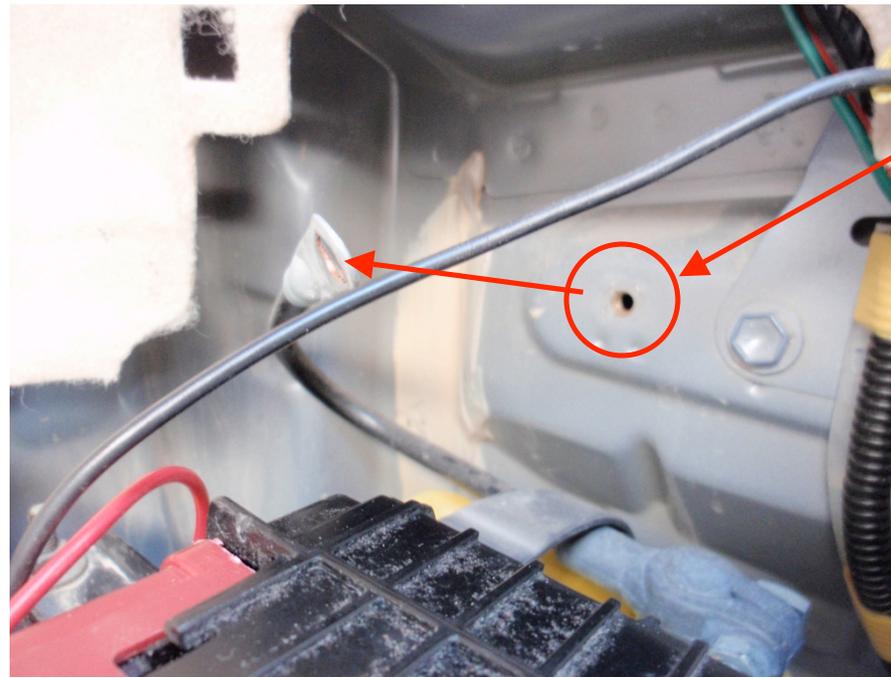


# Prius spiral cable replacement

aka, the steering wheel “clock spring”

2004-2009 models

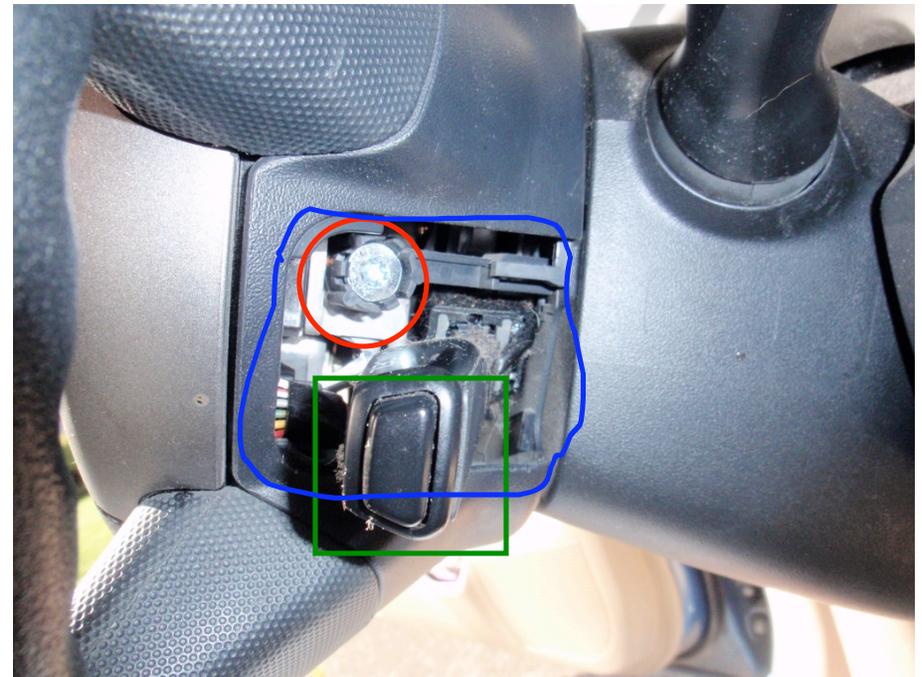
You MUST disconnect the 12 volt battery and you WILL lose all your radio memories and auto up/down window settings. You cannot use a memory-saving battery as you must allow the airbag system's charged capacitors to discharge for at least 90 seconds to 'safe' the airbag system before tampering with the airbag. Airbags can be very dangerous!!! Make sure you 'safe' the system by allowing at least 90 seconds after removing the negative battery terminal connection before attempting to remove the airbag.



