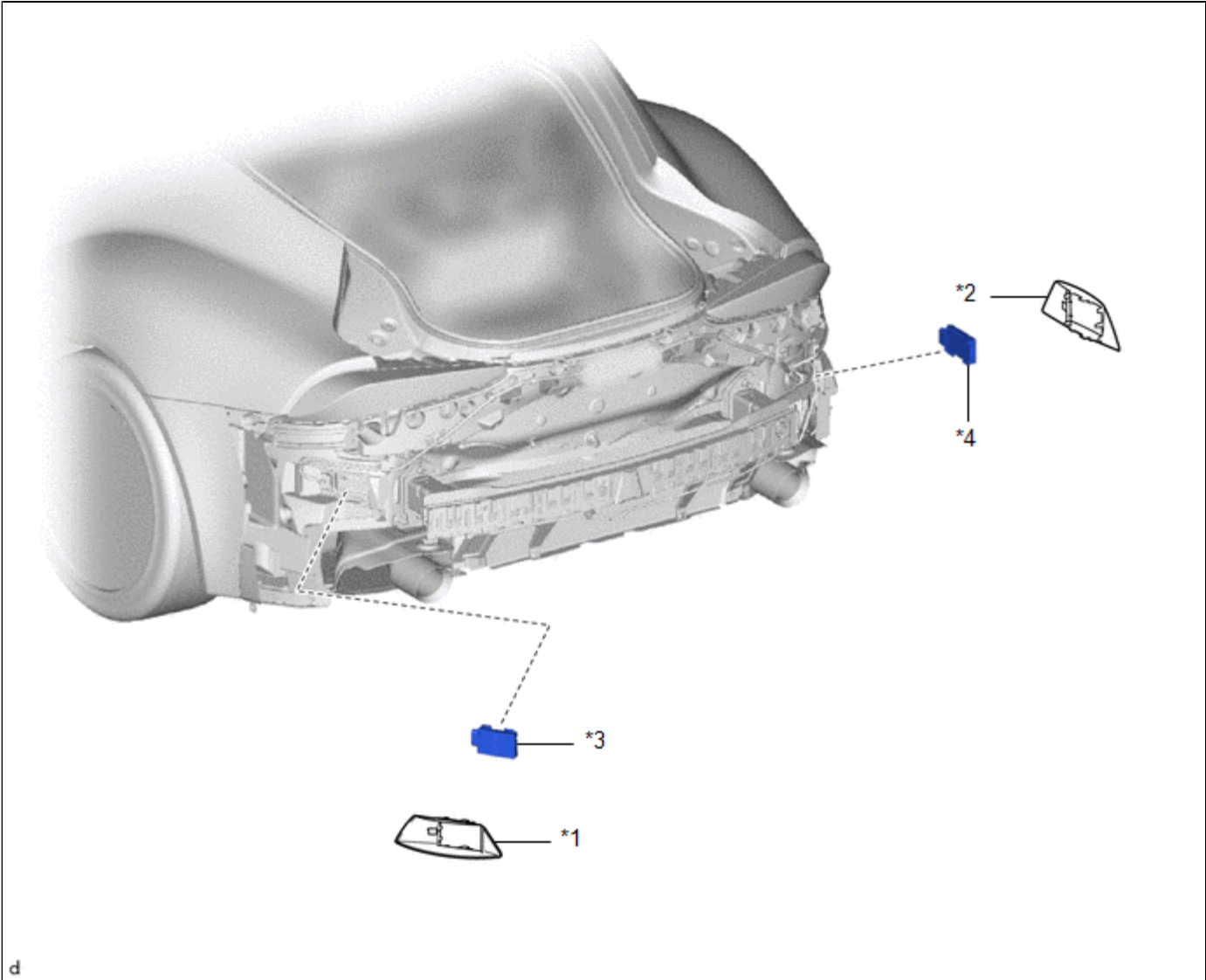


Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPR
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: BLIND SPOT MONITOR SENSOR: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	ABSORBER FUNNEL LH	*2	ABSORBER FUNNEL RH
*3	BLIND SPOT MONITOR SENSOR LH	*4	BLIND SPOT MONITOR SENSOR RH

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPS
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: BLIND SPOT MONITOR SENSOR: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

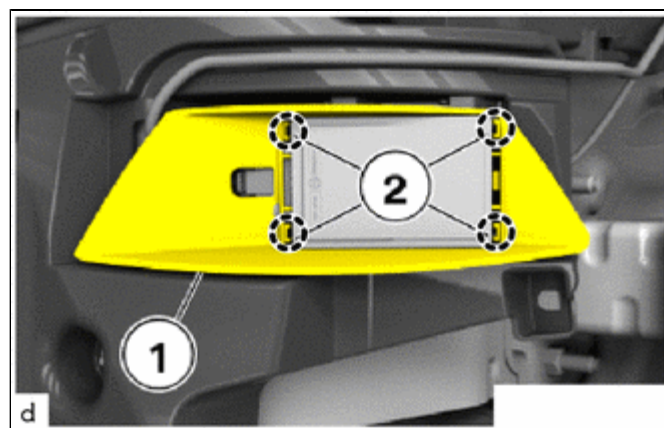
PROCEDURE

1. REMOVE REAR BUMPER ASSEMBLY

Click here [INFO](#)

2. REMOVE ABSORBER FUNNEL LH

(a) Detach the claws (2) to remove the absorber funnel LH (1).



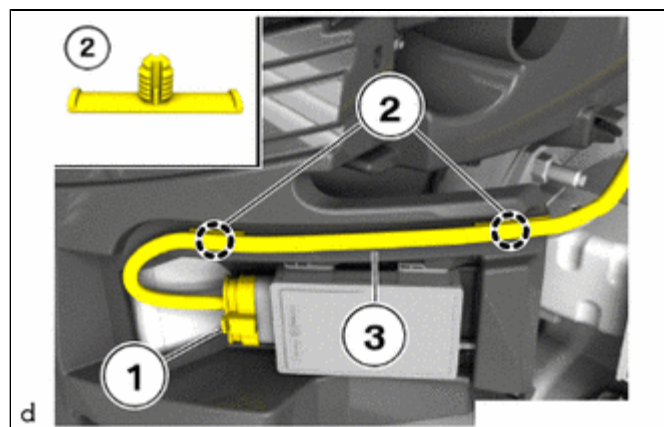
3. REMOVE ABSORBER FUNNEL RH

HINT:

Use the same procedure as for the LH side.

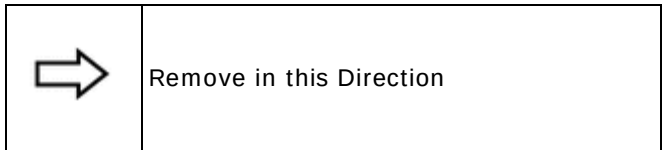
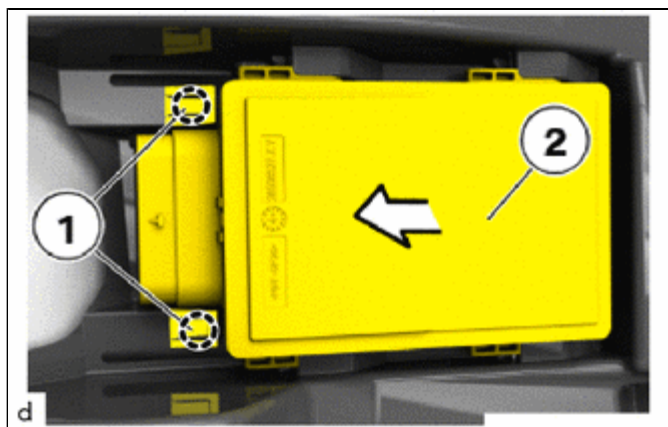
4. REMOVE BLIND SPOT MONITOR SENSOR LH

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



(b) Detach the clips (2) to separate the wiring harness (3).

(c) Detach the claws (1) to remove the blind spot monitor sensor LH (2) in the direction of the arrow.



5. REMOVE BLIND SPOT MONITOR SENSOR RH

HINT:
Use the same procedure as for the LH side.

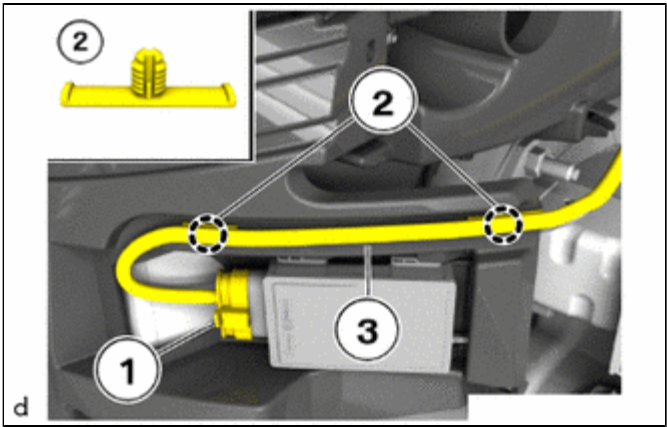
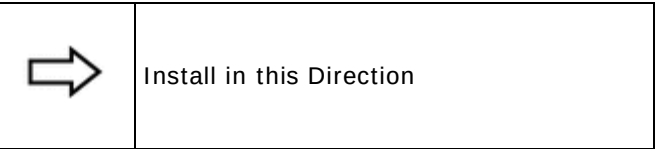
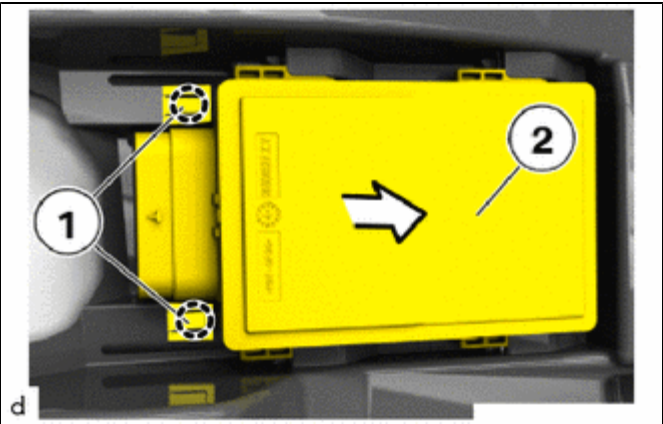
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPT
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: BLIND SPOT MONITOR SENSOR: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL BLIND SPOT MONITOR SENSOR LH

(a) Attach the claws (1) to install the blind spot monitor sensor (2) in the direction of the arrow.



(b) Attach the clips (2) to connect the wiring harness (3).

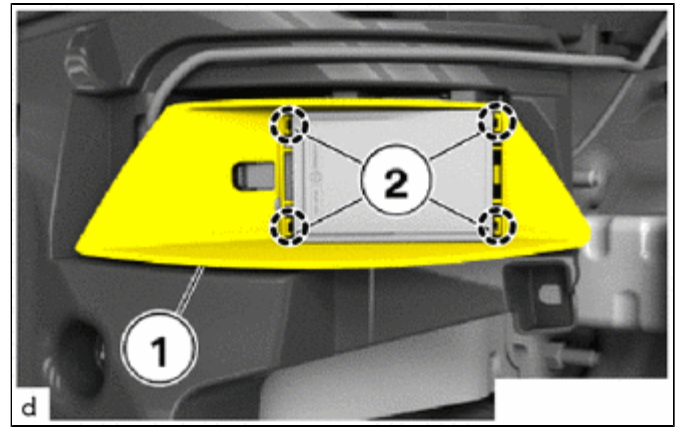
(c) Connect connector (1) and lock.

2. INSTALL BLIND SPOT MONITOR SENSOR RH

HINT:
Use the same procedure as for the LH side.

3. INSTALL ABSORBER FUNNEL LH

(a) Attach the claws (2) to install the absorber funnel LH (1).



4. INSTALL ABSORBER FUNNEL RH

HINT:

Use the same procedure as for the LH side.

5. INSTALL REAR BUMPER ASSEMBLY

Click here [INFO](#)

6. ENCODE / PROGRAM CONTROL UNIT(S)

NOTICE:

- Use the most recent software version to prevent faults during programming/encoding.
- The battery voltage must not drop below 13.0 V during programming.
- Use only recommended chargers for a low-voltage vehicle electrical system.
- Do not exceed the maximum charging voltage of 14.8 V when charging the battery.
- When there is communication abnormality in the middle of work, control unit might be damaged.

(a) Connect the battery charger to the vehicle.

(b) Connect the diagnosis system with the vehicle.

(c) Determine the action plan.

Service plan / Programming plan / Action plan / Calculate action plan

(d) Accept and fully process the measures plan.

Service plan / Programming plan / Action plan / Perform action plan

(e) Wait until programming/encoding has been completed.

NOTICE:

When there is communication abnormality in the middle of work, control unit might be damaged.

