

# **Tech Tips**

Date: November 7, 2014 TT <mark>94</mark>-14-01

#### 2011-2013 Routan Turn Signals Will Not Activate after TIPM Replacement

January 23, 2015: Update to repair group number. Used to be TT 91-14-05.

The replacement Totally Integrated Power Module (TIPM) contains revised software that changes the TIPM operation and alters the front exterior lighting of the vehicle. The vehicle wiring may need to be modified to maintain turn signal operation.



Each repair kit comes with modification instructions.

Model Year	New TIPM Repair Kits
2011	7B0998049B
2012	7B0998049
2013	7B0998049A

#### **Modification Instruction:**

1. Remove the TIPM following the ELSA Repair Manual>Electrical Equipment>97 Wiring>Removal and Installation>Totally Integrated Power (TIPM).





Figure 1

**2.** With the TIPM removed from the vehicle locate Gray 16 way the TIPM C4 connector on the vehicles wiring harness (Figure 1).



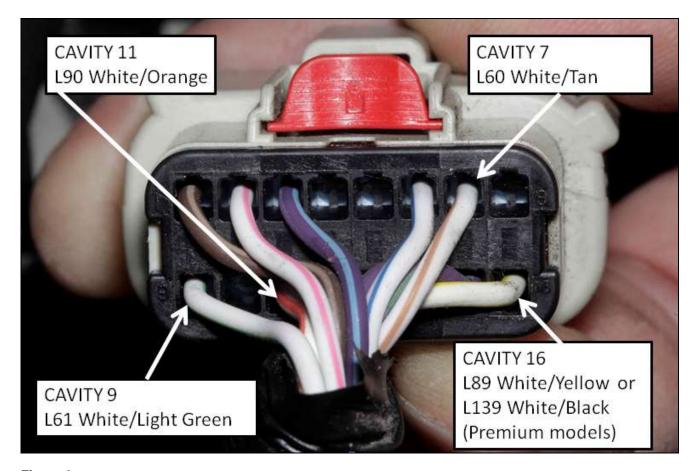


Figure 2

- 3. Identify cavity 7 of the C4 connector. If the wire in cavity 7 is White with Tan proceed to the next step (Figure 2).
- 4. Identify cavity 9 of the C4 connector. If the wire in cavity 9 is White with Light Green proceed to the next step.
- **5.** Identify cavity 11 of the C4 connector. If the wire in cavity 11 is White with Orange or there is no wire present continue to the next step.
- **6.** Identify cavity 16 of the C4 connector. If the wire in cavity 16 is White with Yellow or White with Black or there is no wire present proceed to the next step.



If the color of the wires in cavities 7, 9, 11 and 16 do not match the above description proceed to step 15.



If any of the wire cavities identified above were empty, the connector must be modified to permit insertion of a relocated wire and terminal.

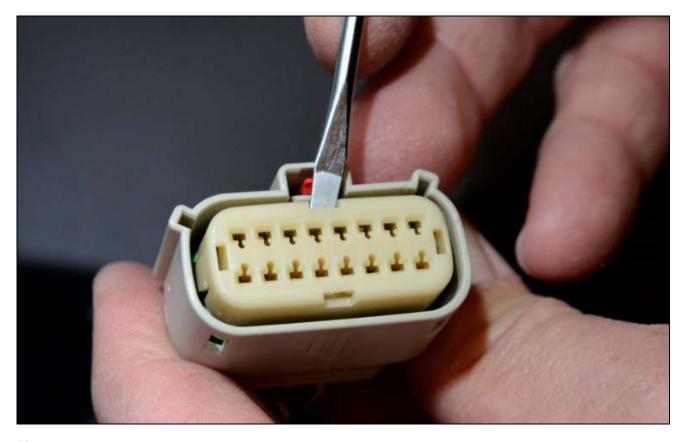


Figure 3

- 7. Using a suitable tool remove the terminal lock for the connector (Figure 3).
- **8.** Using a suitable tool, remove the L60 White/Tan wire and terminal from cavity 7 and the L90 White/Orange wire and terminal from cavity 11.
- 9. Install the L60 White/Tan wire and terminal into cavity 11.



