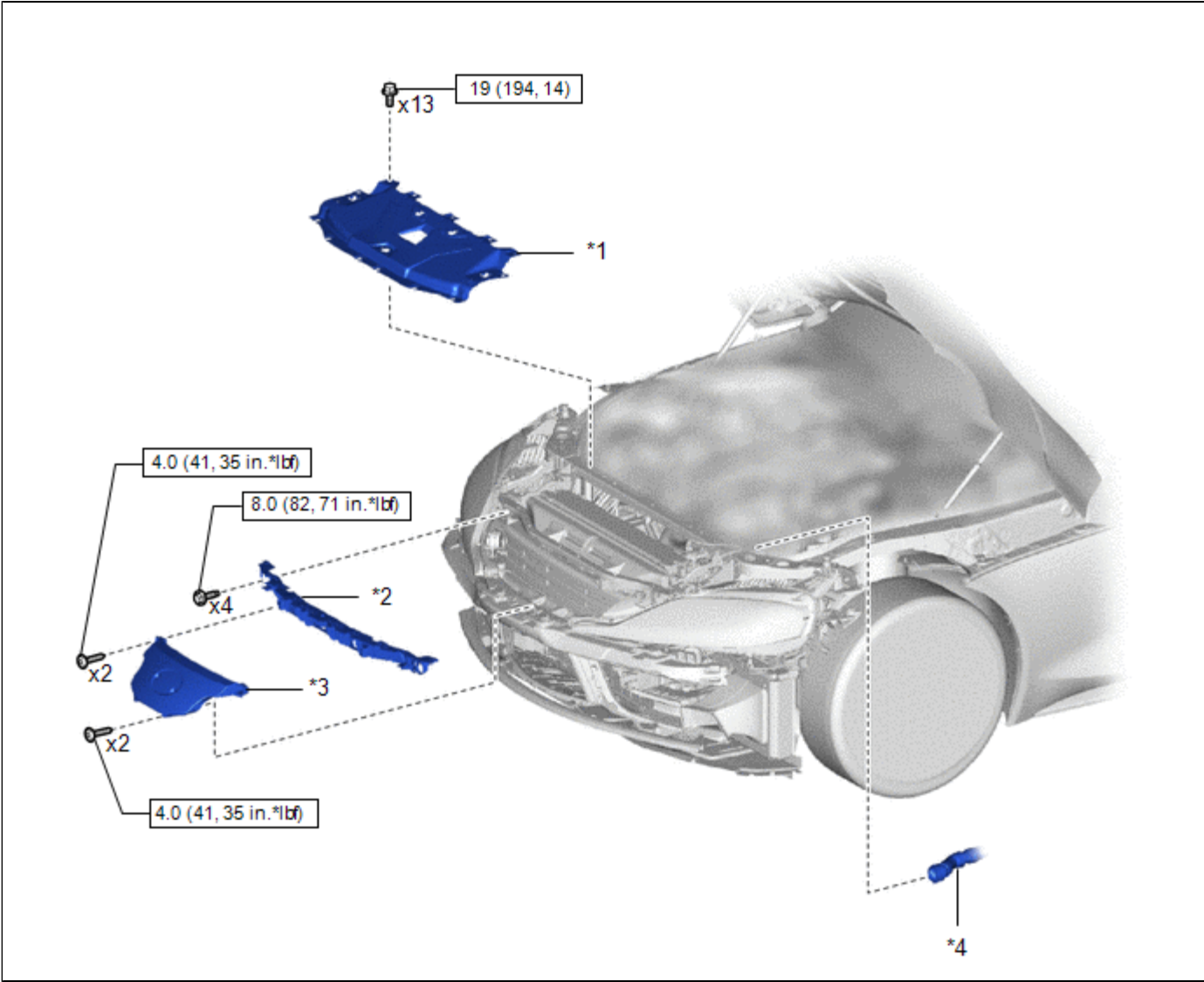
Vehicle management / Service functions / Body / Heating and air conditioning functions / Run-in protection for A/C compressor



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Title: HEATING / AIR CONDITIONING: CONDENSER: COMPONENTS; 2020 MY Supra [03/2019 -]		

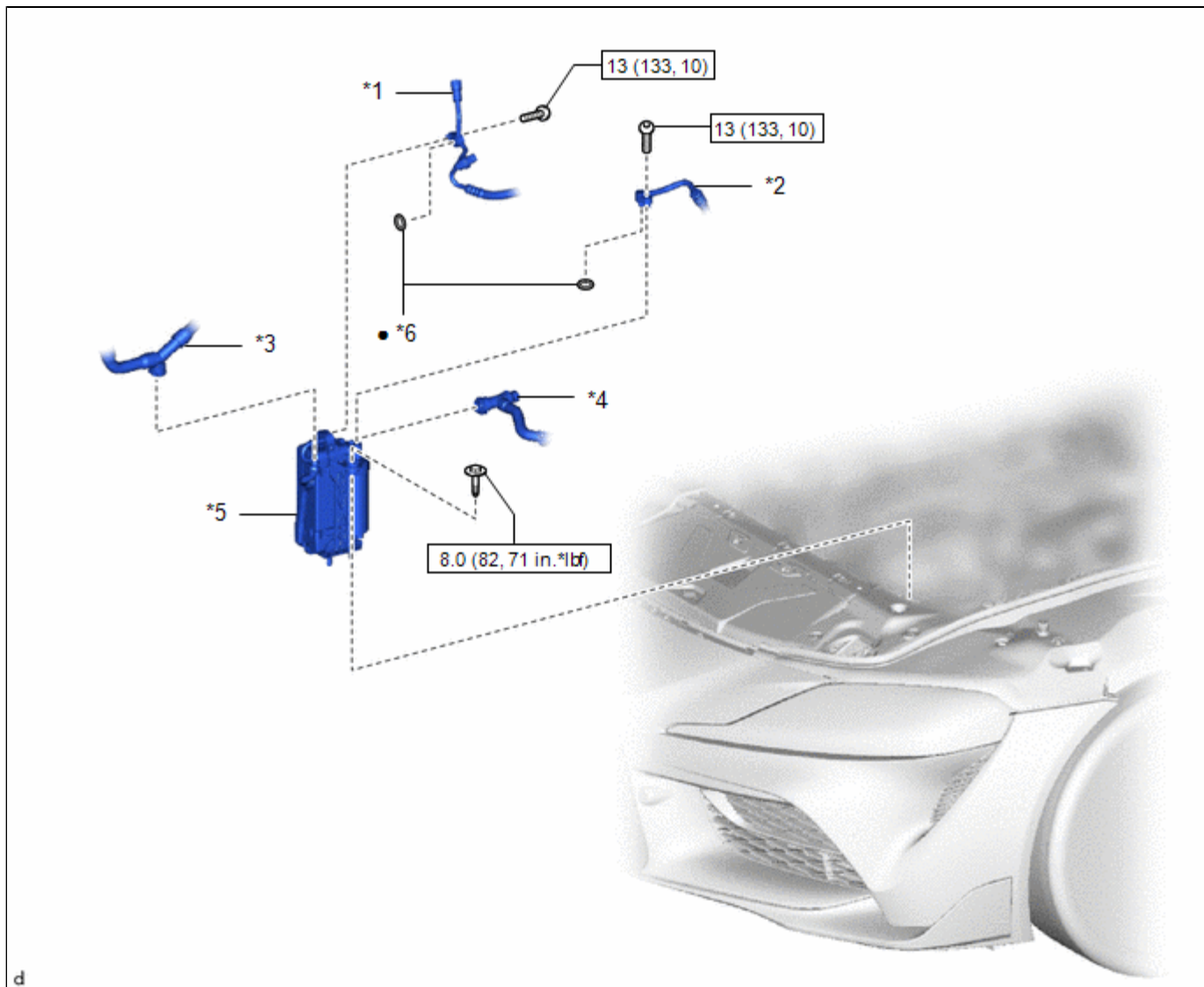
COMPONENTS

ILLUSTRATION



*1	RADIATOR UPPER AIR DEFLECTOR	*2	FRONT BUMPER UPPER RETAINER
*3	FRONT BUMPER INNER SUPPORT	*4	NO. 2 RADIATOR HOSE
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

ILLUSTRATION



d

*1	AIR CONDITIONER TUBE ASSEMBLY	*2	DISCHARGE TUBE G
*3	NO. 5 WATER BY-PASS HOSE	*4	NO. 6 WATER BY-PASS HOSE
*5	COOLER CONDENSER ASSEMBLY	*6	O-RING
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part



TOYOTA

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: CONDENSER: 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.

- Refrigerant circuit under high pressure.

Danger of injury.

- Note and follow safety information on containers.
- Avoid contact with refrigerant; wear safety goggles and protective gloves.
- For more information see:

- Handling refrigerant:

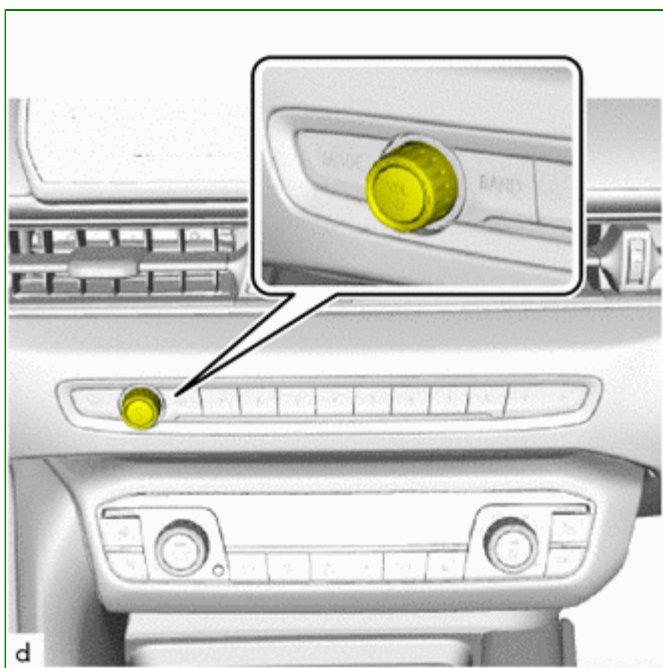
Click here [INFO](#)

- Notes on repair work on air conditioning:

Click here [INFO](#)

HINT:

- Check that the START-STOP button (engine switch) off.
 - Pressing and holding the AUDIO button changes the power source mode to IG OFF.



PROCEDURE

1. RECOVER REFRIGERANT FROM REFRIGERATION SYSTEM

Click here [INFO](#)

2. DRAIN ENGINE COOLANT (for Low Temperature)

Click here [INFO](#)

3. DRAIN ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

4. REMOVE RADIATOR RESERVE TANK ASSEMBLY

Click here [INFO](#)

5. REMOVE FRONT BUMPER ASSEMBLY

Click here [INFO](#)

6. REMOVE FRONT BUMPER INNER SUPPORT

Click here [INFO](#)

7. REMOVE FRONT BUMPER UPPER RETAINER

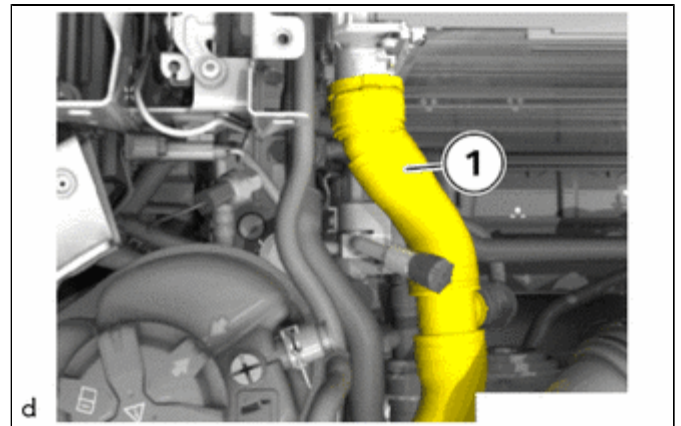
Click here [INFO](#)

8. REMOVE RADIATOR UPPER AIR DEFLECTOR

Click here [INFO](#)

9. SEPARATE NO. 2 RADIATOR HOSE

(a) Separate the No. 2 radiator hose (1) from the high temperature radiator assembly.



10. REMOVE COOLER CONDENSER ASSEMBLY

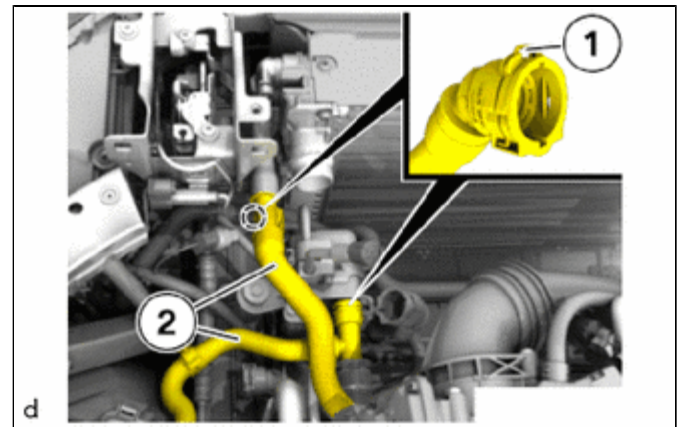
CAUTION:

- Danger of injury.
 - Wear safety goggles and protective gloves when disconnecting the refrigerant line. Seal refrigerant lines with seal plugs.

