

Modification Procedures to Correct Poor Sound Quality from Factory Integrated © Sirius Satellite receiver in a 2006 Toyota Prius

Application:

This guide provides a procedure for performing a modification to the Toyota integrated Sirius Satellite tuner (part# PTS31-00050) and the Fit Kit wiring harness (part# PTS31-00051) in applications where these components will be used in a 2006 Toyota Prius. The modification is intended to correct an incompatibility (in the signal impedance) that exists between the satellite tuner and the factory radio in a 2006 Toyota Prius. The incompatibility results in poor sound quality from the satellite tuner signal. The modification described corrects the incompatibility resulting in improved sound quality.

Disclaimer:

Use of this document is **at your own risk**. The author of this procedure is **not** an authorized representative of either Sirius or Toyota, and assumes no responsibility for its effectiveness or liability for damages that may occur.

What you will need:

1. Two short (~3-inch) pieces of 16-ga wire (speaker wire works fine)
2. 4 female crimp connector pin plugs (I used Radio Shack part #276-1428 ~\$1.38)
3. A small pair needle nose pliers
4. A small pair of wire cutters



Figure 1. Wire cutters, needle nose pliers, wires, and pin plugs.



Figure 2. Radio Shack connectors used

Step 1

Locate and expose the satellite tuner box. The dealership installed mine behind an upholstered interior trim panel just over the left-rear wheel well. You may have to remove some bolts or screws and pop out some pressure clips to get the necessary panel(s) removed. In my case there were 3 bolts and several pressure clips holding down my panel (fig 3).

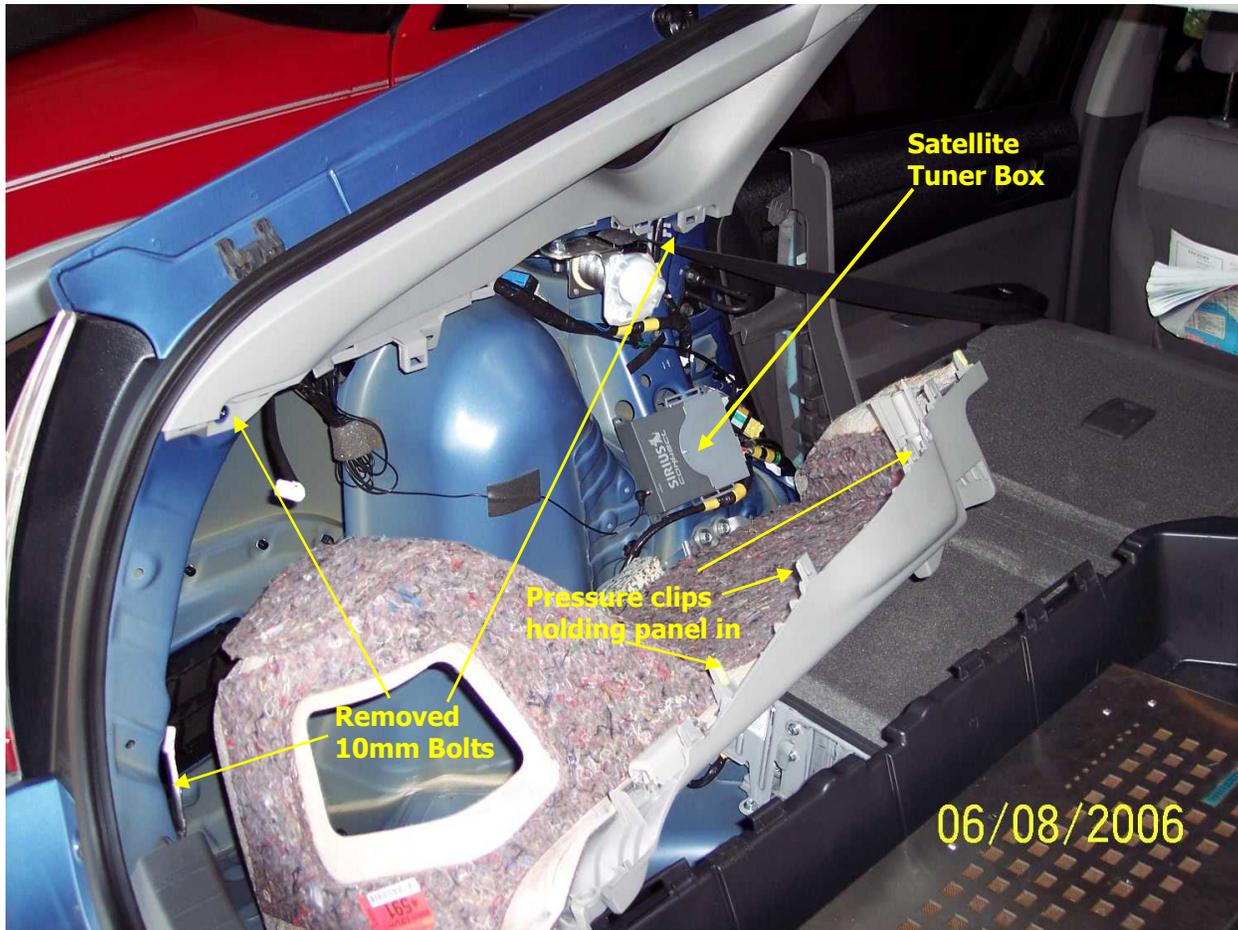


Figure 3. Left rear interior panel removed, exposing the satellite tuner box.

