

TECHNICAL INSTRUCTIONS
FOR
SAFETY RECALL 20TA03
INCOMPLETE OR NONDEPLOYMENT OF AIRBAGS AND/OR SEAT BELT
PRETENSIONERS MAY OCCUR
CERTAIN
2011 – 2013 MATRIX

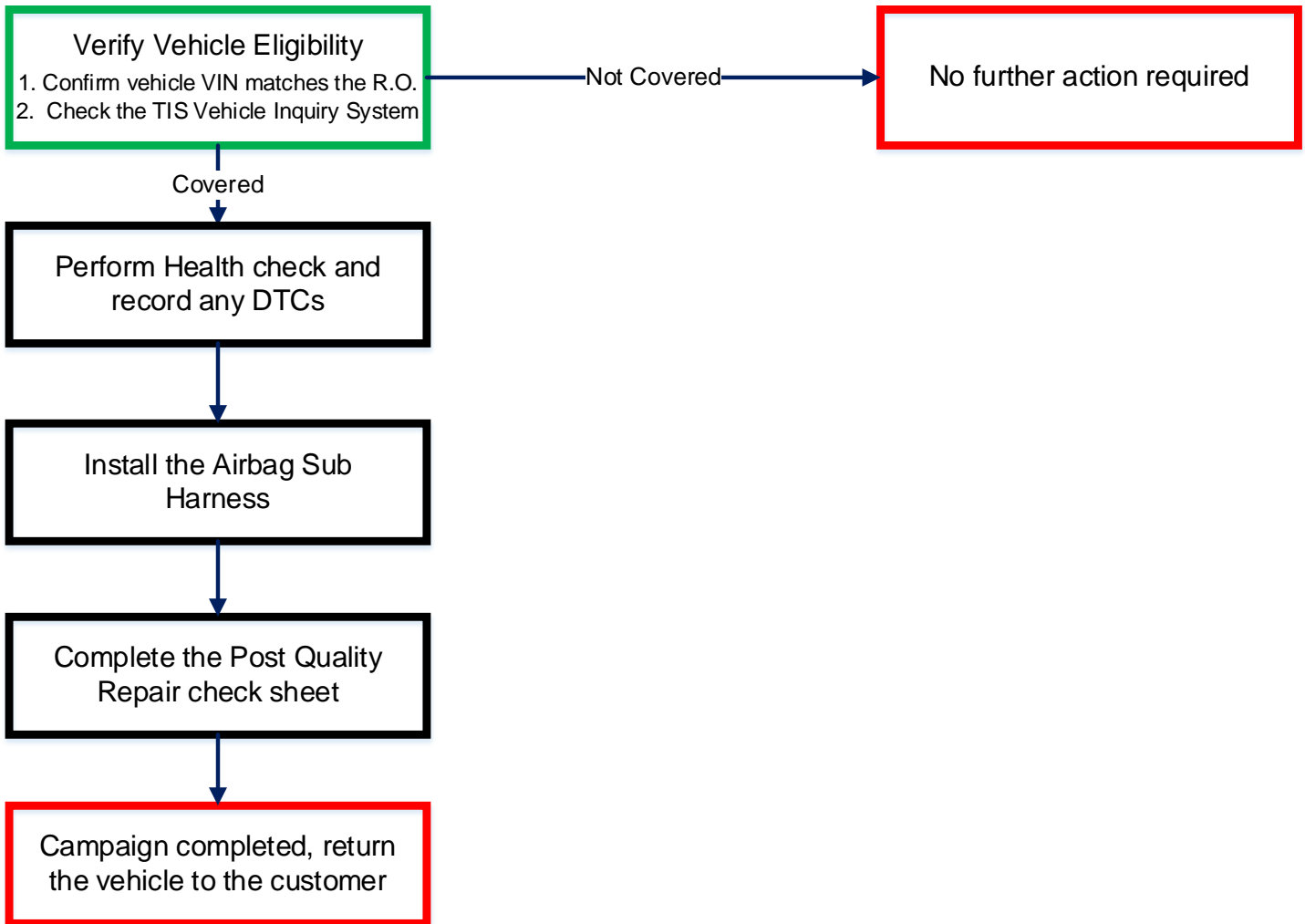
The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this recall are required to successfully complete the most current version of the E-Learning course "Safety Recall and Service Campaign Essentials". To ensure that all vehicles have the repair performed correctly; technicians performing this recall repair are required to currently hold at least one of the following certification levels:

- Expert (Electrical or Hybrid)
- Master
- Master Diagnostic Technician

It is the dealership's responsibility to select technicians with the above certification level or greater to perform this recall repair. Carefully review your resources, the technician skill level, and ability before assigning technicians to this repair. It is important to consider technician days off and vacation schedules to ensure there are properly trained technicians available to perform this repair at all times.

I. OPERATION FLOW CHART

The flow chart is for reference only. **DO NOT** use it in place of the full technical instructions. Follow **ALL** steps as outlined in the full technical instructions to confirm the campaign is completed correctly.



II. IDENTIFICATION OF AFFECTED VEHICLES

A. COVERED VIN RANGE

NOTE:

- Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this Safety Recall, and that the campaign has not already been completed prior to dealer shipment or by another dealer.
- TMNA warranty will not reimburse dealers for repairs conducted on vehicles that are not affected or were completed by another dealer.

III. PREPARATION

A. PARTS

Part Number	Part Description	Quantity
04009-98112	Airbag Harness Kit*	1
* The kit above includes the following parts:		
Part Number	Part Description	Quantity
82821-12C30	Urethane Sheet	1
89171-12020	Airbag Sub Harness	1
89279-12180	Water Guard Sheet 5.91in. (150mm) x 5.91in.(150mm)	1
89279-12190	Water Guard Sheet 4.72in. (120mm) x 5.91in. (150mm)	1
89279-12200	Water Guard Sheet 3.15in. (80mm) x 3.94in.(100mm)	1
89639-12020**	Cable Tie	7
90980-12878	Connector Holder	1

**: NOT required to use all the cable ties.

B. TOOLS & EQUIPMENT

- Standard Hand Tools
- Techstream
- Work Gloves
- Molding Remover

C. MATERIALS

- Protective Tape
- Marker pen
- Vinyl Tape

IV. WORK PROCEDURE TABLE OF CONTENTS

SAFETY PRECAUTIONS	SECTION V.
INSTALL AIRBAG SUB HARNESS.....	SECTION VI.
APPENDIX	SECTION VII.

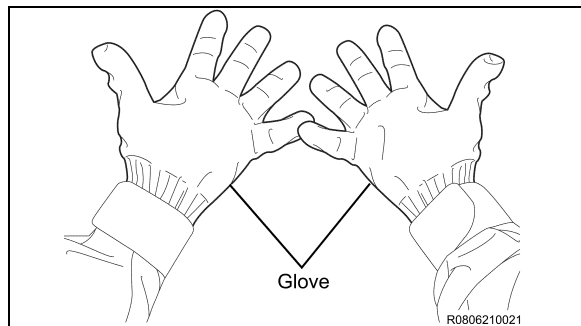
V. SAFETY PRECAUTIONS



CRITICAL INFORMATION – READ THOROUGHLY

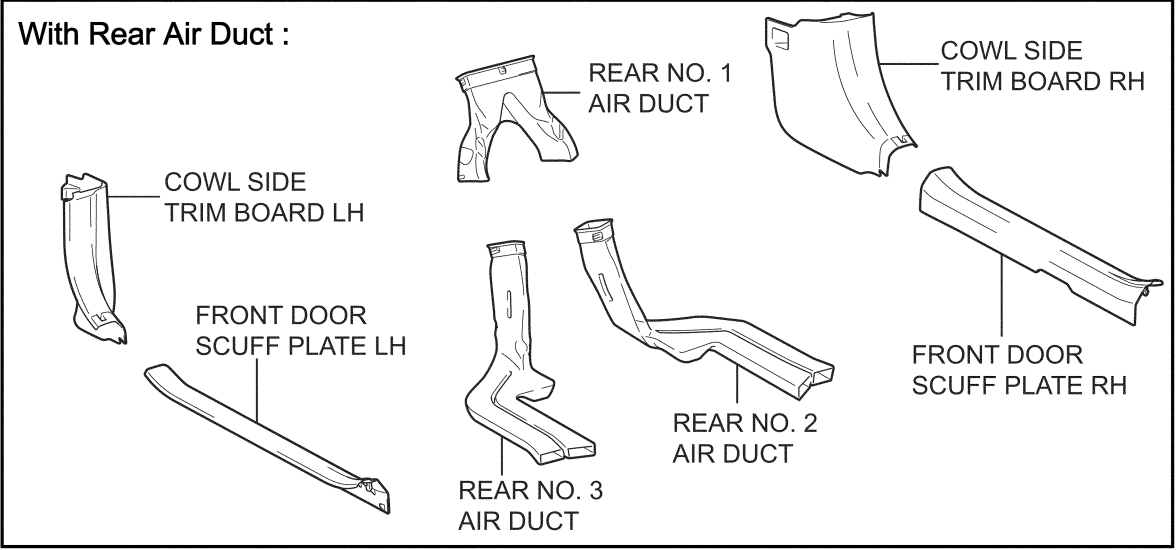
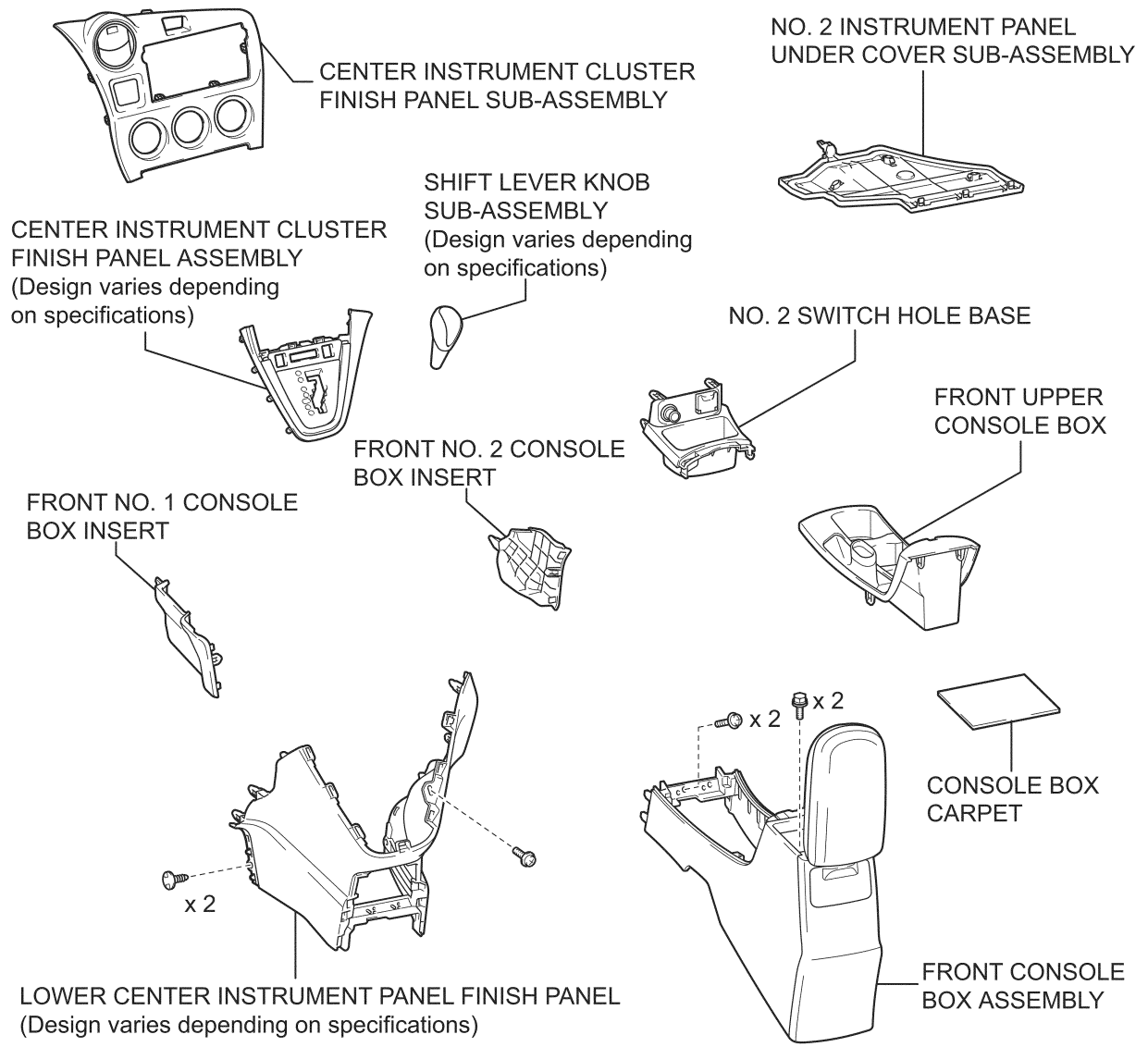