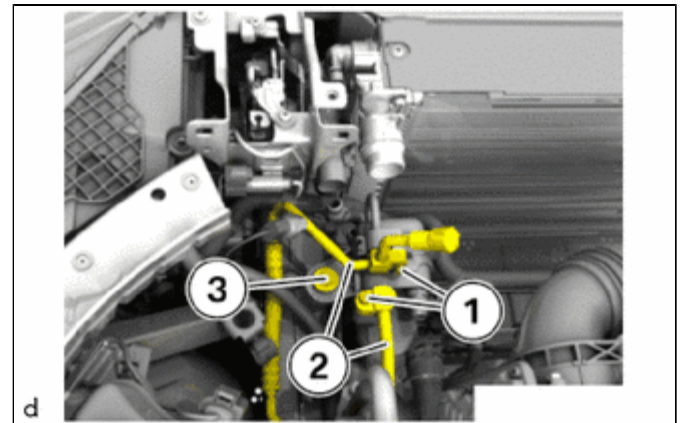
- (a) Disengage the lock springs (1) and disconnect No. 5 water by-pass hose (2) and No. 6 water by-pass hose (2) from the cooler condenser assembly.

NOTICE:

Catch and dispose of escaping coolant.



- (b) Remove T30 bolts (1) and T45 bolts (1).

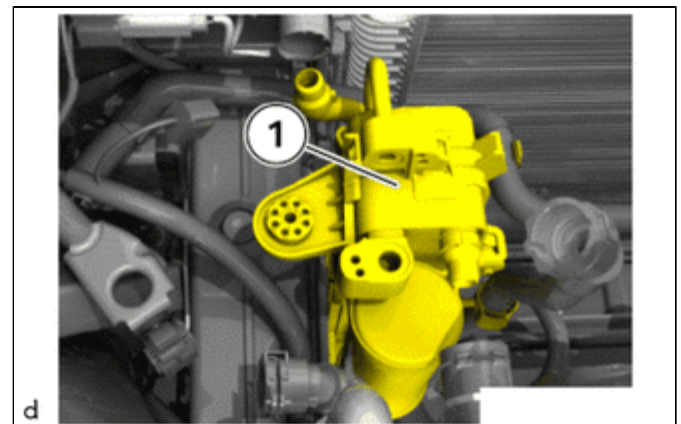


- (c) Disconnect air conditioner tube assembly (2) and discharge tube G (2) from the cooler condenser assembly.

- (d) Remove the O-rings.

- (e) Remove bolt (3).

- (f) Remove the cooler condenser assembly (1) together with the holder.



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Title: HEATING / AIR CONDITIONING: CONDENSER: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

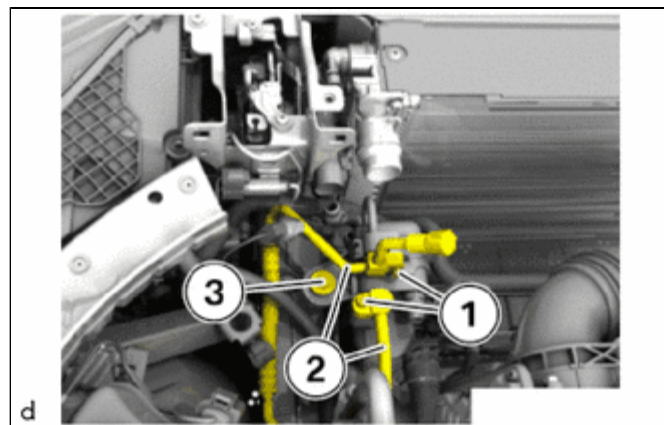
1. INSTALL COOLER CONDENSER ASSEMBLY

(a) Install the cooler condenser assembly together with the bracket.

(b) Tighten bolt (3).

Torque:

8.0 N·m {82 kgf·cm, 71 in·lbf}



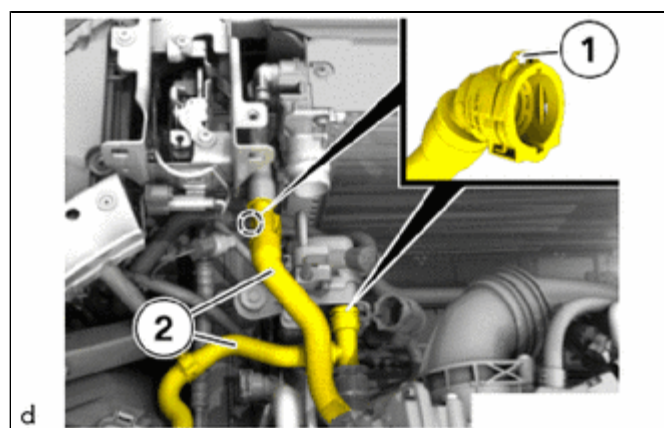
(c) Replace O-rings.

(d) Connect air conditioner tube assembly (2) and discharge tube G (2).

(e) Tighten T30 bolts (1) and T45 bolts (1).

Torque:

13 N·m {133 kgf·cm, 10 ft·lbf}



(f) Connect the No. 5 water by-pass hose (2) and No. 6 water by-pass hose (2).

(g) Lock springs (1) must engage audibly.

2. CONNECT NO. 2 RADIATOR HOSE

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

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 FRONT BUMPER ASSEMBLY

Click here [INFO](#)

7. INSTALL RADIATOR RESERVE TANK ASSEMBLY

Click here [INFO](#)

8. ADD ENGINE COOLANT (for Low Temperature)

Click here [INFO](#)

9. ADD ENGINE COOLANT (for High Temperature)

Click here [INFO](#)

10. CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT

Click here [INFO](#)

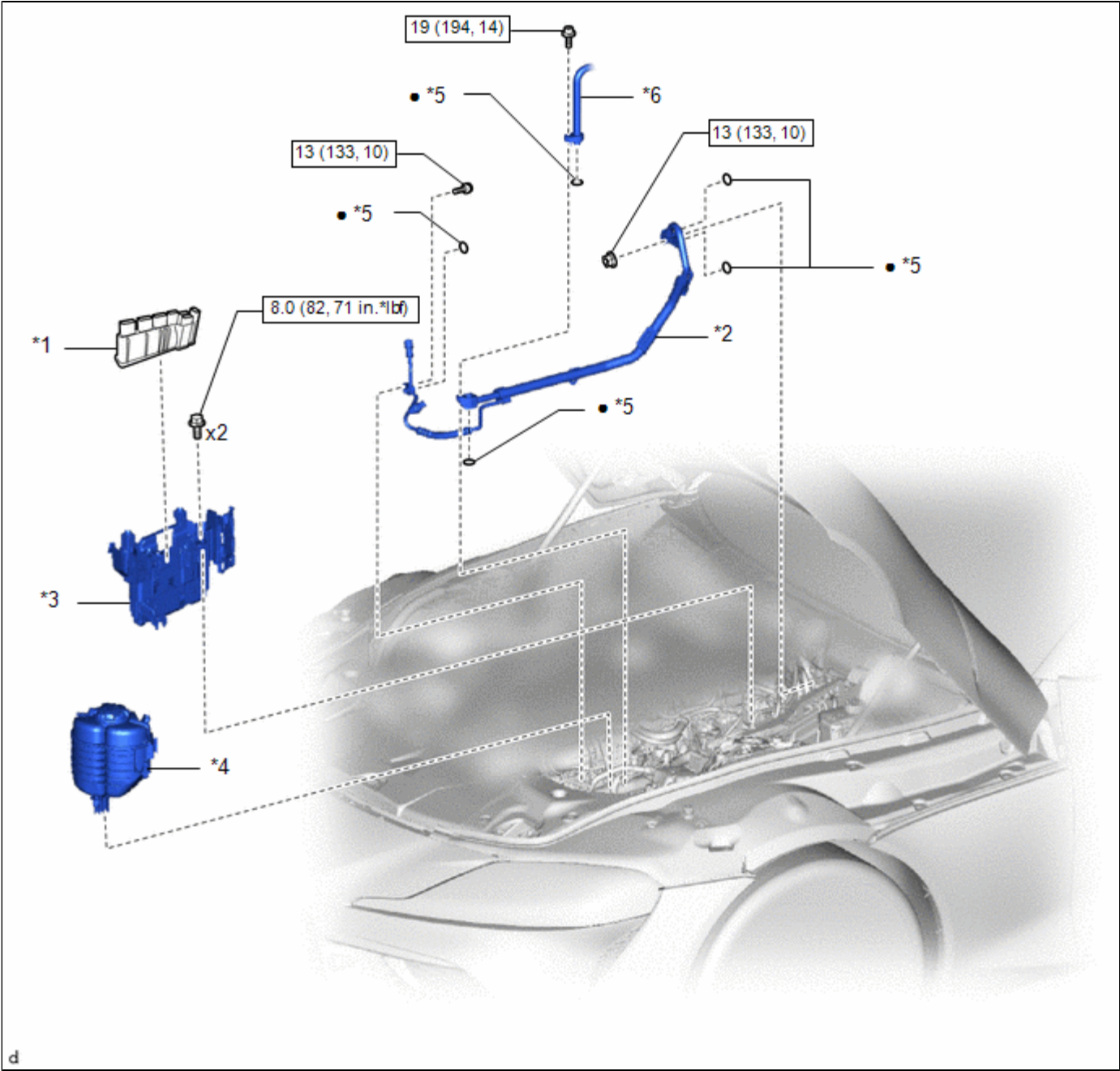


TOYOTA

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCO
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: COOLER EXPANSION VALVE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

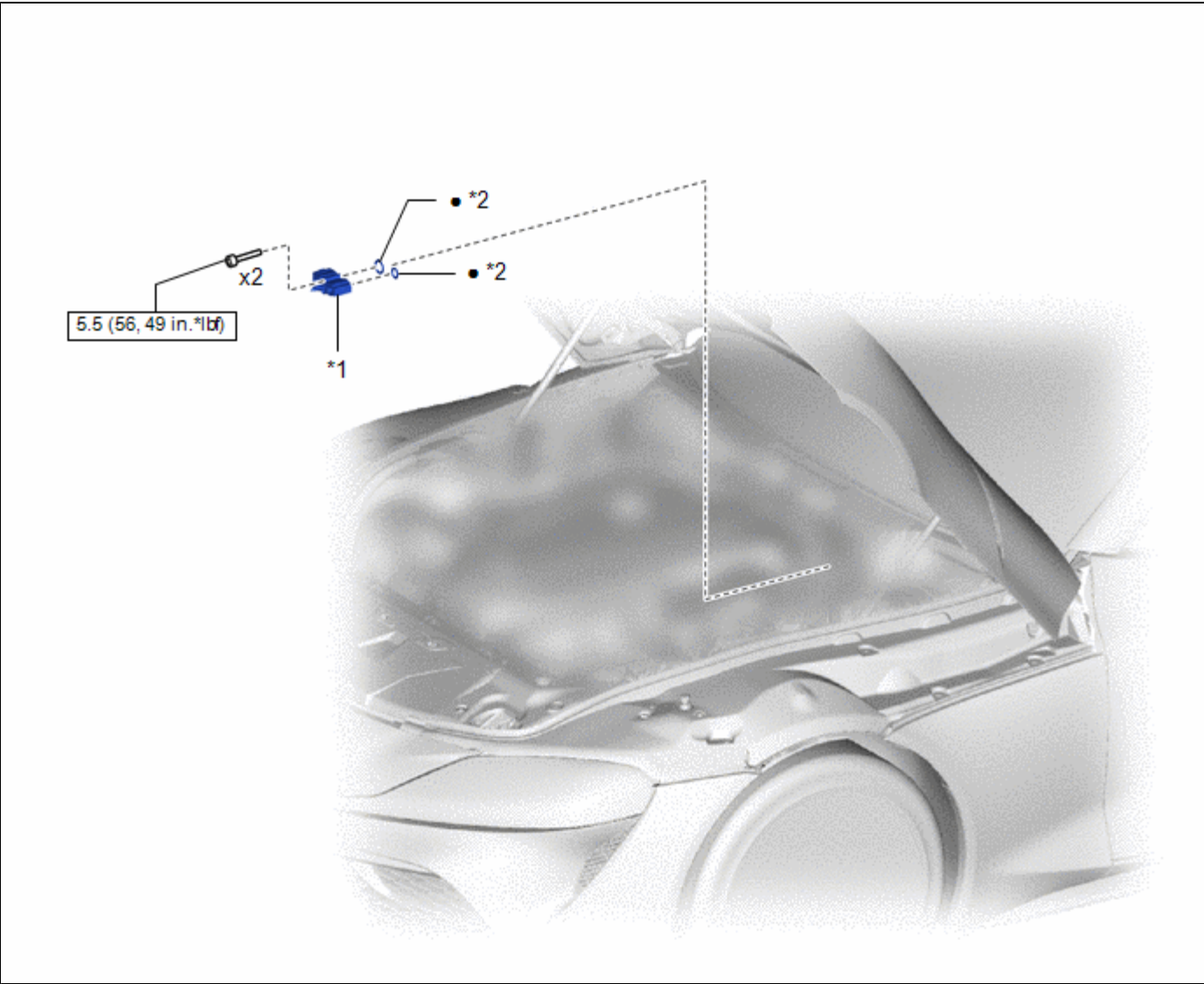
ILLUSTRATION



*1	NO. 1 INTEGRATION RELAY	*2	AIR CONDITIONER TUBE ASSEMBLY
*3	ENGINE ROOM ECM BOX	*4	RADIATOR RESERVE TANK ASSEMBLY
*5	O-RING	*6	SUCTION PIPE SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