Step 2

Unplug the wiring harness from the Satellite Tuner. Note the 4 empty pin slots in the harness; this is where the jumpers will be placed during the modification (see figs 4 & 5).



Figure 4. Removing harness from Tuner.

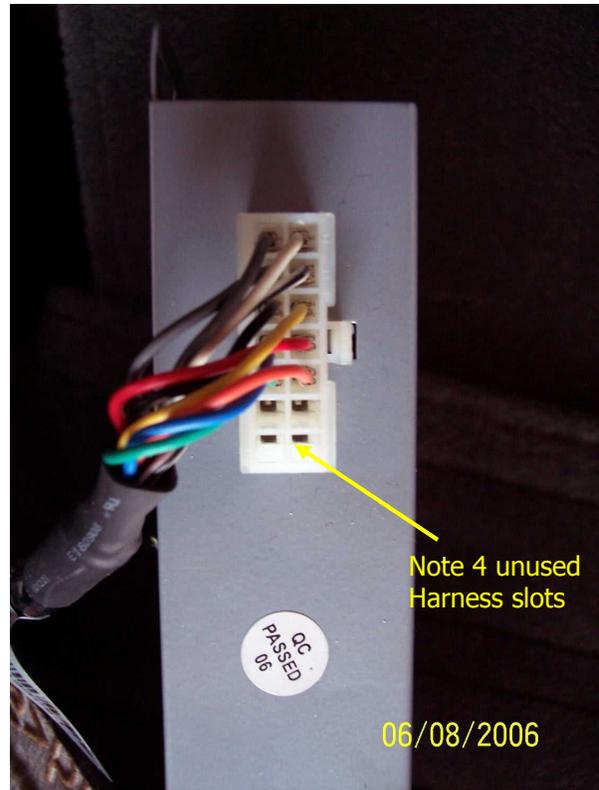


Figure 5. Close-up of Harness plug.

Step 3

Prepare jumper wires: Take two 3-inch long pieces of 16 gage speaker wire and strip about ¼-inch of the insulation from the two ends of both pieces using wire cutters/strippers (fig 6). Use wire cutters to clip off 4 individual crimp connectors from the strip of 11 connectors that came in the package from Radio Shack (fig 7). Use the needle nose pliers to curve and then crimp on the 4 connectors to both ends of both wires (fig 8).



Figure 6. Strip insulation at ends of wires.

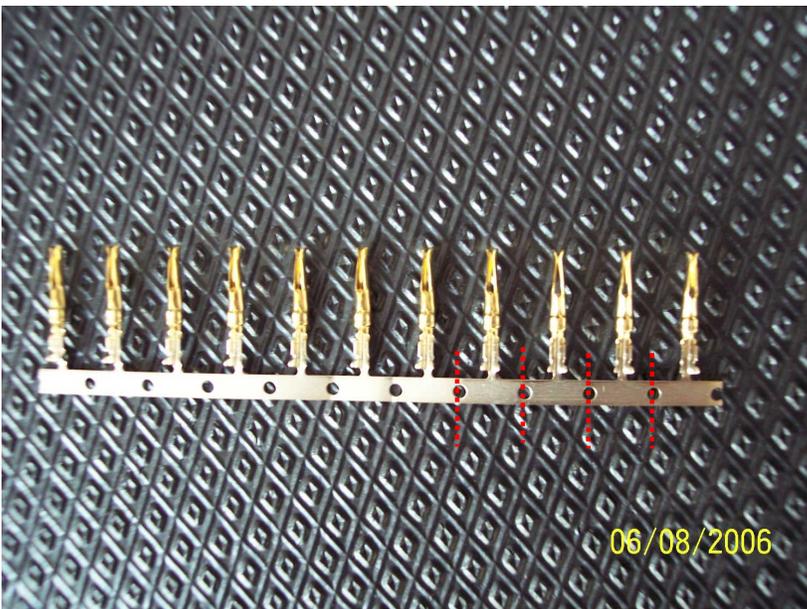


Figure 7. Cut off connectors along red lines.



Figure 8. Use needle nose to crimp connectors on to ends of wires.

Step 4

Plug in jumper wires according to the schematic below (fig 9). Properly completed jumpers Will look similar to picture in figure 10.

1 (white)	2 (white/bk)	3 (yellow)	4 (red)	5 (orange)	6 (empty)	7 (empty)
14 (gray)	13 (gray/bk)	12 (black)	11 (blue)	10 (green)	9 (empty)	8 (empty)

Figure 9. Harness plug schematic(view looking at plug while plugged into Tuner box.)
 Use one jumper to connect pin 6 to pin 9. Use the other jumper to
 Connect pin 7 to pin 8.



Figure 10. Properly installed jumpers.

Step 5

Plug Harness back into Satellite tuner box. Ensure that the jumpers stay seated in the harness Plug and that the plug goes all the way in (until the plastic catch grabs).

Step 6

Replace the Sat Tuner box and fasten it down. Re-install any removed trim panels. Enjoy static-free satellite radio sound.

Acknowledgements: I d like to thank Steve Szabo (a service technician) at Kearny Mesa Toyota in San Diego, CA for following up on an Ask a Tech e-mail inquiry I placed on their website. Steve was able to walk me through the modification over the phone. He was extremely helpful, patient, and professional ..reaffirming my faith in Toyota s products & People.