

Classification: RS17-008c Reference: ITB17-016c SERVICE BULLETIN

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# 2013 JX35 AND 2014 – 2016 QX60 OCCUPANT CLASSIFICATION SYSTEM RETROFIT

This bulletin has been amended. Pages 15 and 17 have been revised. No other changes have been made. Please discard all previous versions of this bulletin

**APPLIED VEHICLES:** 

2013 – JX35 (L50) 2014 – 2016 QX60 (L50) 2014 – 2016 QX60 Hybrid (L50)

#### 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

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.

#### <u>Then</u>

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.

| Presets | 1   | 2   |       | 3   | 4    | 5           | 6   |
|---------|-----|-----|-------|-----|------|-------------|-----|
| AM      |     |     |       |     |      |             |     |
| FM 1    |     |     |       |     |      |             |     |
| FM 2    |     |     |       |     |      |             |     |
| SAT 1   |     |     |       |     |      |             |     |
| SAT 2   |     |     |       |     |      |             |     |
| SAT 3   |     |     |       |     |      |             |     |
| Bass    | Tre | ble | Balar | nce | Fade | Spd Sen. Vo | ol. |

2. Write down the radio settings.

- 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. Remove the front passenger seat from the vehicle.
  - Refer to the ESM, section SE-Seat, for seat removal information.
  - The power seat may need forward/backward movement to access the mounting bolts. Follow the ESM for battery connection/disconnection.
  - Each time the battery is disconnected, wait at least 3 minutes before continuing.
- 6. Set the seat in a clean working area.

- 7. Disconnect the seatbelt buckle electrical connector.
- 8. Remove the seatbelt buckle.
  - Buckle is held on with one mounting bolt.

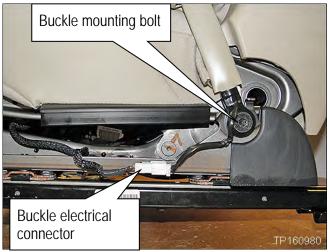


Figure 1

- 9. Install the new seatbelt buckle (see Figure 2).
  - Torque the mounting bolt to: 49 N·m (5.0 kg-m, 36 ft-lb)
  - Connect the short harness branch connector to the existing harness.
  - Route and attach the new (long) harness branch as shown in Figure 2.

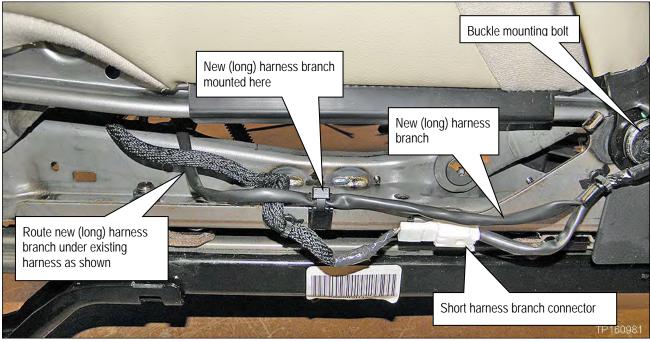


Figure 2

10. From under the seat, mount the connector of the new (long) harness branch to the seat frame as shown in Figure 3 and 4 (use the hole and slot shown).

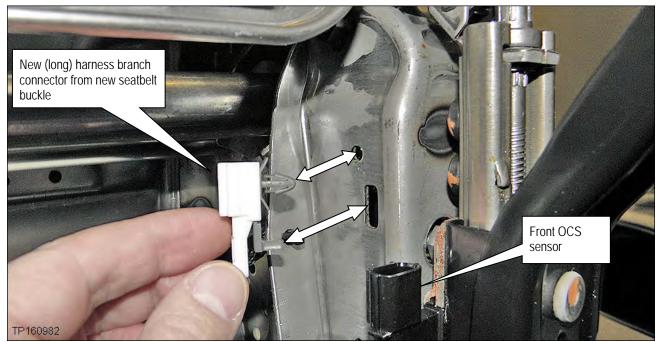


Figure 3

• Attach the new (long) harness branch as shown in Figure 4.



Figure 4

- 11. 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, OCS control unit, and new seatbelt buckle.

#### **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 images of the OCS harness on the next page.
  - Refer to images on pages 8 and 9 for exact harness mounting points.

