### **Technical Bulletin**



# SERVICE BULLETIN Classification: Reference: Date: RS17-014 NTB17-059 June 2, 2017

# 2013 – 2016 SENTRA OCCUPANT CLASSIFICATION SYSTEM RETROFIT

**APPLIED VEHICLES:** 2013 – 2016 Sentra (B17)

### SERVICE INFORMATION

The information in this bulletin is provided for customers who have concerns with their Occupant Classification System (OCS) operation after all campaigns have been completed.

Follow the steps in this bulletin to determine if this OCS retrofit procedure is applicable to the vehicle you are working on.

### **DETERMINE IF OCS RETROFIT APPLIES**

 Check Service COMM to confirm if OCS reprogramming campaign has been completed (R1608 / NTB16-053).

### **Completed:**

- Write on the repair order the date it was completed and by which dealer.
- Go to step 2.

### **Not Completed:**

- Complete campaign R1608 / NTB16-053.
- No further action needed. OCS retrofit does NOT apply.

Nissan Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. **NOTE:** If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

- 2. Verify and document the customer's concern (have the customer demonstrate the concern).
- 3. Using CONSULT-III plus, check for Airbag or OCS related DTCs.

No Airbag or OCS DTCs: go to step 4.

### Airbag or OCS DTCs stored:

- Refer to the Electronic Service Manual (ESM), section SRC SRS Airbag Control System, for diagnostic and repair information.
- OCS retrofit does NOT apply.
- 4. If all of the following are confirmed:
  - Campaign R1608 / NTB16-053 has been completed.
  - Customer concern has been confirmed and documented.
  - No Airbag or OCS DTCs are stored.

### Then

5. Perform the Service Procedure in this bulletin.

### SERVICE PROCEDURE

**WARNING:** This procedure involves working under the passenger seat. The metal seat frame has sharp edges.

**CAUTION:** Handle interior trim carefully to avoid damage. Work with clean hands and clean tools to avoid dirt and stains. Use protective covers as needed.

**IMPORTANT:** Follow all cautions, warnings, and notes in the Electronic Service Manual (ESM) when working on or near a Supplemental Restraint System (SRS), such as an air bag or OCS components.

- 1. Turn the ignition ON, engine OFF.
- 2. Write down the radio settings.

Presets	1	2		3	4	5	6
AM							
FM 1							
FM 2							
SAT 1							
SAT 2							
SAT 3							
Bass	Tre	ble	Bala	nce	Fade	Spd Sen.	Vol.

- 3. Record (write down) any other customer settings that will be lost when the battery is disconnected.
  - Refer to the Electronic Service Manual (ESM) section PG-Power Supply, Ground,
     & Circuit Elements, for a listing of systems that may lose settings or memory when disconnecting the 12V battery.
    - Look in the PG section index for ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL.
    - ➤ This list often includes items such as audio, HVAC, power windows, clock, etc.
- 4. Turn the ignition OFF.

- 5. Passenger seat removal:
  - a. Disconnect both battery cables, negative cable first.
  - b. Wait at least 3 minutes.
  - c. Remove the passenger seat from the vehicle.
    - Refer to the ESM, section SE-Seat, for seat removal information.
- 6. Set the seat in a clean working area.

### NOTE:

- With the seat removed you will have access to the connectors shown in Figure 1.
- These connectors were connected to the seat.



Figure 1

- 7. Carefully cut the sheath (harness cover) and remove wires as shown in Figure 2.
  - Inspect the wires to make sure there is no damage due to the cutting process.
- 8. Select the connector shown in Figure 2:
  - 8 wire slots, only 4 are occupied
  - The wire colors are:
    - Red (R)
    - > Pink (P)
    - ➤ Black (B)
    - Gray (GY)