			
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ILLUSTRATION



*1	COOLER EXPANSION VALVE	*2	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: RM100000001JCCP
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: COOLER EXPANSION VALVE: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. RECOVER REFRIGERANT FROM REFRIGERATION SYSTEM

Click here [INFO](#)

2. REMOVE UPPER CENTER FRONT SUSPENSION BRACE

Click here [INFO](#)

3. REMOVE ECM

Click here [INFO](#)

4. REMOVE NO. 1 INTEGRATION RELAY

Click here [INFO](#)

5. REMOVE ENGINE ROOM ECM BOX

Click here [INFO](#)

6. REMOVE RADIATOR RESERVE TANK ASSEMBLY

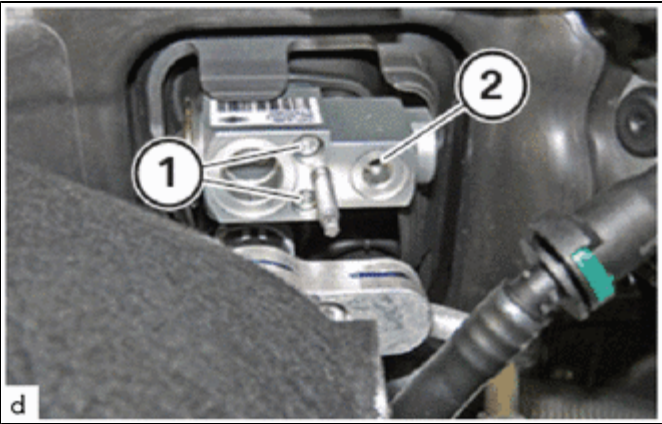
Click here [INFO](#)

7. SEPARATE AIR CONDITIONER TUBE ASSEMBLY

Click here [INFO](#)

8. REMOVE COOLER EXPANSION VALVE

(a) Using a 4 mm hexagon wrench, remove the bolts (1).



(b) Remove the cooler expansion valve (2).

(c) Remove the O-rings.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: COOLER EXPANSION VALVE: INSTALLATION; 2020 MY Supra [03/2019 -]		

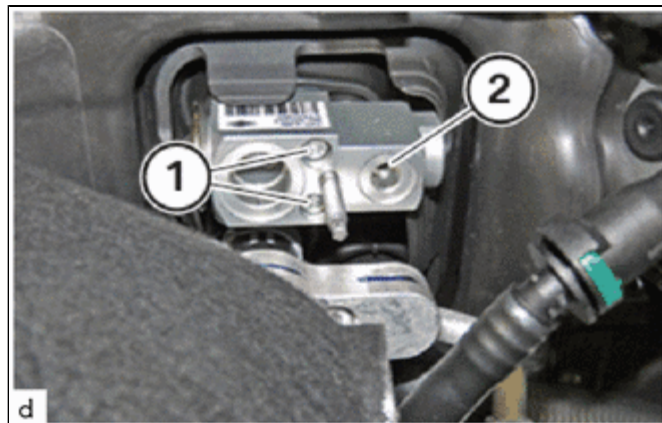
INSTALLATION

PROCEDURE

1. INSTALL COOLER EXPANSION VALVE

(a) Replace the O-rings.

(b) Install the cooler expansion valve (2).



(c) Using a 4 mm hexagon wrench, install the bolts (1).

Torque:

5.5 N·m {56 kgf·cm, 49 in·lbf}

2. CONNECT AIR CONDITIONER TUBE ASSEMBLY

Click here [INFO](#)

3. INSTALL RADIATOR RESERVE TANK ASSEMBLY

Click here [INFO](#)

4. INSTALL ENGINE ROOM ECM BOX

Click here [INFO](#)

5. INSTALL NO. 1 INTEGRATION RELAY

Click here [INFO](#)

6. INSTALL ECM

Click here [INFO](#)

7. INSTALL UPPER CENTER FRONT SUSPENSION BRACE

Click here [INFO](#)

8. CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT

Click here [INFO](#)

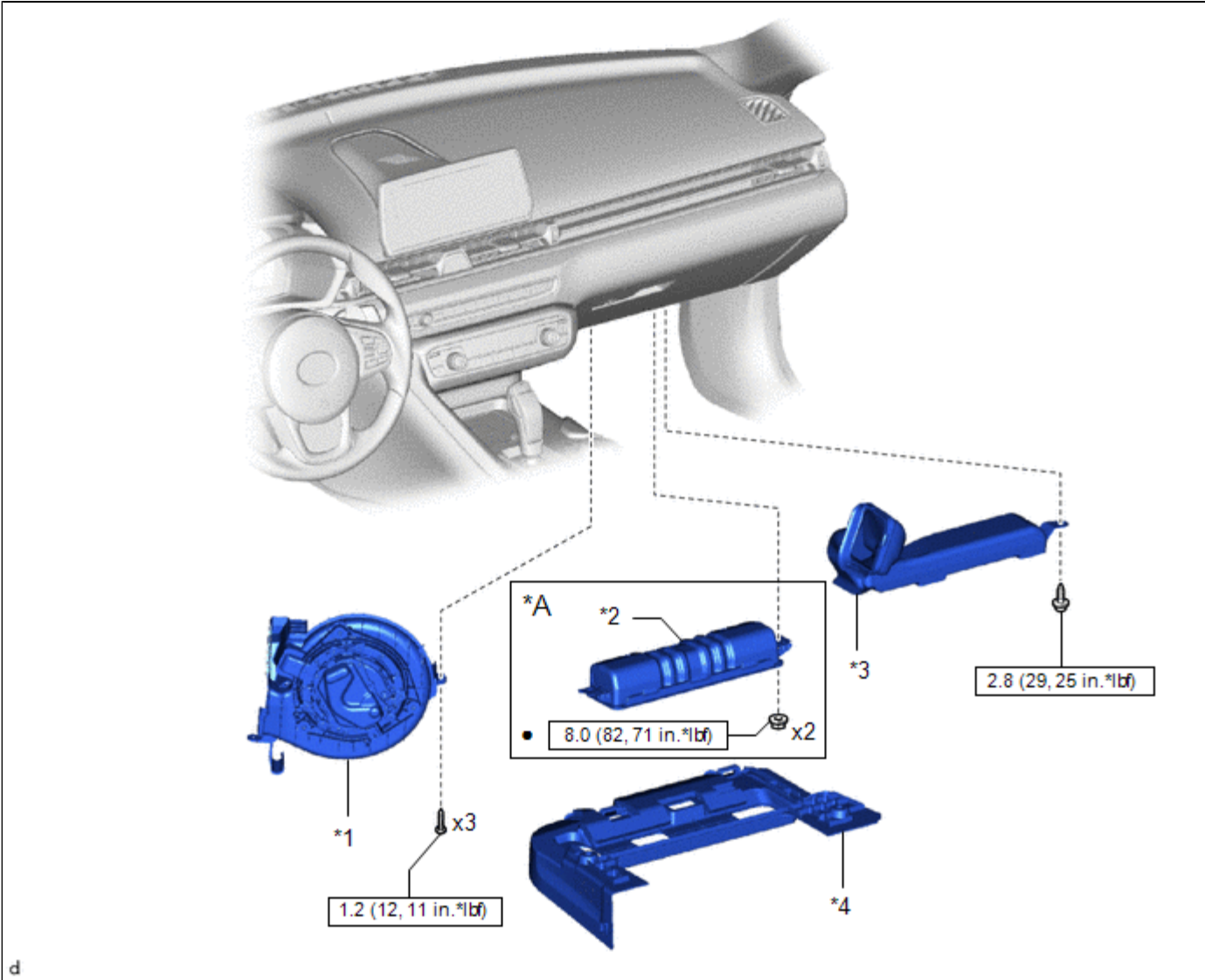
9. CHECK WIPER AND WASHER SYSTEM

Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: FRONT BLOWER MOTOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS ILLUSTRATION



*A	w/ Passenger Side Knee Airbag	-	-
*1	BLOWER WITH FAN MOTOR SUB-ASSEMBLY	*2	LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY
*3	NO. 2 AIR DUCT	*4	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: FRONT BLOWER MOTOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger. Life-threatening injuries.



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: Safety regulations on handling components with gas generators.

Click here [INFO](#)

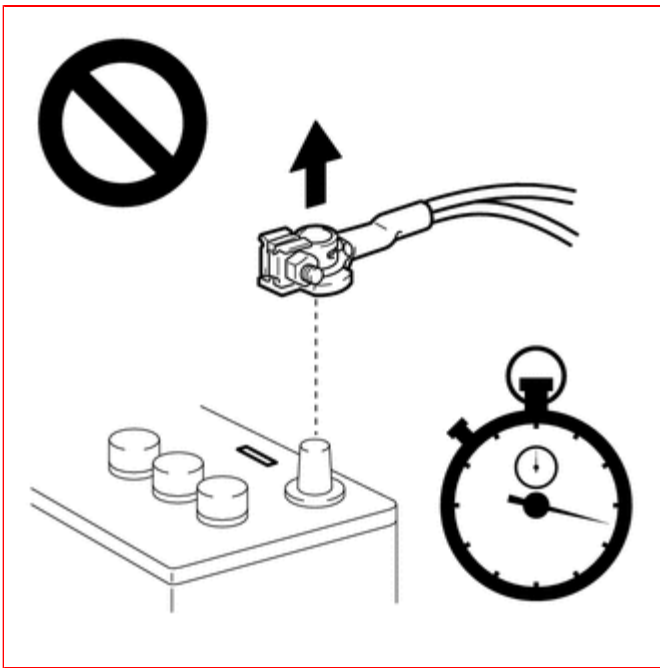
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS



system.

- If the airbag deploys for any reason, it may cause a serious accident.

2. REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w / Passenger Side Knee Airbag)

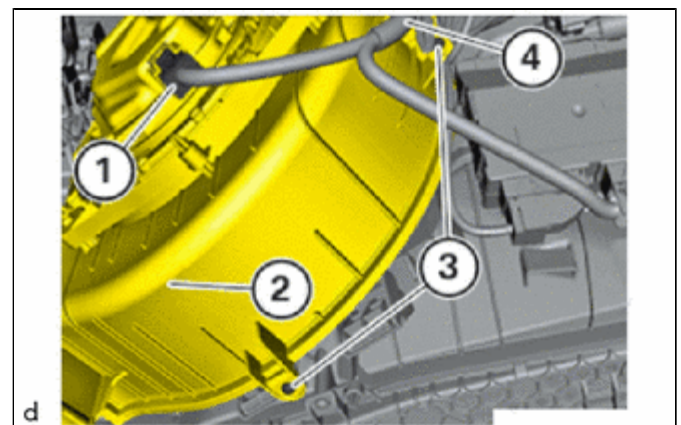
Click here [INFO](#)

4. REMOVE NO. 2 AIR DUCT

Click here [INFO](#)

5. REMOVE BLOWER WITH FAN MOTOR SUB-ASSEMBLY

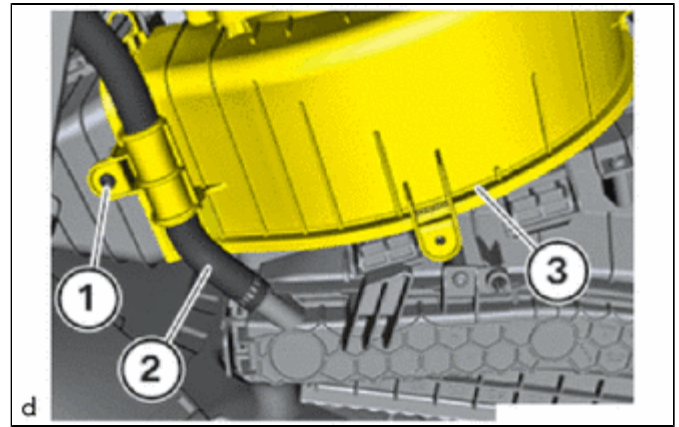
- (a) Disconnect the connector (1) from the blower with fan motor sub-assembly (2).



- (b) Remove T20 screws (3).

- (c) Pull of the cable clip (4) from the blower with fan motor sub-assembly (2).

(d) Remove T20 screw (1).



(e) Guide out the hose (2) from the blower motor with fan sub-assembly (3).

(f) Remove the blower motor with fan sub-assembly (3).

