

**Classification:**

RS17-024b

**Reference:**

ITB17-030b

**Date:**

August 25, 2017

## 2014-2016 Q50; OCCUPANT CLASSIFICATION SYSTEM RETROFIT

This bulletin has been amended. Pages 20 and 22 have been revised.  
No other changes have been made. Please discard all previous versions of this bulletin

**APPLIED VEHICLES:** 2014-2016 Q50 (V37)  
2014-2016 Q50 Hybrid (V37)

### SERVICE INFORMATION

The information in this bulletin is provided for customers who have concerns with their vehicle's 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

1. Check Service COMM to confirm if OCS reprogramming campaign has been completed (R1606 / ITB16-018).

#### Completed:

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

#### Not Completed:

- Complete campaign R1606 / ITB16-018.
- No further action needed. OCS retrofit does NOT apply.

Infiniti 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 Infiniti retailer 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 R1606 / ITB16-018 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 front 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/not ready.
  
2. Record (write down) any customer settings that will be lost when the battery is disconnected.
  - Refer to the Electronic Service Manual (ESM) section **GI General Information**, for a listing of systems that may lose settings or memory when disconnecting the 12V battery.
    - Look in the **GI** section index for **ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL**.
    - This list often includes items such as HVAC, power windows, clock, etc.
  
3. Turn the ignition OFF.

4. Remove head restraint from the front passenger seat.
5. Move front passenger seat to the front most position.

6. Disengage rear leg cover fixing pawls, and then remove rear leg covers.

 = Pawl

7. Using hand tools, remove the seat mounting bolts from the rear of the front passenger seat.

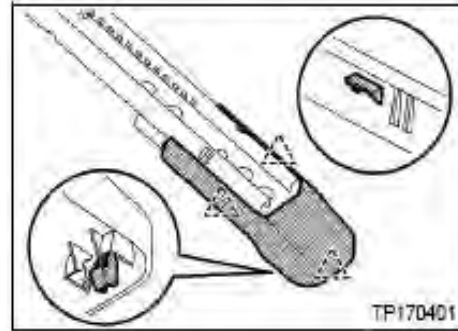


Figure 1


8. Move front passenger seat to the rear most position.

9. Disconnect both battery cables (negative cable first) from the 12 volt battery.

- **IMPORTANT:** On vehicles equipped with Stop/Start System, the 12 volt sub-battery must also be disconnected, negative cable first.
- If needed, refer to the ESM, section PG – Power Supply, Ground & Circuit Elements, for information on battery disconnection.

10. Wait at least 3 minutes before continuing.

11. Disengage front leg cover fixing pawls, and then remove front leg covers.

 = Pawl

12. Using hand tools, remove the seat mounting bolts from the front of the front passenger seat.

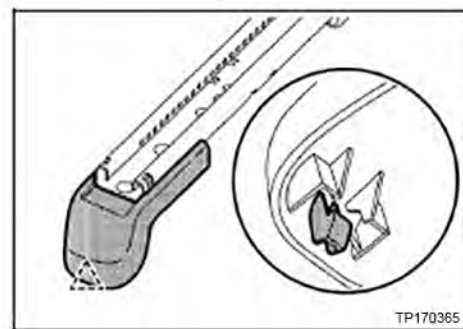


Figure 2

13. Disconnect front passenger seat cushion lower harness connector.

14. Remove the front passenger seat from the vehicle.

15. Set the seat in a clean working area.

16. Remove the seat belt buckle and seat belt buckle harness.

- The seat belt buckle is held on with one mounting nut.
- The harness is secured with clips on the side of the seat frame and under the seat (see Figures 3 and 4).

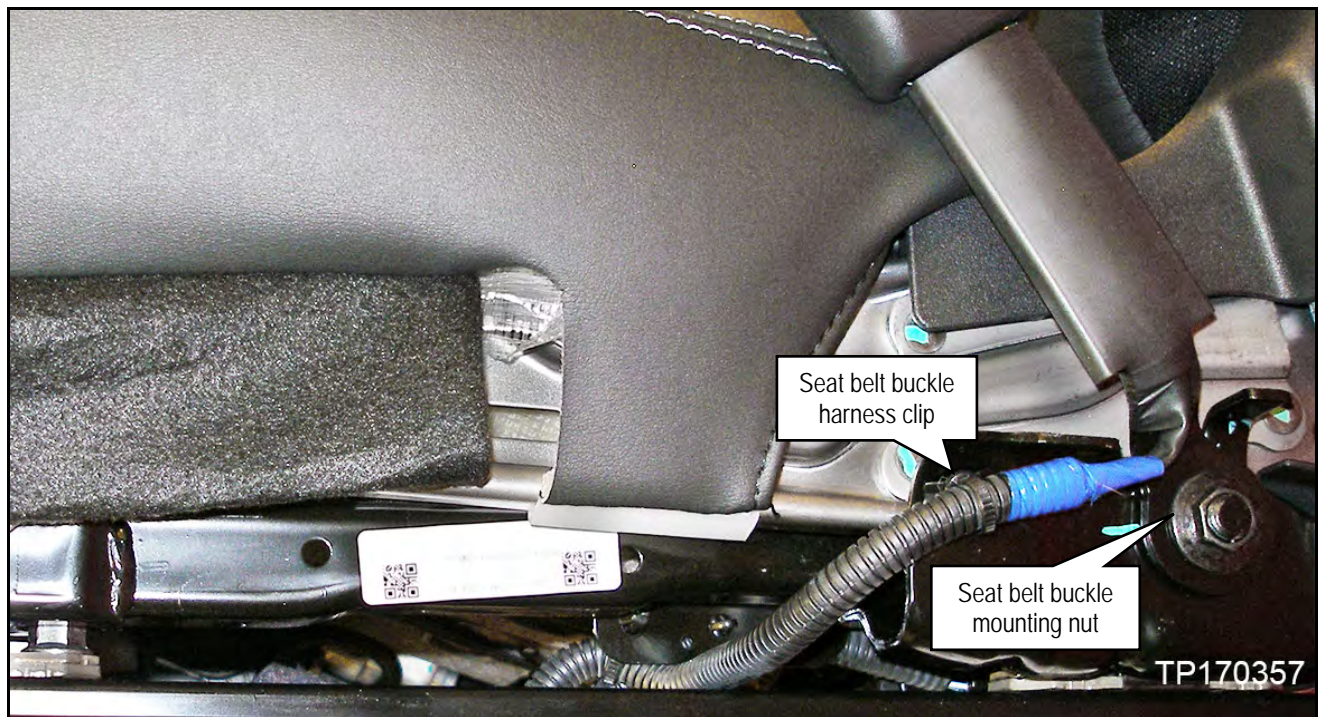


Figure 3

17. From under the front passenger seat, disconnect only the OCS control unit electrical connector, OCS harness connector, OCS harness clips, seat belt harness connector and seat belt buckle harness clips shown in Figure 4.

**CAUTION:** Leave the old OCS harness connected to the 2 OCS sensors until after the drilling procedure is completed.

18. Remove the OCS control unit.

- OCS control unit is held on with 2 bolts.
- Do not install the new OCS control unit at this time.