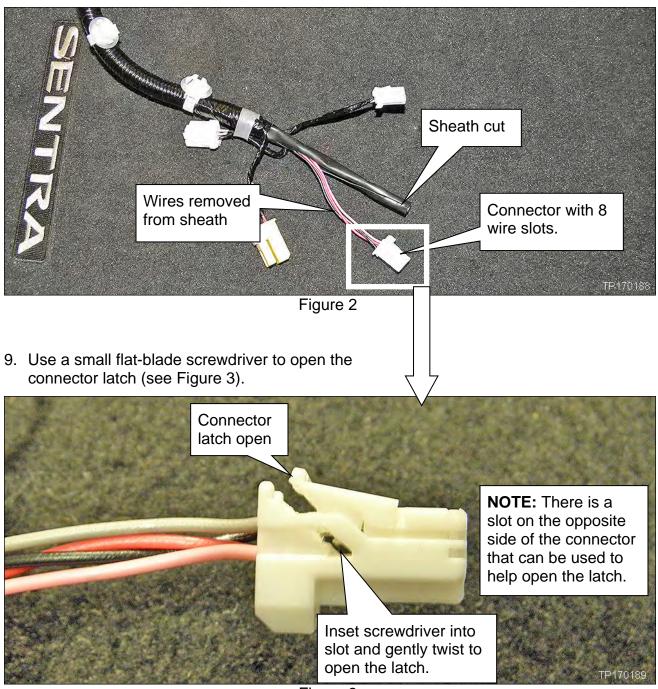


Figure 3

**NOTE:** In the next step, you will insert a jumper wire in the slot shown in Figure 4.

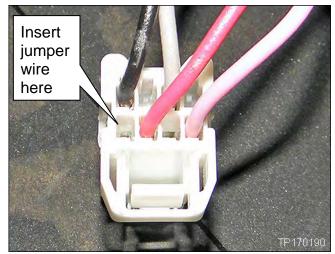


Figure 4

- 10. Insert the jumper wire as shown (see Figures 4 and 5).
  - Jumper wire is listed in the Parts Information.
  - Both ends of the jumper wire are the same, use either end.

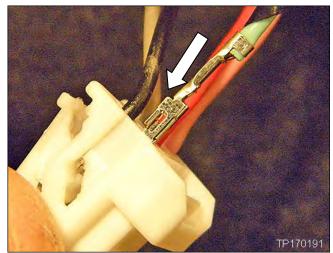
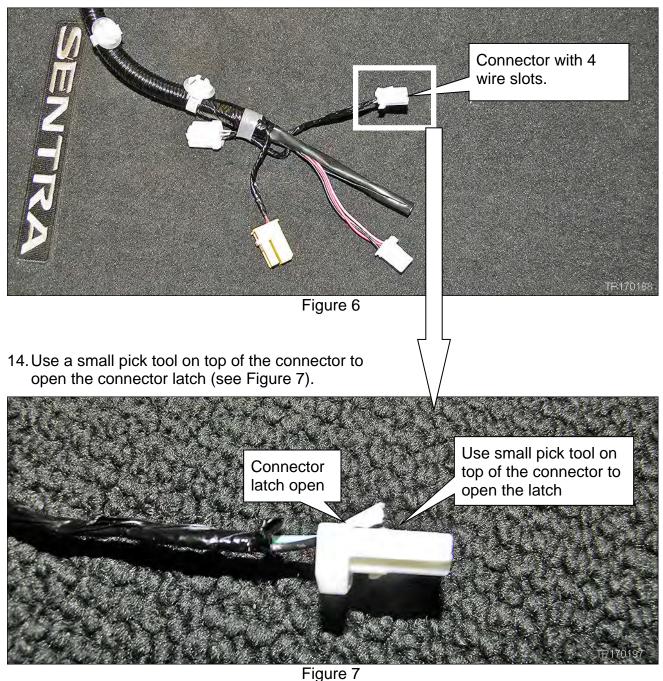


Figure 5

- 11. After the wire is inserted, gently tug to confirm it is latched in place.
- 12. Squeeze the connector to close the latch.

- 13. Select the connector shown in Figure 6:
  - 4 wire slots, only 2 are occupied
  - The wire colors are:
    - ➤ Light Green (LG)
    - ➤ Black (B)



**NOTE:** In the next step, you will insert the other end of the jumper wire in the slot shown in Figure 8.

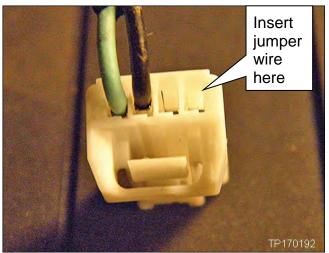


Figure 8

15. Insert the other end of the jumper wire as shown (see Figures 8 and 9).

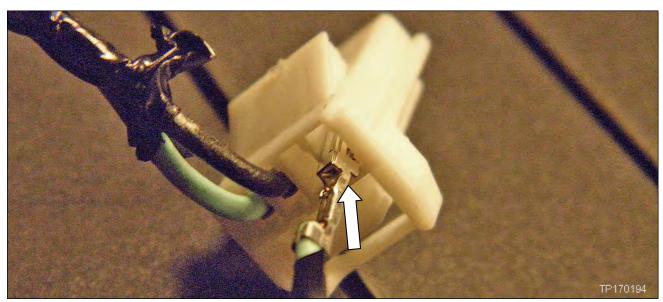


Figure 9

- 16. After the wire is inserted, gently tug to confirm it is latched in place.
- 17. Squeeze the connector to close the latch.