Always remember **“SAFETY FIRST”**.

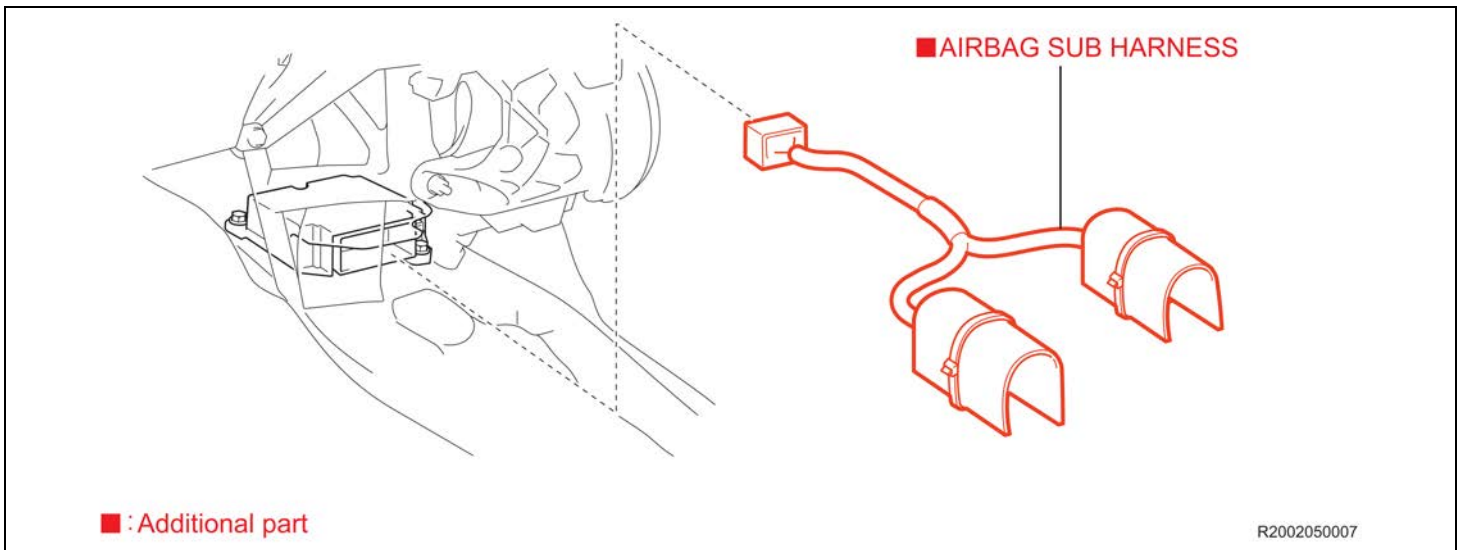


1. TAKE PREVENTIVE MEASURES AGAINST INJURY
 - a) Wear gloves so as not to get injured by burrs etc. on the instrument panel reinforcement and the bracket.

VI. INSTALL AIRBAG SUB HARNESS COMPONENTS



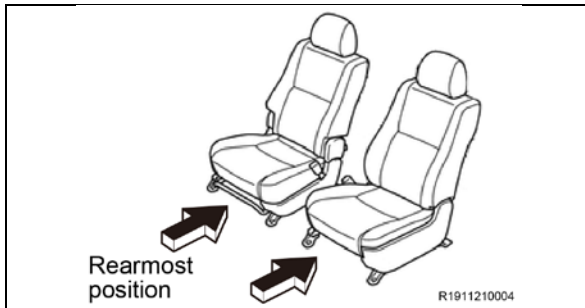
R2002050006



1. PERFORM HEALTH CHECK

1. Using a Techstream, perform a Health Check and record any DTCs found.

NOTE: A Health check must be performed on every vehicle. Record any DTCs as they are used to confirm the vehicles final state after repair and aid in any additional discussions needed with the customer



2. RECORD THE POSITIONS OF THE FRONT SEATS

3. MAKE SPACE FOR WORK

- a) Move the driver side and passenger side seats to the rearmost position.

4. DISCONNECT THE NEGATIVE BATTERY CABLE



- Wait at least 90 seconds after disconnecting the cable from the negative battery terminal to prevent airbag and seat belt pretensioner deployment.
- Follow all precautions as outlined on TIS before servicing the SRS system.

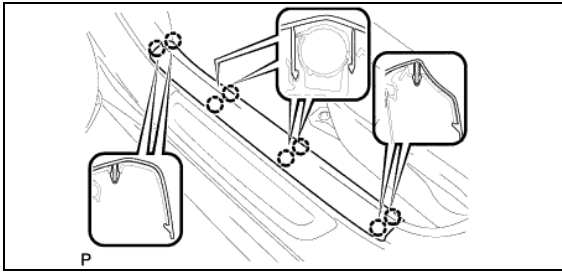
5. PREPARATION BEFORE INSTALLING THE AIRBAG SUB HARNESS

Click the link below to access TIS for instructions

[SUPPLEMENTAL RESTRAINT SYSTEMS: CENTER AIRBAG SENSOR ASSEMBLY: REMOVAL](#)

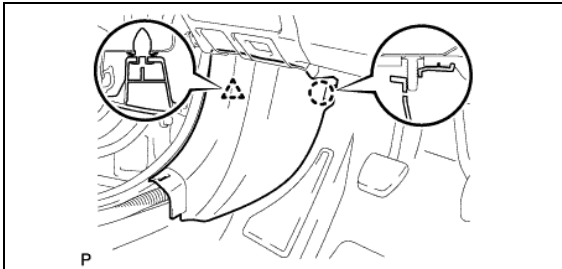
(Doc ID: RM000000UWV06DX)

Additional Steps for Rear Air Duct Equipped Vehicle Only



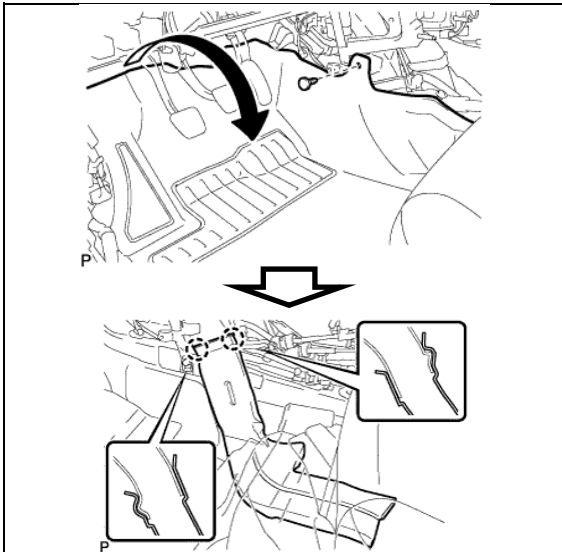
[REMOVE THE FRONT DOOR SCUFF PLATE LH&RH]

- b) Disengage the 8 claws and remove the front door scuff plate LH.
- c) The same procedure is used for the RH side.



[REMOVE THE COWL SIDE TRIM BOARD LH&RH]

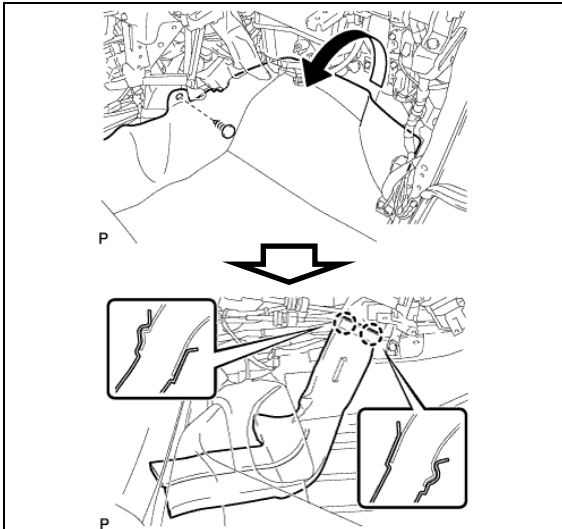
- d) Disengage the clip and claw, and remove the cowl side trim board LH.
- e) The same procedure is used for the RH side.



[REMOVE THE REAR NO. 3 AIR DUCT]

- f) Remove the clip.
- g) Turn back the floor carpet.

- h) Disengage the 2 claws and remove the rear No. 3 air duct.