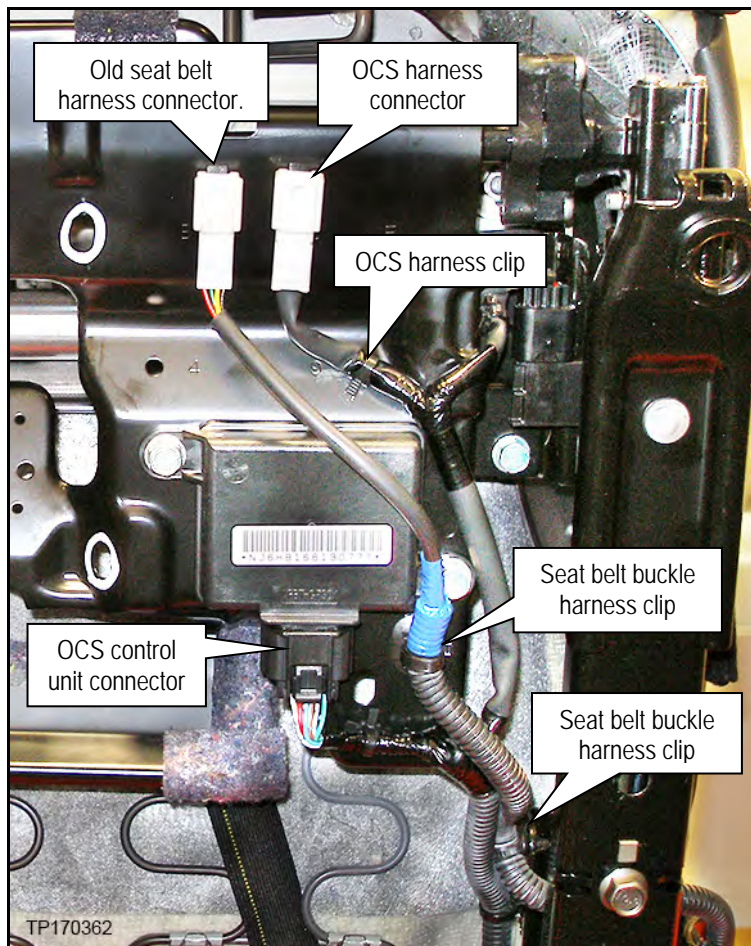
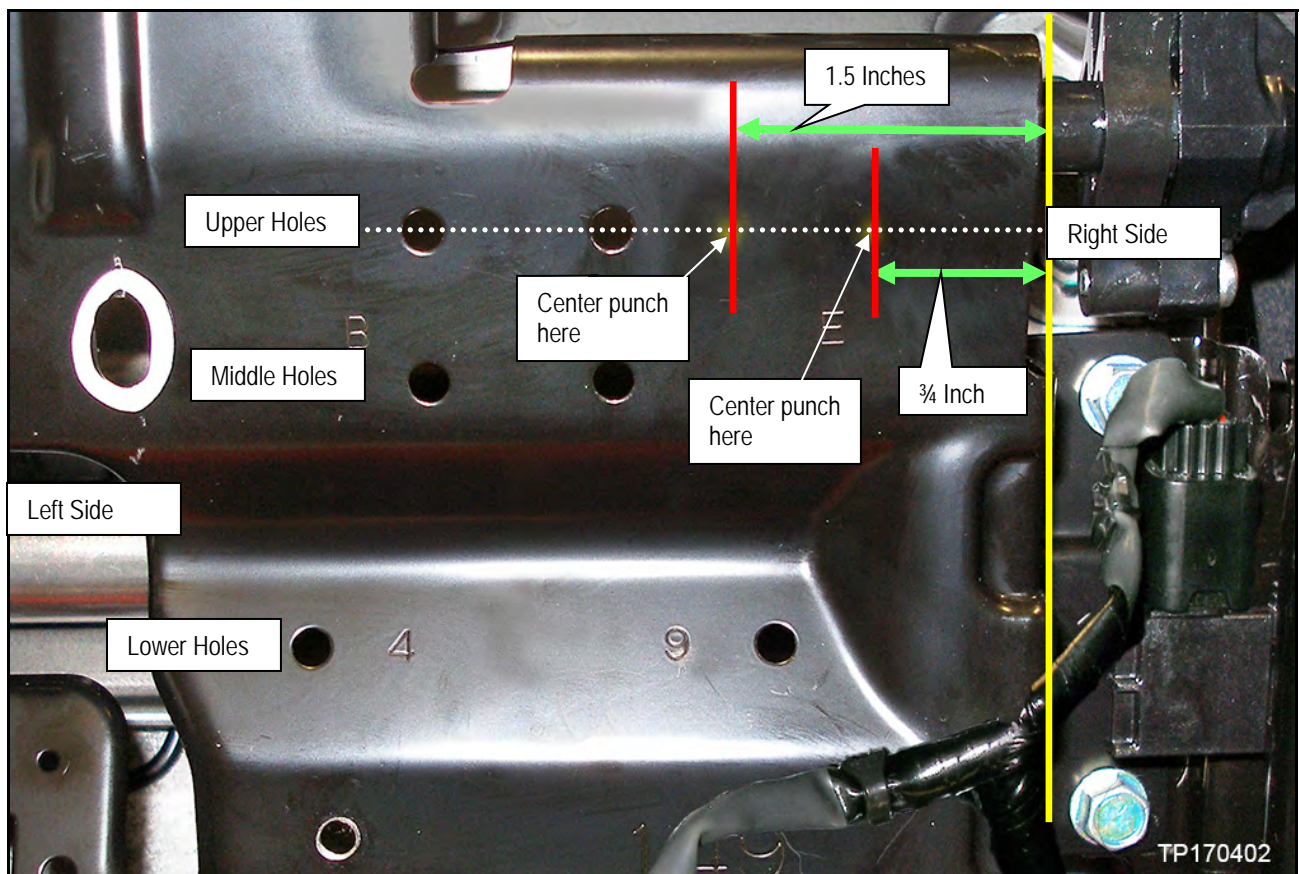


Figure 4

19. Mark the locations for drilling 2 new upper holes (see Figure 5).
- Position a straight edge through the center line of the upper holes currently in the seat frame.
  - Mark the center line as indicated by the white dotted line.
  - Measure  $\frac{3}{4}$  inch from the right side of the seat frame (indicated by the yellow line) and in-line with the white dotted line.
  - Use a center punch to mark where the red line and white dotted line intersect.
  - Measure 1.5 inches from the right side of the seat frame and in-line with the white dotted line.
  - Use a center punch to mark where the red lines and white dotted line intersect.



20. Mark the locations for drilling 1 new middle hole (see Figure 6).

- a. Position a straight edge through the center line of the middle holes currently in the seat frame.
- b. Mark the center line as indicated by the white dotted line.
- c. Measure  $\frac{3}{4}$  inch from the right side of the seat frame (indicated by the yellow line) and in-line with the white dotted line.
- d. Use a center punch to mark where the red line and white dotted line intersect.