(f) Carry out vehicle test.

Vehicle management / Troubleshooting / Fault memory / Calculate test plan

(g) Delete the fault memory.

Vehicle management / Troubleshooting / Fault memory / Delete fault memory

(h) Disconnect the diagnosis system from the vehicle.

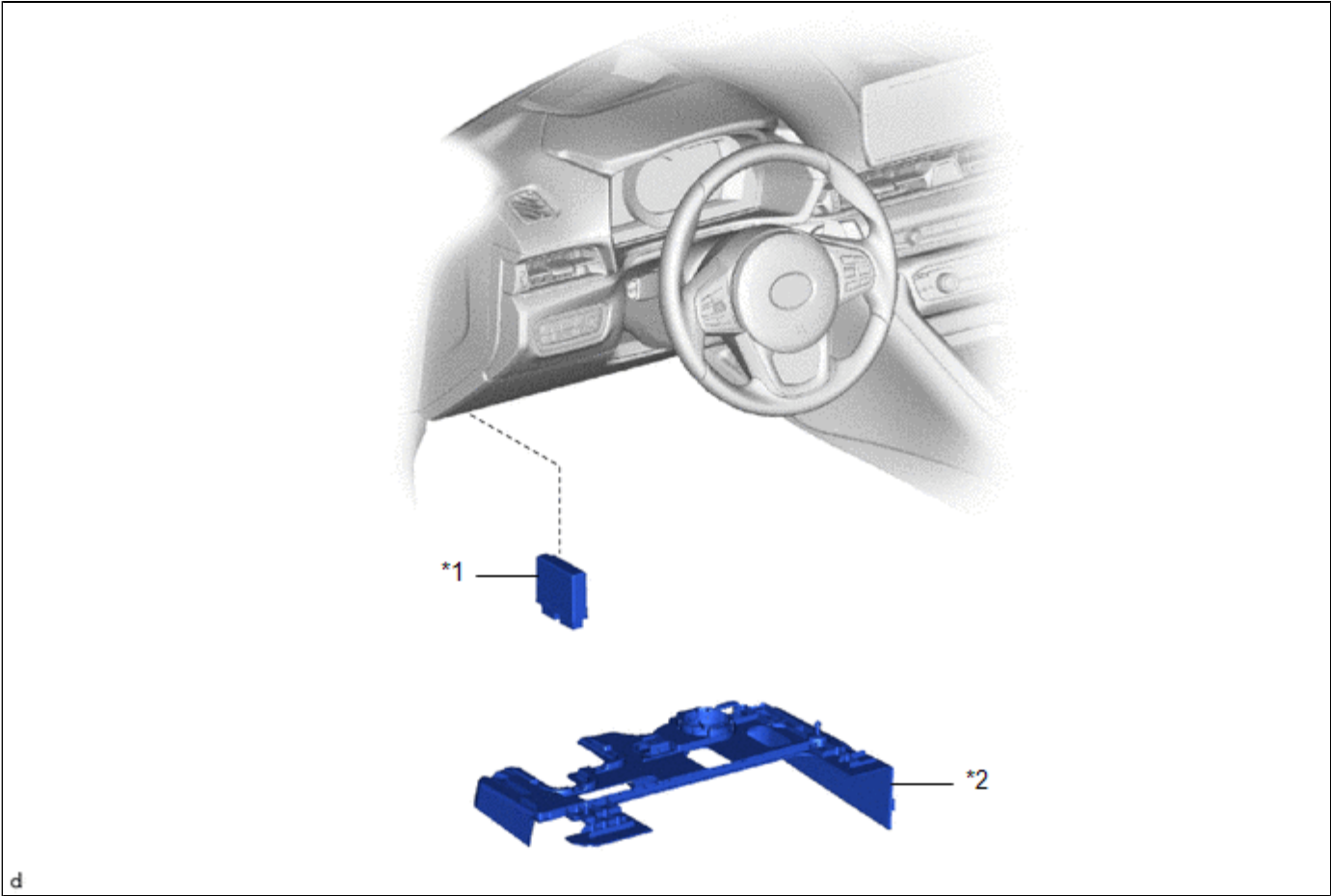
(i) Disconnect the battery charger from the vehicle.



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPL
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: CLEARANCE WARNING ECU: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	CLEARANCE WARNING ECU ASSEMBLY	*2	NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY
----	--------------------------------	----	---

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPM
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: CLEARANCE WARNING ECU: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

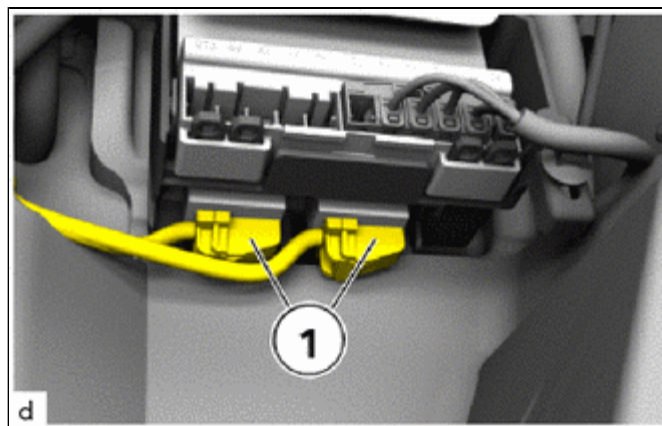
PROCEDURE

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

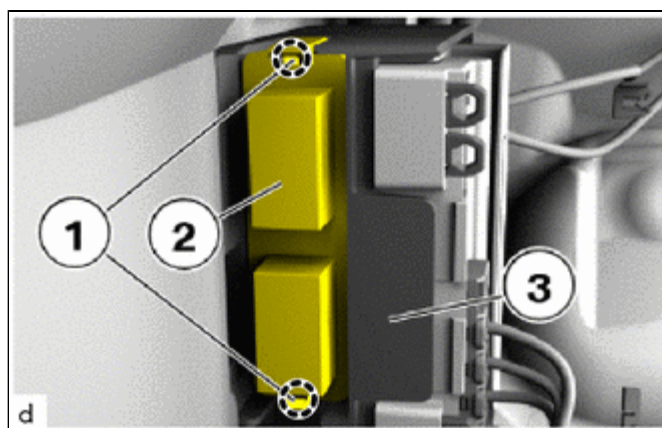
Click here [INFO](#)

2. REMOVE CLEARANCE WARNING ECU ASSEMBLY

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



(b) Detach the claws (1) to remove the clearance warning ECU assembly (2) from the holder (3).



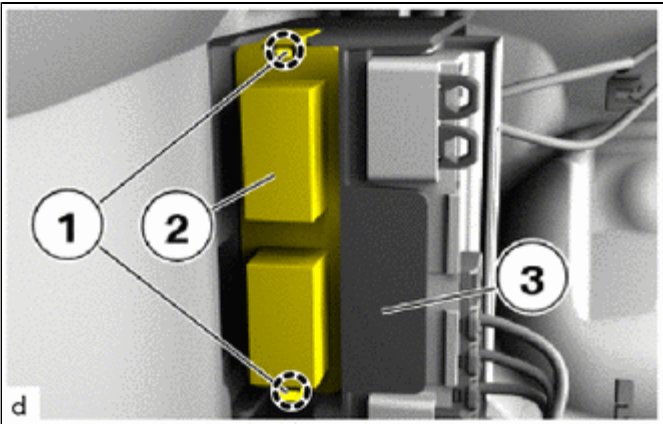
Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPN
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: CLEARANCE WARNING ECU: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

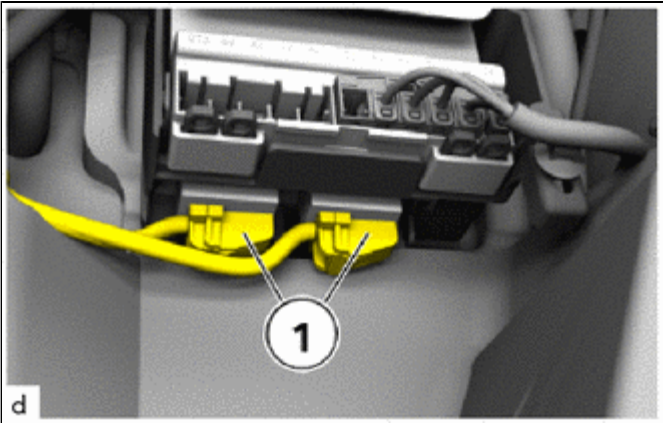
PROCEDURE

1. INSTALL CLEARANCE WARNING ECU ASSEMBLY

(a) Attach the claws (1) to install the clearance warning ECU assembly (2) to the holder (3).



(b) Connect connectors (1) and lock.



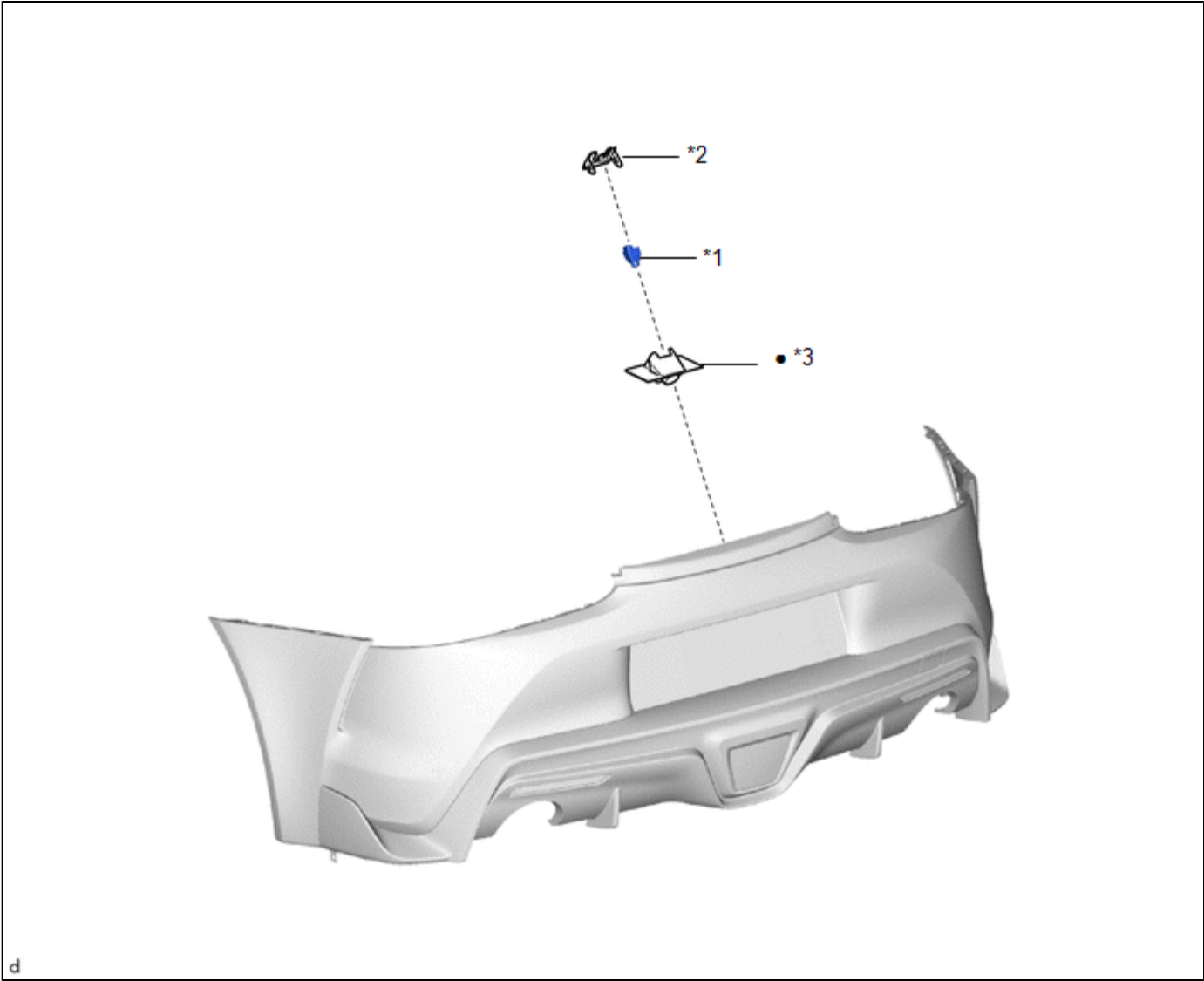
2. INSTALL NO. 1 INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY

Click here [INFO](#)

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPU
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: TELEVISION CAMERA: COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	TELEVISION CAMERA ASSEMBLY	*2	HOLDER
*3	BRACKET FOR REAR VIEW CAMERA	-	-
•	Non-reusable part	-	-

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: TELEVISION CAMERA: REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

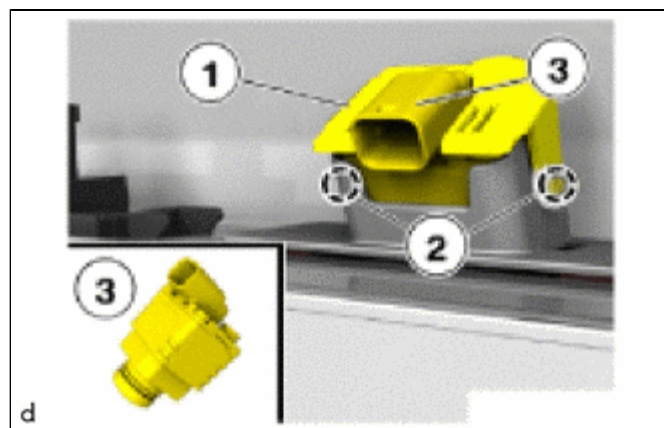
PROCEDURE

1. REMOVE REAR BUMPER ASSEMBLY

Click here [INFO](#)

2. REMOVE TELEVISION CAMERA ASSEMBLY

(a) Detach the claws (2) to remove the holder (1).