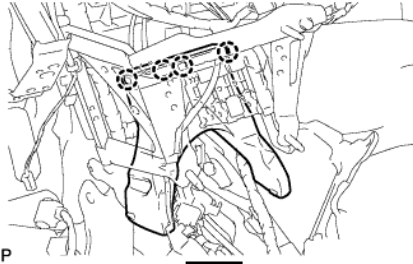
[REMOVE THE REAR NO. 2 AIR DUCT]

- i) Remove the clip.
- j) Turn back the floor carpet.

- k) Disengage the 2 claws and remove the rear No. 2 air duct.

Additional Steps for Rear Air Duct Equipped Vehicle Only

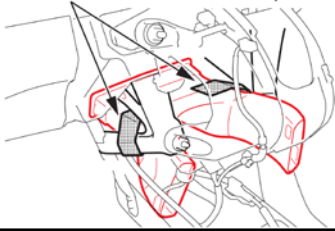
The duct does not need to be removed completely, only separate it



P



Fix the No.1 air duct to the reinforcement with tape



R2002210007

[SEPARATE THE REAR NO. 1 AIR DUCT]

- l) Disengage the 4 claws and separate the rear No. 1 air duct.
HINT:
The duct does not need to be removed completely, only separate it.

- m) For ease of work, fix the No.1 air duct to the reinforcement with tape.

6. PREPARE AIRBAG SUB HARNESS

Click the play button to watch a video on how to prepare the airbag sub harness

NOTE: The video may take several minutes to load depending on internet connection.



STOP

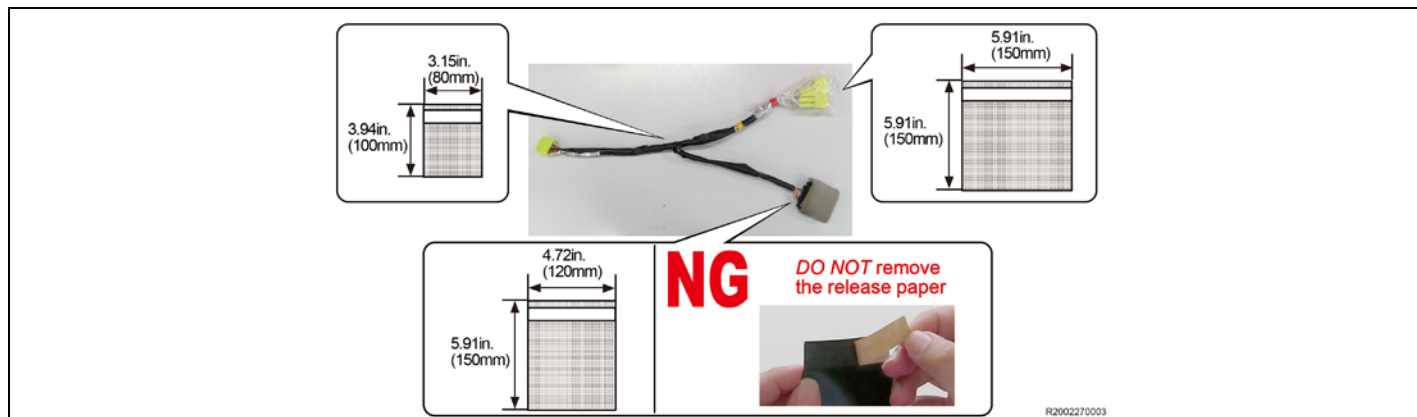
IMPORTANT

STOP

The procedure shown in these technical instructions is for 2011 – 2013 MATRIX only. **DO NOT** use it for other vehicle models.

Install each water guard sheet properly

- There are 3 different water guard sheets which will be used to protect the airbag sub harness. Each water guard sheet has double-sided tape on a side. If you install a sheet at a wrong position and seal with the tape, the sheet will no longer be reusable. Please make sure to follow the instructions on these Technical Instructions and install each sheet at correct positions.
- For only MATRIX, **DO NOT** remove the release paper of the water guard sheet (4.72in. (120mm) x 5.91in. (150mm)), because this sheet will be used to protect the uncovered wires when installing the airbag sub harness.



Handling of airbag sub harness

- **DO NOT** twist the airbag sub harness forcibly as it may be damaged.
- **DO NOT** touch the terminals of the link connector. Also, make sure that no foreign matter enters the terminals of the link connector.

NG **DO NOT** forcibly twist the harness



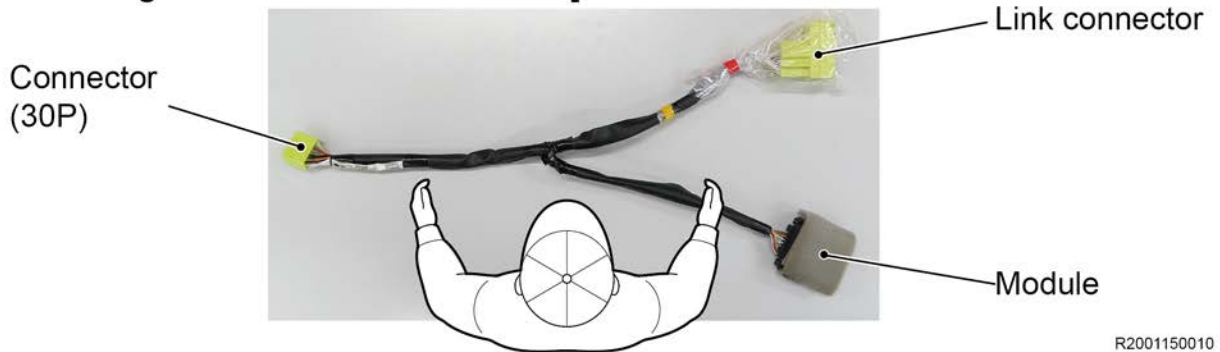
NG **DO NOT** touch the terminals. Also, **DO NOT** allow foreign matter enter.



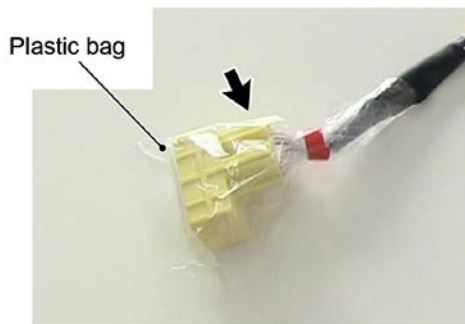
R1910230025a

- a) Before starting the work, place the airbag sub harness following the instructions below to ensure you are dealing with it at the proper orientation.
- (1) Place the module and link connector to the right side seen from you.
 - (2) Place the connector (30P) to the left side seen from you.

[Place airbag sub harness in this state]



R2001150010



R1912190002

- b) Remove the plastic bag.

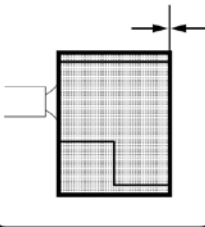


Ensure the urethane sheet is flush with the connector in the next step.

OK



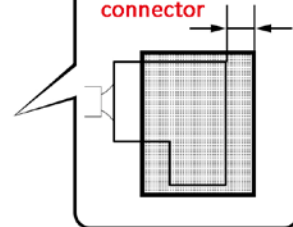
The sheet is **FLUSH** with the connector



NG



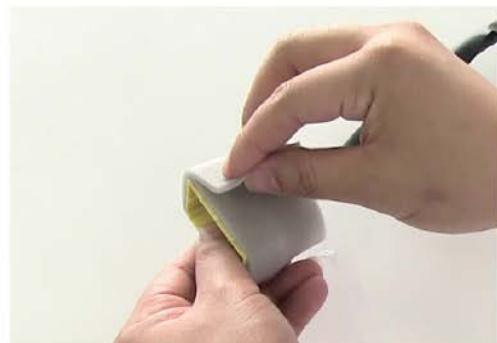
The sheet is **NOT** flush with the connector



R2001270001

- c) Wrap the urethane sheet (7.87in. (200mm) x 1.97in. (50mm)) around the link connector.

Urethane Sheet

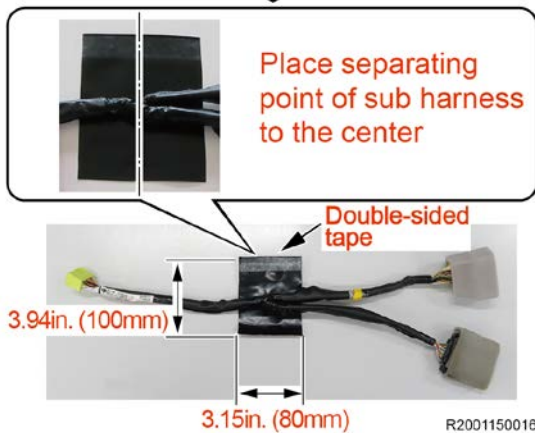


R1910230017a

- d) Press the position shown in the illustration (concave part) with your finger to remove any gap.



R1910230019a



R2001150016

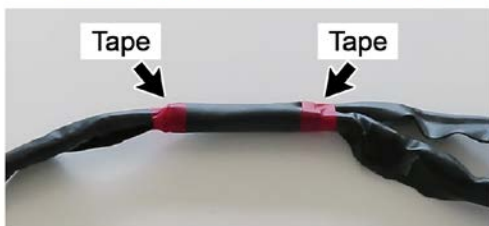


Wrap the water guard sheet from the no double-sided tape side



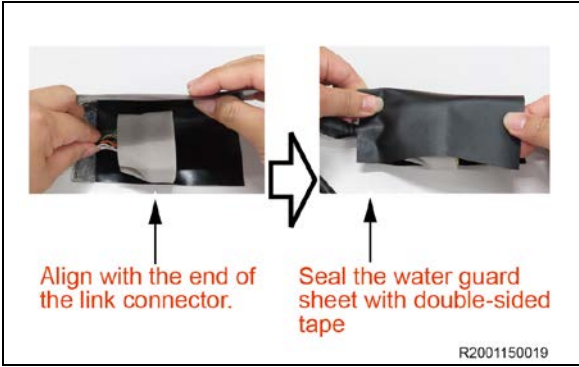
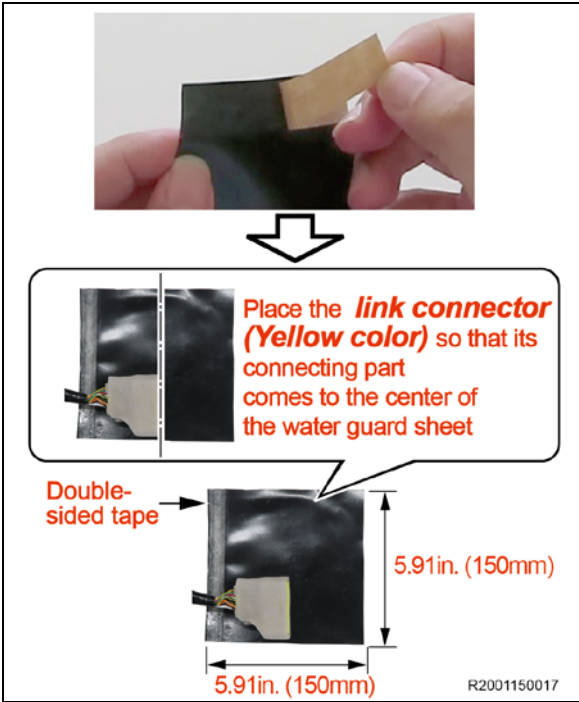
R1910230021