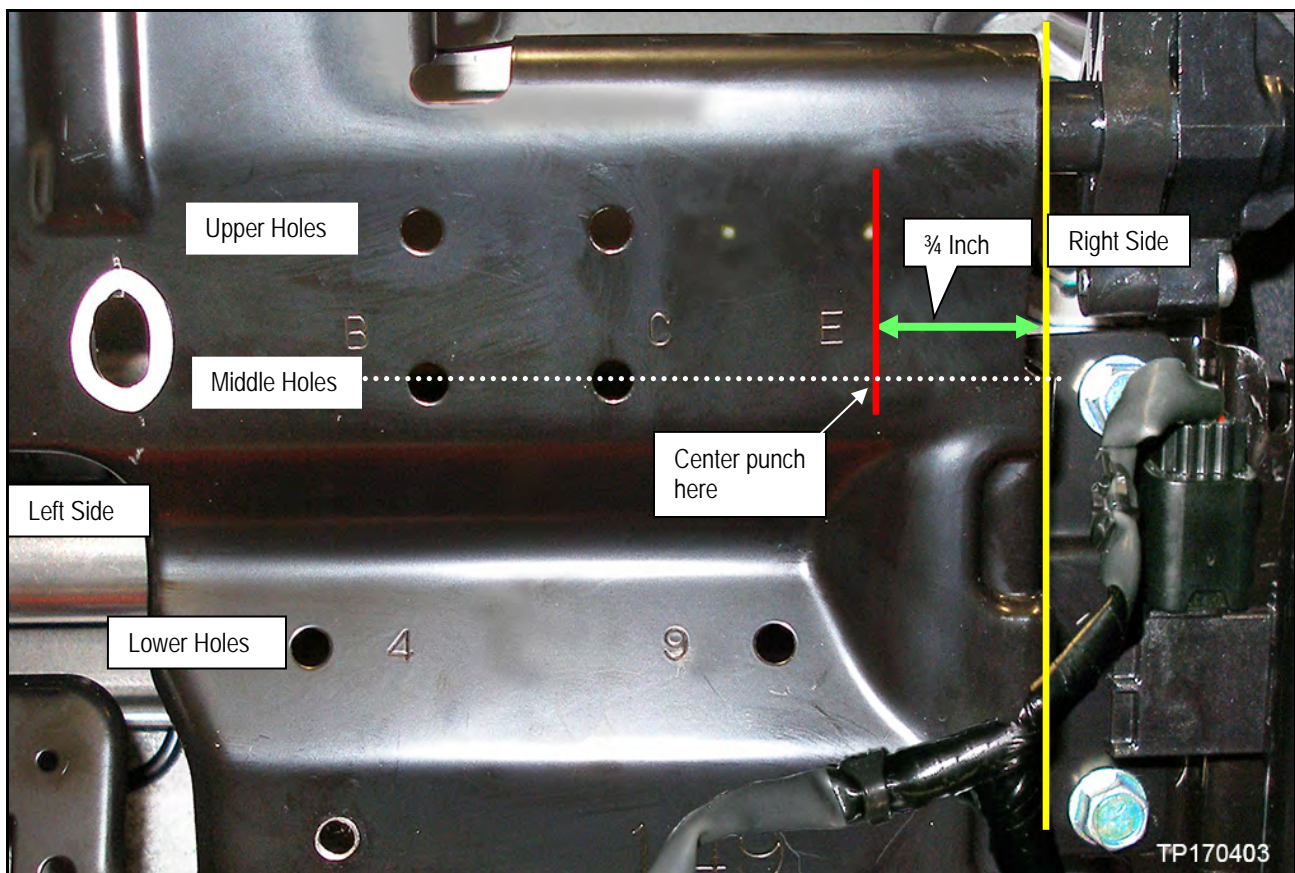


Figure 6



21. Mark the locations for drilling 1 new lower hole (see Figure 7).

- a. Position a straight edge through the center line of the lower holes currently in the seat frame.
- b. Mark the center line as indicated by the white dotted line.
- c. Measure 2.5 inches from the left side of the seat frame (indicated by the yellow line) and in-line with the white dotted line.
- d. Use a center punch to mark where the red line and white dotted line intersect.

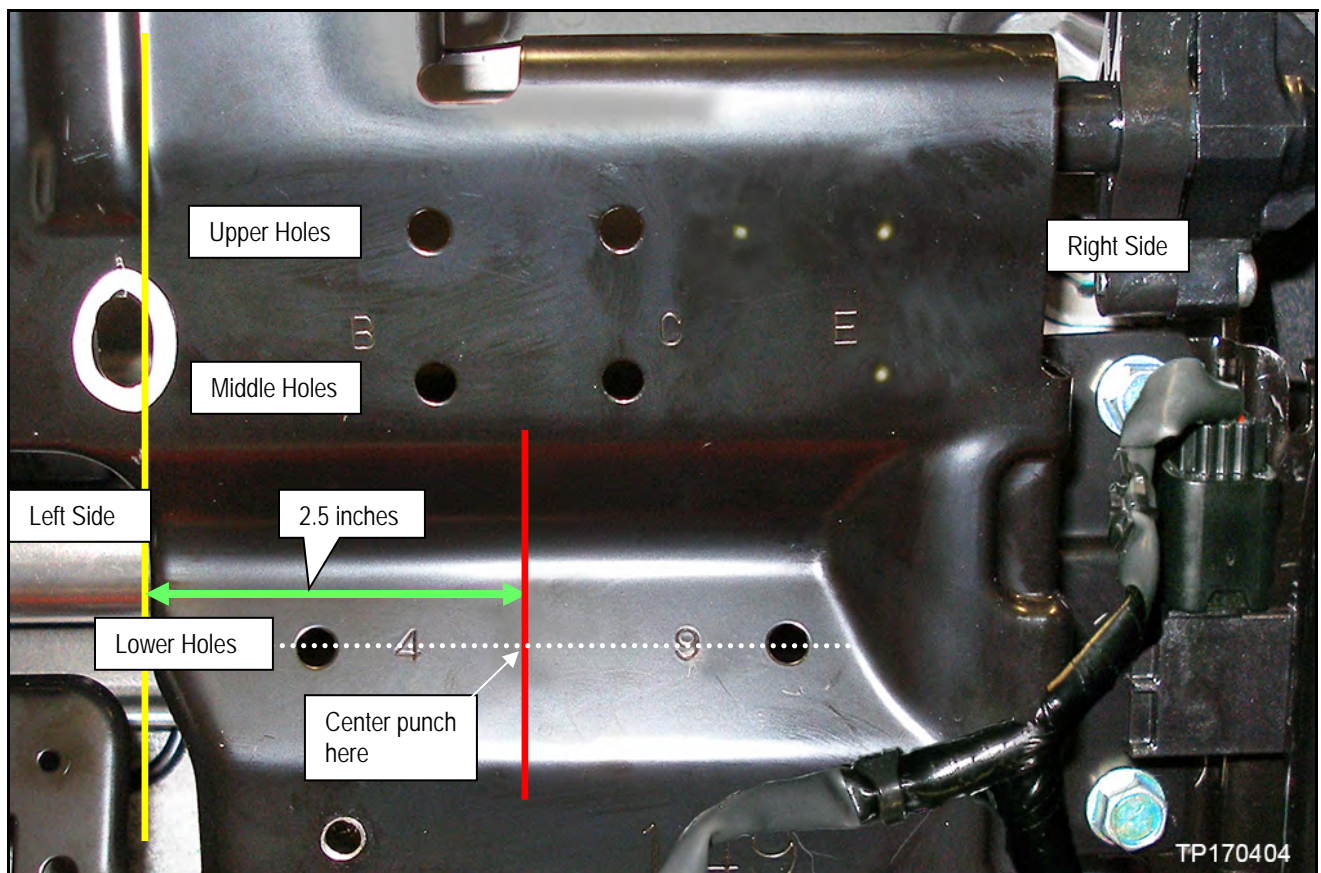


Figure 7

22. Using a 13/64" drill bit, drill all 4 center punch locations.

- Refer to Figure 8 to verify center punch marks are in correct location where holes are to be drilled.