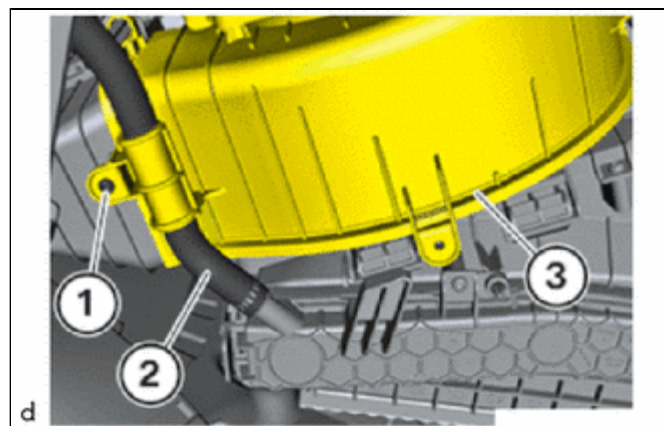
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: FRONT BLOWER MOTOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL BLOWER WITH FAN MOTOR SUB-ASSEMBLY

(a) Install the blower with fan motor sub-assembly (3).



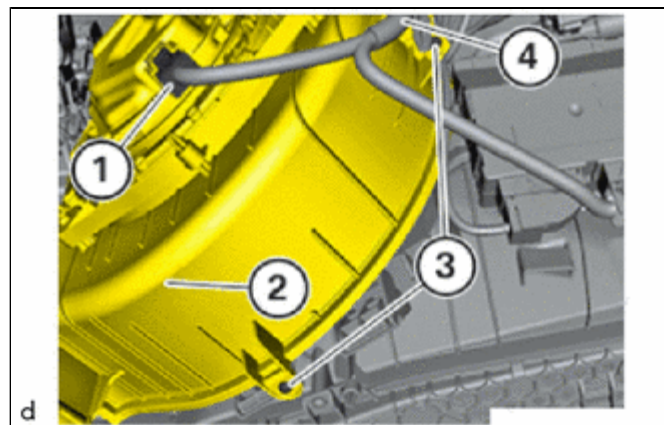
(b) Tighten T20 screw (1).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(c) Feed in the hose (2) at the blower with fan motor sub-assembly (3).

(d) Connect the connector (1) of the blower with fan motor sub-assembly (2).



(e) Tighten T20 screws (3).

Torque:

1.2 N·m {12 kgf·cm, 11 in·lbf}

(f) Secure the cable clip (4) on the blower with fan motor sub-assembly (2).

2. INSTALL NO. 2 AIR DUCT

Click here [INFO](#)

3. INSTALL LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w / Passenger Side Knee Airbag)

Click here [INFO](#)

4. INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

5. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

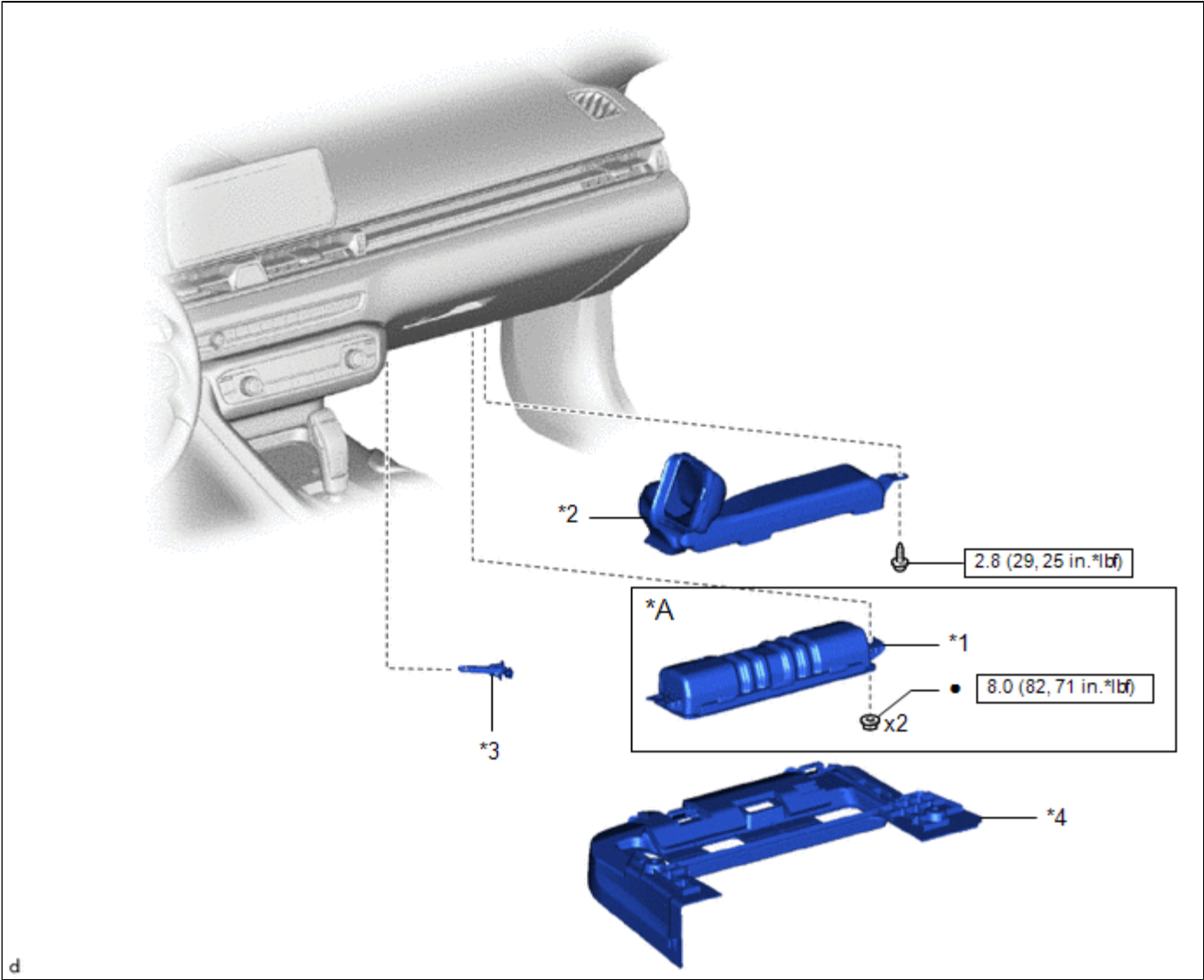
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: FRONT EVAPORATOR TEMPERATURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*A	w/ Passenger Side Knee Airbag	-	-
*1	LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY	*2	NO. 2 AIR DUCT
*3	NO. 2 COOLER THERMISTOR	*4	NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
	N*m (kgf*cm, ft.*lbf): Specified torque	•	Non-reusable part

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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: FRONT EVAPORATOR TEMPERATURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Airbag unit.

Danger. Life-threatening injuries.



- All work on pyrotechnic parts may be carried out by technically experienced and appropriately trained personnel only.
- Replace any damaged part or ones that have been dropped.
- Before performing any work on the airbag, always disconnect the battery earth lead from the battery.
- Airbag unit may only be set down with the cushion (airbag itself) facing upwards.
- For additional information see: Safety regulations on handling components with gas generators.

Click here [INFO](#)

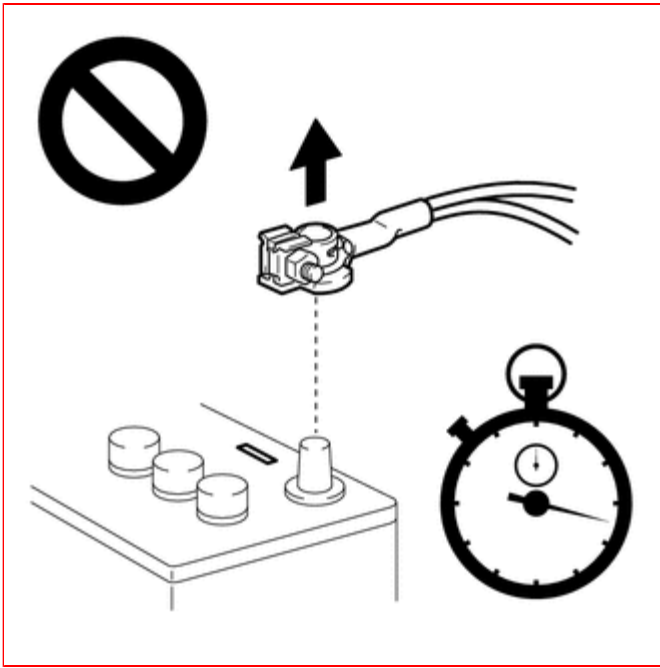
PROCEDURE

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Click here [INFO](#)

CAUTION:

- Wait at least 60 seconds after disconnecting the cable from the negative (-) battery terminal to disable the SRS



system.

- If the airbag deploys for any reason, it may cause a serious accident.

2. REMOVE NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

3. REMOVE LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w / Passenger Side Knee Airbag)

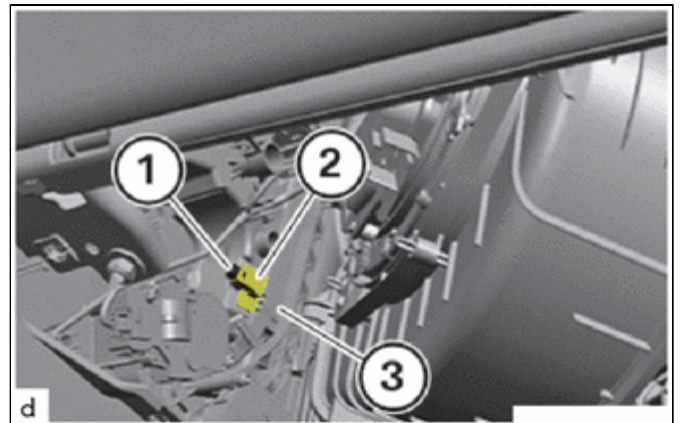
Click here [INFO](#)

4. REMOVE NO. 2 AIR DUCT

Click here [INFO](#)

5. REMOVE NO. 2 COOLER THERMISTOR

(a) Disconnect the connector (1).



(b) Disengage the No. 2 cooler thermistor (2) and remove it from the air conditioning unit assembly (3).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: FRONT EVAPORATOR TEMPERATURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 2 COOLER THERMISTOR

- (a) Install the No. 2 cooler thermistor correctly in the air conditioning unit assembly and engage.
- (b) Connect the connector.

2. INSTALL NO. 2 AIR DUCT

Click here [INFO](#)

3. INSTALL LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w/ Passenger Side Knee Airbag)

Click here [INFO](#)

4. INSTALL NO. 2 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

5. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCB5
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: REFRIGERANT: PRECAUTION; 2020 MY Supra [03/2019 -]		

PRECAUTION

CAUTION:

- Avoid all contact with liquid or gaseous HFC-134a (R134a). Wear protective goggles and gloves when working on the refrigerant circuit.
- Although HFC-134a (R134a) at normal temperature is non-toxic, not inflammable and not explosive in air in any mixture ratio, it is still essential to follow various safety precautions.

PRECAUTIONS FOR REFRIGERANT HFC-134a (R134a)

- As a gas, HFC-134a (R134a) is colorless, odorless and heavier than air. If it enters the atmosphere, this may result in an imperceptible danger of asphyxiation or in cardiac palpitations, especially in workshop pits. Ventilate rooms adequately; if necessary, turn on installed extractor systems.
- Store filled refrigerant pressure flasks so that they are not subject to direct sunlight or other heat sources (at maximum 45°C (113°F)). Also avoid exposing them to mechanical stress (e.g. by dropping).
- Do not weld or solder on to filled heating and air conditioning systems or in rooms into which HFC-134a (R134a) may have escaped. Exposure to flames or high temperatures (below 50°C (122°F)) may give rise to toxic decomposition products (fluorine gas). For this reason, do not smoke either.
- In the event of fire, carbon dioxide (CO₂), extinguishing powder and a sprayed water jet are deemed to be suitable extinguishing agents. Cool reservoirs at risk with a sprayed water jet (risk of bursting).
- If the service valve caps on the service valves are difficult to open, there is a risk of injury from leaking valve inserts (high pressure).
- The filled refrigerant circuit of the A/C system is subject to excess pressure. Before carrying out repairs on the A/C system, it is absolutely essential to draw off the refrigerant.

HINT:

Before conducting repairs, check the actual pressure drop on the pressure gauge of the refrigerant recovery unit.

- HFC-134a (R134a) must be drawn off, cleaned and returned to the air conditioning using a refrigerant recovery unit following the relevant operating instructions.
- For a properly functioning A/C system, it is essential to have the greatest possible levels of cleanliness when working on the A/C system and the longest possible evacuation (at least 30 minutes dehumidification from refrigerant circuit) before each filling of the A/C system.
- HFC-134a (R134a) absorbs very small amounts of moisture. Therefore, seal off opened pipes, cooler condenser assembly, evaporator, compressor with pulley assembly and dryer flask immediately with seal plugs.
- With replacement parts, the plugs may only be removed immediately before the lines are connected.
- Installation note:
 - After each refilling of an air conditioning, check that service valve caps of the service valves are hand-tight. They serve as additional seals.