Fix both ends with vinyl tape



R1910230022

- e) Remove the release paper of the double-sided tape.
- f) Place the smallest water guard sheet (3.15in. (80mm) x 3.94in. (100mm)) so that its double-sided tape side comes to the farther side from you, and then place the separating point of the airbag sub harness at the center of the sheet.
NOTE:
DO NOT place the water guard sheet in a wrong direction. Make sure that the double-sided tape side is on the farther side from you.
- g) Wrap the water guard sheet from the side without double-sided tape, and then seal with double-sided tape for temporary fixing.
- h) Double-check the airbag sub harness is placed correctly on the sheet.
- i) Fix the both ends of the water guard sheet with vinyl tape.
NOTE:
-Make sure that the water guard sheet is securely fixed.
-It is recommended you used a colored tape as it will be used to position the harness in the vehicle



j) Remove the release paper of the double-sided tape.

k) Place the biggest water guard sheet (5.91in. (150mm) x 5.91in. (150mm)) so that its double-sided tape side comes to the left side, and then place the **link connector (Yellow color)** as shown in the illustration.

NOTE:

Place the link connector so that its connecting part to instrument panel wire comes to the side with no double-sided tape of the water guard sheet.

l) Fold the water guard sheet so that its end is aligned with the end of the link connector.

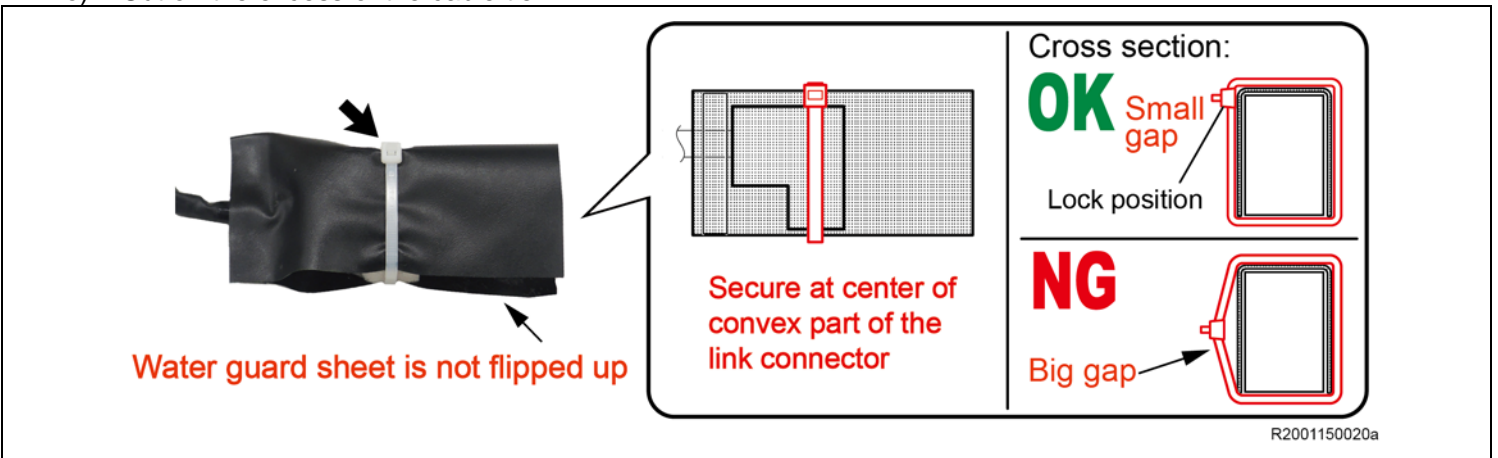
m) Make sure that the both ends of the folded water guard sheet and the link connector are aligned, and then seal the water guard sheet with double-sided tape.

n) Set a cable tie at center of the convex part of the link connector and fix the water guard sheet and link connector securely.

NOTE:

- A gap between the cable tie and the water guard sheet may cause the tie eventually be loosened and released. Make sure that the gap is reduced as much as possible.
- Make as little wrinkles as possible on the water guard sheet when installing it.

o) Cut off the excess of the cable tie.



NG

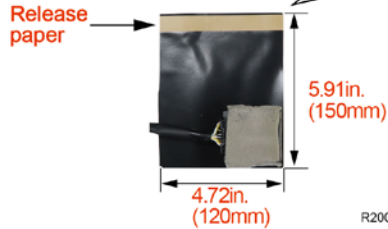
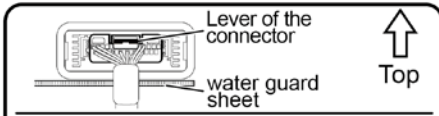
DO NOT remove the release paper



R2002270004



DO NOT remove the release paper of the water guard sheet (4.72in. (120mm) x 5.91in. (150mm)), because this sheet will be used to protect the uncovered wires when installing the airbag sub harness.



R2002270005

- p) Place the water guard sheet (4.72in. (120mm) x 5.91in. (150mm)) so that its release paper side comes to the farther side from you, and then place the **module (Black color)** as shown in the illustration.

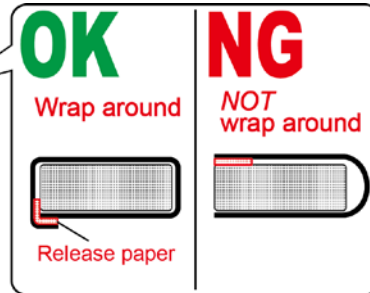
- q) Wrap the water guard sheet around so that it does not wrinkle.



Wrap the water guard sheet



No wrinkles



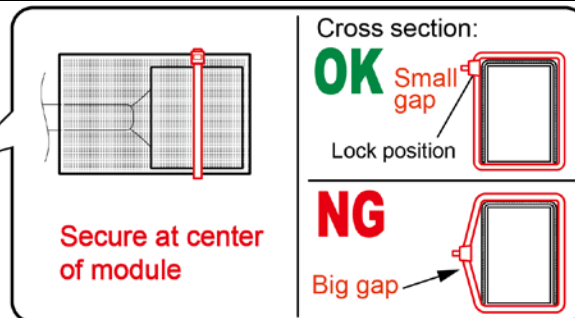
R2002270006

- r) Make sure that the water guard sheet is not wrinkled and set a cable tie at center of the module and fix the water guard sheet and module securely.

NOTE:

- A gap between the cable tie and the water guard sheet may cause the tie eventually be loosened and released. Make sure that the gap is reduced as much as possible.
- Make as little wrinkles as possible on the water guard sheet when installing it.

- s) Cut off the excess of the cable tie.



R2001150023a

STOP

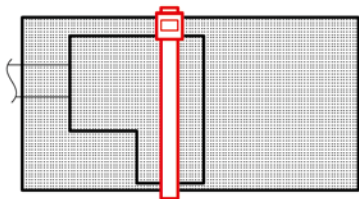
INTERMEDIATE INSPECTION (BY ANOTHER WORKER)

STOP

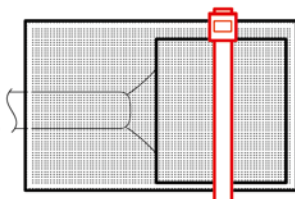
Confirm airbag sub harness is in proper condition

- Check the cable tie is fixed properly and if it is installed loose (big gap), tighten up the cable tie until fixed tightly (small gap). □
- Confirm that the cable tie is installed at the center of the convex part of the link connector. □
- Confirm that the cable tie is installed at the center of the module. □
- Confirm that the water guard sheet is not flipped up. □

Secure at center of convex part of the link connector



Secure at center of module

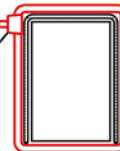


Cross section:

OK

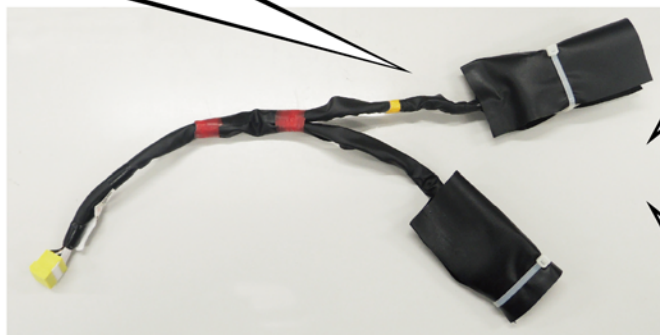
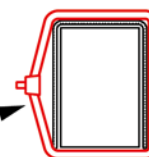
Small gap

Lock position



NG

Big gap



OK

No flipped up



NG

Flipped up



7. INSTALL AIRBAG SUB HARNESS

Click the play button to watch a video on how to install the airbag sub harness

NOTE: The video may take several minutes to load depending on internet connection.



The procedure shown in these technical instructions is for **MATRIX** only. **DO NOT** use it for other vehicle models.

Be careful not to damage the harness during work



R1911290008



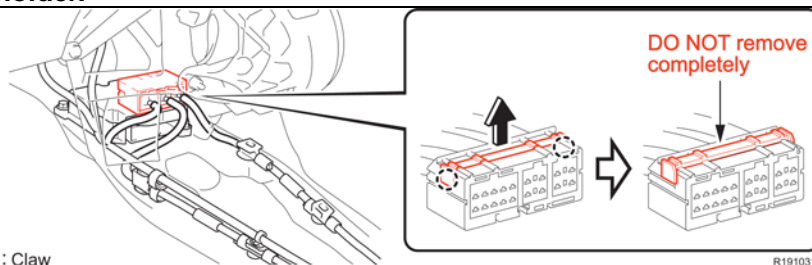
Be careful not to damage the harness during work.

If the space is too small for you to work in, unplug the harness in the image to allow for more room

- a) Using a screwdriver, disengage the 2 claws to release the retainer from the connector holder of the airbag sensor.

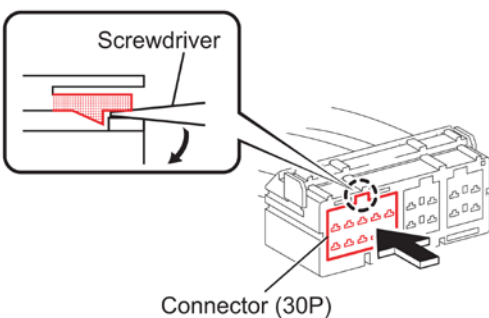
NOTE:

DO NOT remove the retainer from the connector holder completely. If removed, temporarily install it to the connector holder.