23. Using a round file, de-burr the drilled holes.

24. Remove the old OCS harness from the OCS sensors.

25. Install the new OCS control unit.

- New OCS control unit is listed in the Parts Information.
- Install OCS control unit in the original location.
- Use original mounting bolts.

26. Apply black touch-up paint to the exposed metal of drilled holes.

- Touch-up paint is listed in the Parts Information.

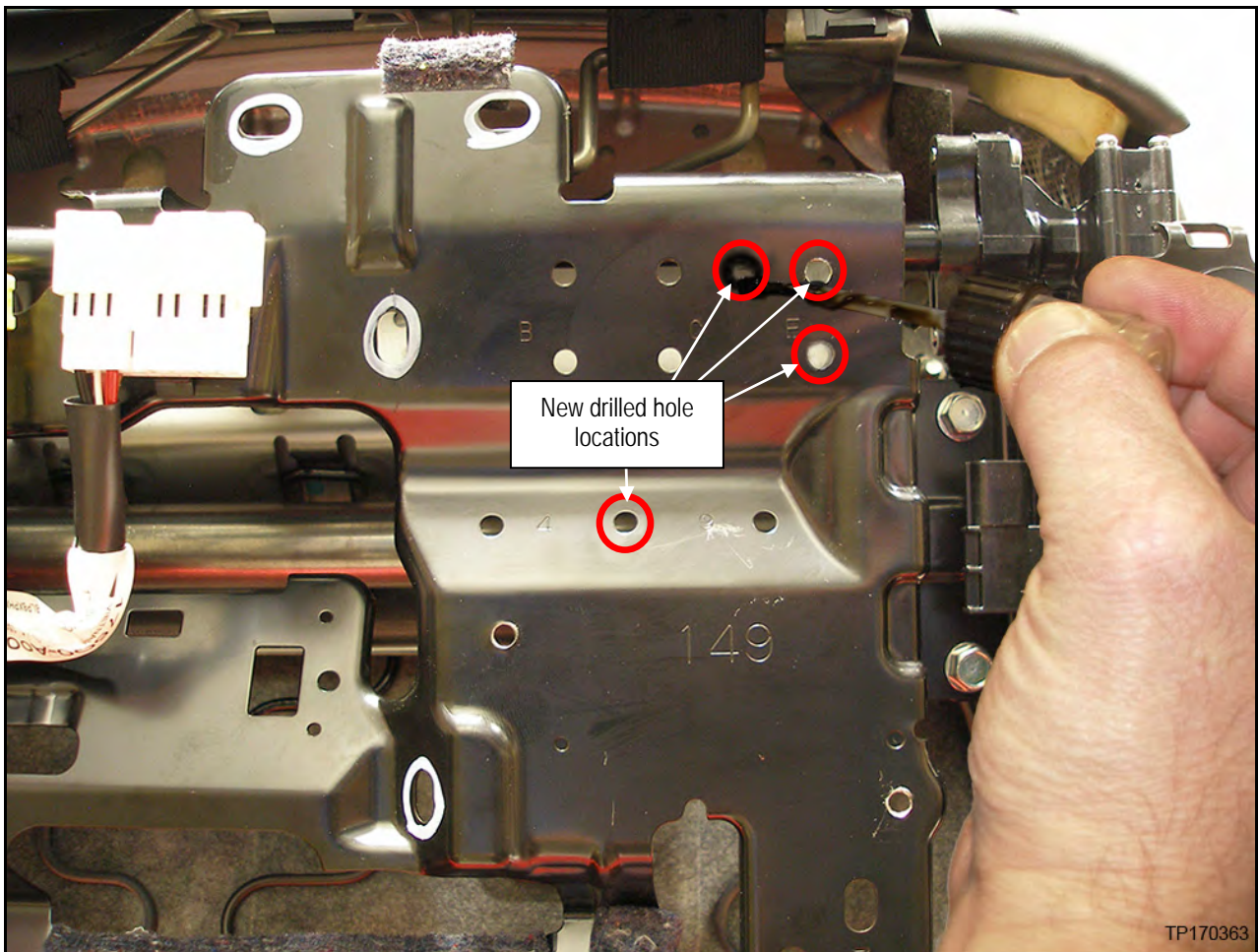


Figure 8

**NOTE:**

- In the next steps you will be replacing the seatbelt buckle and harness and the OCS harness.
- Figure 9 shows the old and new parts.
- The new seatbelt buckle and OCS harness are listed in the Parts Information.

EXAMPLE	EXAMPLE
<p data-bbox="310 506 711 575">Old OCS harness and seat belt buckle are removed from the seat.</p>	<p data-bbox="984 470 1320 539">New OCS harness and seat belt buckle are installed</p> <p data-bbox="935 579 1369 648">Notice the new harness and buckle have a new branch and connector</p>