(b) Remove the television camera assembly (3).

3. REMOVE BRACKET FOR REAR VIEW CAMERA

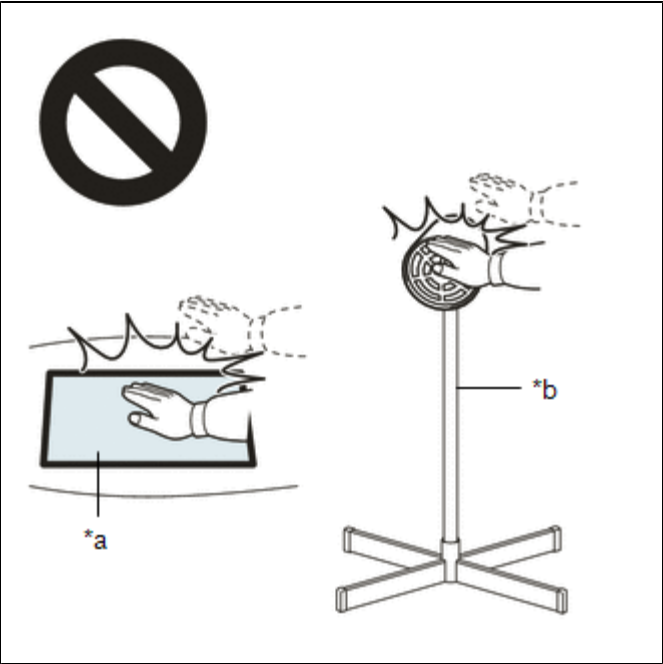
HINT:

- Perform this procedure only when replacement of the bracket for rear view camera is necessary.
- When removing the bracket for rear view camera, heat the rear bumper assembly and bracket for rear view camera using a heat light.

(a) Heat the rear bumper assembly and bracket for rear view camera using a heat light.

CAUTION:

- Do not touch the heat light and heated parts.
- Touching the heat light may result in burns.
- Touching heated parts for a long time may result in burns.

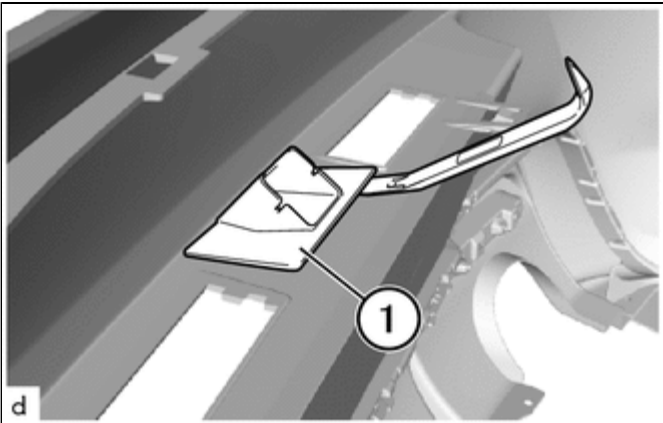


*a	Heated Part
*b	Heat Light

Standard:

ITEM	TEMPERATURE
Rear Bumper Assembly	40 to 50°C (104 to 122°F)
Bracket for Rear View Camera	

(b) Using a moulding remover A, remove the bracket for rear view camera (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: TELEVISION CAMERA: INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

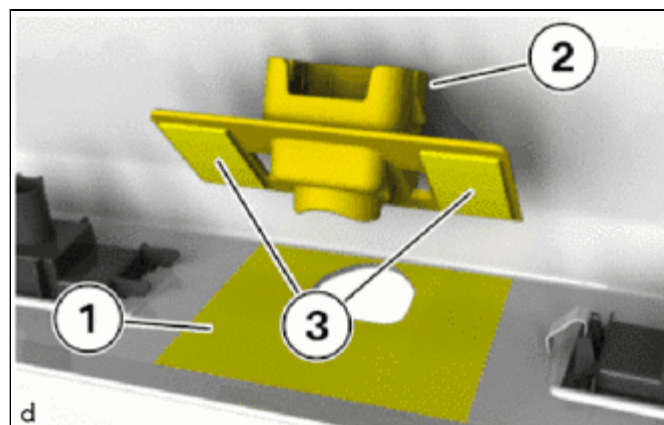
PROCEDURE

1. INSTALL BRACKET FOR REAR VIEW CAMERA

HINT:

Perform this procedure only when replacement of the bracket for rear view camera is necessary.

- (a) Replace the bracket for rear view camera (2).



- (b) Remove adhesive residue on the tailgate and clean the adhesive area (1) with cleaner.

Cleaner:

Cleaner R2

- (c) Peel off the release paper from the bracket for rear view camera.

HINT:

After removing the peeling paper, do not touch the surface of the tape with your fingers or cotton work gloves.

- (d) Position the bracket for rear view camera (2) and press the adhesive strips (3) on tight.

NOTICE:

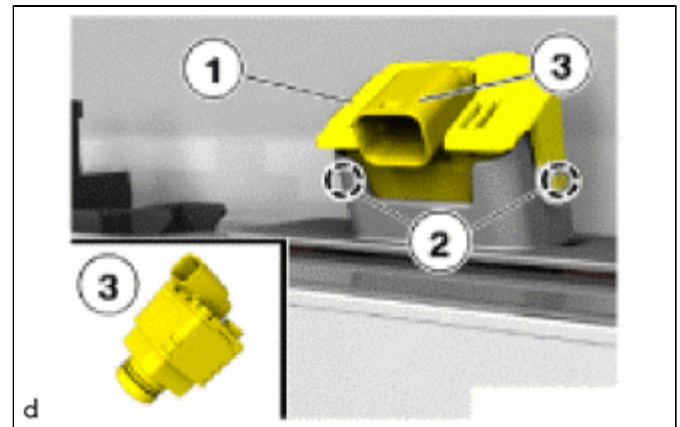
- Make sure that the rear bumper assembly and the bracket for rear view camera are properly aligned.
- Detaching and reattaching a bracket for rear view camera will degrade its adhesive performance, so if reattachment is necessary, make sure to clean the installation surface again and replace the bracket for rear view camera with a new one.

HINT:

Press the area shown in the illustration with a force of to securely install the bracket for rear view camera to the rear bumper assembly. Confirm there is no clearance between the bracket for rear view camera and rear bumper assembly.

2. INSTALL TELEVISION CAMERA ASSEMBLY

(a) Install the television camera assembly (3).



(b) Attach the claws (2) to install the holder (1).

3. INSTALL REAR BUMPER ASSEMBLY

Click here [INFO](#)

4. ENCODE / PROGRAM CONTROL UNIT(S)

NOTICE:

- Use the most recent software version to prevent faults during programming/encoding.
- The battery voltage must not drop below 13.0 V during programming.
- Use only recommended chargers for a low-voltage vehicle electrical system.
- Do not exceed the maximum charging voltage of 14.8 V when charging the battery.
- When there is communication abnormality in the middle of work, control unit might be damaged.

(a) Connect the battery charger to the vehicle.

(b) Connect the diagnosis system with the vehicle.

(c) Determine the action plan.

Service plan / Programming plan / Action plan / Calculate action plan

(d) Accept and fully process the measures plan.

Service plan / Programming plan / Action plan / Perform action plan

(e) Wait until programming/encoding has been completed.

NOTICE:

When there is communication abnormality in the middle of work, control unit might be damaged.

(f) Carry out vehicle test.

Vehicle management / Troubleshooting / Fault memory / Calculate test plan

(g) Delete the fault memory.

Vehicle management / Troubleshooting / Fault memory / Delete fault memory

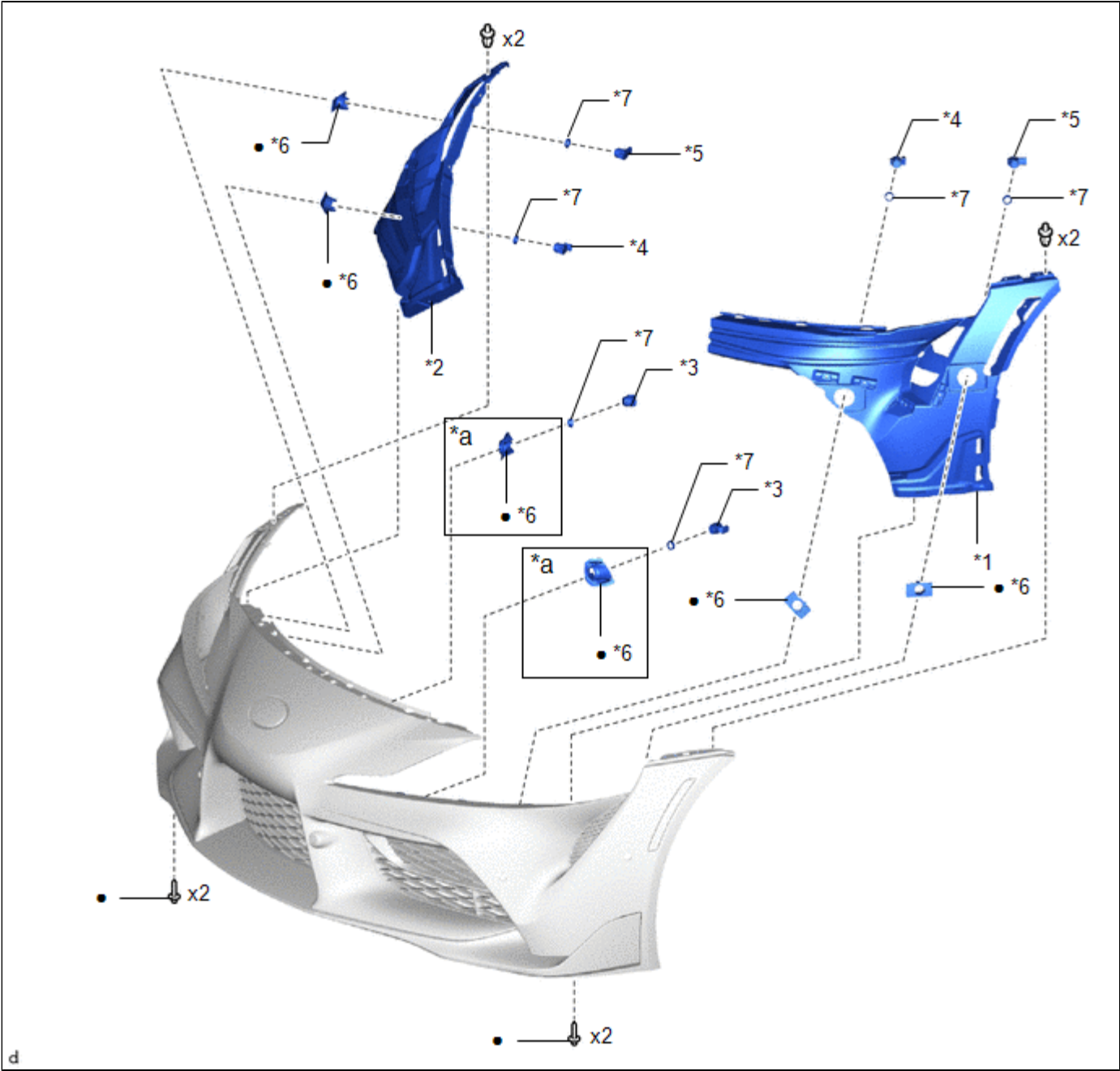
(h) Disconnect the diagnosis system from the vehicle.

(i) Disconnect the battery charger from the vehicle.