○ : Claw

R1910310020



○ : Claw

R1907240009

- b) Using a screwdriver, disengage the claw and remove the connector (30P) from the connector holder.



IMPORTANT – Take your time as the wire harness routing is very complex and requires attention to detail.



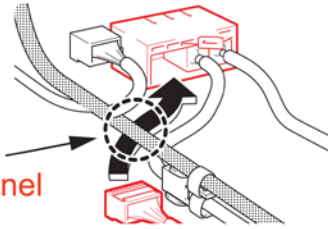
c) Pass the airbag sub harness through under the instrument panel wire harness.

NOTE:

- Make sure to pass the connector (30P) under the harness of the instrument panel wire. Otherwise water may run along the harness of the connector (30P) and enter the ECU, resulting in damage of the ECU in the worst case. This may prevent the airbag from being deployed.
- **DO NOT** twist the airbag sub harness forcibly as it may be damaged.
- **DO NOT** touch the terminals of the link connector. Also, make sure that no foreign matter enters the terminals of the link connector.

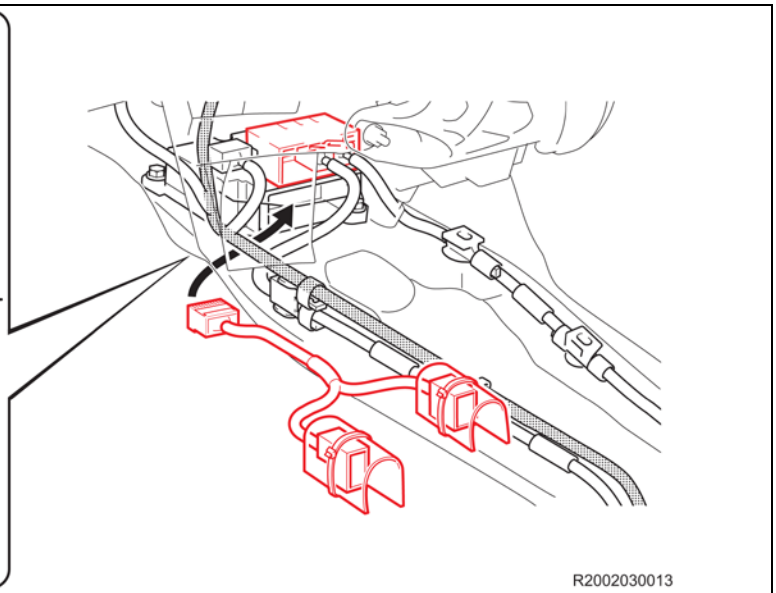
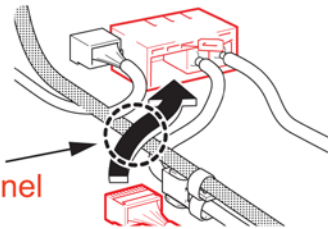
OK

Under the instrument panel wire harness



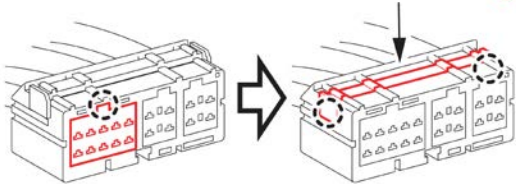
NG

Above the instrument panel wire harness



R2002030013

Lock securely



○ : Claw

R1910170006

d) Connect the connector (30P) of airbag sub harness to the connector holder of the airbag sensor and lock the retainer securely.



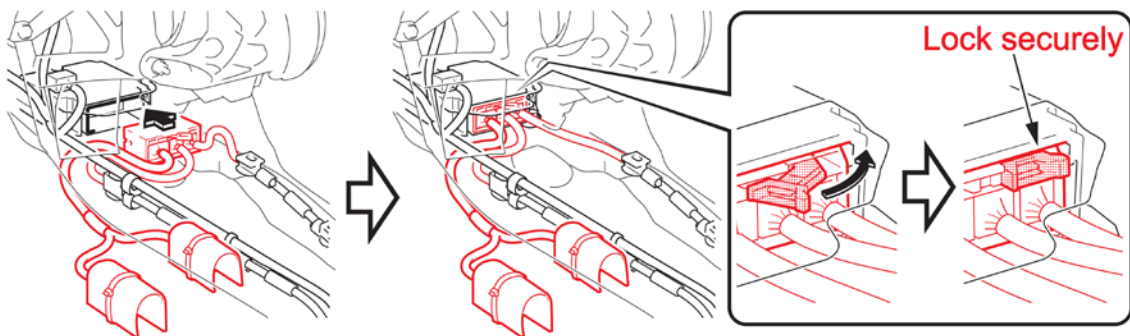
Securely lock the retainer.

e) Connect the connector holder to the airbag sensor.

f) Lock the lever securely.



- Securely lock the lever.
- Make sure that the water guard sheet of the airbag sensor is not flipped up or caught.

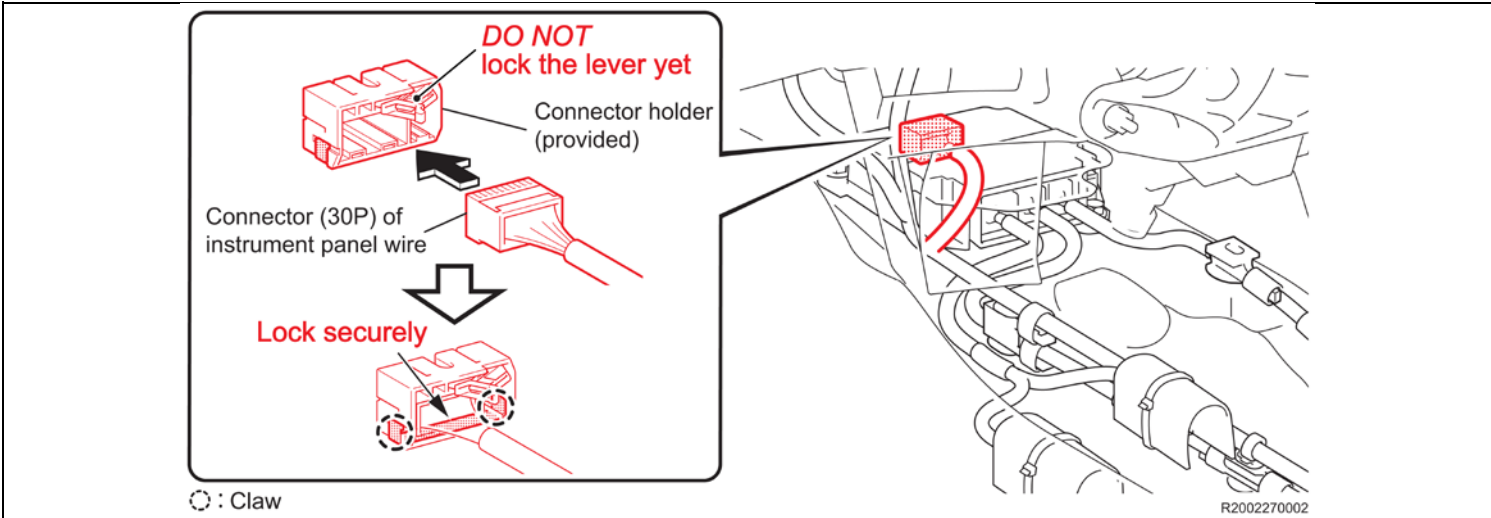


R1910310023a

g) Install the connector (30P) of the instrument panel wire to the provided connector holder and lock the retainer securely.

STOP

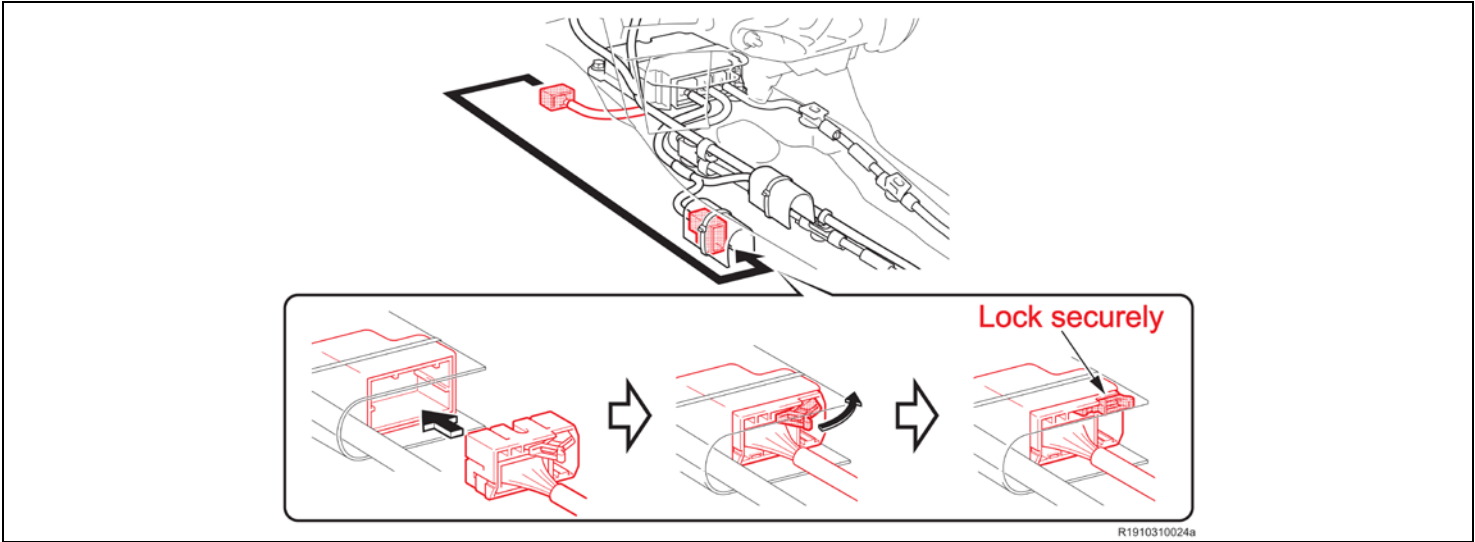
- Make sure that the connector (30P) is securely installed to the connector holder (provided).
- Securely lock the retainer.
- **DO NOT** lock the lever yet.