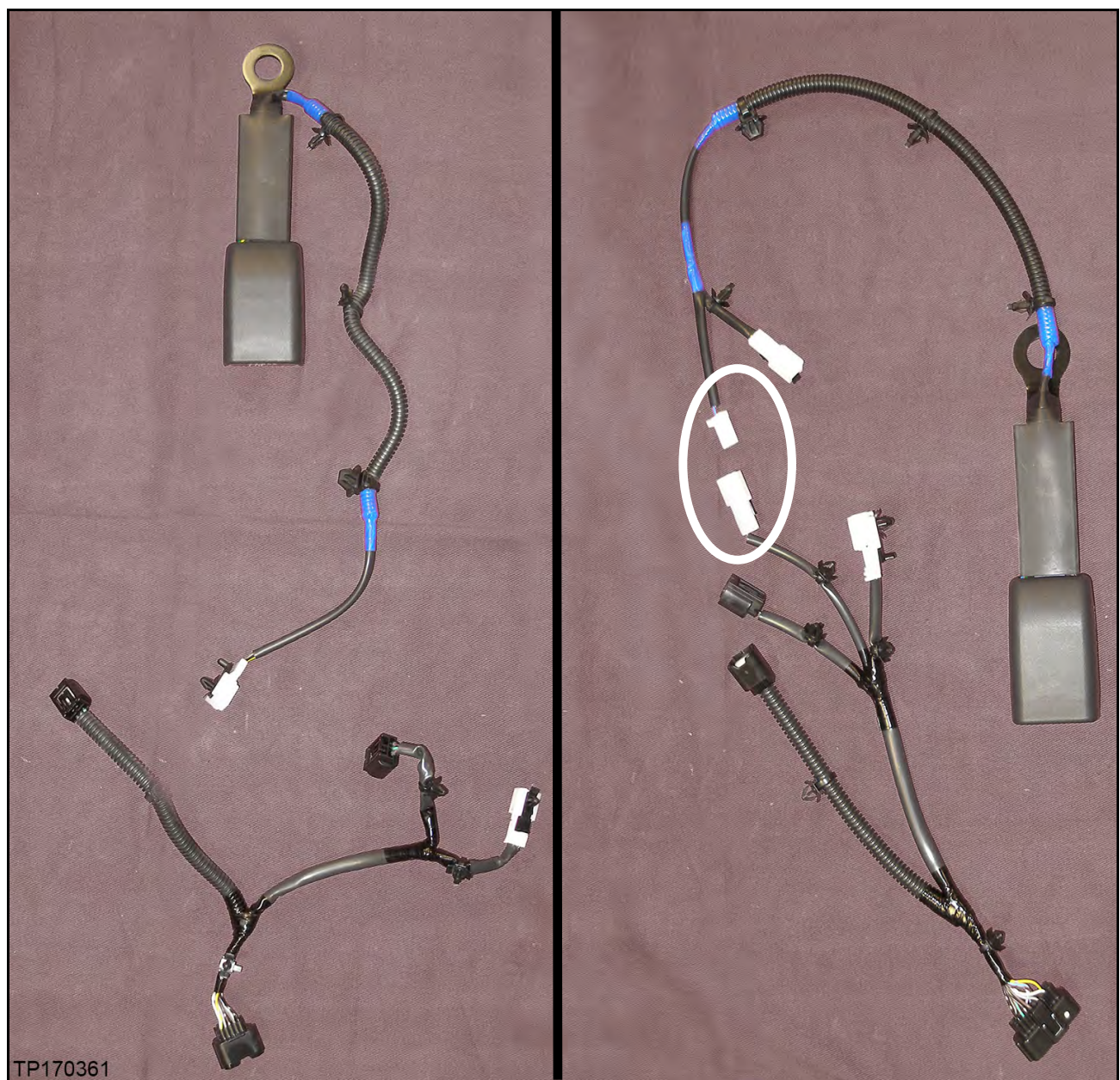


Figure 9

27. Install the new seat belt buckle (see Figure 10).

- Seat belt buckle mounting nut torque: 49 N•m (5.0 kg-m, 36 ft-lb).

28. Route the new seat belt buckle harness as shown in Figure 10.

- Install only harness clip shown in Figure 10.

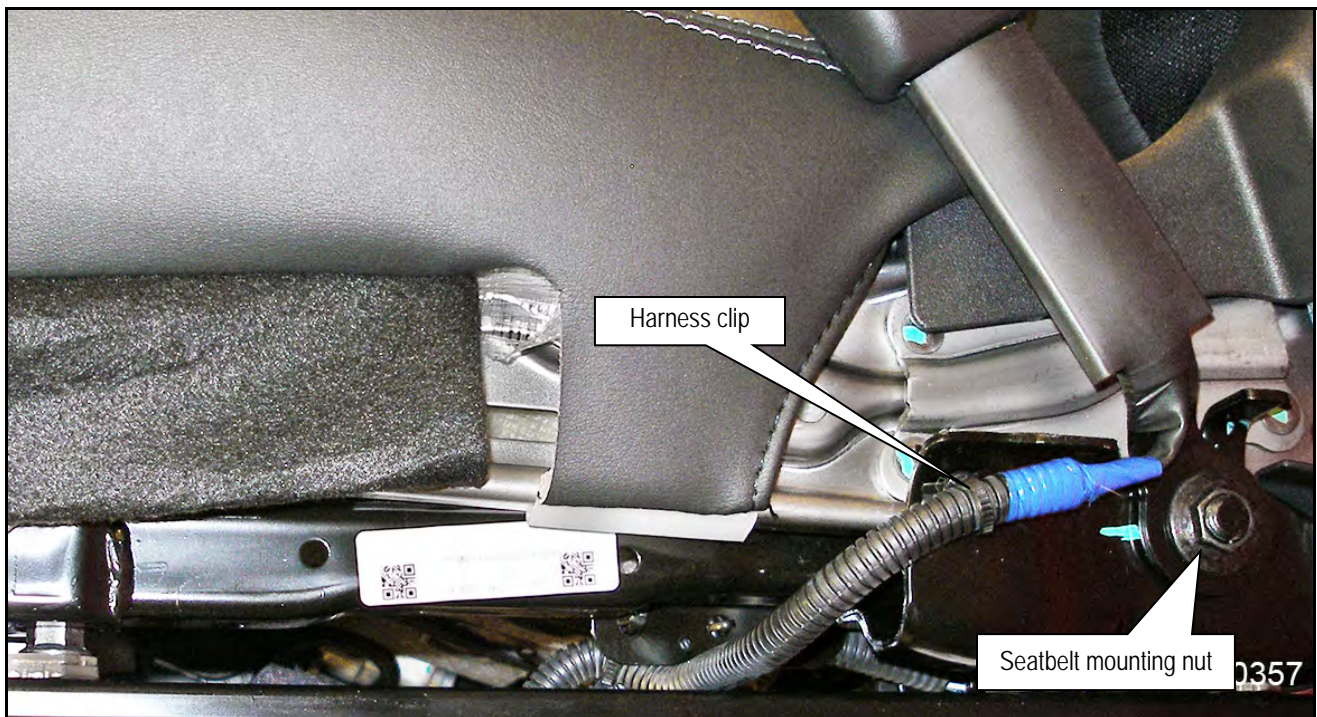


Figure 10

29. To assist with correct harness routing, first install only the harness connectors shown in Figure 11 in the following order.

1. OCS Control unit
2. Rear OCS sensor
3. OCS harness
4. Front OCS sensor
5. Seat belt buckle harness (Yellow dotted line used to show correct routing)
6. New branch of seat belt buckle harness
7. OCS harness to new seat belt buckle harness