NOTE: The jumper wire is now connected as show in Figure 10.

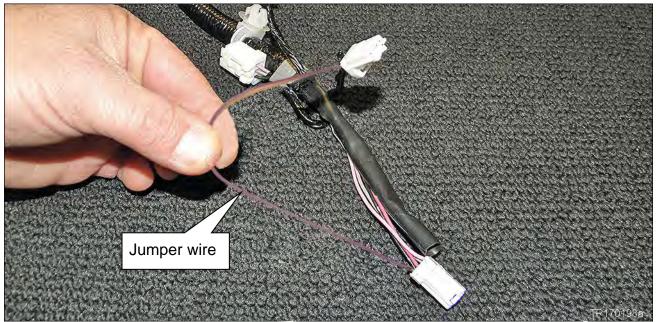


Figure 10

18. Tuck the jumper wire and other wires into the sheath.

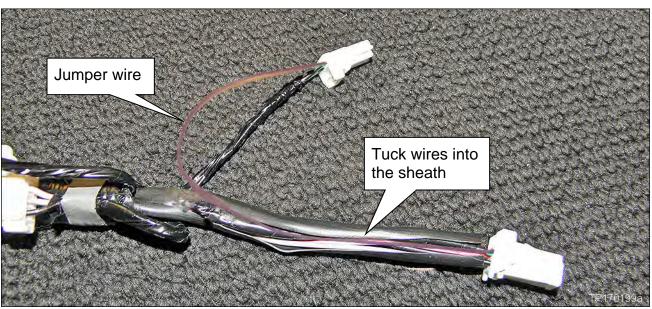


Figure 11

- 19. Tape the harness as shown in Figure 13.
  - Refer to the Parts Information for electrical tape requirement.

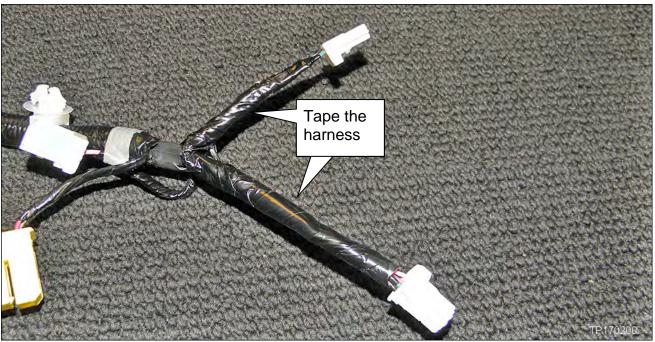
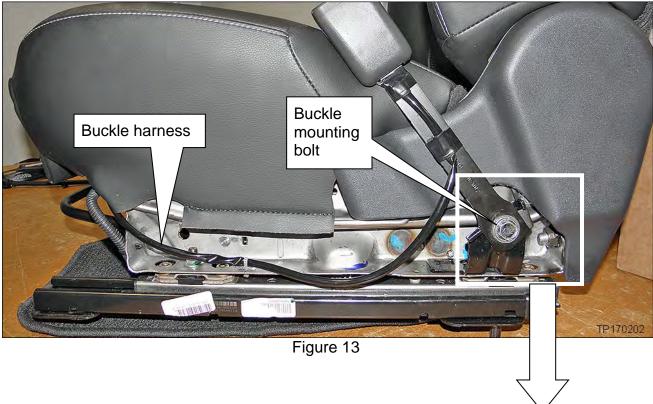


Figure 12

20. Remove the old seat belt buckle and install the **new** one (see Figure 13).

- New buckles are listed in the Parts Information.
- New buckles look the same as the old ones.
  - ➤ Harness connector of **new** buckle is 4 slots with 3 occupied.
  - ➤ Harness connector of <u>old</u> buckle is 4 slots with only 2 occupied.
- Buckle is held on with one bolt.
- Route and connect the harness of the new buckle the same as the old buckle.



# IMPORTANT: Make sure this bracket is present.

- This bracket is installed as part of campaign R1608 / NTB16-053.
- If the bracket is not installed, it must be installed before continuing.
- If needed, refer to NTB16-053 for bracket installation.