10 MM bolt

You MUST center the steering wheel in its travel by making sure the front wheels are pointed straight ahead and the wheel is centered before removing it. The clock-spring can only be turned 2 1/2 turns each way from center without breaking it so centering the steering will keep you within these limits (Prius wheel turns about 4 1/2 turns lock to lock).

Pull the two side covers off the back of the steering wheel. One is the panel that goes around the **cruise control stalk**. The other is a blank panel on the opposite side from the **cruise control stalk**. Remove the airbag by unscrewing the **2 captive T-30 Torx screws** behind the access panels and folding the airbag assembly down to access the two plugs.

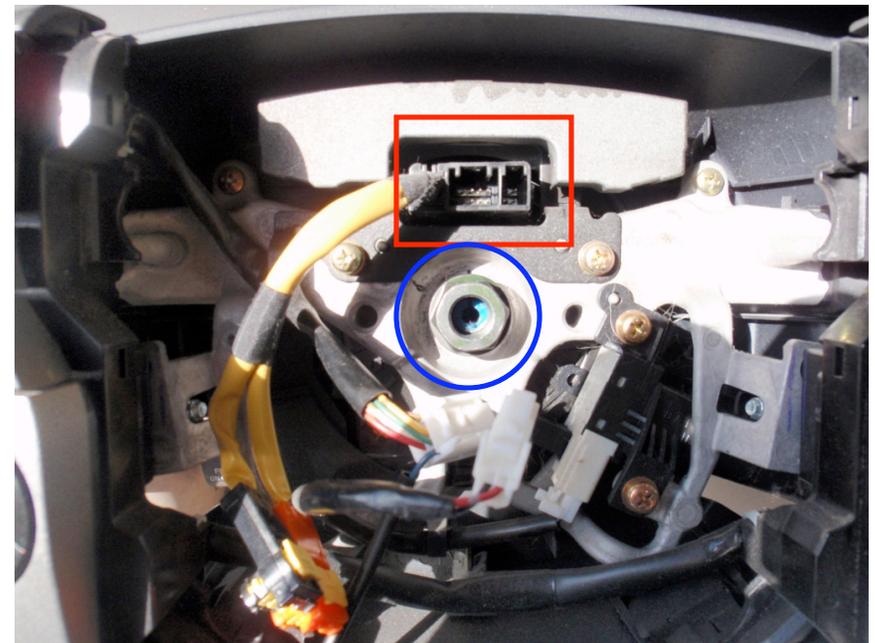
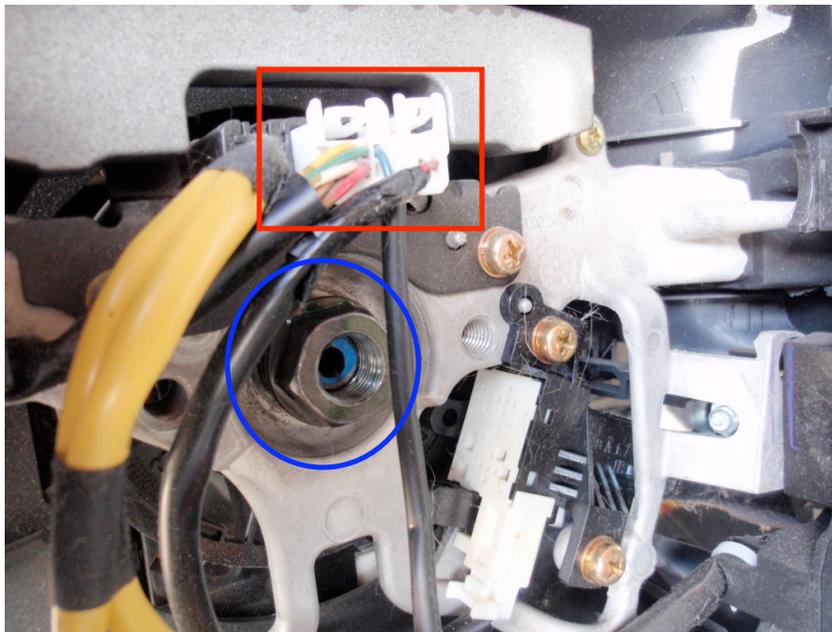


Fold the airbag assembly down to access the two plugs. Lift the **locking pins** from the center of the **orange** and **black** plugs then remove them from the airbag assembly. Remove the **ground wire**. Set the airbag assembly aside with the plugs **DOWN**, preferably outside the car. This is to prevent injury should the airbag accidentally go off. Laying the airbag on it's face would allow it to become a missile should the airbag go off.