### EXAMPLE

**Old** OCS harness and seatbelt buckle are removed from the seat.

## EXAMPLE

New OCS harness and seatbelt buckle are installed

Notice the new harness and buckle have a new branch and connector

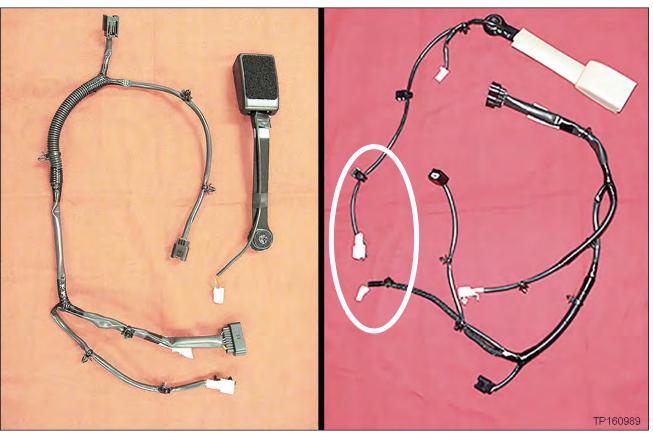


Figure 5

### **OCS Seat Harness Mounting Points**

**NOTE:** Figures 6 – 9 show a seat without climate control. For a seat with climate control the OCS harness routing and mounting is the same.

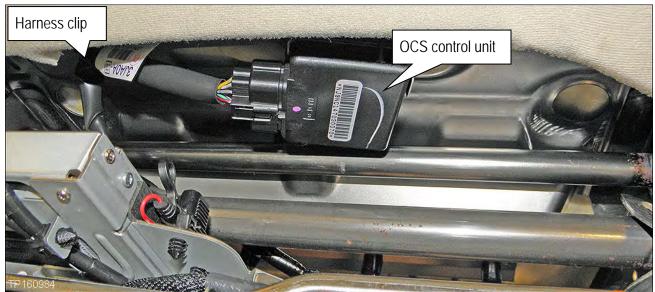


Figure 6

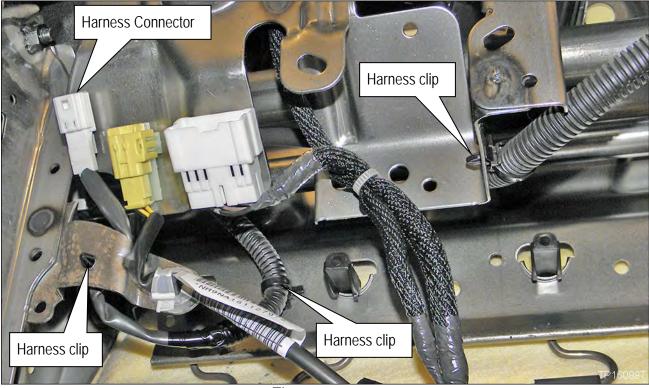


Figure 7

Continued on the next page.

### OCS Seat Harness Mounting Points continued

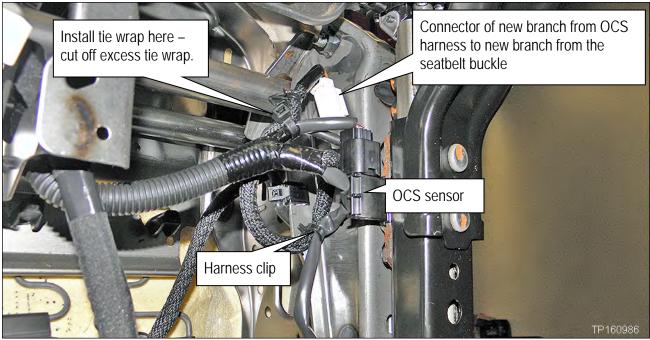


Figure 8

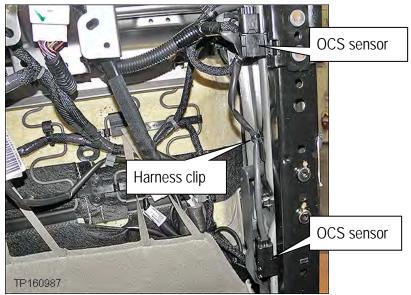


Figure 9

- 12. Replace the OCS control unit with the <u>new</u> one.
  - OCS control unit is held on with 2 screws.
  - The OCS control unit is located under the front edge of the seat.

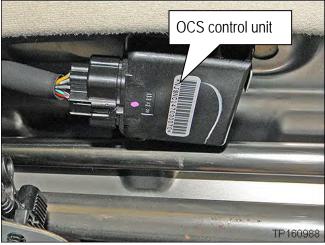


Figure10

- 13. Reinstall the seat into the vehicle in reverse order of removal.
  - Torque passenger seat mounting bolts to: 48 N•m (4.9 kg-m, 35 ft-lb)
- 14. If battery cables were not connected as part of the seat installation, reconnect them now, positive cable first.
- 15. 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.
- 16. 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.