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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: ULTRASONIC SENSOR (for Front): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	FRONT BUMPER SIDE RETAINER LH	*2	FRONT BUMPER SIDE RETAINER RH
*3	FRONT CENTER ULTRASONIC SENSOR	*4	FRONT CORNER ULTRASONIC SENSOR
*5	FRONT SIDE ULTRASONIC SENSOR	*6	NO. 1 ULTRASONIC SENSOR

			RETAINER
*7	ULTRASONIC SENSOR O-RING	-	-
*a	The No. 1 ultrasonic sensor retainer of the front center ultrasonic sensor is welded to the front bumper assembly and cannot be removed.	-	-
•	Non-reusable part	-	-



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: ULTRASONIC SENSOR (for Front): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE FRONT BUMPER ASSEMBLY

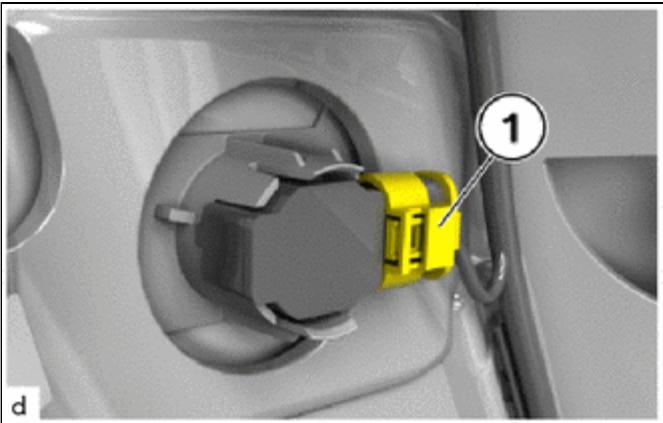
Click here [INFO](#)

2. REMOVE FRONT SIDE ULTRASONIC SENSOR

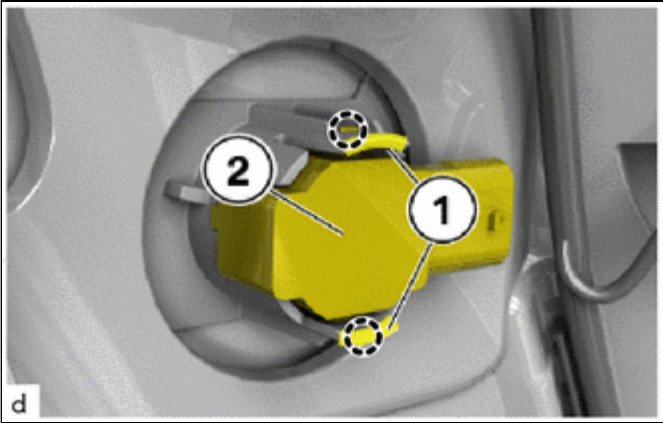
HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

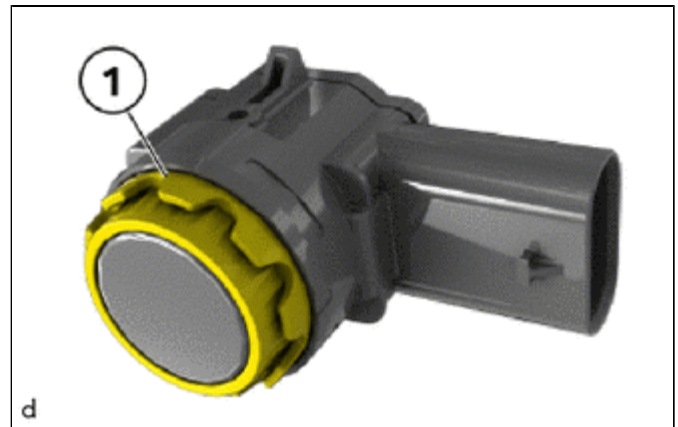
(a) Unlock plug connection (1) and disconnect.



(b) Detach the claws (1) to remove the front side ultrasonic sensor (2).



(c) Remove the ultrasonic sensor O-ring (1).

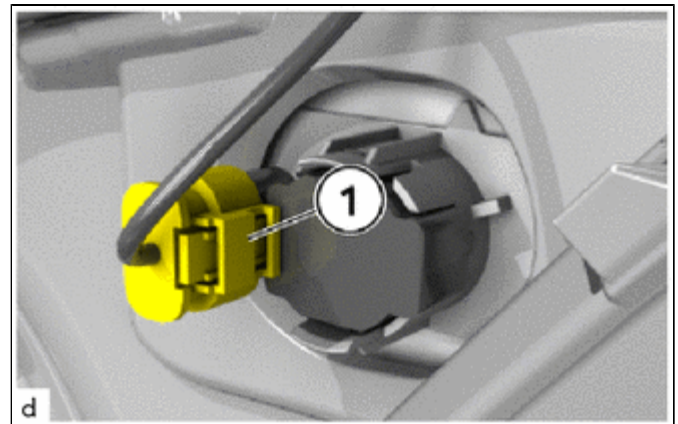


3. REMOVE FRONT CORNER ULTRASONIC SENSOR

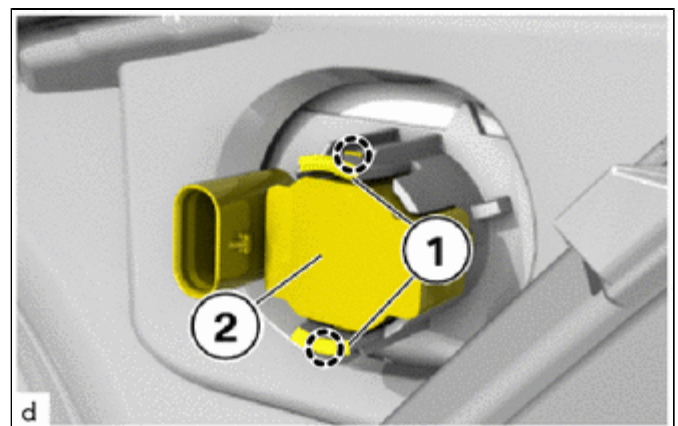
HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

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



(b) Detach the claws (1) to remove the front corner ultrasonic sensor (2).





(c) Remove the ultrasonic sensor O-ring (1).

4. REMOVE FRONT CENTER ULTRASONIC SENSOR

HINT:

Use the same procedure as for the front corner ultrasonic sensor.

5. REMOVE FRONT BUMPER SIDE RETAINER LH

Click here [INFO](#)

6. REMOVE FRONT BUMPER SIDE RETAINER RH

HINT:

Use the same procedure as for the LH side.

7. REMOVE NO. 1 ULTRASONIC SENSOR RETAINER

HINT:

- Perform this procedure only when replacement of the No. 1 ultrasonic sensor retainer is necessary.
- When removing the No. 1 ultrasonic sensor retainer, heat the front bumper assembly and No. 1 ultrasonic sensor retainer using a heat light.
- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

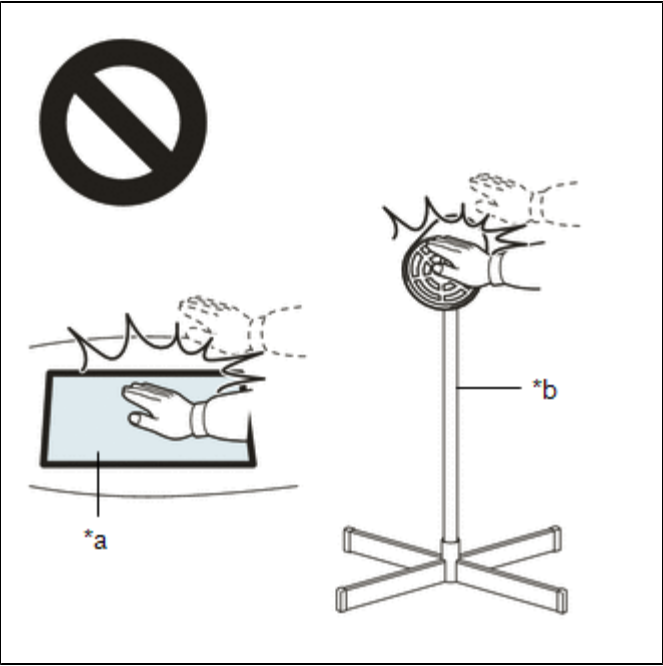
(a) Heat the front bumper assembly and No. 1 ultrasonic sensor retainer using a heat light at the specified temperature.

Heating Temperature:

ITEM	TEMPERATURE
Front Bumper Assembly	40 to 50°C (104 to 122°F)
No. 1 Ultrasonic Sensor Retainer	

CAUTION:

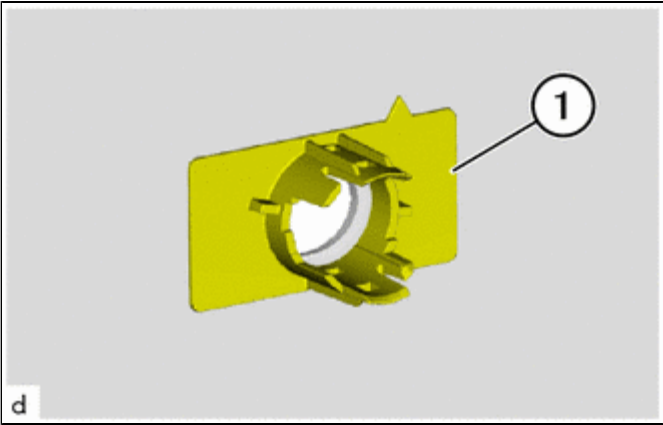
- Do not touch the heat light and heated parts.
- Touching the heat light may result in burns.
- Touching heated parts for a long time may result in burns.



*a	Heated Part
*b	Heat Light

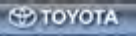
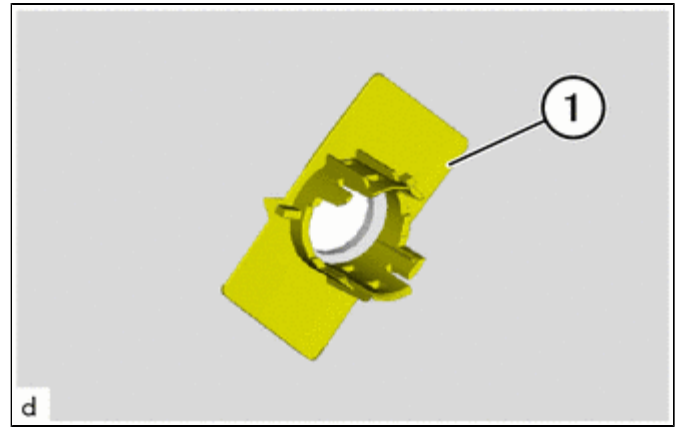
(b) for front side:

(1) Remove the No. 1 ultrasonic sensor retainer (1).



(c) for front corner sid:

(1) Remove the No. 1 ultrasonic sensor retainer (1).



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Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: ULTRASONIC SENSOR (for Front): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 1 ULTRASONIC SENSOR RETAINER

- HINT:**
 - Perform this procedure only when replacement of the No. 1 ultrasonic sensor retainer is necessary.
 - The illustration is for the LH side.
 - The orientation for the RH side is the opposite of the LH side.
- (a) for front side:

HINT:

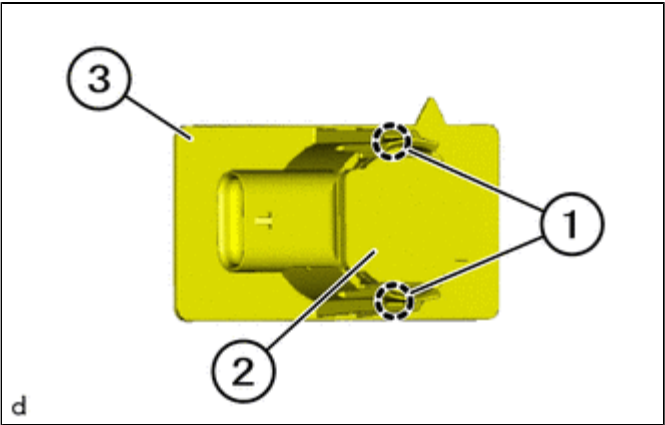
If a No. 1 ultrasonic sensor retainer has been removed, replace it with a new one. Install the front side ultrasonic sensor with a new No. 1 ultrasonic sensor retainer as a set to the front bumper assembly.

 - Remove any remaining double-sided tape from the front bumper assembly.
 - Install the ultrasonic sensor O-ring.