CAUTION:

- Work on the refrigerant circuit may only be carried out by experts.
 - Avoid all contact with liquid or gaseous HFO-1234yf (R1234yf). Wear protective goggles and gloves when working on the refrigerant circuit.
- Although HFO-1234yf (R1234yf) at normal temperature is non-toxic, non-flammable and not explosive in air in any mixture ratio, it is still essential to follow various safety precautions. At higher temperatures, HFO-1234yf (R1234yf) is inflammable.

PRECAUTIONS FOR REFRIGERANT HFO-1234yf (R1234yf)

- (a) As a gas, HFO-1234yf (R1234yf) is colorless, odorless and heavier than air. If it enters the atmosphere, this may result in an imperceptible danger of asphyxiation or in cardiac palpitations, especially in workshop pits. Ventilate rooms adequately; if necessary, turn on installed extractor systems.
- (b) Store filled refrigerant pressure flasks so that they are not subject to direct sunlight or other heat sources (at maximum 45°C (113°F)). Also avoid exposing them to mechanical stress (e.g. by dropping).
- (c) Do not weld or solder on to filled air conditioning systems or in rooms into which HFO-1234yf (R1234yf) may have leaked. Exposure to flames or high temperatures (below 50°C (122°F)) may give rise to toxic products of decomposition (hydrofluoric acid). For this reason, do not smoke either.
- (d) In the event of fire, carbon dioxide (CO₂), extinguishing powder and a sprayed water jet are deemed to be suitable extinguishing agents. Cool reservoirs at risk with a sprayed water jet (risk of bursting).
- (e) If the service valve caps on the service valves are difficult to open, there is a risk of injury from leaking valve inserts (high pressure).
- (f) The filled refrigerant circuit of the A/C system is subject to excess pressure. Before carrying out repairs on the A/C system, it is absolutely essential to draw off the refrigerant.

HINT:

Before conducting repairs, check the actual pressure drop on the pressure gauge of the refrigerant recovery unit.

- (g) HFO-1234yf (R1234yf) must be drawn off, cleaned and returned to the A/C system using a refrigerant recovery unit following the relevant operating instructions.
- (h) For a properly functioning A/C system, it is essential to have the greatest possible levels of cleanliness when working on the A/C system and the longest possible evacuation (at least 30 minutes dehumidification from refrigerant circuit) before each filling of the A/C system.
- (i) HFO-1234yf (R1234yf) easily absorbs moisture. Therefore, seal off opened pipes, cooler condenser assembly, evaporator, compressor with pulley assembly and dryer flask immediately with seal plugs.
 - (1) If the air conditioning has been completely drained by a leak, accident or repair, the desiccant insert must be replaced as excessive moisture may have entered the system.
- (j) With replacement parts, the plugs may only be removed immediately before the lines are connected. In the event of warranty claims, the old parts must be provided with plugs to be able to determine the cause of the damage.
- (k) Installation note.
 - (1) After each refilling of an air conditioning, check that service valve caps of the service valves are hand-tight. They serve as additional seals.

PRECAUTIONS FOR COMPRESSOR OIL

- (a) Refrigerant is hygroscopic and must therefore be stored in suitable containers that are sealed airtight.
- (b) Compressor oil is non-combustible and non-explosive at normal temperatures. Nevertheless, the following points must be observed.
 - (1) Do not store in the vicinity of flames, heat sources or strongly oxidizing materials.
 - (2) Suitable extinguishants are carbon dioxide (CO₂), dry extinguishant and foam.
- (c) Protective measures/rules of conduct:
 - (1) Wear safety goggles.
 - (2) Wear oil-resistant protective gloves.
 - (3) Do not swallow.
 - (4) Do not inhale.
 - (5) Observe country-specific safety regulations.
- (d) First aid measures:

(1) If swallowed:

- Do not induce vomiting, unless expressly instructed to do so by medical personnel.
- Do not administer anything to an unconscious person through their mouth. Consult a doctor immediately if larger quantities of this substance are swallowed. Loosen tight-fitting items of clothing (e.g. collar, tie, belt or similar).

(2) Eye contact:

- Remove contact lenses if worn. In the event of eye contact, rinse eyes for at least 15 minutes with plenty of water. It is essential to use warm water. Consult a doctor.

(3) Skin contact:

- In the event of skin contact, rinse immediately with plenty of water. Remove contaminated clothes and shoes. Wash affected clothes before wearing again. Clean shoes thoroughly before reusing. Consult a doctor.

(4) After inhalation:

- If inhaled, take the person affected outside into fresh air immediately and keep them under supervision. Consult a doctor.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: REFRIGERANT: REPLACEMENT; 2020 MY Supra [03/2019 -]		

REPLACEMENT

RECOVER REFRIGERANT FROM REFRIGERATION SYSTEM

CAUTION:

- Refrigerant circuit under high pressure.

Danger of injury.

- Note and follow safety information on containers.
- Avoid contact with refrigerant; wear safety goggles and protective gloves.
- For more information see:

- Handling refrigerant:

Click here [INFO](#)

- Notes on repair work on air conditioning:

Click here [INFO](#)

NOTICE:

The engine is switched off.

HINT:

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

- Let the engine run for a few minutes at a low engine speed (800 to 1200 rpm) and with the heating and air conditioning system switched on.
- Stop engine.
- Remove the service valve caps from the service valves.
- Connect the high pressure line of the refrigerant recovery unit with the vehicle's high-pressure connection.
- Connect the low-pressure line of the refrigerant recovery unit with the vehicle's low-pressure connection.
- Start the evacuation on the refrigerant recovery unit.
- During evacuation, allow the blower of the heating and air conditioning unit to run at middle blower speed.
- Record the amount of evacuated refrigerant and amount of compressor oil after having completed evacuation.
- Keep the sheet with the recorded quantities as the values are once again required when filling.
- Disconnect the high pressure line and low pressure line.
- Drain the high pressure line and low pressure line.
- Close the service valve caps of the service valves.
- Correctly dispose of the drained compressor oil.

CAUTION:

- Refrigerant circuit under high pressure.

Danger of injury.

- Note and follow safety information on containers.
- Avoid contact with refrigerant; wear safety goggles and protective gloves.
- For more information see:

■ Handling refrigerant:

[Click here](#) 

■ Notes on repair work on air conditioning:

[Click here](#) 

CHARGE AIR CONDITIONING SYSTEM WITH REFRIGERANT

NOTICE:

- The engine is switched off.
- The vehicle is on the floor.

HINT:

Filling a raised vehicle will result in insufficient filling levels.

- Remove the service valve caps from the service valves.
- Connect the high pressure line of the vacuum pump or appropriate equipment with the vehicle's high-pressure connection.
- Connect the low-pressure line of the vacuum pump with the vehicle's low-pressure connection.
- Start the evacuation on the vacuum pump.
- Adhere to an evacuation time of at least 30 min.
- During evacuation, allow the blower of the heating and air conditioning unit to run at middle blower speed.
- If the vacuum does not remain stable during evacuation:
 - Run the inspect for leaks in the refrigerant circuit.
 - Rectify leaks in the refrigerant circuit.
- Determine the quantities of a new compressor oil to be refilled.
- In addition to the drawn off and recorded amount of compressor oil, add the following quantities (if applicable).
- Top up the compressor oil losses over time as per the table.
- Table 1 indicates the permitted loss of refrigerant after a specific period of time. There is no leak. Compressor oil must not be topped up.
- Table 2 indicates the amount of compressor oil which must be topped up after a specific period of time with an impermissible loss of refrigerant due to a leak.
 - Case 1: Refrigerant loss is not exceeded as per Table 1.
 - Top up missing refrigerant.
 - It is not permitted to top up the compressor oil.
 - Case 2: Refrigerant loss is exceeded as per Table 1.
 - Top up missing refrigerant.
 - Compressor oil must be topped up additionally according to Table 2.

Table 1/case 1

No. of years since the last filling	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5
Permissible loss (Do not top up compressor oil)	below 30 g (1.1 oz)	below 60 g (2.1 oz)	below 90 g (3.2 oz)	below 120 g (4.2 oz)	below 150 g (5.3 oz)

Table 2/case 2

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No. of years since the last filling	Loss of refrigerant	Top up quantity compressor oil
0 to 1	120 g (4.23 oz) or less	0
	120 to 150 g (4.23 to 5.29 oz)	10 cc (0.338 fl.oz)
	150 g (5.29 oz) or higher	20 cc (0.676 fl.oz)
1 to 2	180 g (6.35 oz) or less	0
	180 to 210 g (6.35 to 7.41 oz)	10 cc (0.338 fl.oz)
	210 g (7.41 oz) or higher	20 cc (0.676 fl.oz)
2 to 3	240 g (8.47 oz) or less	0
	240 to 270 g (8.47 to 9.52 oz)	10 cc (0.338 fl.oz)
	270 g (9.52 oz) or higher	20 cc (0.676 fl.oz)
3 to 4	300 g (10.6 oz) or less	0
	300 to 330 g (10.6 to 11.6 oz)	10 cc (0.338 fl.oz)
	330 g (11.6 oz) or higher	20 cc (0.676 fl.oz)
4 to 5	360 g (12.7 oz) or less	10 cc (0.338 fl.oz)
	360 g (12.7 oz) or higher	20 cc (0.676 fl.oz)

(o) Add compressor oil according to the table if parts of the refrigerant circuit have been replaced.

(1) Case 1: Part exchange as preliminary work for additional work and part exchange due to slow leakage (minor leak, e.g. hairline crack).

(2) Case 2: Part exchange due to sudden leakage (major leak, e.g. line disconnection caused by accident).

Parts	Case 1	Case 2
Compressor with pulley assembly*1	*	*
Evaporator	10 cc (0.338 fl.oz)	35 cc (1.18 fl.oz)
*1: Oil the compressor with pulley assembly.		

Parts	Case 1	Case 2
Cooler condenser assembly	40 cc (1.35 fl.oz)	55 cc (1.86 fl.oz)
For each replaced refrigerant line	10 cc (0.338 fl.oz)	35 cc (1.18 fl.oz)
Per replaced air conditioner pressure sensor	0	0
Per replaced seal	0	0

(p) Top up determined amount of compressor oil into the refrigerant circuit.

(q) Fill the amount of refrigerant as per the type plate into the refrigerant circuit.

(r) Disconnect the high pressure line and low pressure line on the vehicle.

(s) Drain the high pressure line and low pressure line.

(t) Close the service valves on the vehicle with the service valve caps.

Standard Charge Amount:

HFC-134a(R134a): 550 g (19.4 oz)

HFO-1234yf (R1234yf): 550 g (19.4 oz)

SST: 09985-20010

09985-02010
09985-02050
09985-02060
09985-02070
09985-02080
09985-02090
09985-02110
09985-02130
09985-02140
09985-02150

INSPECT FOR REFRIGERANT LEAK

(a) After recharging the air conditioning system with refrigerant, inspect for refrigerant leaks using a halogen leak detector.

HINT:

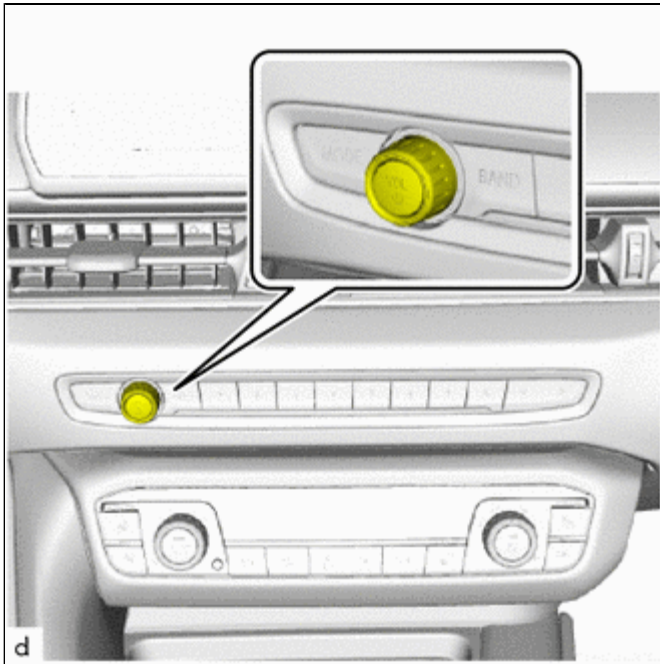
- for HFO-1234yf (R1234yf):
 - Be sure to use a halogen leak detector that is compatible with HFO-1234yf (R1234yf) systems.

(b) Carry out the test under the following conditions:

- Check that the START-STOP button (engine switch) off.