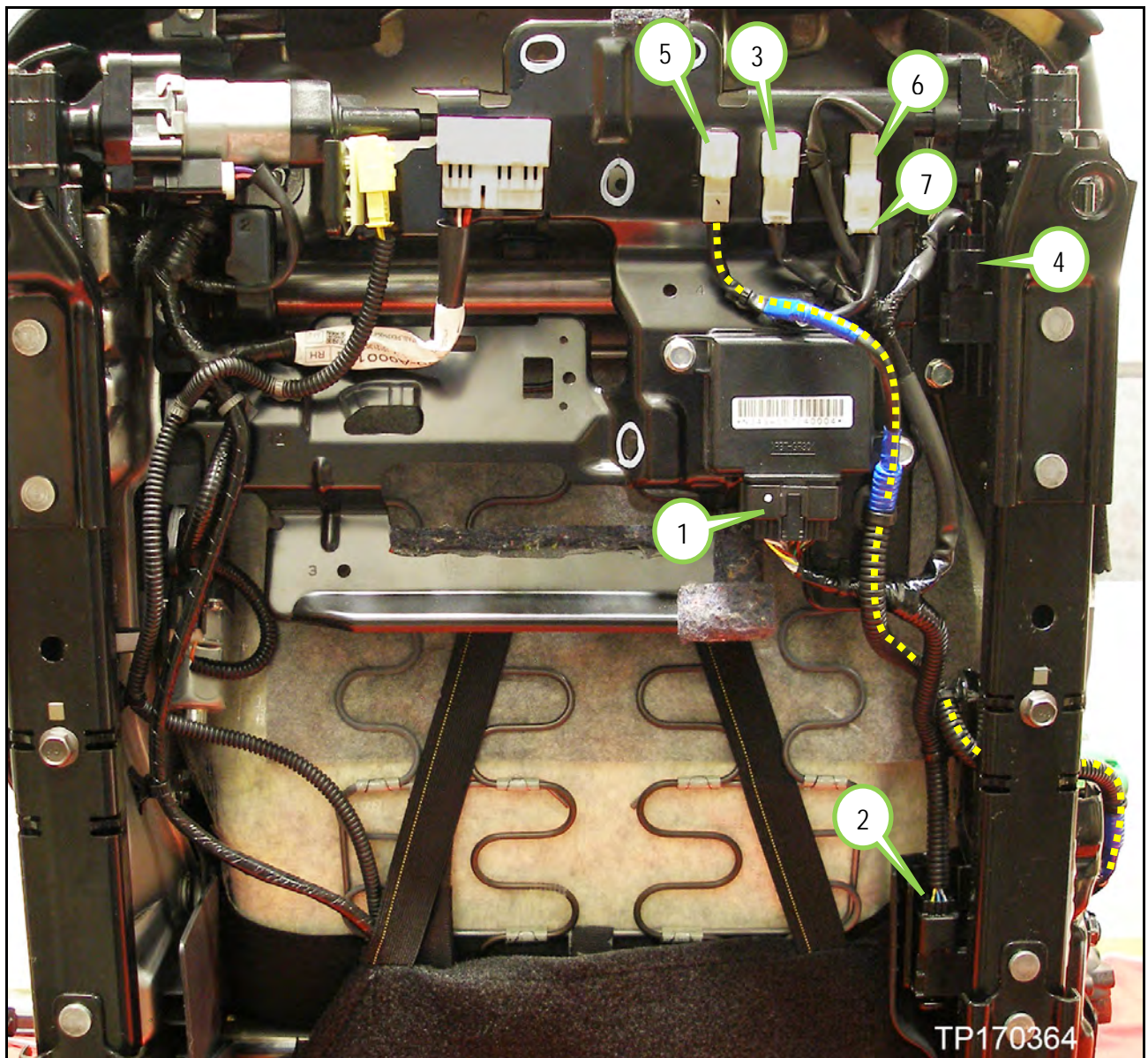


Figure 11

30. Attach all harness clips.

- Refer to Figure 12 for clip locations.

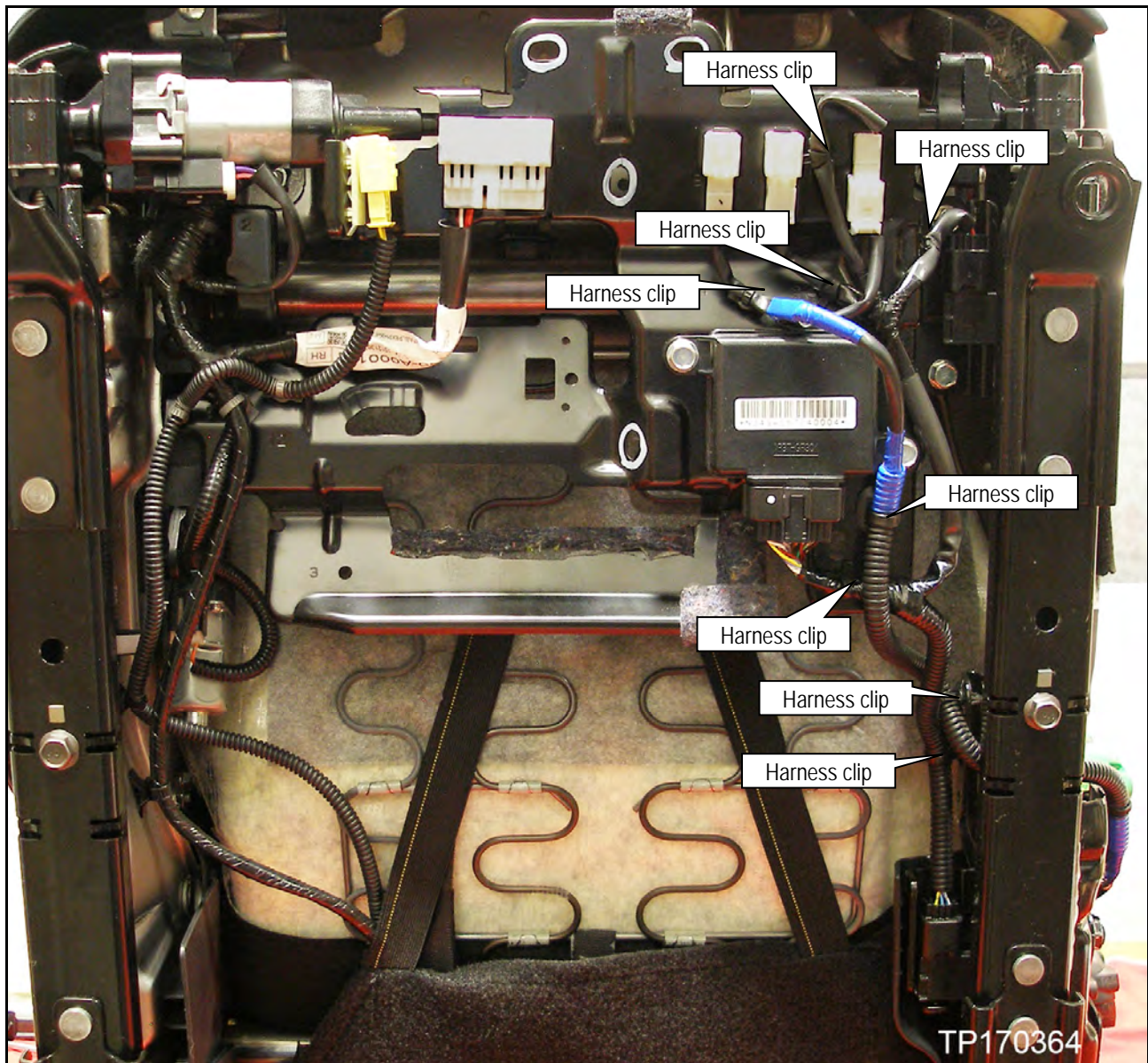


Figure 12

31. Place front passenger seat into vehicle.
32. Reconnect seat cushion lower harness connector.

33. Install seat mounting bolts at front of passenger front seat.

- Torque front passenger seat **front** mounting bolts to: 49 N•m (5.0 kg-m, **36 ft-lb**) in order shown in Figure 13.

34. Install front leg covers.



Figure 13

35. Reconnect battery, positive cable first.

- **IMPORTANT:** On vehicles equipped with Stop/Start System, the 12 volt sub-battery must also be reconnected, positive cable first.

36. Move seat to front most position.

37. Install seat mounting bolts at rear of passenger front seat.

- Torque front passenger seat **rear** mounting bolts to: 49 N•m (5.0 kg-m, **36 ft-lb**) in order shown in Figure 13.

38. Install rear leg covers.

39. Install head restraint.

40. Reset/reinitialize systems as needed.

- Refer to the ESM section, GI General Information, for a listing of systems that require reset/initialization after reconnecting the 12V battery.
  - Look in the GI section index for ADDITIONAL SERVICE WHEN REMOVING BATTERY NEGATIVE TERMINAL.
  - This list often includes items such as HVAC, power windows, clock, etc.

41. 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**.