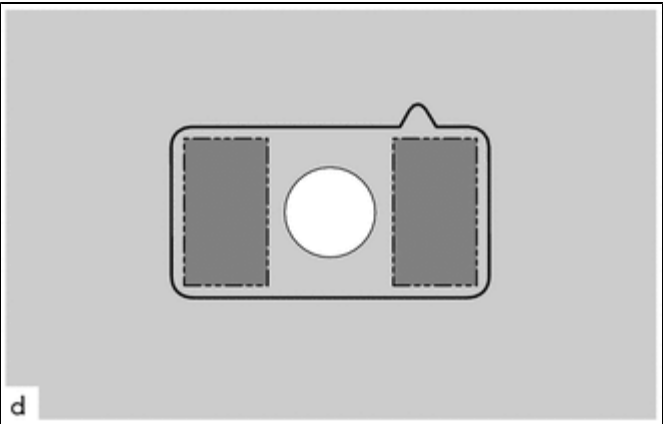
- (3) Attach the claws (1) to install the front side ultrasonic sensor (2) to a new No. 1 ultrasonic sensor retainer (3).

- HINT:**

To align the positions of the front bumper assembly and ultrasonic sensor, assemble the front side ultrasonic sensor (2) and No. 1 ultrasonic sensor retainer (3) as a single part.



- (4) Using sandpaper (#80 is recommended), slightly roughen the installation surfaces of the No. 1 ultrasonic sensor retainer as shown in the illustration.



	No. 1 Ultrasonic Sensor Retainer Installation Surface
--	--

(5) Using cleaner, clean the areas that were roughened by the sandpaper.

Cleaner:

Cleaner R2

(6) Peel off the release paper from the No. 1 ultrasonic sensor retainer.

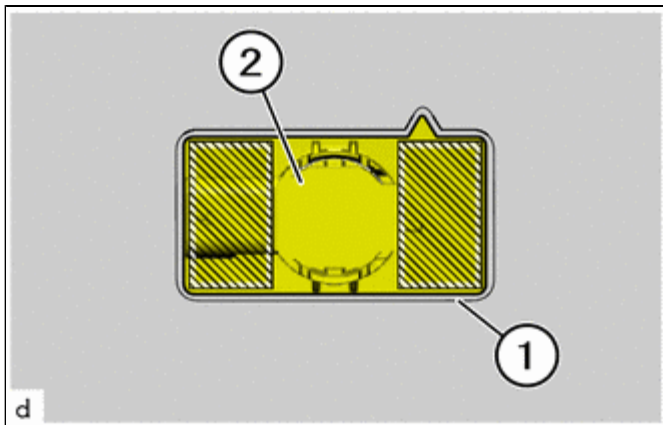
HINT:

After removing the peeling paper, do not touch the surface of the tape with your fingers or cotton work gloves.

(7) Align the No. 1 ultrasonic sensor retainer and front side ultrasonic sensor (2) with the scribed line (1) on the front bumper assembly and install it as shown in the illustration.

NOTICE:

- Make sure that the front bumper assembly and the front side ultrasonic sensor are properly aligned.
- Detaching and reattaching a No. 1 ultrasonic sensor retainer will degrade its adhesive performance, so if reattachment is necessary, make sure to clean the installation surface again and replace the No. 1 ultrasonic sensor retainer with a new one.



	Press area
--	------------

HINT:

Press the area shown in the illustration with a force of to securely install the No. 1 ultrasonic sensor retainer to the front bumper assembly. Confirm there is no clearance between the No. 1 ultrasonic sensor retainer and front bumper assembly.

(b) for front corner side:

HINT:

If a No. 1 ultrasonic sensor retainer has been removed, replace it with a new one. Install the front corner ultrasonic sensor with a new No. 1 ultrasonic sensor retainer as a set to the front bumper assembly.

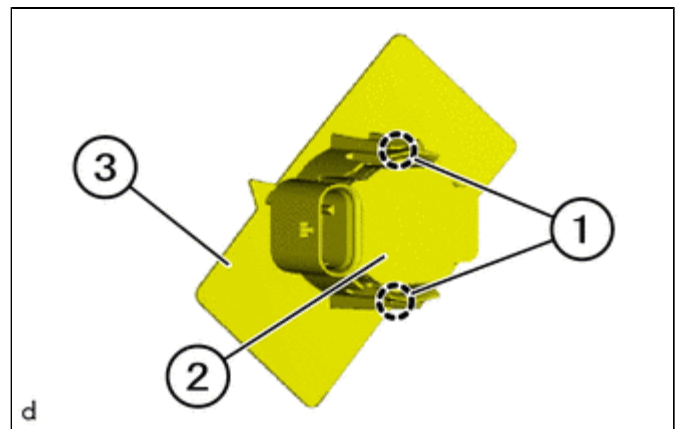
(1) Remove any remaining double-sided tape from the front bumper assembly.

(2) Install the ultrasonic sensor O-ring.

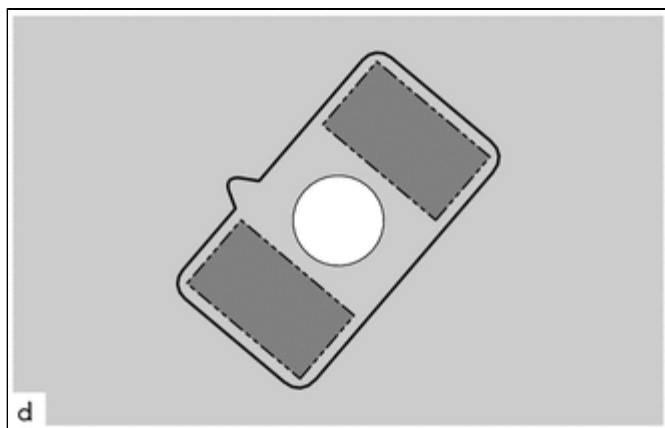
(3) Attach the claws (1) to install the front corner ultrasonic sensor (2) to a new No. 1 ultrasonic sensor retainer (3).

HINT:

To align the positions of the front bumper assembly and ultrasonic sensor, assemble the front corner ultrasonic sensor (2) and No. 1 ultrasonic sensor retainer (3) as a single part.



(4) Using sandpaper (#80 is recommended), slightly roughen the installation surfaces of the No. 1 ultrasonic sensor retainer as shown in the illustration.



	No. 1 Ultrasonic Sensor Retainer Installation Surface
--	--

(5) Using cleaner, clean the areas that were roughened by the sandpaper.

Cleaner:

Cleaner R2

(6) Peel off the release paper from the No. 1 ultrasonic sensor retainer.

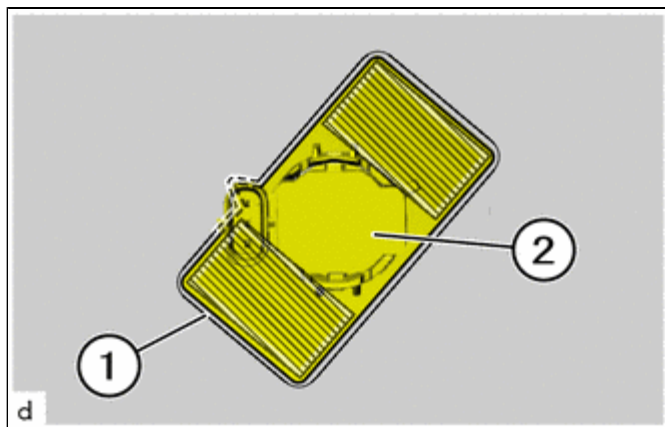
HINT:

After removing the peeling paper, do not touch the surface of the tape with your fingers or cotton work gloves.

(7) Align the No. 1 ultrasonic sensor retainer and front corner ultrasonic sensor (2) with the scribed line (1) on the front bumper assembly and install it as shown in the illustration.

NOTICE:

- Make sure that the front bumper assembly and the front corner ultrasonic sensor are properly aligned.
- Detaching and reattaching a No. 1 ultrasonic sensor retainer will degrade its adhesive performance, so if reattachment is necessary, make sure to clean the installation surface again and replace the No. 1 ultrasonic sensor retainer with a new one.



HINT:

Press the area shown in the illustration with a force of to securely install the No. 1 ultrasonic sensor retainer to the front bumper assembly. Confirm there is no clearance between the No. 1 ultrasonic sensor retainer and front bumper assembly.

(c) for front center side:

HINT:

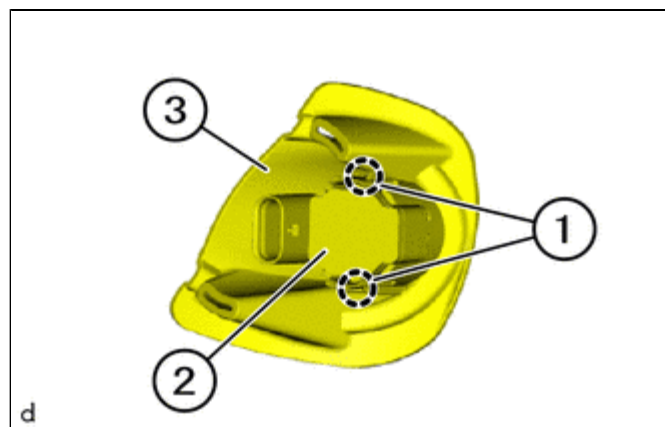
The No. 1 ultrasonic sensor retainer of the front center ultrasonic sensor is welded to the front bumper assembly and cannot be removed.

(1) Install the ultrasonic sensor O-ring.

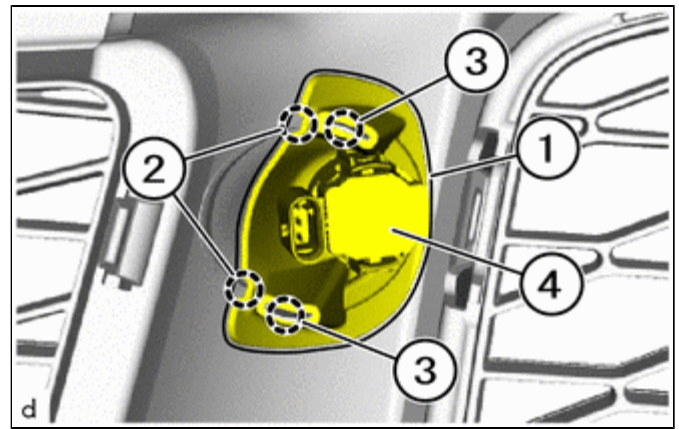
(2) Attach the claws (1) to temporarily install the front center ultrasonic sensor (2) to a new No. 1 ultrasonic sensor retainer (3).

HINT:

To align the positions of the front bumper assembly and ultrasonic sensor, assemble the front center ultrasonic sensor (2) and No. 1 ultrasonic sensor retainer (3) as a single part.



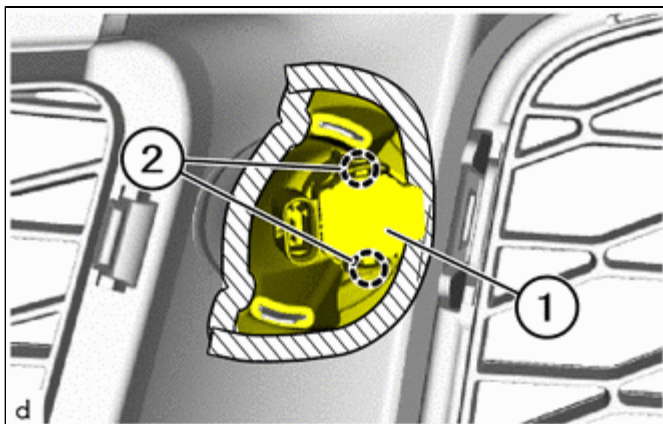
(3) Attach the guides (2) and guides (3).



- (4) Align the No. 1 ultrasonic sensor retainer and front center ultrasonic sensor (4) with the scribed line (1) on the front bumper assembly and position it as shown in the illustration.
- (5) Apply adhesive tape to temporarily install the No. 1 ultrasonic sensor retainer (1) to the front bumper assembly as shown in the illustration.

NOTICE:

Ensure that the sensor tip is correctly inserted into the sensor installation hole of the front bumper assembly.



	Adhesive tape
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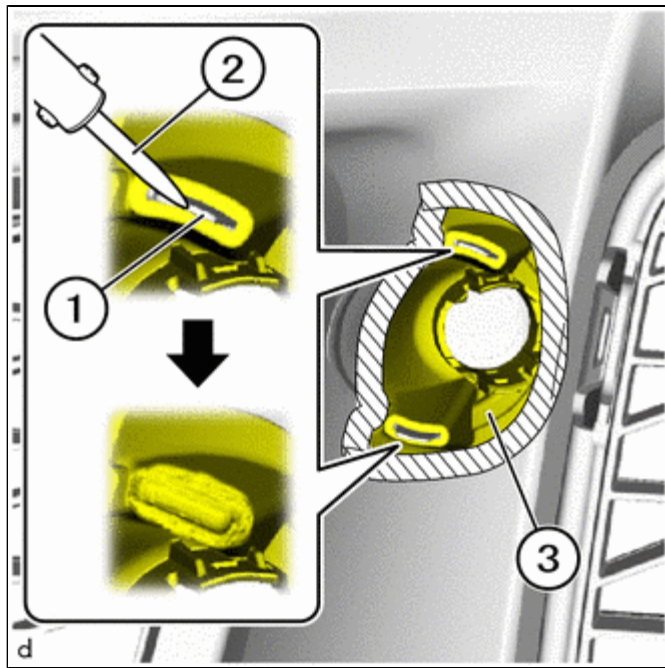
- (6) Detach the claws (2) to remove the front center ultrasonic sensor.