**Unplug the cables from the clock-spring.** You may or may-not need to remove the counterweight to access them - I didn't.

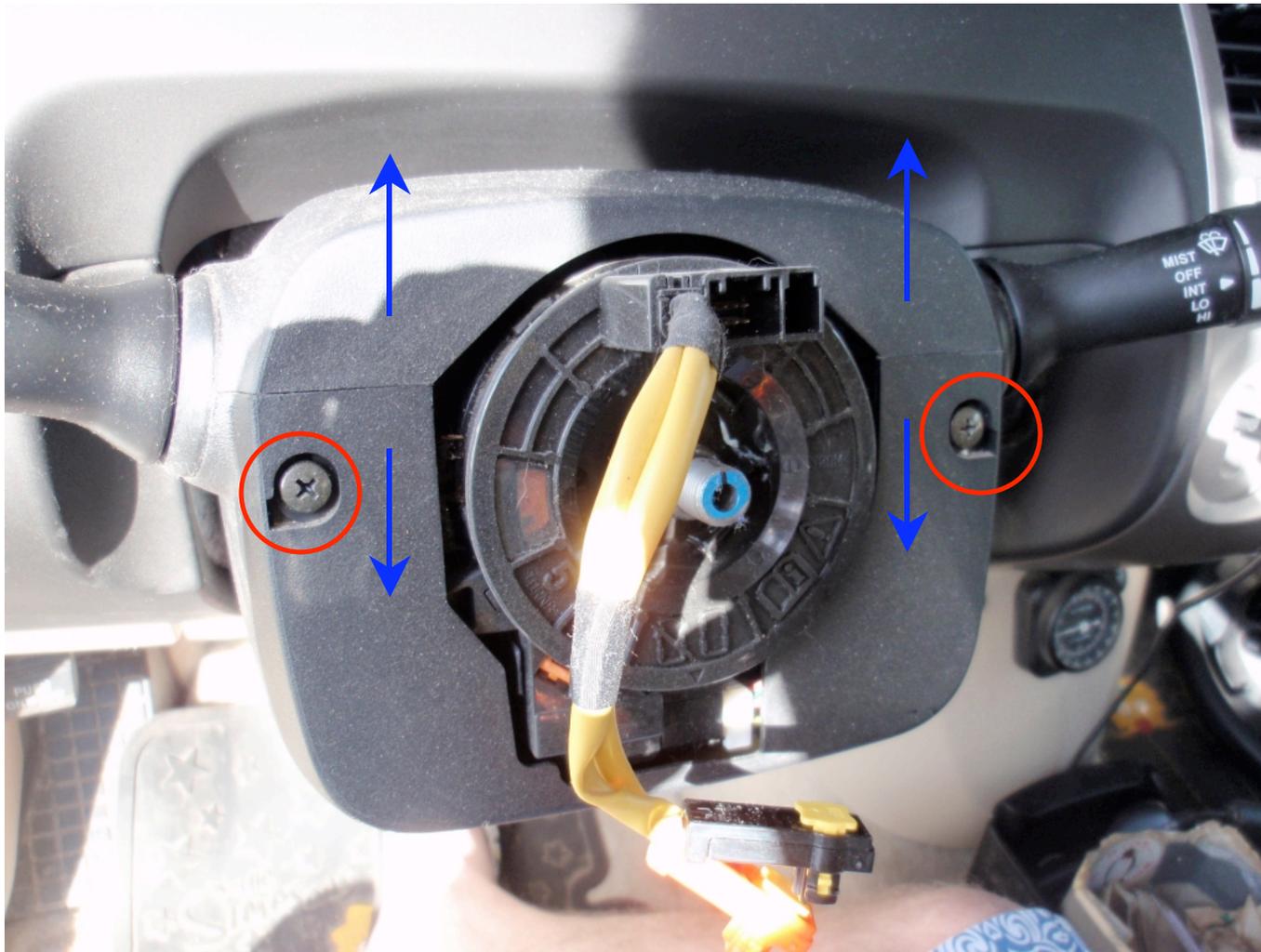
Next, remove the steering wheel. Mark the relative position between the steering wheel and the shaft with a scribe, paint, magic-marker etc. Loosen, then **remove center locking nut (3/4" socket works)** and either use a wheel puller or use the nut (threaded back on but not tightened) and your socket/extension and a small sledge hammer to loosen the wheel from the shaft. Unscrewing the nut 3-4 turns and applying some pressure to the back of the steering wheel with your knees will allow you to hammer the nut (with the socket and an extension) which will eventually break loose the friction fit and allow removal of the steering wheel.