HINT:

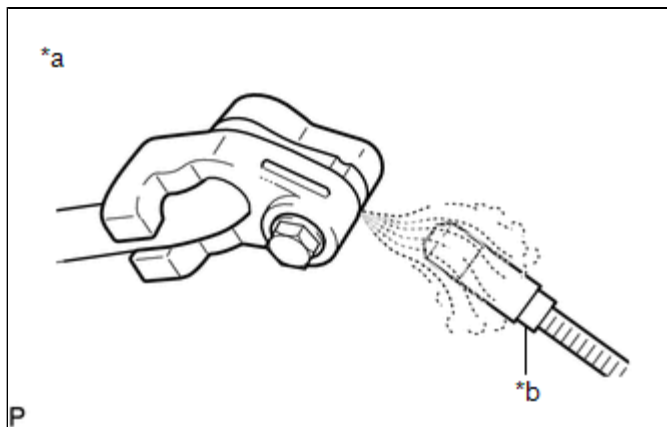
Pressing and holding the AUDIO button changes the power source mode to IG OFF.



- Ensure good ventilation (the halogen leak detector may react to volatile gases which are not refrigerant, such as gasoline vapor and exhaust gas).
- Repeat the inspection 2 or 3 times.
- Measure the pressure to make sure that there is some refrigerant remaining in the air conditioning system.

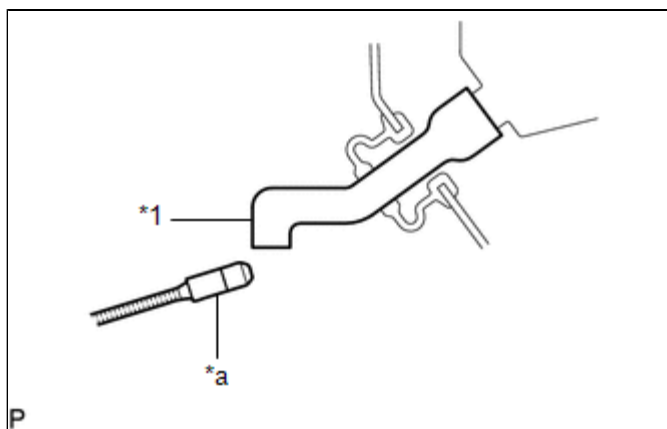
Pressure when the compressor is off: approximately 392 to 588 kPa (3.9 to 5.9 kgf/cm², 57 to 85 psi)

(c) Using a halogen leak detector, inspect for refrigerant leaks from the air conditioning system.



*a	Inspect for Leak
*b	Halogen Leak Detector

(d) Bring the halogen leak detector close to the drain cooler hose with the detector power off, and then turn the detector on.



*1	Drain Cooler Hose
*a	Halogen Leak Detector

HINT:

- After the blower motor has stopped, leave the cooling unit for more than 15 minutes.
- Bring the halogen leak detector sensor under the drain cooler hose.
- When bringing the halogen leak detector close to the drain cooler hose, make sure that the halogen leak detector does not react to volatile gases. If it is not possible to avoid interference from volatile gases, the vehicle should be lifted up to allow checking for leaks.

- (e) If a refrigerant leak is not detected from the drain cooler hose, remove the blower motor control from the cooling unit. Insert the halogen leak detector sensor into the unit and check for leaks.
- (f) Disconnect the pressure sensor connector and leave it for approximately 20 minutes. Bring the halogen leak detector close to the pressure sensor and check for leaks.

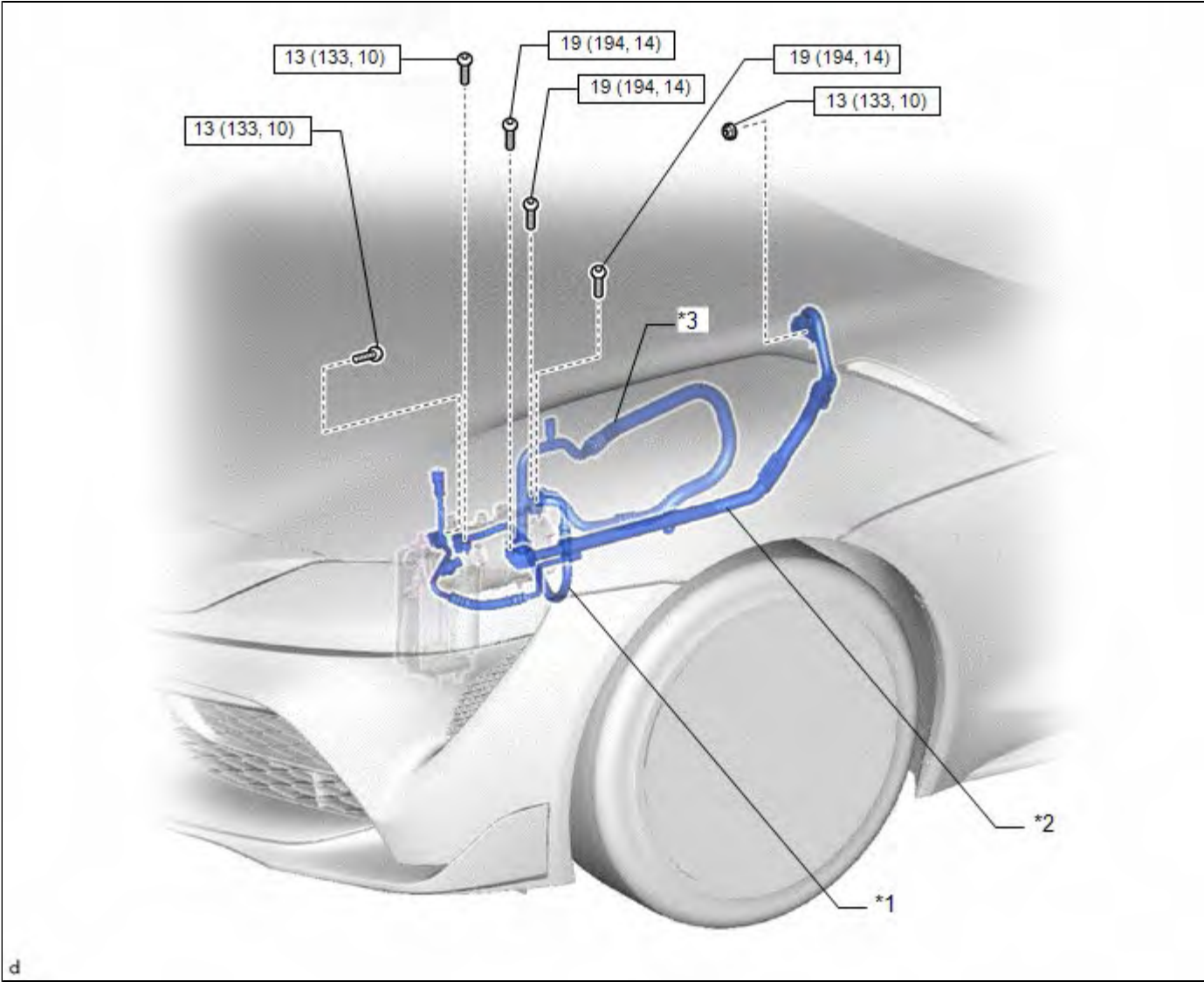
HINT:

When checking for leaks, the presence of oily dirt at a joint can indicate a leak.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: REFRIGERANT LINE: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION

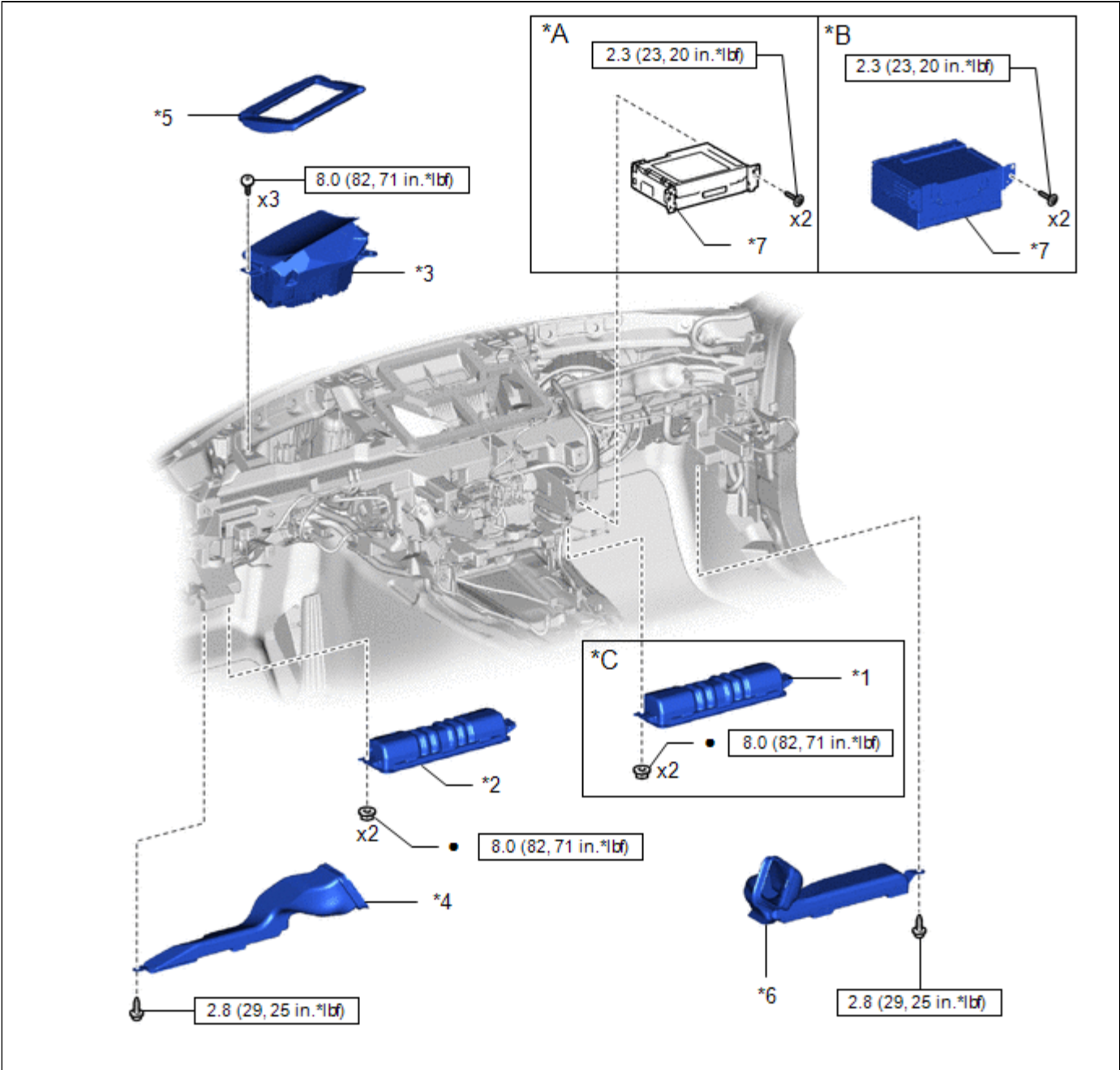


*1	DISCHARGE TUBE G	*2	AIR CONDITIONER TUBE ASSEMBLY
*3	SUCTION PIPE SUB-ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: ROOM TEMPERATURE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

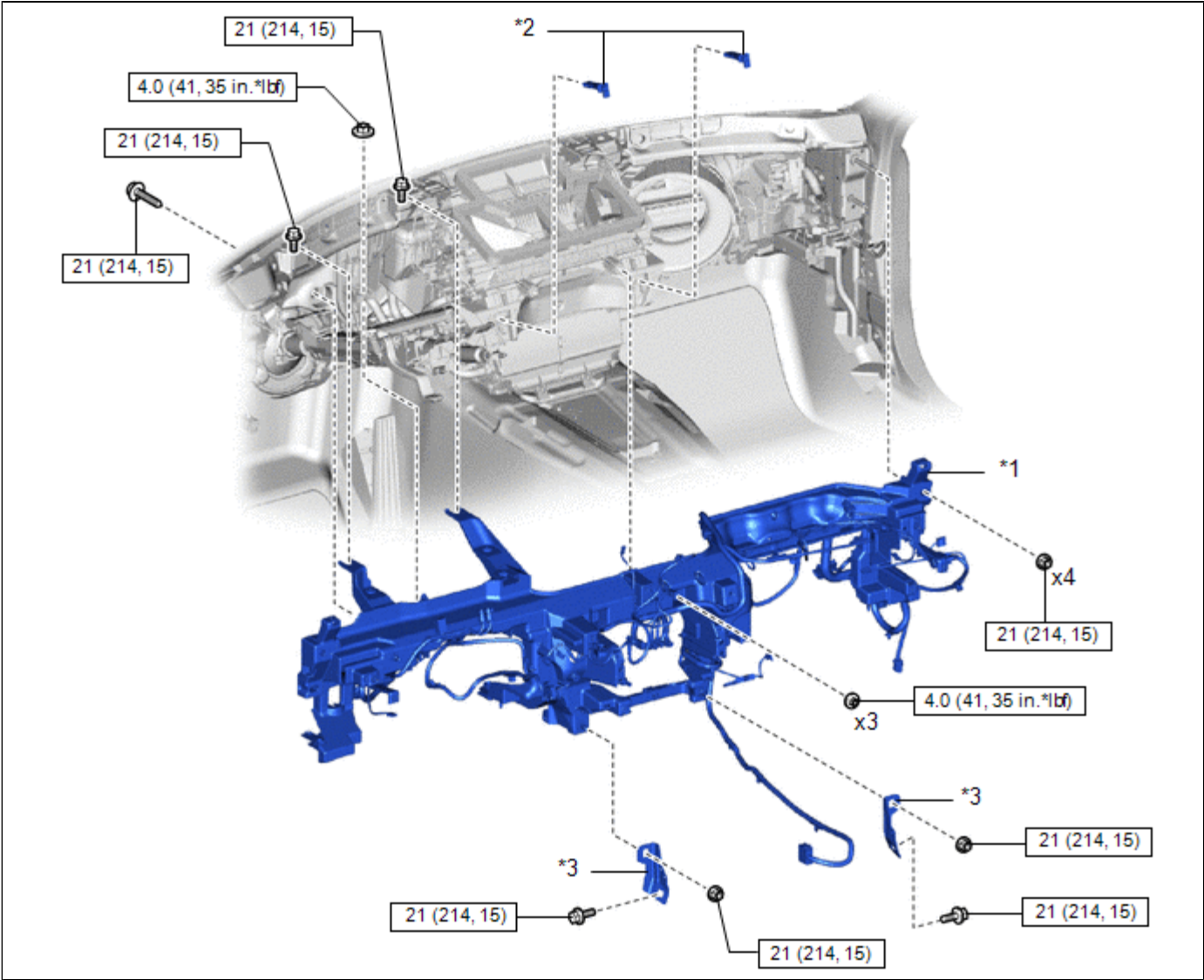
ILLUSTRATION



*A	w/o Navigation System	*B	w/ Navigation System
*C	w/ Passenger Side Knee Airbag	-	-
*1	LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY	*2	LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY