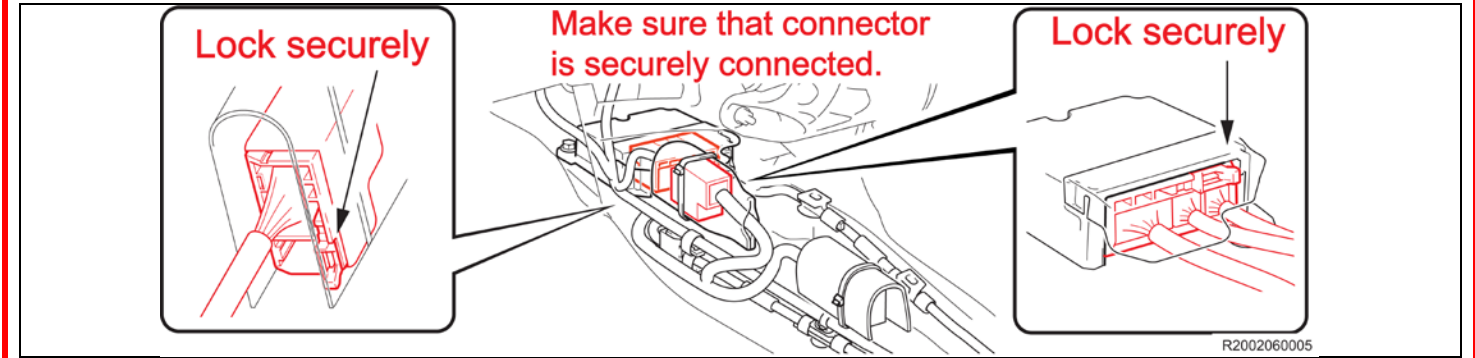
h) Flip up the water guard sheet of the link connector and connect the connector (30P) with connector holder (provided).
 i) Lock the lever securely.

STOP

- Securely lock the lever.
- Make sure that the water guard sheet is not flipped up and not pinched.



STOP Check each connector is securely connected. (The retainers of connector holders are also securely installed) **STOP**



WITH Rear Air Duct Vehicles Only

j) **With Rear Air Duct:**

- (1) Pass the cable tie at rear of the clamp and between the instrument panel wires.

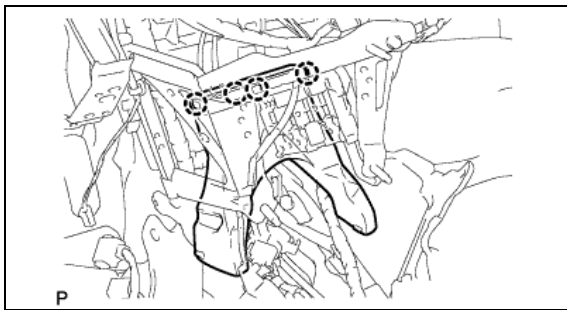
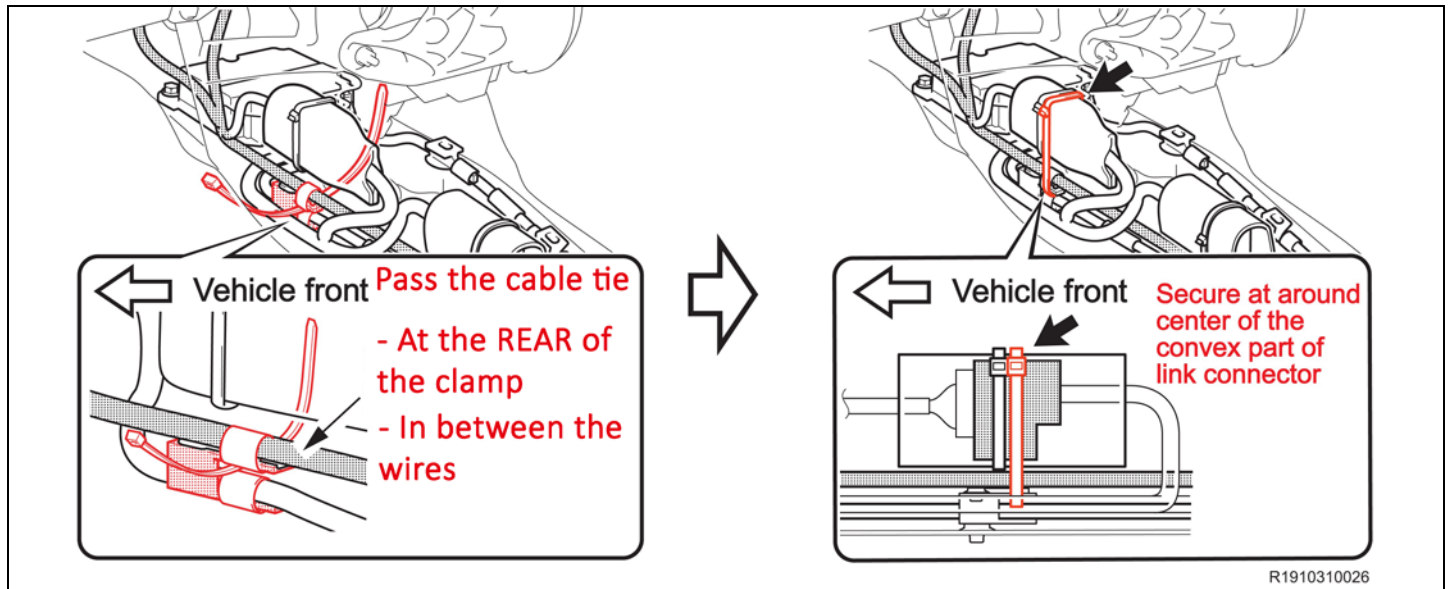


Be careful not to include the uncovered part of the instrument panel wire when fixing the cable tie.

- (2) Place the link connector on the instrument panel wire of the left side.
(3) Using a cable tie, fix the link connector at around the center of its convex part.

NOTE:

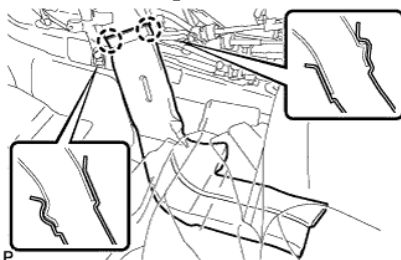
- Make sure that the link connector, water guard sheet and instrument panel wire are securely fixed.
 - Make sure that the water guard sheet is not flipped up.
- (4) Cut off the excess of the cable tie.



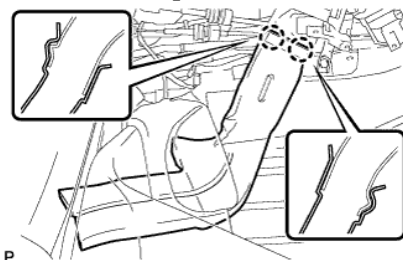
- (5) Remove the tape fixing the No.1 air duct.
(6) Engage the 4 claws to install the rear No. 1 air duct.

- (7) Install the rear No.2 & No.3 air ducts.
(8) Install the floor carpet.

[REAR NO. 3 AIR DUCT]



[REAR NO. 2 AIR DUCT]



WITH Rear Air Duct Vehicles Only

- (9) Link 2 cable ties in order to fix the link connector to the rear air duct LH.
- (10) Pass the linked cable tie through the positions shown below and temporarily install it.
 - Outside the rear air duct LH and the water guard sheet of the link connector
 - Between the instrument panel brace and rear air duct LH



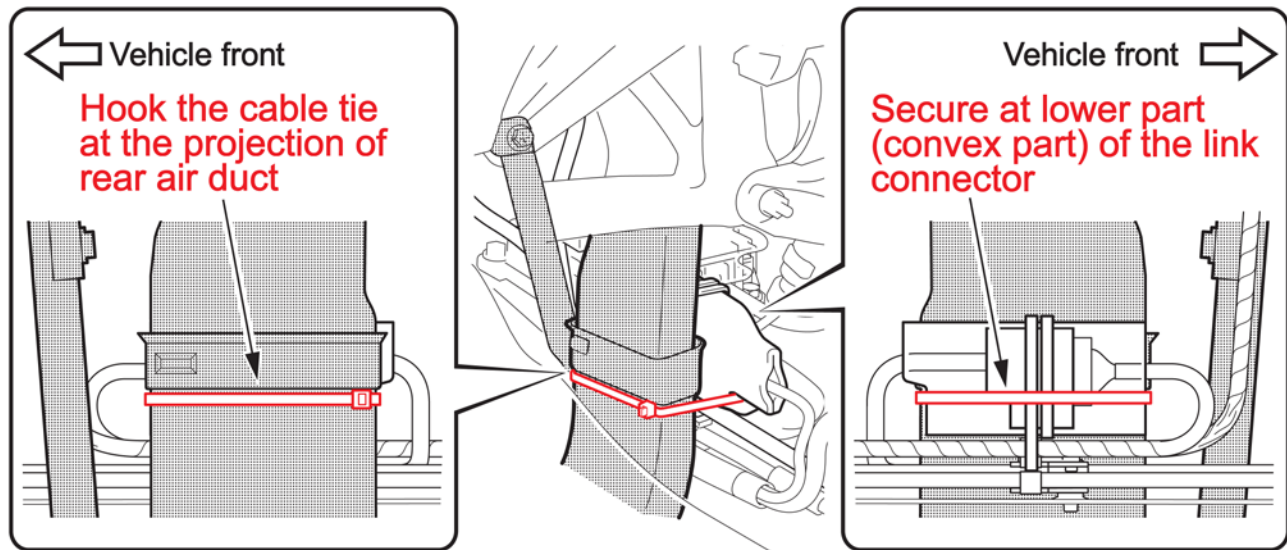
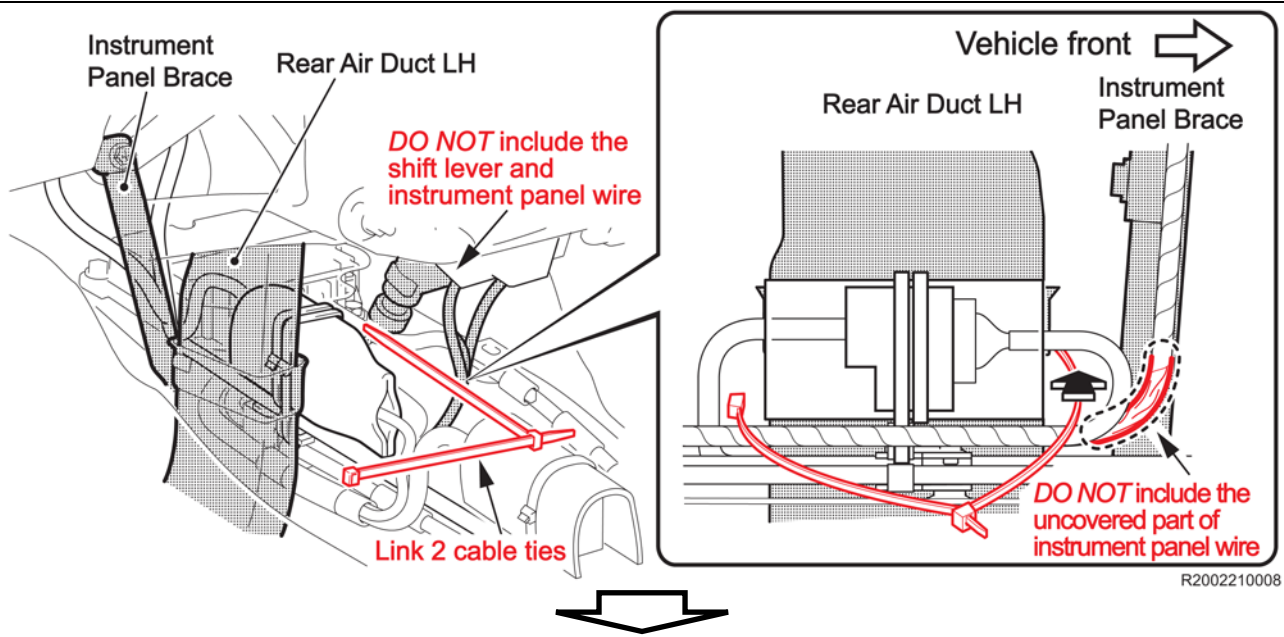
- Be careful not to include the shift lever and instrument panel wire when fixing the cable tie.
- Be careful not to include the uncovered part of the instrument panel wire on the vehicle left side when fixing the cable tie.