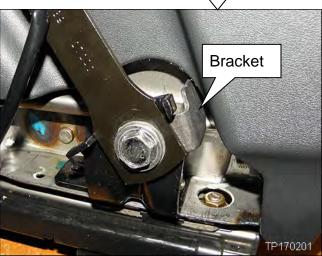


Figure 14

- 21. From under the seat, remove the old OCS harness and install the new one.
  - The OCS harness consists of the wiring and connectors between the OCS sensors and the OCS control unit.
  - The new OCS harness is listed in the Parts Information.

### **IMPORTANT:**

- a. Disconnect one OCS harness connector or mounting clip, then
- b. Connect the new OCS harness connector or mounting clip before moving to the next one.
  - Disconnecting/connecting one at a time will ensure that the new harness is connected **exactly** as the old one.
  - Refer to Figure 15 below and Figure 16 on the next page for exact harness mounting points.

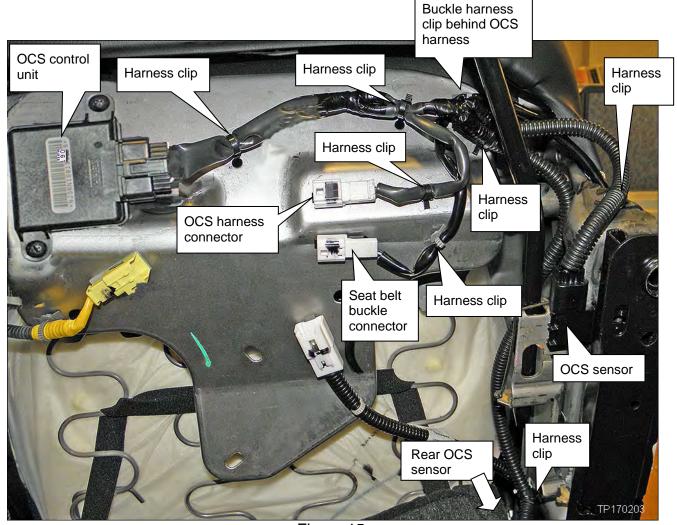


Figure 15

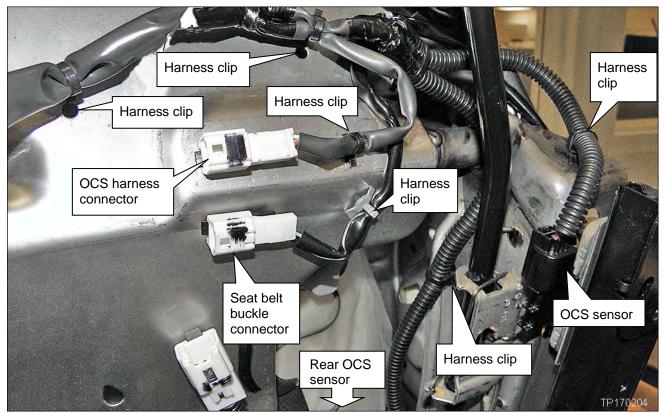


Figure 16

- 22. Replace the OCS control unit with the <u>new</u> one.
  - The OCS control unit is held on with 2 screws.
  - The OCS control unit is located under the front edge of the seat.
  - New OCS control unit is listed in the Parts Information.

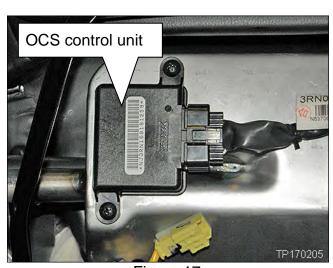


Figure 17

- 23. Reinstall the seat into the vehicle in reverse order of removal.
  - Torque passenger seat mounting bolts to: 40
     N•m (4.1 kg-m, 30 ft-lb).
  - Torque bolts in the order shown.

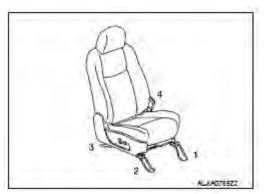


Figure 18

- 24. Re-connect battery cables, positive cable first.
- 25. Reset/reinitialize systems as needed.
  - Refer to the ESM section, PG Power, Supply & Ground Elements for a listing of systems that require reset/initialization after reconnecting the 12V battery.
    - Look in the PG section index for ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL.
    - > This list often includes items such as audio, power windows, clock, etc.
- 26. Perform Zero Point Reset, using CONSULT III plus, on the next page.