NOTICE:

When removing the front center ultrasonic sensor, make sure that the temporarily installed No. 1 ultrasonic sensor retainer does not come off.

- (7) Using a soldering iron (2), melt the guides (1) of the front bumper assembly to install the No. 1 ultrasonic sensor retainer (3) as shown in the illustration.

SST: 54202



Adhesive tape

CAUTION:

- Do not touch the soldering iron tip or the melted areas.
- Touching the soldering iron tip or the melted areas can result in burns.

NOTICE:

Do not touch the welded portions until they have cooled down.

(8) Check that there is no gap, lifting or looseness between the front bumper assembly and the No. 1 ultrasonic sensor retainer (3).

(9) Remove the adhesive tape.

2. INSTALL FRONT BUMPER SIDE RETAINER LH

Click here [INFO](#)

3. INSTALL FRONT BUMPER SIDE RETAINER RH

HINT:

Use the same procedure as for the LH side.

4. INSTALL FRONT CORNER ULTRASONIC SENSOR

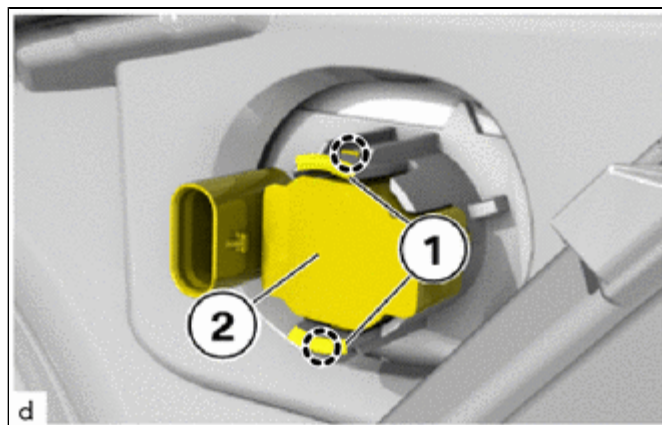
HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

(a) When removing or replacing the front corner ultrasonic sensor:

(1) Install the ultrasonic sensor O-ring.

- (2) Attach the claws (1) to install the front corner ultrasonic sensor (2).



- (b) Connect connector and lock.

5. INSTALL FRONT CENTER ULTRASONIC SENSOR

HINT:

Use the same procedure as for the front corner ultrasonic sensor.

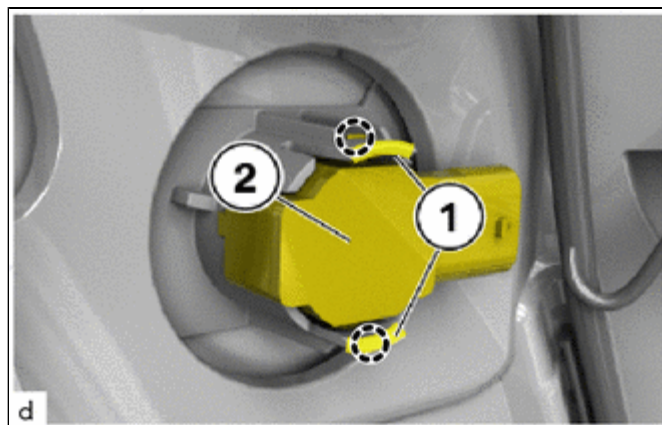
6. INSTALL FRONT SIDE ULTRASONIC SENSOR

HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

- (a) When removing or replacing the front side ultrasonic sensor:

- (1) Install the ultrasonic sensor O-ring.



- (2) Attach the claws (1) to install the front side ultrasonic sensor (2).

- (b) Connect connector and lock.

7. INSTALL FRONT BUMPER ASSEMBLY

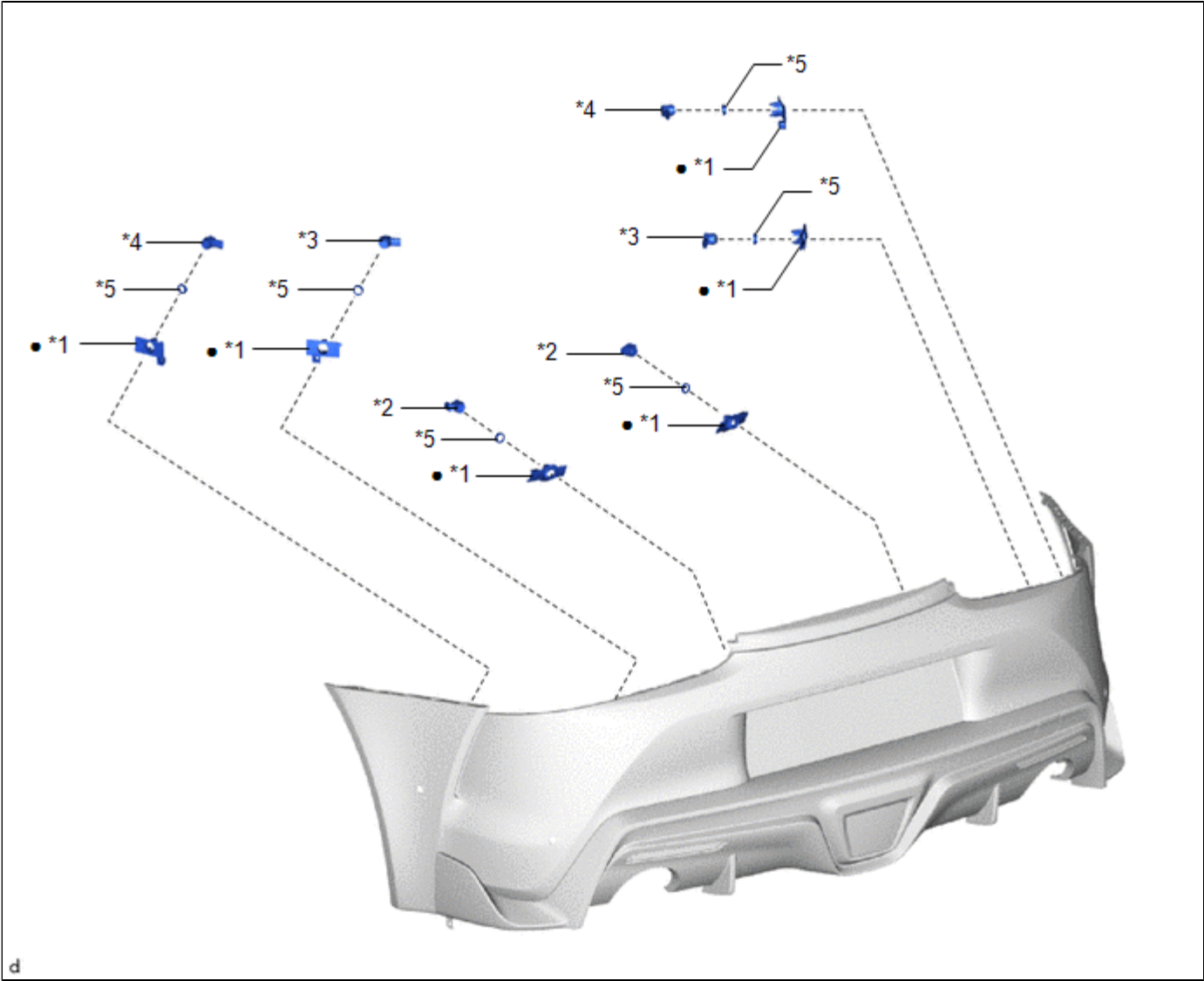
Click here [INFO](#)



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPX
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: ULTRASONIC SENSOR (for Rear): COMPONENTS; 2020 MY Supra [03/2019 -]		

COMPONENTS

ILLUSTRATION



*1	NO. 2 ULTRASONIC SENSOR RETAINER	*2	REAR CENTER ULTRASONIC SENSOR
*3	REAR CORNER ULTRASONIC SENSOR	*4	REAR SIDE ULTRASONIC SENSOR
*5	ULTRASONIC SENSOR O-RING	-	-
●	Non-reusable part	-	-

Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPY
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: ULTRASONIC SENSOR (for Rear): REMOVAL; 2020 MY Supra [03/2019 -]		

REMOVAL

PROCEDURE

1. REMOVE REAR BUMPER ASSEMBLY

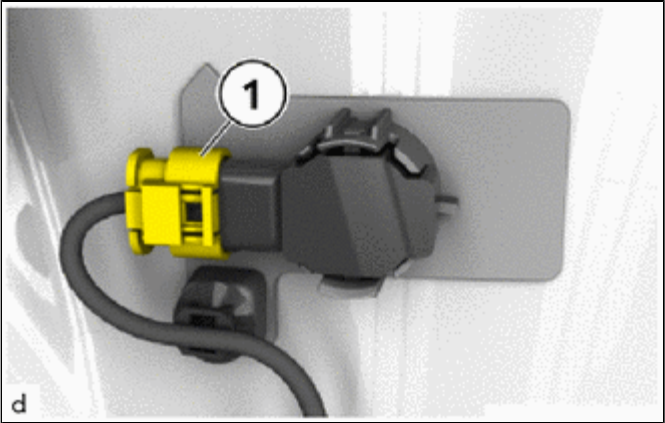
Click here [INFO](#)

2. REMOVE REAR SIDE ULTRASONIC SENSOR

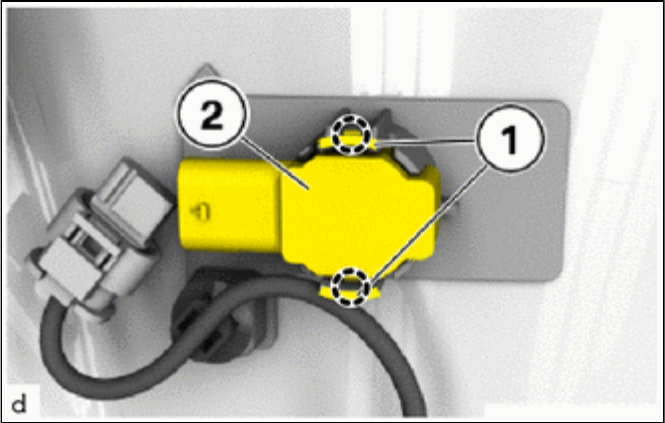
HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

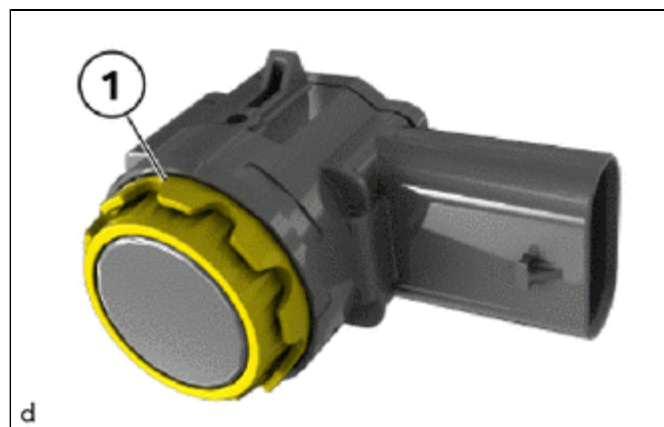
(a) Unlock plug connection (1) and disconnect.



(b) Detach the claws (1) to remove the rear side ultrasonic sensor (2).



(c) Remove the ultrasonic sensor O-ring (1).



3. REMOVE REAR CORNER ULTRASONIC SENSOR

HINT:

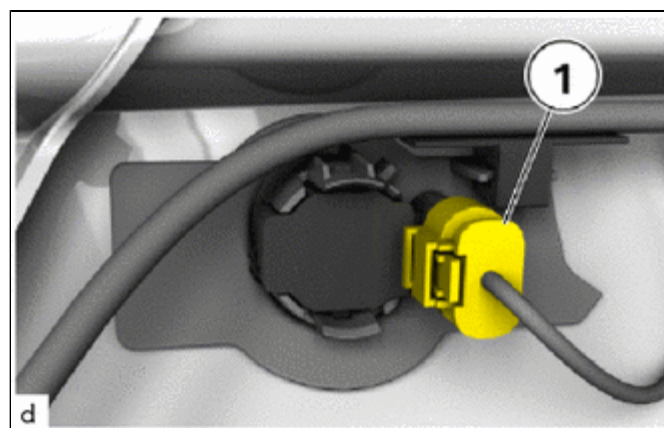
Use the same procedure as for the rear side ultrasonic sensor.