- (11) Fix the link connector with the cable tie as shown in the illustration.

NOTE:

- Make sure that the link connector, water guard sheet and instrument panel wire are securely fixed.
- Make sure that the water guard sheet is not flipped up.

- (12) Cut off the excess of the cable tie.



WITHOUT Rear Air Duct

j) **Without Rear Air Duct:**

- (1) Pass the cable tie at rear of the clamp and between the instrument panel wires.

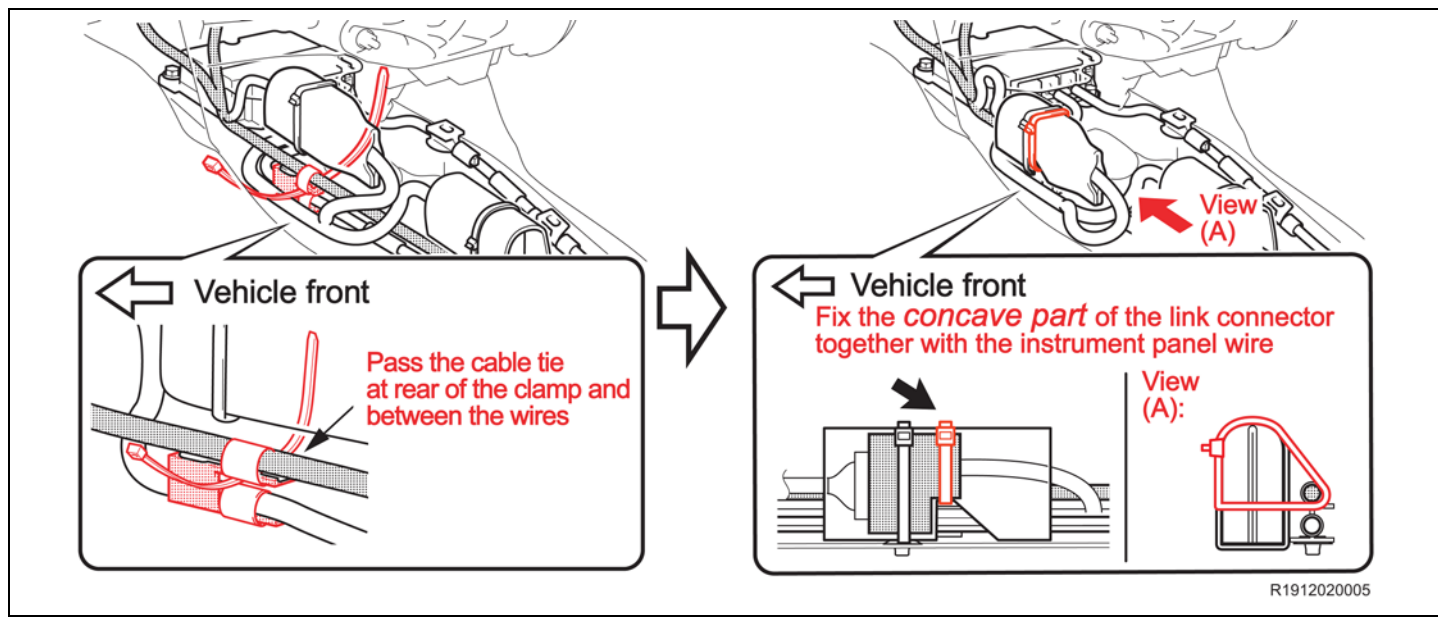


Be careful not to include the uncovered part of the instrument panel wire when fixing the cable tie.

- (2) Place the link connector outside the instrument panel wire of the left side.
- (3) Using a cable tie, fix the link connector at around the center of its concave part.

NOTE:

- Make sure that the link connector, water guard sheet and instrument panel wire are securely fixed.
 - Make sure that the water guard sheet is not flipped up.
- (4) Cut off the excess of the cable tie.



All vehicles

k) Pass a cable tie through the position shown in the illustration.

STOP

DO NOT include uncovered part of the instrument panel wire.

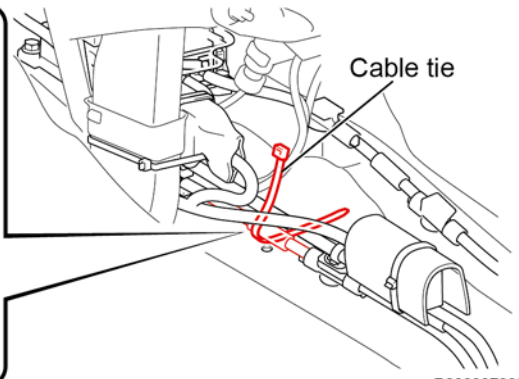
OK

NOT include uncovered wires



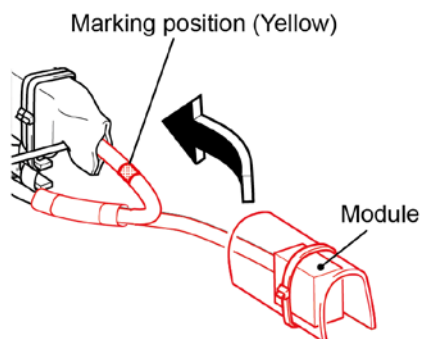
NG

Include uncovered wires

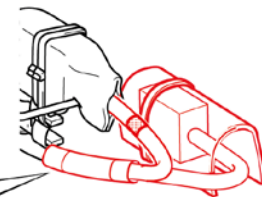
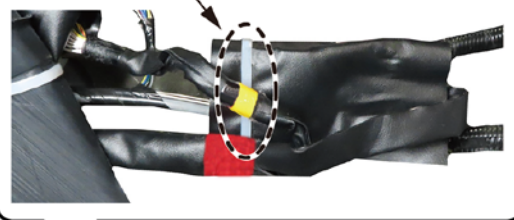


R2002070003

l) Bend the module side of the airbag sub harness as shown in the illustration.

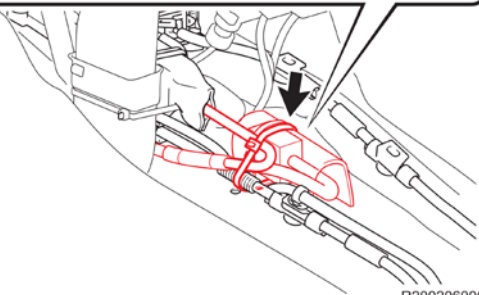
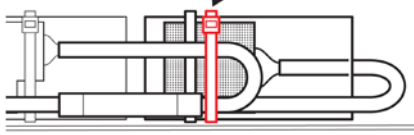


Align the marking with cable tie



R2002050008

← Vehicle front
Secure at around center of module



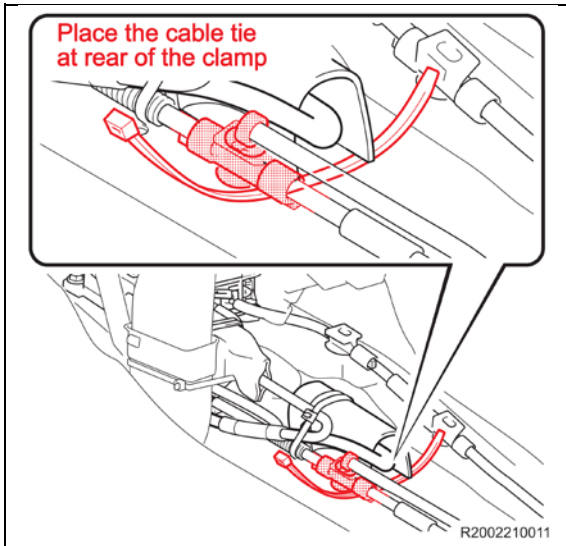
R2002060001

m) Using a cable tie, fix the module at around its center.

NOTE:

- Make sure that the module and water guard sheet are securely fixed.
- Make sure that the water guard sheet is not flipped up.

All vehicles

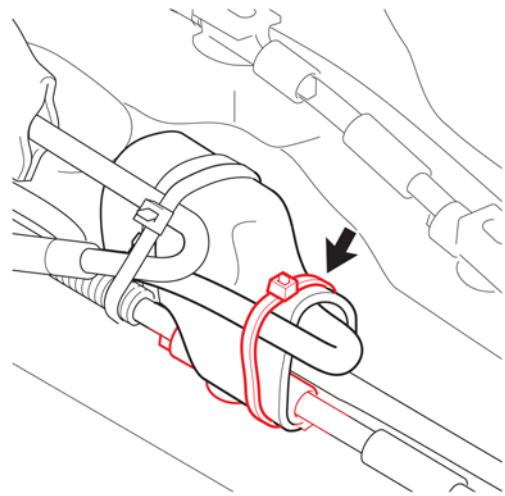
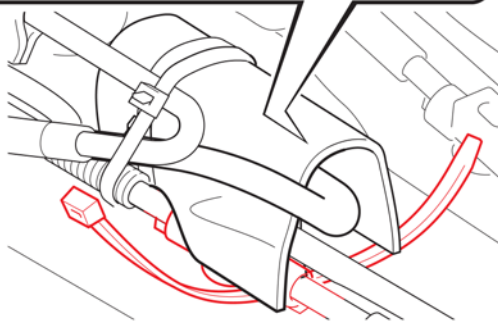


n) Place the cable tie at the rear side of the clamp.