### **Zero Point Reset**

- 1. Prepare the vehicle for OCS zero point reset as follows:
  - Level the vehicle.
  - No objects on the passenger seat or in the storage bin.
  - No occupants in the vehicle including the servicing technician.
  - PC is outside of the vehicle on a suitable support.
    - > Do not set the PC on the vehicle.
  - Do not touch the vehicle during the OCS zero point reset.
  - Minimize vibrations of the vehicle.
- 2. Connect the plus VI to the vehicle.
- 3. Open / start CONSULT-III plus (C-III plus).
- 4. Turn the ignition ON, with engine OFF (engine not running/not in ready mode).
- 5. Wait for the plus VI to be recognized.
  - The Serial No. will display when the plus VI is recognized.
- 6. Select Diagnosis (One System).
- 7. Scroll C-III plus (All systems) and select **OCCUPANT DETECTION**.

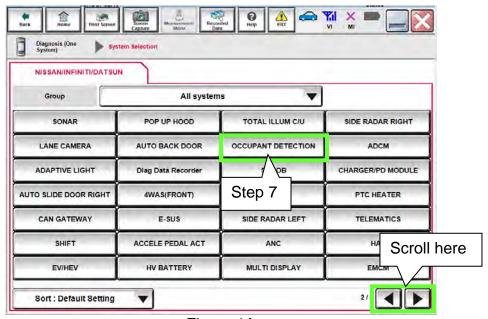


Figure 1A

# 8. Select Zero point reset function.

## 9. Select Start.

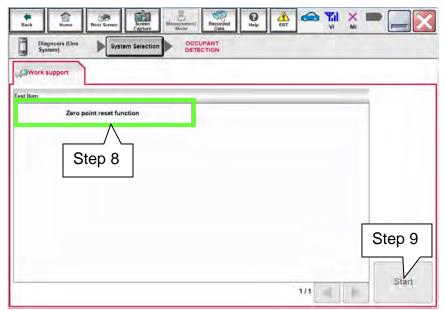


Figure 2A

### 10. Select Next.

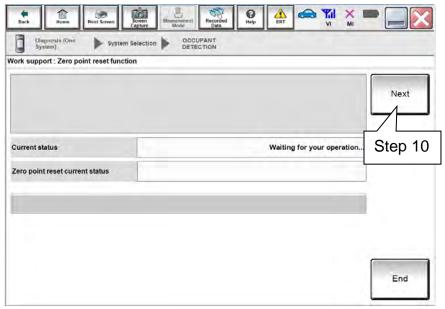


Figure 3A

- 11. Select Start and then proceed to step 12.
  - After selecting **Start**, if Figure 5A is displayed:
    - a. Check the OCS control unit and confirm that harness connector is completely seated.
    - b. Turn the ignition OFF and then restart procedure from step 4 on page 15.

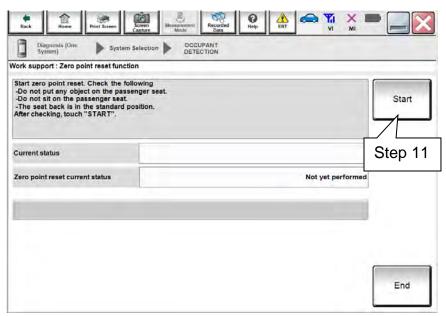


Figure 4A

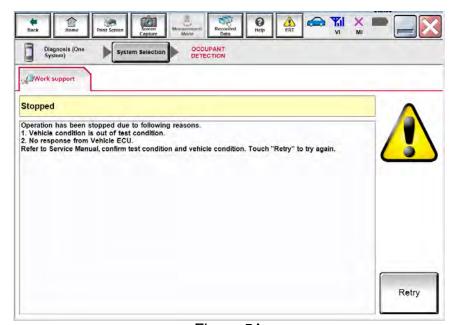


Figure 5A

12. Zero point reset will display "EXECUTING".

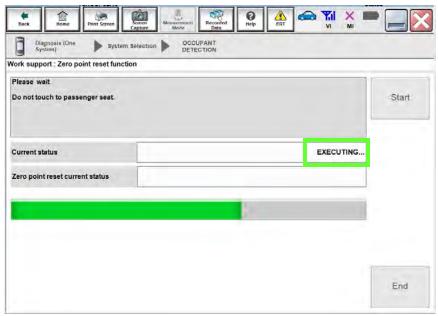
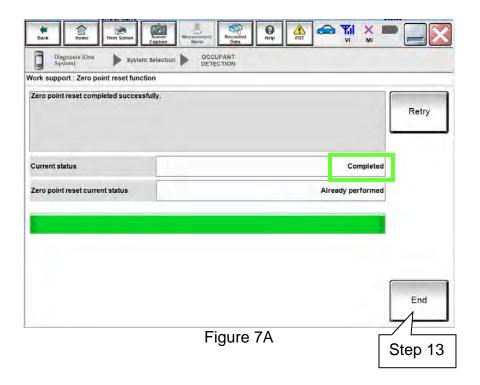