| Diagnosis (One<br>System) System | em Selection       |                    |                   |
|----------------------------------|--------------------|--------------------|-------------------|
| NISSAN/INFINITI/DATSUN           |                    |                    | -                 |
| Group                            | All system         | ns 🔻               |                   |
| SONAR                            | POP UP HOOD        | TOTAL ILLUM C/U    | SIDE RADAR RIGHT  |
| LANE CAMERA                      | AUTO BACK DOOR     | OCCUPANT DETECTION | ADCM              |
| ADAPTIVE LIGHT                   | Diag Data Recorder | я ов               | CHARGER/PD MODULE |
| AUTO SLIDE DOOR RIGHT            | 4WAS(FRONT)        | Step 7             | PTC HEATER        |
| CAN GATEWAY                      | E-SUS              | SIDE RADAR LEFT    | TELEMATICS        |
| SHIFT                            | ACCELE PEDAL ACT   | ANC                | HA Scroll         |
| EV/HEV                           | HV BATTERY         | MULTI DISPLAY      | EMCW              |

Figure 1A

- 8. Select Zero point reset function.
- 9. Select Start.

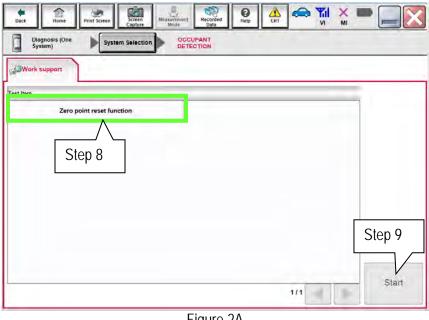


Figure 2A

10. Select Next.

| Diegnosis (One<br>System) System System | Screen<br>Assistant Andrew Andre | Next    |
|---|--|---------|
| Current status                          | Waiting for your operation   | Step 10 |
| Zero point reset current status         |  |         |
| 1.5                                     |  |         |
|   |  | End     |

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 11.

| Back Back Print Screen  | Soren Maaurrant Recorded Data | <mark>й — — — — — — — — — — — — — — — — — — —</mark> |
|---|-------------------------------|--|
| Work support: Zero point reset functi<br>Start zero point reset. Check the foi<br>-Do not put any object on the pass<br>-Do not sit on the passenger seat.<br>-The seat back is in the standard p<br>After checking, touch "START". | lowing<br>enger seat.         | Start  |
| Current status  |                               | Step 11  |
| Zero point reset current status   | Not yet                       | performed  |
|   |                               |  |
|   |                               | End  |

Figure 4A

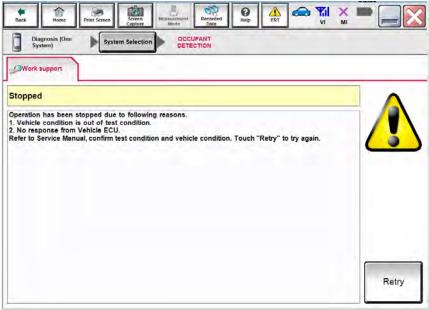


Figure 5A

12. Zero point reset will display "EXECUTING".

| urrent status EXECUTING         | Start |
|---------------------------------|-------|
| bo not touch to passenger seat. | Start |
|                                 | Start |
|                                 |       |
|                                 |       |
| Lero point reset current status |       |
|                                 |       |
|                                 |       |
|                                 |       |
|                                 |       |
|                                 |       |
|                                 |       |
|                                 | End   |
|                                 |       |

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

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

| Completed      |
|----------------|
| eady performed |
|                |
|                |
|                |
| End            |
|                |
|                |

- 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

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should illuminate for 7 seconds and then go out.

- OFF
- 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<br>INDICATOR LIGHT | FRONT PASSENGER<br>AIR BAG STATUS |
|-----------------|--|--------------------------------------|-----------------------------------|
| Empty           | Empty front passenger seat   | ON (illuminated)                     | DISABLED                          |
| Nobody/Somebody | Bag or Child or Child Restraint or<br>Small Adult in the front passenger<br>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).

| MODEL                        | YEAR           | DESCRIPTION   | PART #      | QUANTITY |
|------------------------------|----------------|---|-------------|----------|
| QX60                         | 2014 - 2016    | Controller Assy-Occupant Sensor<br>(OCS Control Unit) | 98856-9NF0A | 1        |
| JX35                         | 2013           | Controller Assy-Occupant Sensor<br>(OCS Control Unit) | 98856-9NA6A | 1        |
| 2013 JX35 and                | 2014-2016 QX60 | Seatbelt Buckle – Black/Charcoal                      | 86842-9NF8B |          |
| 2013 JX35 and                | 2014-2016 QX60 | Seatbelt Buckle – Beige/Tan                           | 86842-9NF8A | 1        |
| 2013 JX35 and                | 2014-2016 QX60 | OCS Harness   | 98854-9NF0A |          |
| 2013 JX35 and 2014-2016 QX60 |                | Clip (Tie-wrap)                                       | 24224-3VX0B | 1        |

# **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. |

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