4. REMOVE REAR CENTER ULTRASONIC SENSOR

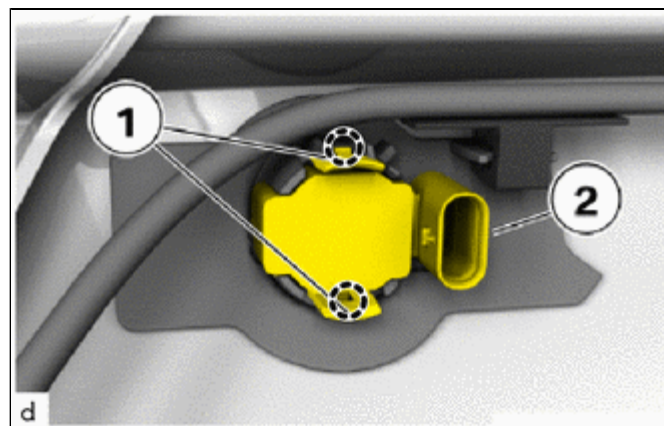
HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

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



(b) Detach the claws (1) to remove the rear center ultrasonic sensor (2).





(c) Remove the ultrasonic sensor O-ring (1).

5. REMOVE NO. 2 ULTRASONIC SENSOR RETAINER

HINT:

- Perform this procedure only when replacement of the No. 2 ultrasonic sensor retainer is necessary.
- When removing the No. 2 ultrasonic sensor retainer, heat the rear bumper assembly and No. 2 ultrasonic sensor retainer using a heat light.
- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

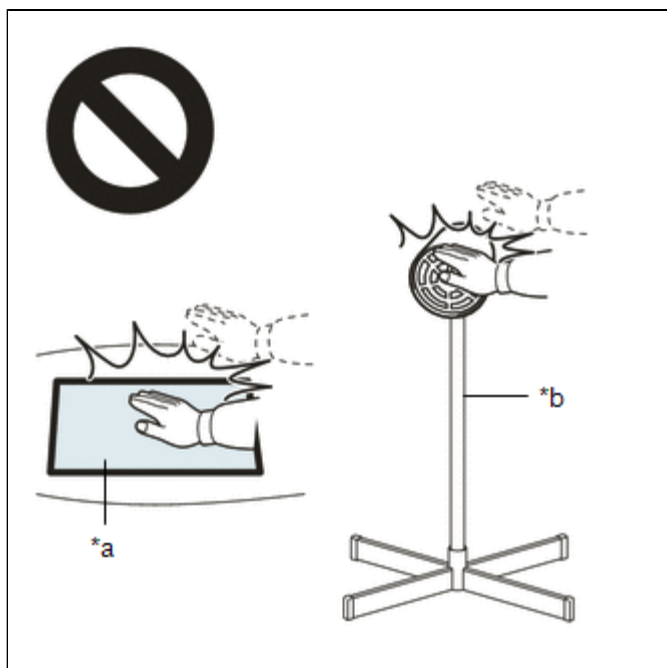
(a) Heat the rear bumper assembly and No. 2 ultrasonic sensor retainer using a heat light at the specified temperature.

Heating Temperature:

ITEM	TEMPERATURE
Rear Bumper Assembly	40 to 50°C (104 to 122°F)
No. 2 Ultrasonic Sensor Retainer	

CAUTION:

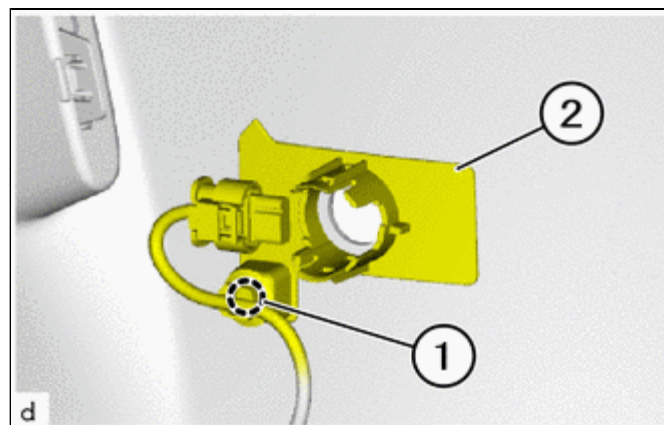
- Do not touch the heat light and heated parts.
- Touching the heat light may result in burns.
- Touching heated parts for a long time may result in burns.



*a	Heated Part
*b	Heat Light

(b) for rear side:

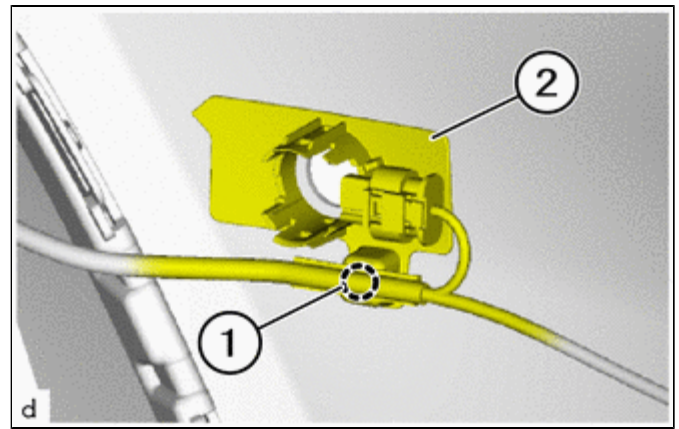
(1) Disengage the clamp (1).



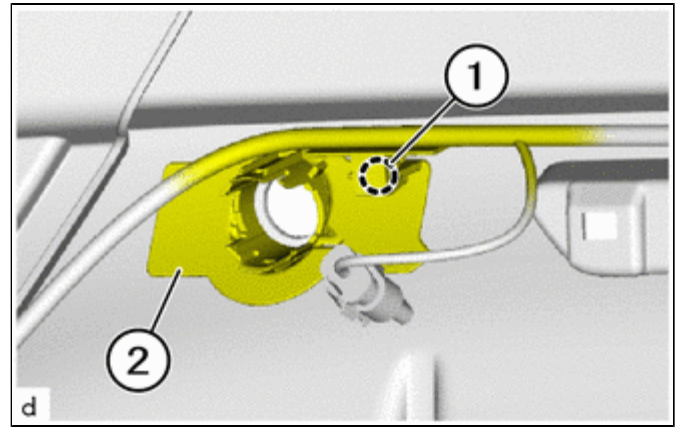
(2) Remove the No. 2 ultrasonic sensor retainer (2).

(c) for rear corner side:

(1) Disengage the clamp (1).



(2) Remove the No. 2 ultrasonic sensor retainer (2).
(d) for rear center side:



(1) Disengage the clamp (1).

(2) Remove the No. 2 ultrasonic sensor retainer (1).



Last Modified: 09-05-2019	6.9:8.0.49	Doc ID: RM100000001JCPZ
Model Year Start: 2020	Model: Supra	Prod Date Range: [03/2019 -]
Title: PARK ASSIST / MONITORING: ULTRASONIC SENSOR (for Rear): INSTALLATION; 2020 MY Supra [03/2019 -]		

INSTALLATION

PROCEDURE

1. INSTALL NO. 2 ULTRASONIC SENSOR RETAINER

HINT:

- Perform this procedure only when replacement of the No. 2 ultrasonic sensor retainer is necessary.
- The illustration is for the LH side.
- The orientation for the RH side is the opposite of the LH side.

(a) for rear side:

HINT:

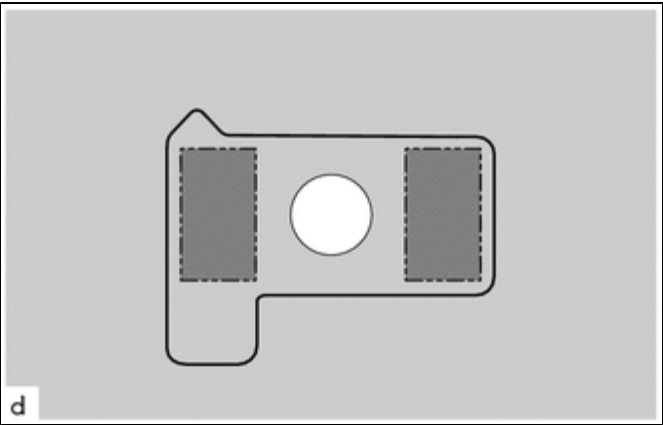
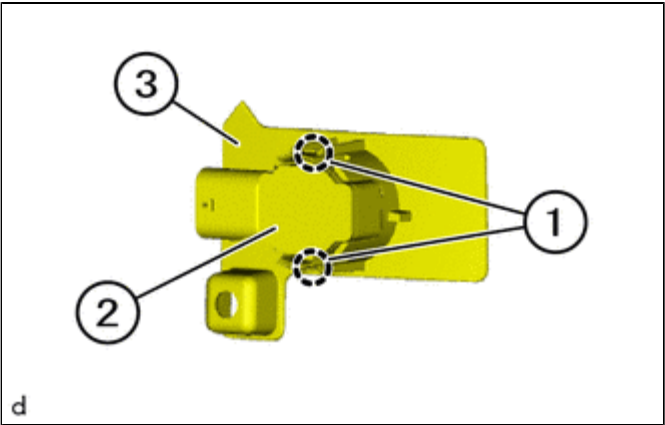
If a No. 2 ultrasonic sensor retainer has been removed, replace it with a new one. Install the rear side ultrasonic sensor with a new No. 2 ultrasonic sensor retainer as a set to the rear bumper assembly.

- (1) Remove any remaining double-sided tape from the rear bumper assembly.
- (2) Install the ultrasonic sensor O-ring.

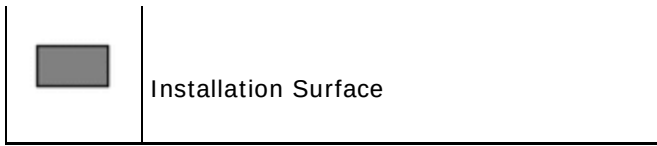
- (3) Attach the claws (1) to install the rear side ultrasonic sensor (2) to a new No. 2 ultrasonic sensor retainer (3).

HINT:

To align the positions of the rear bumper assembly and ultrasonic sensor, assemble the rear side ultrasonic sensor (2) and No. 2 ultrasonic sensor retainer (3) as a single part.



	No. 2 Ultrasonic Sensor Retainer
--	----------------------------------



(4) Using sandpaper (#80 is recommended), slightly roughen the installation surfaces of the No. 2 ultrasonic sensor retainer as shown in the illustration.

(5) Using cleaner, clean the areas that were roughened by the sandpaper.

Cleaner:

Cleaner R2

(6) Peel off the release paper from the No. 2 ultrasonic sensor retainer.

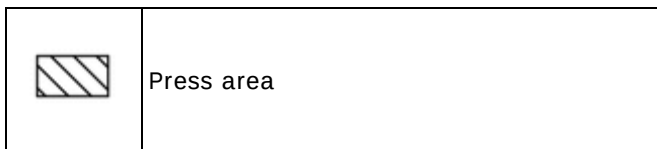
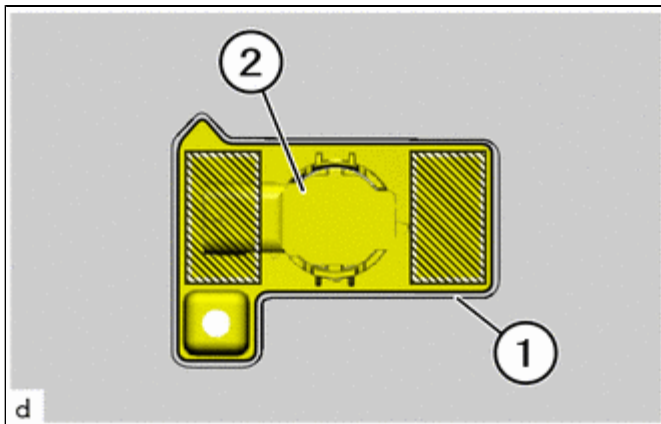
HINT:

After removing the peeling paper, do not touch the surface of the tape with your fingers or cotton work gloves.

(7) Align the No. 2 ultrasonic sensor retainer and rear side ultrasonic sensor (2) with the scribed line (1) on the rear bumper assembly and install it as shown in the illustration.

NOTICE:

- Make sure that the rear bumper assembly and the rear side ultrasonic sensor are properly aligned.
- Detaching and reattaching a No. 2 ultrasonic sensor retainer will degrade its adhesive performance, so if reattachment is necessary, make sure to clean the installation surface again and replace the No. 2 ultrasonic sensor retainer with a new one.