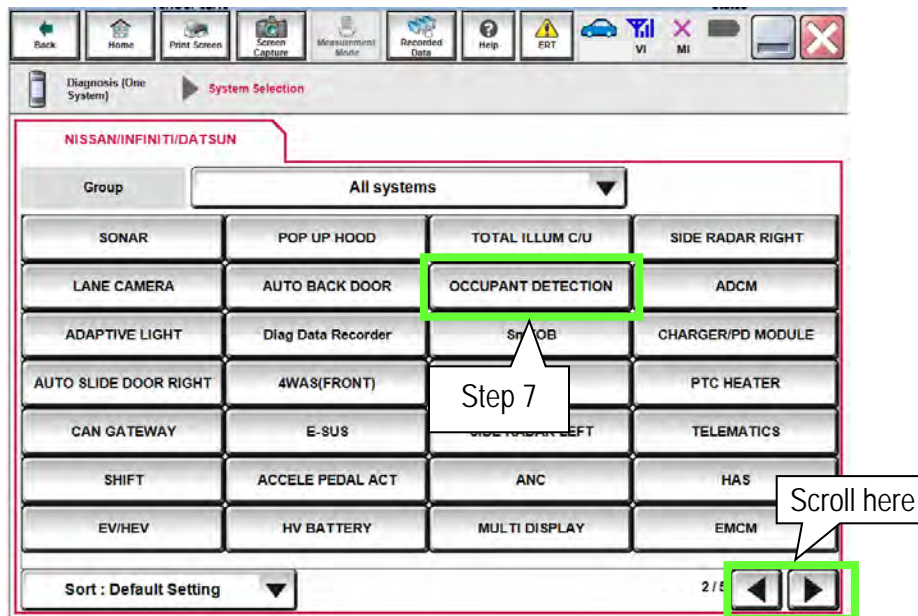


Figure 1A



8. Select Zero point reset function.

9. Select Start.

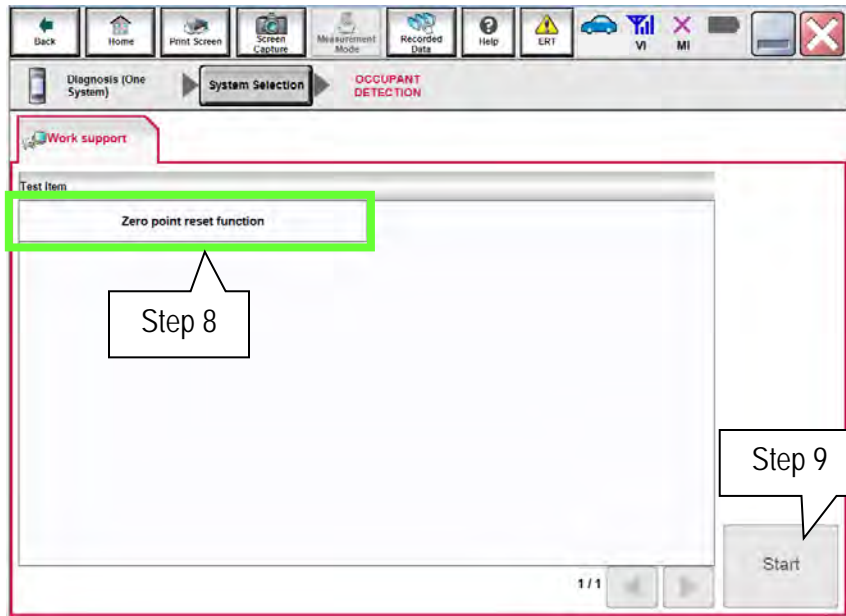


Figure 2A

10. Select Next.

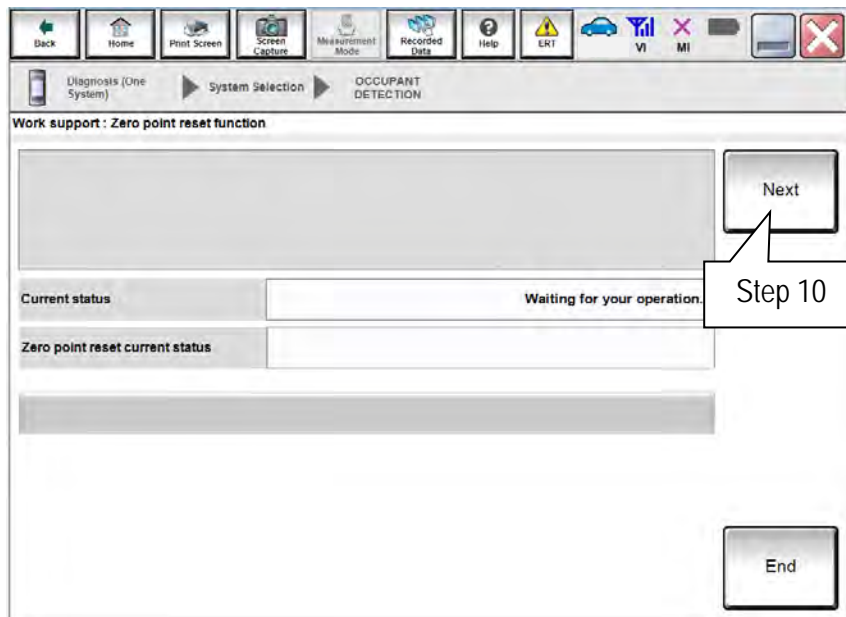


Figure 3A

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 16.