*3	METER MIRROR SUB-ASSEMBLY	*4	NO. 1 AIR DUCT
*5	NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL	*6	NO. 2 AIR DUCT
*7	RADIO RECEIVER ASSEMBLY	-	-
	N*m (kgf*cm, ft.*lbf): Specified torque	●	Non-reusable part

ILLUSTRATION



*1	INSTRUMENT PANEL REINFORCEMENT SUB-ASSEMBLY	*2	NO. 1 COOLER THERMISTOR
*3	NO. 1 INSTRUMENT PANEL BRACKET	-	-
	N*m (kgf*cm, ft.*lbf): Specified	-	-

	torque		
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCBT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: ROOM TEMPERATURE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

CAUTION / NOTICE / HINT

CAUTION:

- Working on 12 V vehicle electrical system.

Risk of short circuits! Risk of fire!

- Detach battery earth lead from battery.

- Airbag unit.

Danger! Life-threatening injuries!



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

Click here [INFO](#)

NOTICE:

- Electrostatic discharge.

Damage to or destruction of electrical components.

- Leave electrical components in original packaging until just before they are installed. Use the original packaging only for any return shipments. Always package removed components straight away.
- Only touch the housings of electrical components. Do not touch pins or multi-pin connectors directly.
- Wear electrically conductive clothing and antistatic shoes (with ESD symbol).
- For additional information see:

Click here [INFO](#)

- Scratches.

Tools and sharp-edged components can cause scratches.

- Protect working area.
- Handle tools and components carefully.

PROCEDURE

1. REMOVE INSTRUMENT PANEL SAFETY PAD ASSEMBLY

Click here [INFO](#)

2. REMOVE UPPER CENTER FRONT SUSPENSION BRACE

Click here [INFO](#)

3. REMOVE LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY

Click here [INFO](#)

4. REMOVE LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w / Passenger Side Knee Airbag)

Click here [INFO](#)

5. REMOVE NO. 1 AIR DUCT

Click here [INFO](#)

6. REMOVE NO. 2 AIR DUCT

Click here [INFO](#)

7. REMOVE RADIO RECEIVER ASSEMBLY (w / o Navigation System)

Click here [INFO](#)

8. REMOVE RADIO RECEIVER ASSEMBLY (w / Navigation System)

Click here [INFO](#)

9. REMOVE NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL

Click here [INFO](#)

10. REMOVE METER MIRROR SUB-ASSEMBLY

Click here [INFO](#)

11. REMOVE STEERING COLUMN ASSEMBLY

Click here [INFO](#)

12. REMOVE INSTRUMENT PANEL REINFORCEMENT SUB-ASSEMBLY

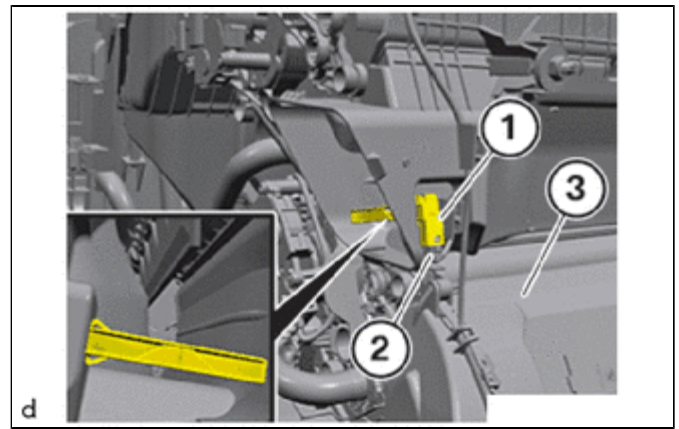
Click here [INFO](#)

13. REMOVE NO. 1 COOLER THERMISTOR

HINT:

Use the same procedure for the RH side and LH side.

(a) Disconnect the connector (2).



(b) Remove the No. 1 cooler thermistor (1) from the air conditioner unit assembly (3).

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: ROOM TEMPERATURE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 COOLER THERMISTOR

HINT:

Use the same procedure for the RH side and LH side.

- (a) Install the No. 1 cooler thermistor in the air conditioning unit assembly.
- (b) Connect the connector.

2. INSTALL INSTRUMENT PANEL REINFORCEMENT SUB-ASSEMBLY

Click here [INFO](#)

3. INSTALL STEERING COLUMN ASSEMBLY

Click here [INFO](#)

4. INSTALL METER MIRROR SUB-ASSEMBLY

Click here [INFO](#)

5. INSTALL NO. 1 INSTRUMENT CLUSTER FINISH PANEL SEAL

Click here [INFO](#)

6. INSTALL RADIO RECEIVER ASSEMBLY (w / o Navigation System)

Click here [INFO](#)

7. INSTALL RADIO RECEIVER ASSEMBLY (w / Navigation System)

Click here [INFO](#)

8. INSTALL NO. 1 AIR DUCT

Click here [INFO](#)

9. INSTALL NO. 2 AIR DUCT

Click here [INFO](#)

10. INSTALL LOWER NO. 2 INSTRUMENT PANEL AIRBAG ASSEMBLY

Click here [INFO](#)

11. INSTALL LOWER NO. 1 INSTRUMENT PANEL AIRBAG ASSEMBLY (w / Passenger Side Knee Airbag)

Click here [INFO](#)

12. INSTALL UPPER CENTER FRONT SUSPENSION BRACE

Click here [INFO](#)

13. INSTALL INSTRUMENT PANEL SAFETY PAD ASSEMBLY

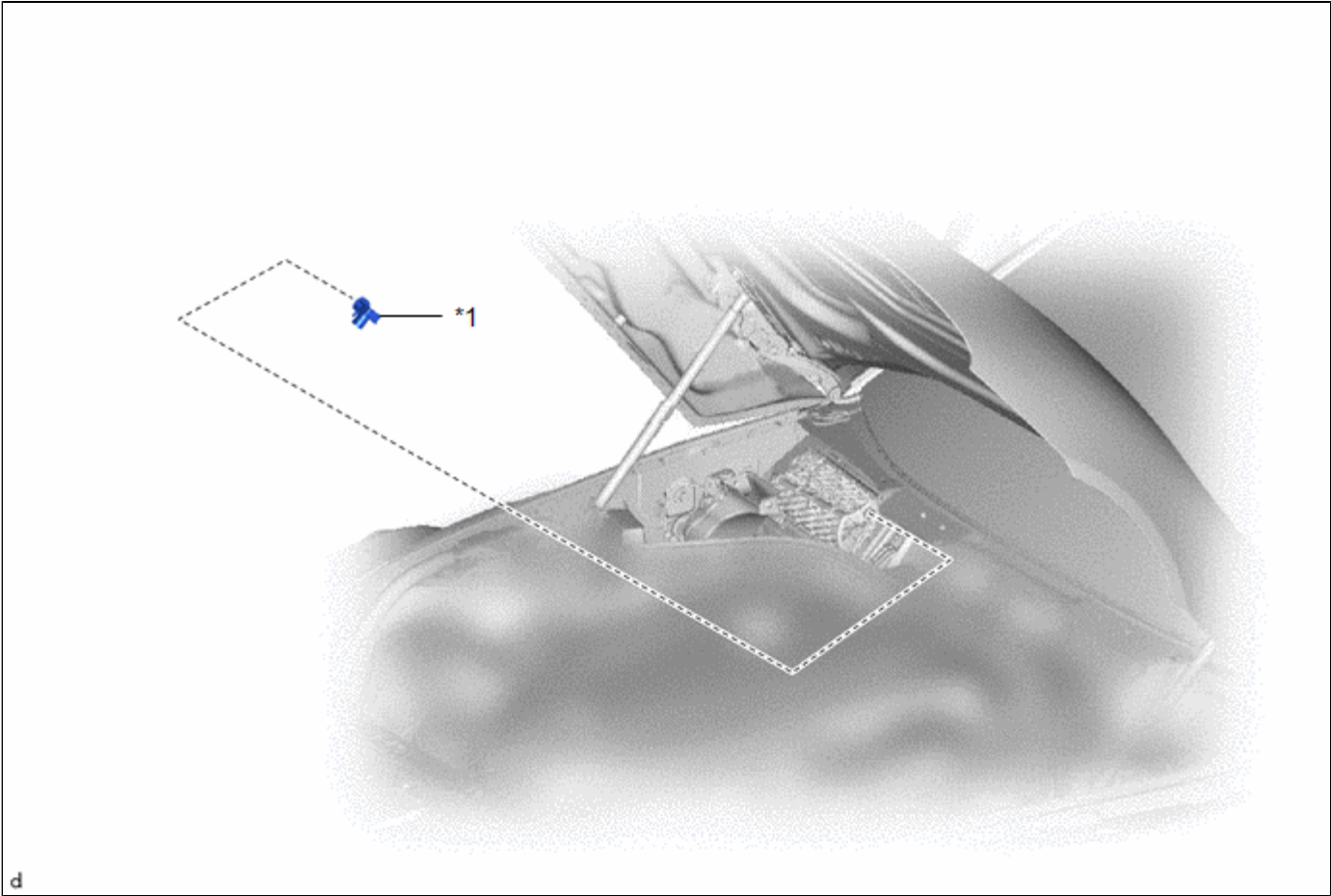
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCD
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: SMOKE SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	SMOKE SENSOR	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCE
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: SMOKE SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

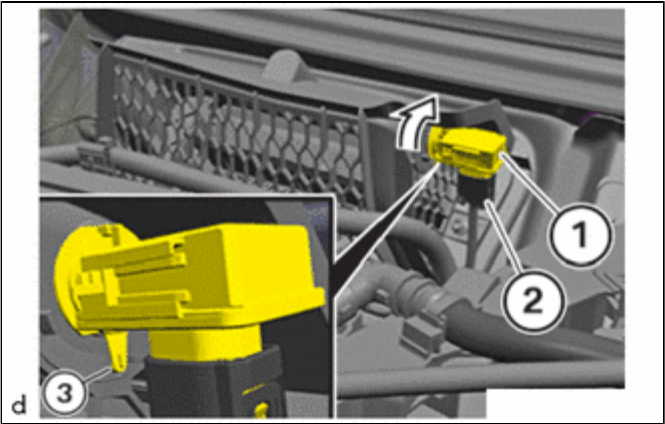
PROCEDURE

1. REMOVE COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY

Click here [INFO](#)

2. REMOVE SMOKE SENSOR

(a) Disconnect the connector (2).



(b) Raise guide pin (3) slightly and turn smoke sensor (1) in direction of arrow.

(c) Remove smoke sensor (1).

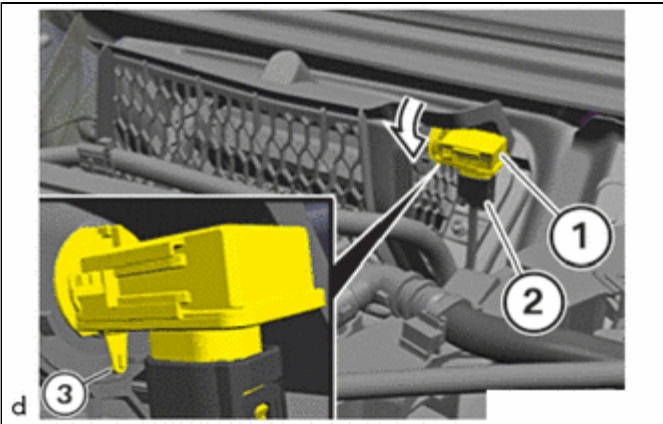
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCCF
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: SMOKE SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL SMOKE SENSOR

(a) Install the smoke sensor (1) and turn it in the direction of arrow until the guide pin (3) engages.