If this cavity was previously empty it will be necessary to modify the weather pack retainer. Refer to the section below for Removing Weather Pack Filler Pin for additional information.

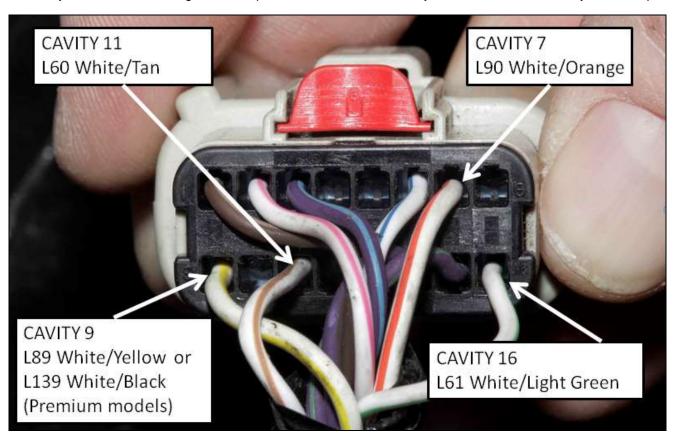


- **10.** Install the L90 White/Orange wire and terminal into cavity 7. If the White with Orange wire was not present this cavity will remain empty.
- **11.** Using a suitable tool, remove the L61 White/Light Green wire and terminal from cavity 9 and the L89 White/Yellow or L139 White/Black wire and terminal from cavity 16.
- 12. Install the L61 White/Light Green wire and terminal into cavity 16.
- **13.** Install the L89 White/Yellow or L139 White/Black wire and terminal into cavity 9. If the White/Yellow or White/Black wire was not present this cavity will remain empty.



If this cavity was previously empty it will be necessary to modify the weather pack retainer. Refer to the section below for Removing Weather Pack Filler Pin for additional information.

14. Verify the terminals are aligned and replace the terminal lock. Verify the terminals are securely locked in place.



#### Figure 4

**15.** Verify the wire in cavity 7 is White with Orange (if Fog Lamp equipped) and the wire in cavity 11 is White with Tan (Figure 4).



**16.** Verify the wire in cavity 9 is White/Yellow or White/Black (if Fog Lamp equipped) and the wire in cavity 16 is White with Light Green. If correct, proceed with the TIPM replacement.



If the vehicle was not Fog Lamp equipped place a small amount of RTV in the end of the two empty cavities where the wires were removed from but no wires were reinserted.

- **17**. Install the TIPM following the ELSA Repair Manual>Electrical Equipment>97 Wiring>Removal and Installation>Totally Integrated Power (TIPM).
- **18.** Verify the operation of the turn signals. Verify the correct front lamp flashes when the turn signals are operated. Verify the operation of the Fog Lamps. Verify the correct lamps are illuminated.
- **19.** Clear any DTCs that were set during the installation.
- 20. Verify proper vehicle operation.
- **21.** Place an Authorized Modification Label (part number 04275086AD) under the hood near the VECI label. Fill out the label with the word "Wiring" and the part number of the TIPM installed.

#### Instructions For Removing Weather Pack Filler Pin (applies to vehicles not equipped with Fog Lamps only):

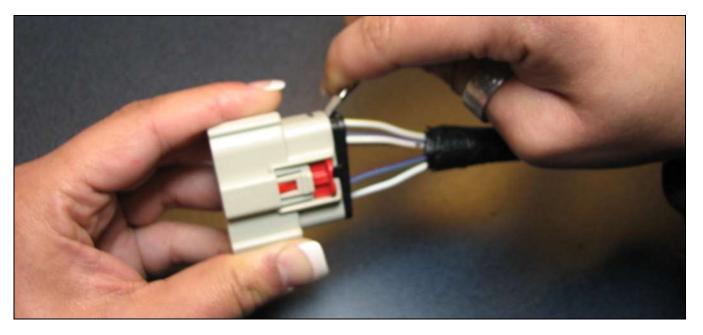


Figure 5

1. Using a suitable tool release the black weather pack retainer at the wire side of the connector (Figure 5).



2. Slide the retainer down the harness away from the connector exposing the pins that index the weather pack in the empty cavities



Figure 6