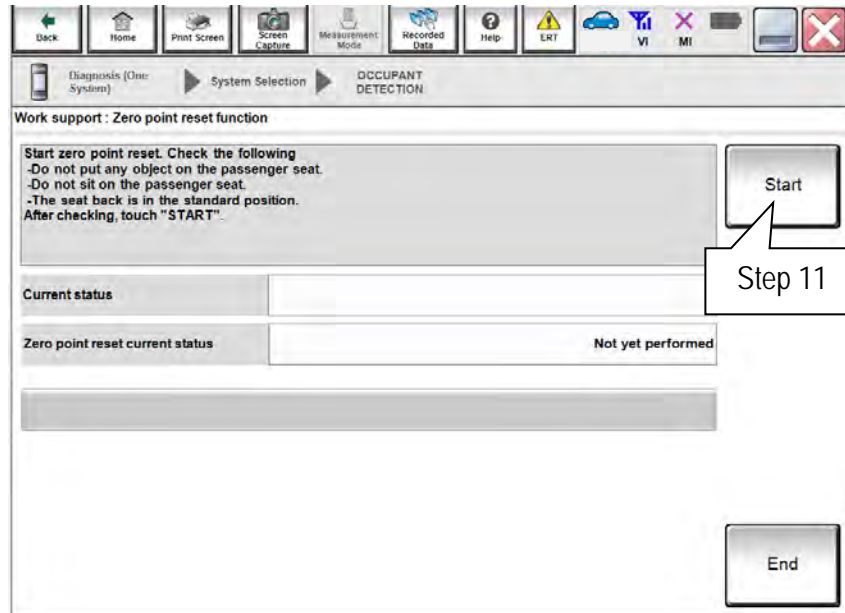


Figure 4A

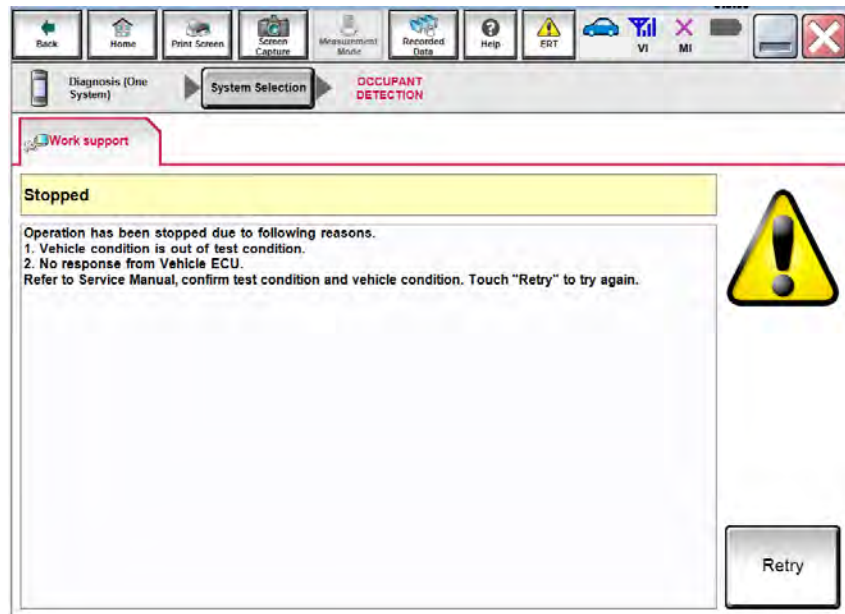


Figure 5A

12. Zero point reset will display "EXECUTING".

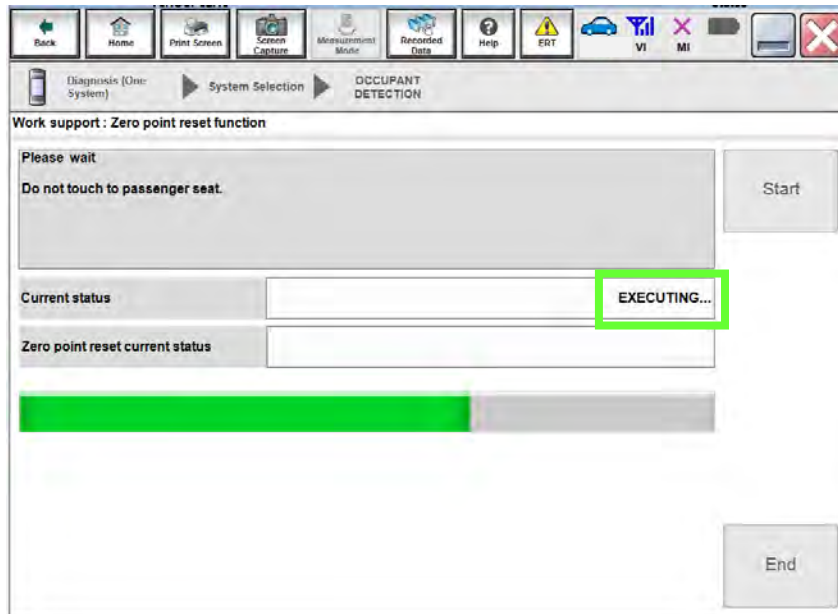


Figure 6A

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

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

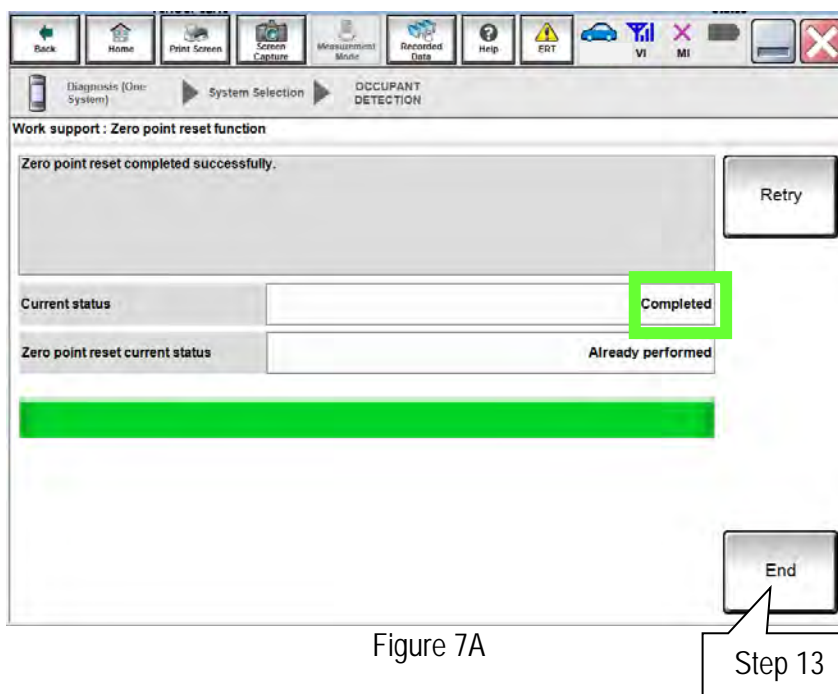



Figure 7A

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)	DISABLED
Nobody/Somebody	Bag or Child or Child Restraint or Small Adult in the front passenger seat	ON (illuminated)	DISABLED
Adult	Adult in front passenger seat	OFF (dark)	ENABLED

**NOTE:** 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 Service Manual 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 NUMBER	QUANTITY
Controller Assy-Occupant Sensor (OCS Control Unit)	98856 - 4GW0A	1
Seatbelt Buckle – Black/Charcoal	86842 - 4HK5A	1
Seatbelt Buckle – Beige/Tan	86842 - 4HK5B	
Seatbelt Buckle – Gray	86842 - 4HK5C	
OCS Harness	98854 - 4GW0A	1
External Automotive Touch-Up Paint - Black	Local Source (1)	See EXPENSE CODE

(1) External automotive touch-up paint is available at many auto parts supply stores.

**CLAIMS INFORMATION**

Submit a CM line claim using the following claims coding:

CM ID	DESCRIPTION	OP CODE	FRT
P7321	Perform OCS Retrofit	P73210	1.0 hrs.

**EXPENSE CODE**

EXPENSE CODE	DESCRIPTION	MAXIMUM AMOUNT
041	Touch Up Paint	\$2.00

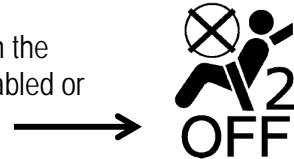


## FRONT PASSENGER AIR BAG STATUS LIGHT OPERATION

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

### OCS SYSTEM OPERATION

The OCS system enables or disables the front passenger air bag depending on the weight applied to the front passenger seat. Front passenger air bag status (Enabled or Disabled) is indicated by the front passenger air bag status lamp pictured here



- When the front passenger seat is empty, the passenger air bag status lamp should be ON (illuminated) which means the passenger air bag is Disabled.
- When the front passenger seat is occupied by an adult, the passenger air bag status lamp should be OFF (dark) which means the passenger air bag is Enabled.
- When the front passenger seat is occupied by a child, a child restraint, or a small adult, the passenger air bag status lamp should be ON (illuminated) which means the passenger air bag is Disabled.