Figure 6A

13. When finished, "Completed" will display next to "Current status".

• Select **End** and then proceed to step 14.



- 14. Turn the ignition OFF and then back ON and observe the air bag warning light and front passenger airbag status light:
  - The air bag warning light



- should illuminate for 7 seconds and then go out.
- The front passenger airbag status light should illuminate for 7 seconds and then either stay illuminated or go out depending on the occupation of the front passenger seat.

Front Passenger Airbag Status Light Operation

CONDITION	DESCRIPTION	PASSENGER AIR BAG INDICATOR LIGHT	FRONT PASSENGER AIR BAG STATUS	
Empty	Empty front passenger seat	ON (illuminated)	INHIBITED	
Nobody/Somebody	Bag or Child or Child Restraint or Small Adult in the front passenger seat	ON (illuminated)	INHIBITED	
Adult	Adult in front passenger seat	OFF (dark)	ACTIVATED	

- If the air bag warning light or the front passenger airbag status light does not operate as described above there may be an issue not covered by this bulletin. Refer to ASIST and the appropriate ESM for additional diagnostic and repair information.
- 15. Provide the customer with a printed copy of FRONT PASSENGER AIR BAG STATUS LIGHT OPERATION (see last page).

### **PARTS INFORMATION**

DESCRIPTION	PART#	QUANTITY	
Controller Assy-Occupant Sensor (OCS Control Unit)	98856-3RN0A	1	
Seatbelt Buckle – Black/Charcoal	86842-3RN8A	4	
Seatbelt Buckle – Beige/Tan	86842-3RN8B	ı	
Harness - Occupant (OCS Harness)	98854-3RN0A	1	
Harness-Front Seat (Jumper Wire)	24009-4AF1A	1	
Electrical Tape	3M/Scotch Professional Grade Vinyl Super 88 Electrical Tape ( 3/4" wide) or equivalent (1)	Shop Supply	

<sup>(1)</sup> This product (or an equivalent) is available at many local automotive supply stores, and many local hardware stores.

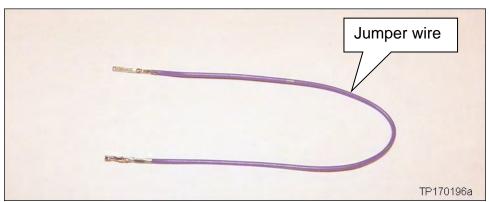


Figure A

### **CLAIMS INFORMATION**

## Submit a Primary Part (PP) type claim using the following claims coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Perform OCS Retrofit	(1)	RX5NAA	ZE	32	0.9 hrs.

<sup>(1)</sup> Reference the Parts Information Table and use the applicable Occupant Sensor Controller Assembly part number as the Primary Failed Part (PFP).

### FRONT PASSENGER AIR BAG STATUS LIGHT OPERATION

**NOTE:** Please print this page and place a copy in the vehicle.

The front passenger seat is equipped with an occupant classification sensor (weight sensor) that turns the front passenger air bag on or off depending on the weight applied to the front passenger seat. The status of the front passenger air bag (ON or OFF) is indicated by the front passenger air bag status light which is located on the instrument panel. After the ignition switch is placed in the "ON" position, the front passenger air bag status light on the instrument panel illuminates for about 7 seconds and then turns off or remains illuminated depending on the front passenger seat occupied status. The light operates as follows:



CONDITION	DESCRIPTION	PASSENGER AIR BAG INDICATOR LIGHT	FRONT PASSENGER AIR BAG STATUS	
Empty	Empty front passenger seat	ON (illuminated)	INHIBITED	
Nobody/Somebody	Bag or Child or Child Restraint or Small Adult in the front passenger seat	ON (illuminated)	INHIBITED	
Adult	Adult in front passenger seat	OFF (dark)	ACTIVATED	