(b) Connect the connector (2).

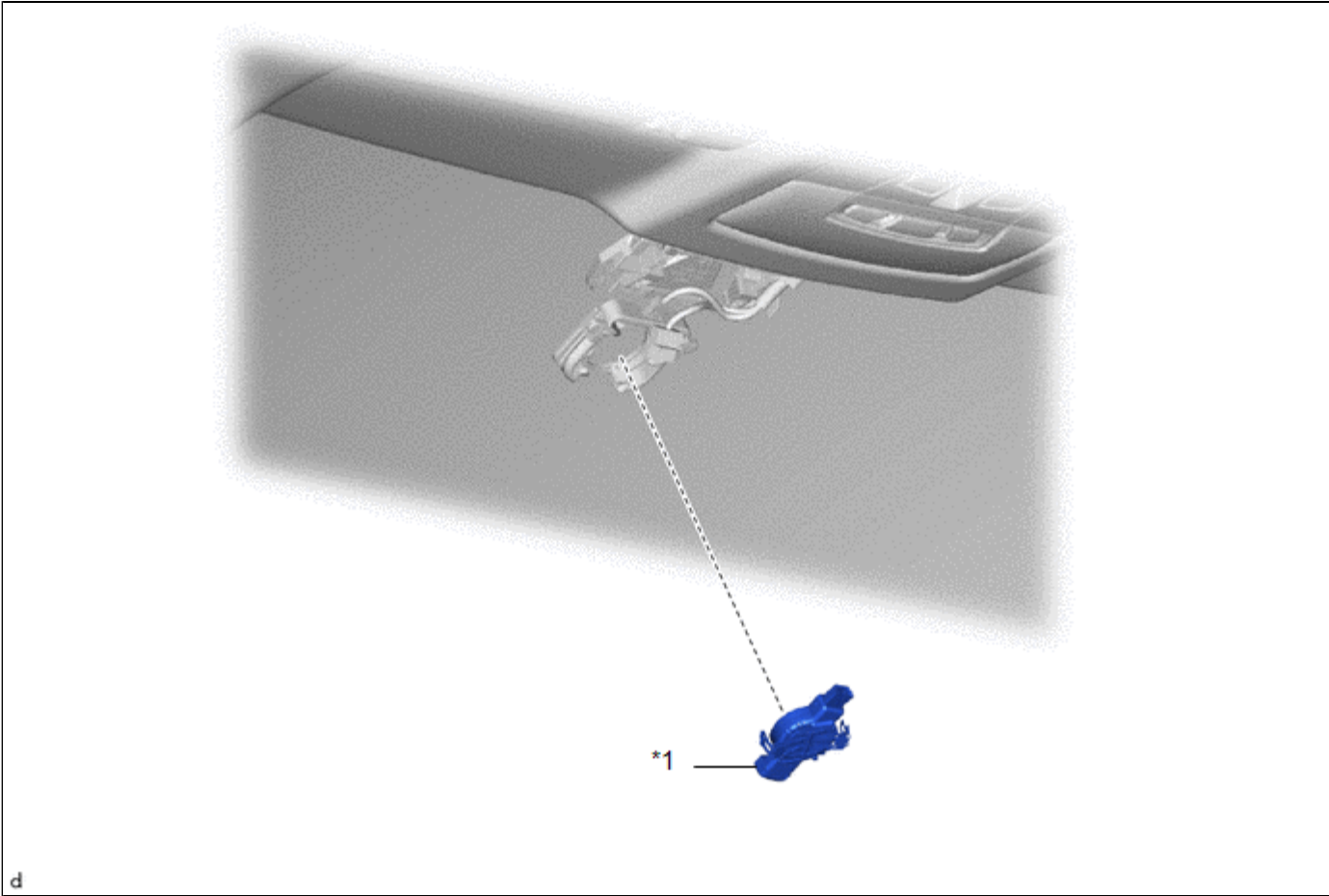
2. INSTALL COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCC1
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: SOLAR SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	RAIN SENSOR	-	-
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Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCC2
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: SOLAR SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE INNER REAR VIEW MIRROR ASSEMBLY

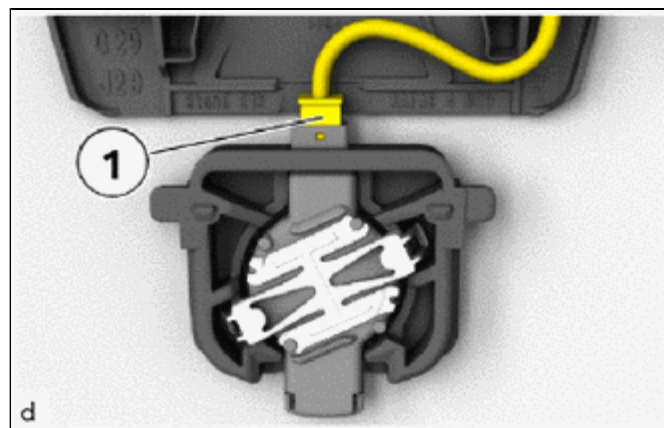
Click here [INFO](#)

2. REMOVE RAIN SENSOR

NOTICE:

When replacing windshield glass: Immediately install the rain sensor on the new windshield glass.

(a) Disconnect the connector (1).



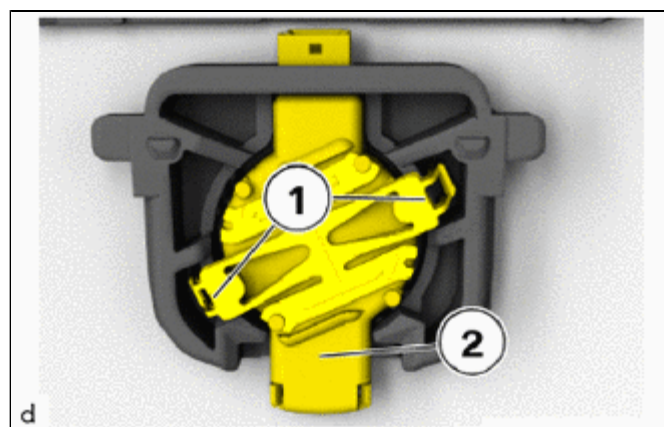
(b) Push in retaining springs (1) on both sides and disengage the lock by means of a screwdriver.

NOTICE:

- Damage to silicone surface.

A damaged silicone surface can lead to malfunctioning of the rain sensor (2).

- Do not touch or damage the silicone-coated surface on the rain sensor (2).



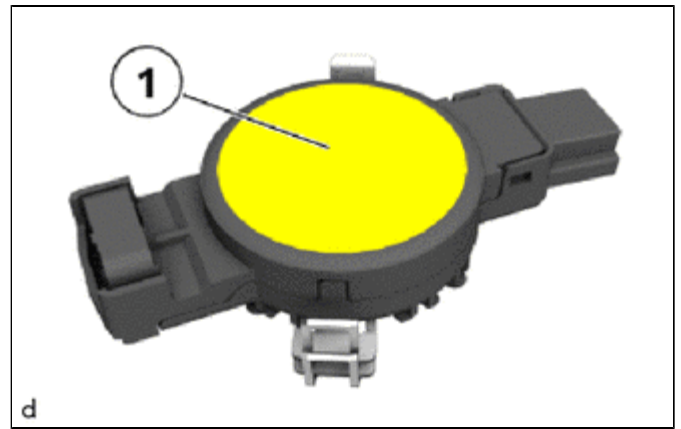
(c) Remove the rain sensor slowly off the windshield glass. At the same time, monitor the release of the silicone area (1) from outside.

NOTICE:

The silicone surface must evenly loosen from the windshield glass, if applicable, lower the pull-off force.

HINT:

After releasing lock, wait approx. 30 minutes. at 20°C (68°F) for silicone surface to relax.



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: HEATING / AIR CONDITIONING: SOLAR SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL RAIN SENSOR

NOTICE:

- Damage to silicone surface.

A damaged silicone surface can lead to malfunctioning of the rain sensor.

- Do not touch or damage the silicone-coated surface on the rain sensor.

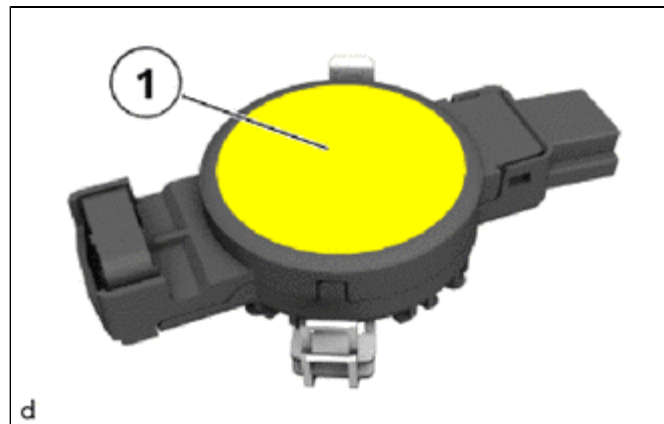
HINT:

After releasing lock, wait approx. 30 minutes. at 20°C (68°F) for silicone surface to relax.

(a) Check silicone surface (1) for damage.

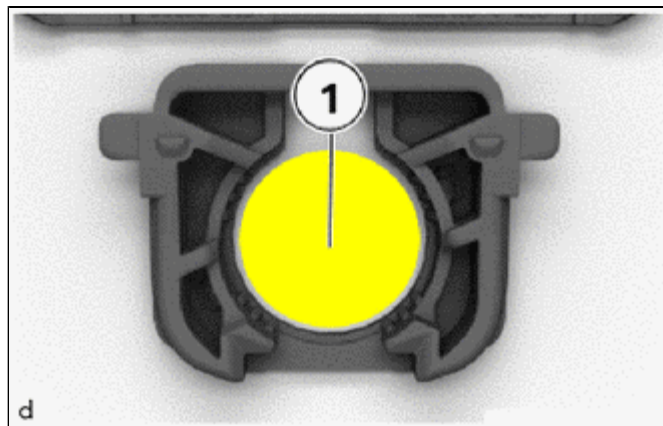
HINT:

- Silicone surface (1) is damaged.
 - Replace rain sensor.



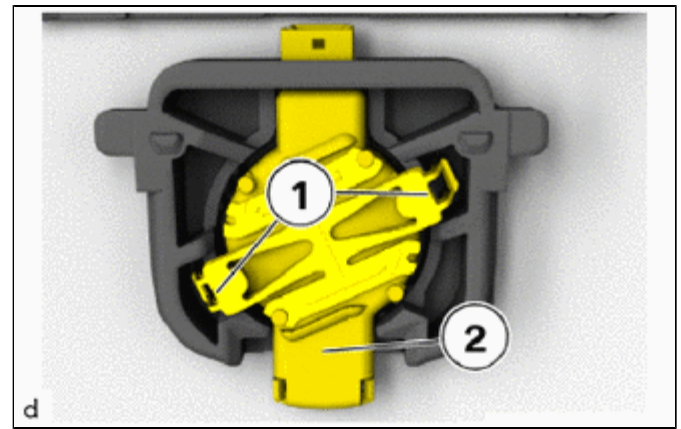
d

(b) Carefully clean windshield glass in the contact area (1) of rain sensor.



d

(c) Install the rain sensor (2) into the holder and press on centered on the retaining springs (1).

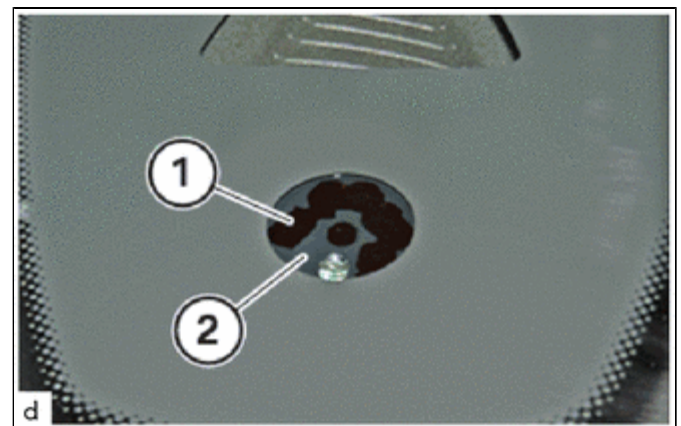


(d) Successively press down the retaining springs (1) on each side to lock it.

(e) Check contact surfaces for air pockets from the outside.

HINT:

- Visible shadows (1) are not air pockets, but the optical element of the rain sensor (2).
- The shadows (1) do not indicate a functional limitation.
- Contact surface has air pockets.
 - Remove the rain sensor and install again.



(f) Connect the connector (1).

2. INSTALL INNER REAR VIEW MIRROR ASSEMBLY

Click here [INFO](#)