

Toyota/Lexus/Scion Occupant Classification Sensor Bypass Module



Warning:

Modifying with the vehicle's Supplemental Restraint System (SRS) may cause the system to fail in the event of a collision. The manufacturer of the Occupant Classification Sensor Bypass Module assumes no responsibility for injury or damage resulting from the use of this device.

Introduction:

The Occupant Classification Sensor Bypass Module is designed to allow the use of aftermarket seats on Toyota, Lexus, or Scion vehicles which use the Toyota Occupant Detection Computer (part number: 89952-35011). The OCS Bypass Module emulates the function of the four seat frame mounted sensors allowing arming/disarming of the passenger airbag by reporting that the seat is either unoccupied (when the switch is in the "OFF" position) or occupied (when the switch is in the "ON" position) by an adult (150+ lbs).

Optionally, the OCS Bypass module allows use of a harness, in place of the OEM passenger seat belt by emulating the function of the passenger seat belt buckle sensor. If the optional wire is connected to the Occupant Detection Computer the module will report that the seat belt buckle is latched (when the switch is in the "ON" position) and unlatched (when the switch is in the "OFF" position).

Installation:

1. Occupant Classification Sensor Bypass

- 1.1.1. As with any work on a vehicle's electrical system it is advisable to disconnect the negative battery terminal before starting work.
- 1.1.2. Unplug the gray connector from the Occupant Detection Computer by squeezing the connector's latch release and pulling the connector.
- 1.1.3. Plug the OCS Bypass Module's grey connector in, in place of the existing connector.
- 1.1.4. Mount the switch:

Note: An alternate switch may be used. The switch should be rated for 0.5A @ 5 VDC or greater. **If using an illuminated switch, the switch contacts must be isolated from the lighting circuit.**

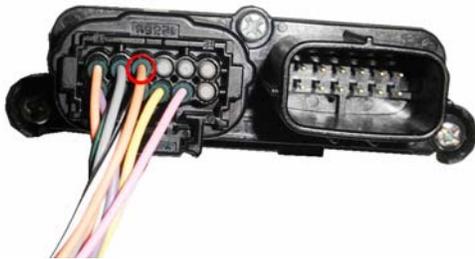
 - 1.1.4.1. Choose a location for the switch which has ample clearance for the depth of the switch plus its connectors.
 - 1.1.4.2. Drill a 20.0mm (0.787 in) hole for the switch. Depending on the mounting material, a small notch may have to be filed on the right side of the hole for the anti-rotation tab.
 - 1.1.4.3. Unplug the female spade connectors from the switch and insert the switch into the hole and firmly seat it.
 - 1.1.4.4. Reconnect the two female spade terminals (polarity is not important).
 - 1.1.4.5. If not using the optional passenger seatbelt buckle sensor bypass, cap the exposed pin using heat shrink tubing or an equivalent insulating material.

2. Optional – Passenger Seatbelt Buckle Sensor Bypass

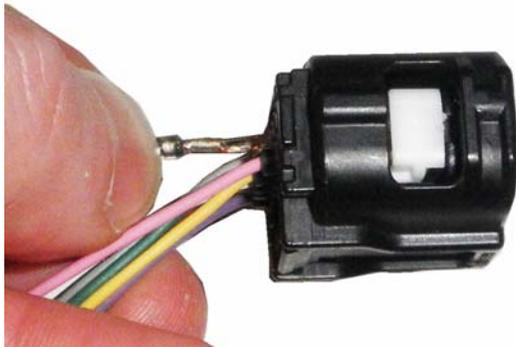
- 2.1. Unplug the black connector from the Occupant Detection Computer by squeezing the connector's latch release and pulling the connector.
- 2.2. Using a small screwdriver lift the white plastic pin lock.



- 2.3. Remove the seatbelt buckle sensor pin from position 9 of the connector (circled below in red) by grasping the wire and pulling firmly.



- 2.4. Insert the module's pin into the seatbelt buckle sensor position with the "open" side of the pin facing towards the connector's squeeze latch. Push the pin in until it clicks into place. If the pin does not click into place or does not easily insert, verify that you have it in the correct orientation. Do not force the pin into place.



- 2.5. Press the white plastic pin lock mechanism back down. It should snap into place. If it is difficult to press, then the pin is not properly inserted.

3. Clearing SRS DTCs (Diagnostic trouble codes) – If necessary

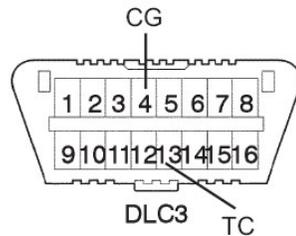
Note: On most vehicles the SRS warning light will turn off once the module is installed. On some vehicles it may not or additional DTCs may have been logged due to the airbag squib being disconnected, etc., which do not self clear. This procedure clears one DTC at a time, so if multiple ones are logged, it will have to be repeated until all are cleared.

3.1. Clearing SRS DTCs:

3.1.1. Power off the Ignition.

3.1.2. Insert a jumper between CG (pin 4) and TC (pin 13) on the DLC3 connector (AKA OBD connector).

The jumper can simply be a short piece of wire with both ends stripped.



3.1.3. Turn the ignition on. When the SRS light starts flashing, within 3 to 10 seconds remove the jumper from TC (pin 13). After 3 seconds the SRS light will come on solid.

3.1.4. Within 2 to 4 seconds after the SRS lights, reconnect the jumper to TC.

3.1.5. Within 2 to 4 seconds the SRS light will go off. Once it does, within 2 to 4 seconds disconnect TC.

3.1.6. Within 2 to 4 seconds the SRS light will come on solid again. Within 2 to 4 seconds after the SRS lights, reconnect the jumper to TC.

3.1.7. Within 2 to 4 seconds the SRS light will go off. One second later, if all DTCs are cleared the SRS light will flash steadily on and off. If codes are still registered it will flash in the pattern to indicate the stored codes.

3.1.8. Repeat steps 3.1.1 through 3.1.7 until all DTCs are cleared.

4. Installing Airbag Squib Bypass Resistors

When replacing seats which contain side airbags, the airbag squib must be simulated with a resistor in order to keep the SRS ECU from logging a DTC and hence lighting the SRS warning indicator. A 2 to 4 ohm resistor will fool the SRS ECU into believing that the airbag squib is present.

4.1. Disconnect the negative battery terminal and wait a minimum of 90 seconds before starting work.

4.2. Unplug the seat side airbag connector.

4.3. Clip off the connector (leave approximately 2" of wire attached to the connector if you wish to be able to reinstall the OEM seat in the future).

4.4. Strip the two wires.

4.5. Twist each wire to one of the legs of the resistor and solder (or connect the resistor to the wires using two butt splices). Heat shrink the resistor to cover the exposed connections.



4.6. Bend one of the wires (since the wire is more flexible than the resistor leg) and then heat shrink the entire assembly.