HINT:

Press the area shown in the illustration with a force of to securely install the No. 2 ultrasonic sensor retainer to the rear bumper assembly. Confirm there is no clearance between the No. 2 ultrasonic sensor retainer and rear bumper assembly.

(8) Attach the clamp.

(b) for rear corner side:

HINT:

If a No. 2 ultrasonic sensor retainer has been removed, replace it with a new one. Install the rear corner ultrasonic sensor with a new No. 2 ultrasonic sensor retainer as a set to the rear bumper assembly.

(1) Remove any remaining double-sided tape from the rear bumper assembly.

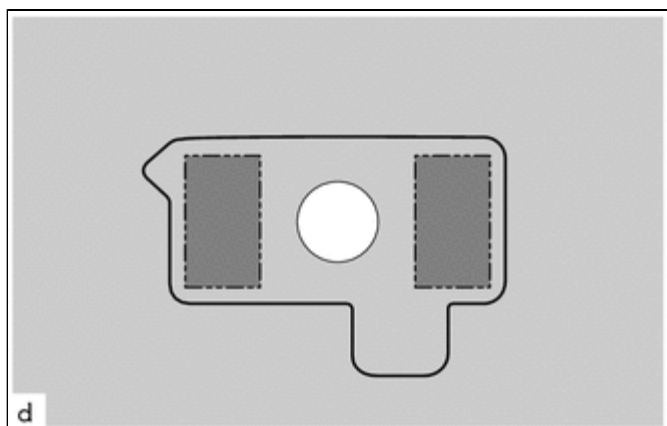
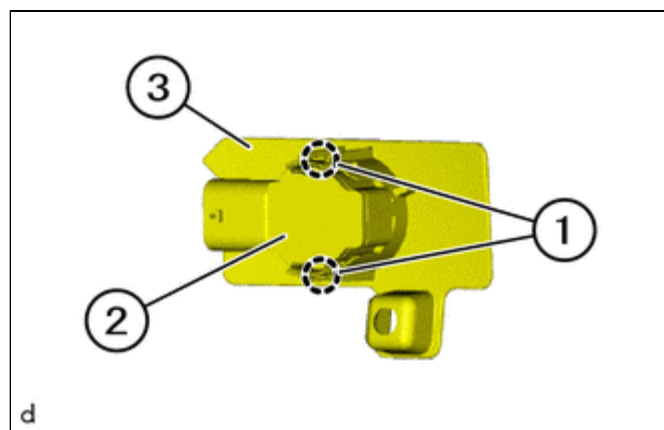
(2) Wipe off any adhesive residue with cleaner.

(3) Install the ultrasonic sensor O-ring.

(4) Attach the claws (1) to install the rear corner ultrasonic sensor (2) to a new No. 2 ultrasonic sensor retainer (3).

HINT:

To align the positions of the rear bumper assembly and ultrasonic sensor, assemble the rear corner ultrasonic sensor (2) and No. 2 ultrasonic sensor retainer (3) as a single part.



No. 2 Ultrasonic Sensor Retainer
Installation Surface

(5) Using sandpaper (#80 is recommended), slightly roughen the installation surfaces of the No. 2 ultrasonic sensor retainer as shown in the illustration.

(6) Using cleaner, clean the areas that were roughened by the sandpaper.

Cleaner:

Cleaner R2

(7) Peel off the release paper from the No. 2 ultrasonic sensor retainer.

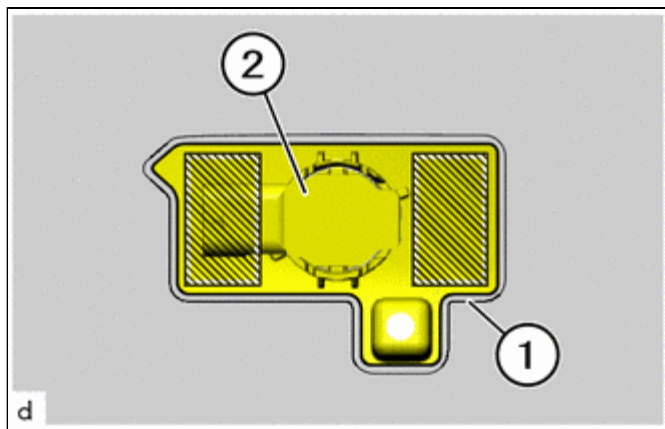
HINT:

After removing the peeling paper, do not touch the surface of the tape with your fingers or cotton work gloves.

(8) Align the No. 2 ultrasonic sensor retainer and rear corner ultrasonic sensor (2) with the scribed line (1) on the rear bumper assembly and install it as shown in the illustration.

NOTICE:

- Make sure that the rear bumper assembly and the rear corner ultrasonic sensor are properly aligned.
- Detaching and reattaching a No. 2 ultrasonic sensor retainer will degrade its adhesive performance, so if reattachment is necessary, make sure to clean the installation surface again and replace the No. 2 ultrasonic sensor retainer with a new one.



Press area

HINT:

Press the area shown in the illustration with a force of to securely install the No. 2 ultrasonic sensor retainer to the rear bumper assembly. Confirm there is no clearance between the No. 2 ultrasonic sensor retainer and rear bumper assembly.

(9) Attach the clamp.

(c) for rear center side:

HINT:

If a No. 2 ultrasonic sensor retainer has been removed, replace it with a new one. Install the rear center ultrasonic sensor with a new No. 2 ultrasonic sensor retainer as a set to the rear bumper assembly.

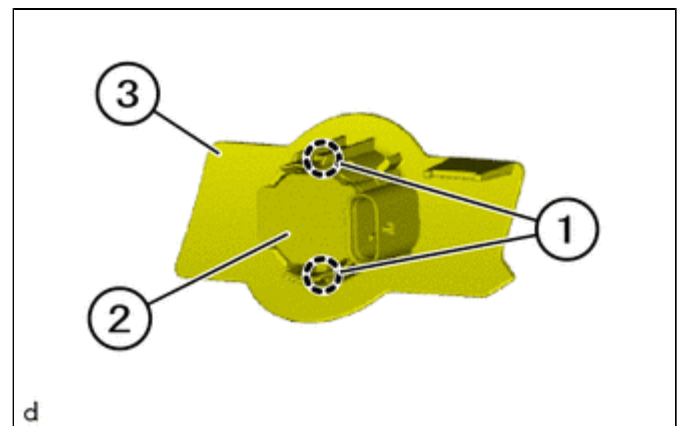
(1) Remove any remaining double-sided tape from the rear bumper assembly.

(2) Install the ultrasonic sensor O-ring.

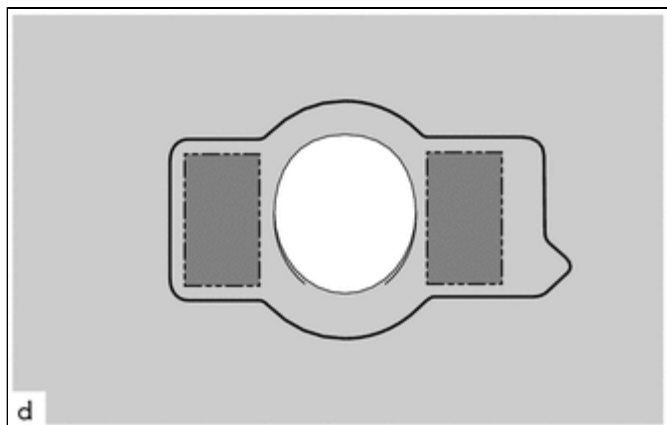
(3) Attach the claws (1) to install the rear center ultrasonic sensor (2) to a new No. 2 ultrasonic sensor retainer (3).

HINT:

To align the positions of the rear bumper assembly and ultrasonic sensor, assemble the rear center ultrasonic sensor (2) and No. 2 ultrasonic sensor retainer (3) as a single part.



(4) Using sandpaper (#80 is recommended), slightly roughen the installation surfaces of the No. 2 ultrasonic sensor retainer as shown in the illustration.



	No. 2 Ultrasonic Sensor Retainer Installation Surface
--	--

(5) Using cleaner, clean the areas that were roughened by the sandpaper.

Cleaner:

Cleaner R2

(6) Peel off the release paper from the No. 2 ultrasonic sensor retainer.

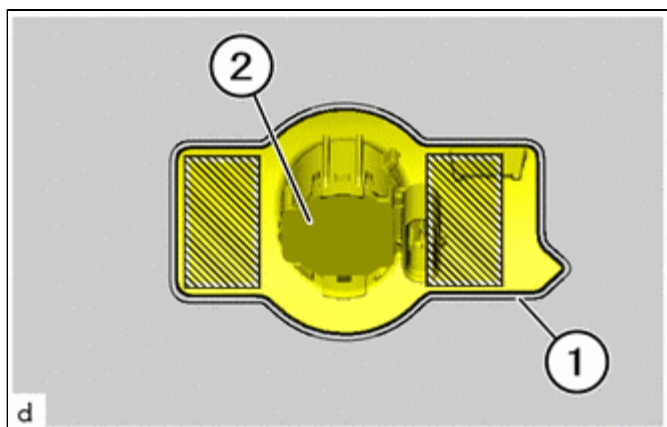
HINT:

After removing the peeling paper, do not touch the surface of the tape with your fingers or cotton work gloves.

(7) Align the No. 2 ultrasonic sensor retainer and rear center ultrasonic sensor (2) with the scribed line (1) on the rear bumper assembly and install it as shown in the illustration.

NOTICE:

- Make sure that the rear bumper assembly and the rear center ultrasonic sensor are properly aligned.
- Detaching and reattaching a No. 2 ultrasonic sensor retainer will degrade its adhesive performance, so if reattachment is necessary, make sure to clean the installation surface again and replace the No. 2 ultrasonic sensor retainer with a new one.



	Press area
--	------------

HINT:

Press the area shown in the illustration with a force of to securely install the No. 2 ultrasonic sensor retainer to the rear bumper assembly. Confirm there is no clearance between the No. 2 ultrasonic sensor retainer and rear bumper assembly.

(8) Attach the clamp.

2. INSTALL REAR CENTER ULTRASONIC SENSOR

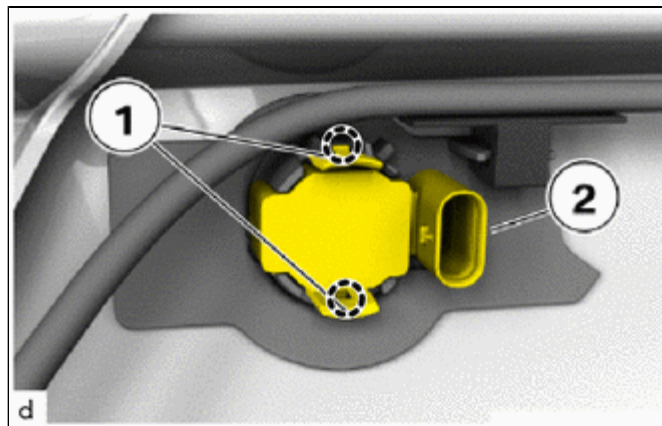
HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

(a) When removing or replacing the rear center ultrasonic sensor:

(1) Install the ultrasonic sensor O-ring.

(2) Attach the claws (1) to install the rear center ultrasonic sensor (2).



(b) Connect connector and lock.

3. INSTALL REAR SIDE ULTRASONIC SENSOR

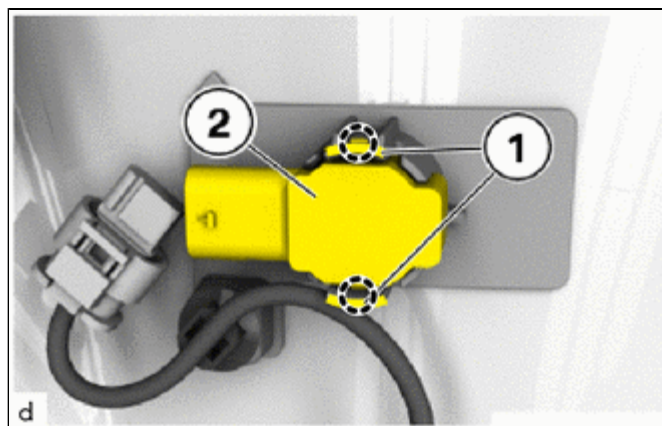
HINT:

- The illustration is for the LH side.
- orientation for the RH side is the opposite of the LH side.

(a) When removing or replacing the rear side ultrasonic sensor:

(1) Install the ultrasonic sensor O-ring.

(2) Attach the claws (1) to install the rear side ultrasonic sensor (2).



(b) Connect connector and lock.

4. INSTALL REAR CORNER ULTRASONIC SENSOR

HINT:

Use the same procedure as for the rear side ultrasonic sensor.

5. INSTALL REAR BUMPER ASSEMBLY

Click here [INFO](#)