- o) Cover the uncovered wires with the water guard sheet to protect the wires from being secured directly with a cable tie in the next step.
- p) Using a cable tie, fix the excess harness of module side together with the instrument panel wire.



DO NOT let the cable tie touch directly the uncovered wires.



R2002210012

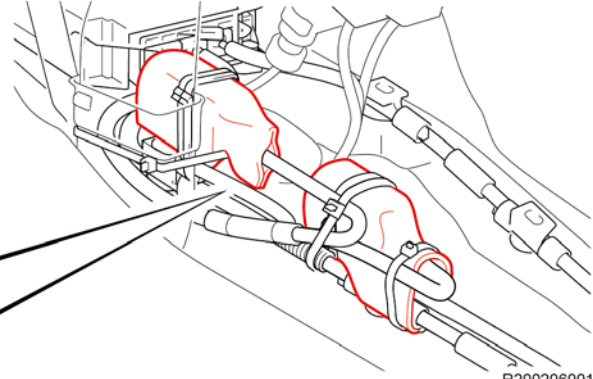


INTERMEDIATE INSPECTION (BY ANOTHER WORKER)

Confirm airbag sub harness is installed in proper condition



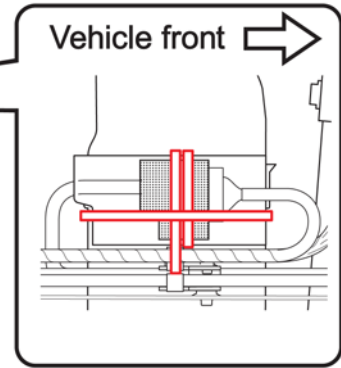
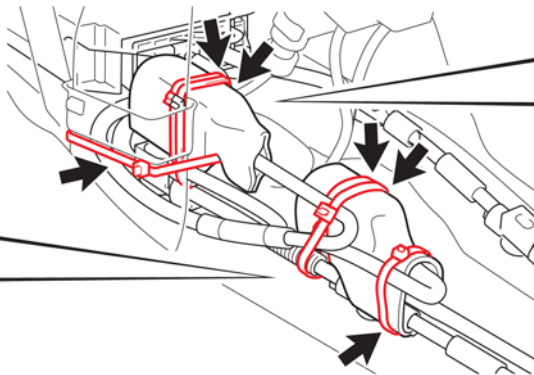
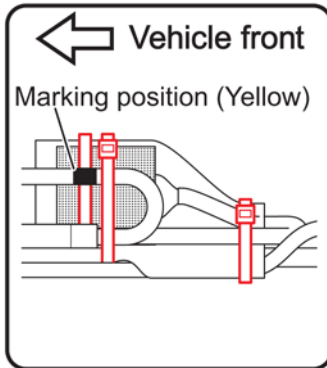
- Check each water guard sheet is not flipped up.



R2002060016

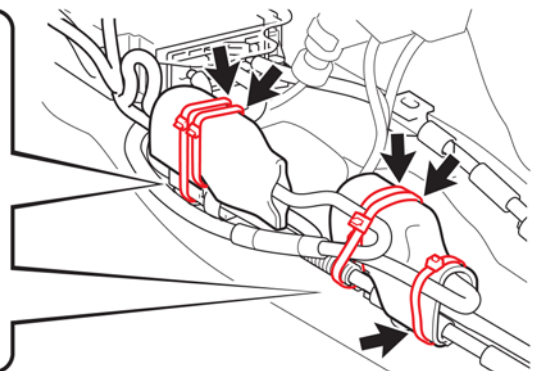
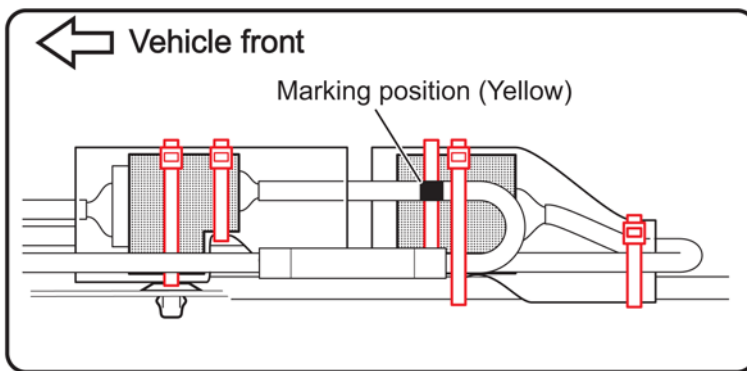
- Check each cable tie is fixed at its proper position and is securely fixed.
- Check the cable tie is fixed properly and if it is installed loose, tighten up the cable tie. And then cut off the excess of the cable tie.

With Rear Air Duct:



R2002060017

Without Rear Air Duct:



R2002070001

TRW Wire Harness Repair

Dealer Code:

Password:

LOGIN

8. Post Repair Quality Checksheet

a. Login to the website below to complete the Post Repair Quality Checksheet

URL: <https://toyota-trw.imagespm.info/>

Login Credentials

Username: Dealer code
 Password (1st time login): XXXXX

If you have any issues with the website contact Quality_Compliance@toyota.com for assistance.

Enter technician info.

Technician Name:

SPIN ID:

Certification Level:

Toyota Expert (Electrical)

NEXT

b. Enter the following information into the site

Technician Name
 Spin ID
 Select your current Toyota certification

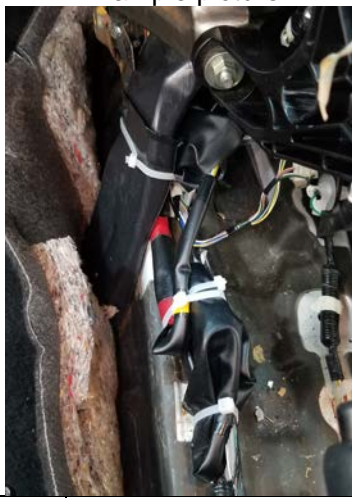
c. Enter the VIN into the website

d. Upload a picture of the completed wire harness installation as instructed on the website.

NOTE: Example photo below shows vehicle with rear air ducts. Vehicles without rear air ducts will look slightly different.

STOP The picture you take **MUST MATCH** the angle of image shown below

Example picture



Complete re-installation of vehicle.

Warranty Authorization Number:

DONE

e. Record the warranty authorization number and provide it to the warranty administrator for claim filing.

9. RESTORE THE VEHICLE

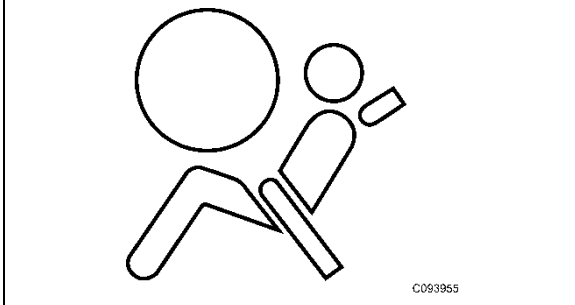
Click the link below to access TIS for instructions

[SUPPLEMENTAL RESTRAINT SYSTEMS: CENTER AIRBAG SENSOR ASSEMBLY: INSTALLATION](#)

(Doc ID: RM000000UWS06DX)



Be careful not to pinch the airbag sub harness when installing the console box.



10. INSPECT SRS WARNING LIGHT

- Check that the airbag warning light lights when the power switch is turned on.
- Check that the airbag warning light goes off approximately 6 seconds after turning on of the ignition switch.

NOTE:

If the airbag warning light remains on, it is likely to be caused by connection failure of the airbag connector.

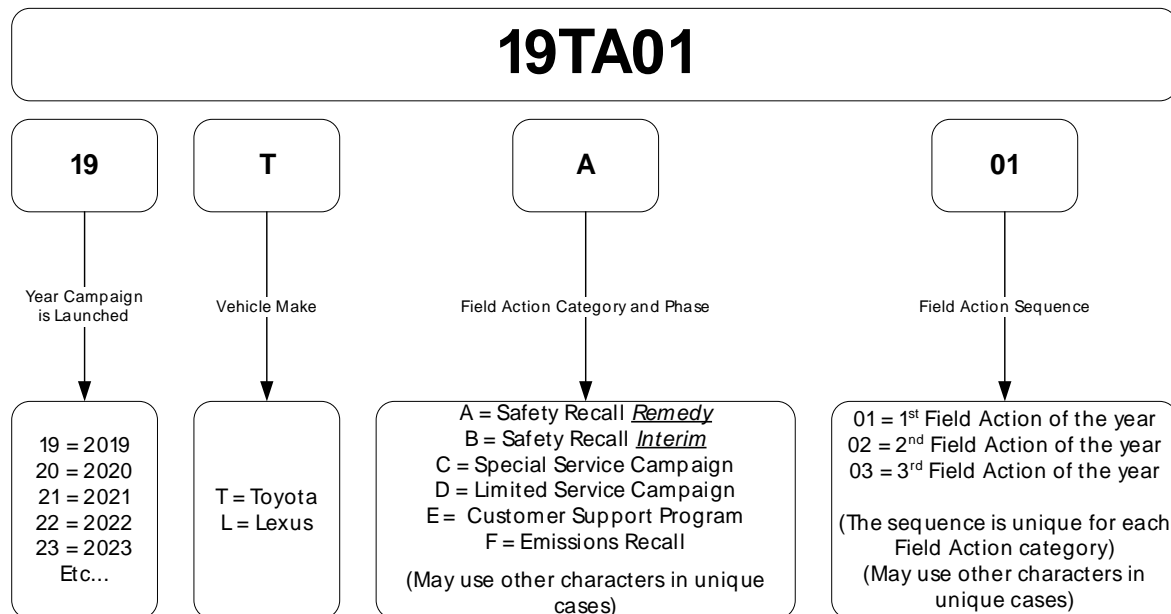
◀ VERIFY REPAIR QUALITY ▶

- Confirm there is no SRS light on
- Confirm center console has been properly installed and that no large gaps in trim are present
- Confirm you have completed the Repair Quality Checksheet and that the image you uploaded was correct.

If you have any questions regarding this Safety Recall, please contact your regional representative.

VII. APPENDIX

A. CAMPAIGN DESIGNATION DECODER



Examples:

19TA01 = Launched in 2019, Toyota, Safety Recall Remedy Phase, 1st Safety Recall Launched in 2019

20TC02 = Launched in 2020, Special Service Campaign, 2nd Special Service Campaign Launched in 2020

21TE05 = Launched in 2021, Customer Support Program, 5th Customer Support Program Launched in 2021