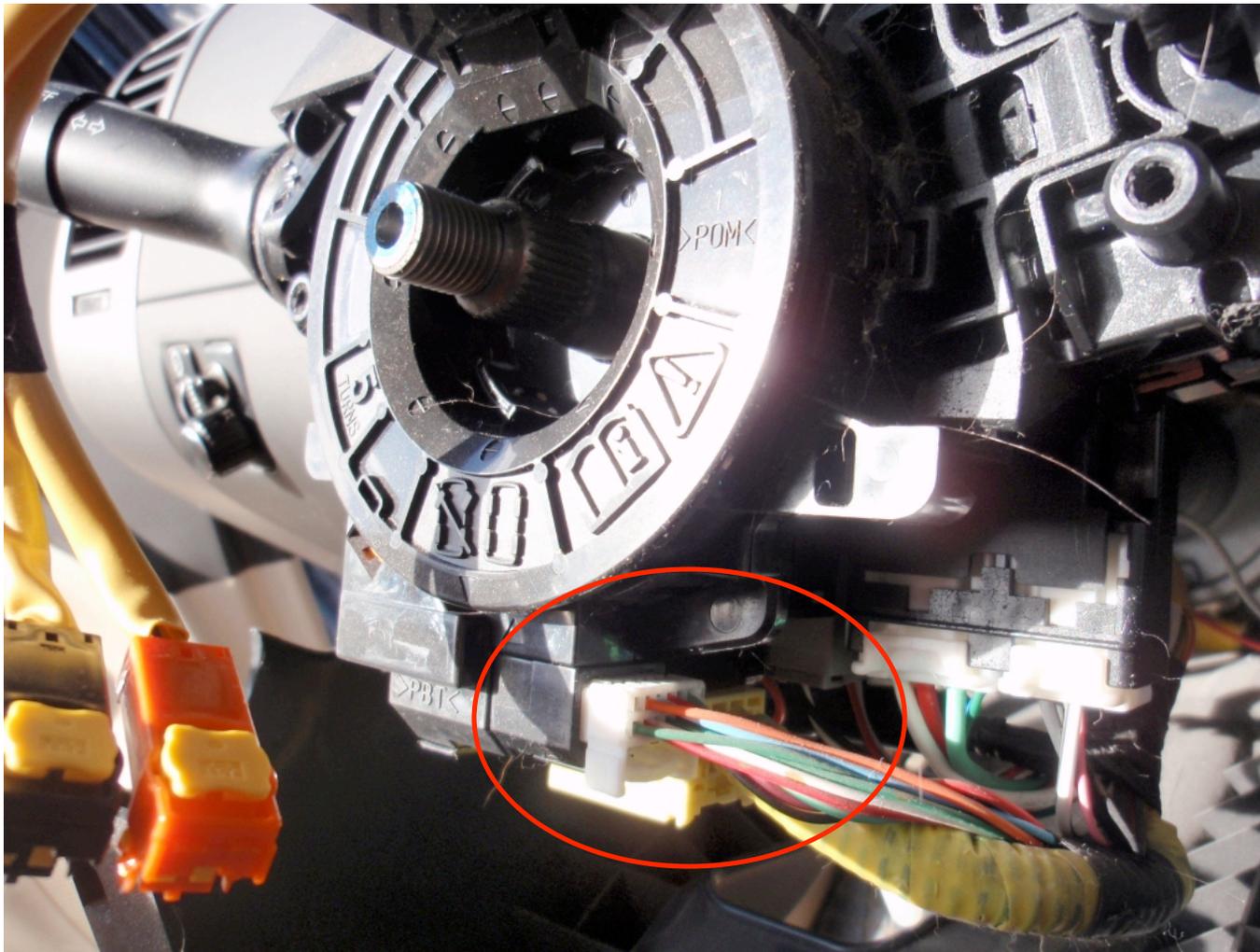
Steering wheel removed



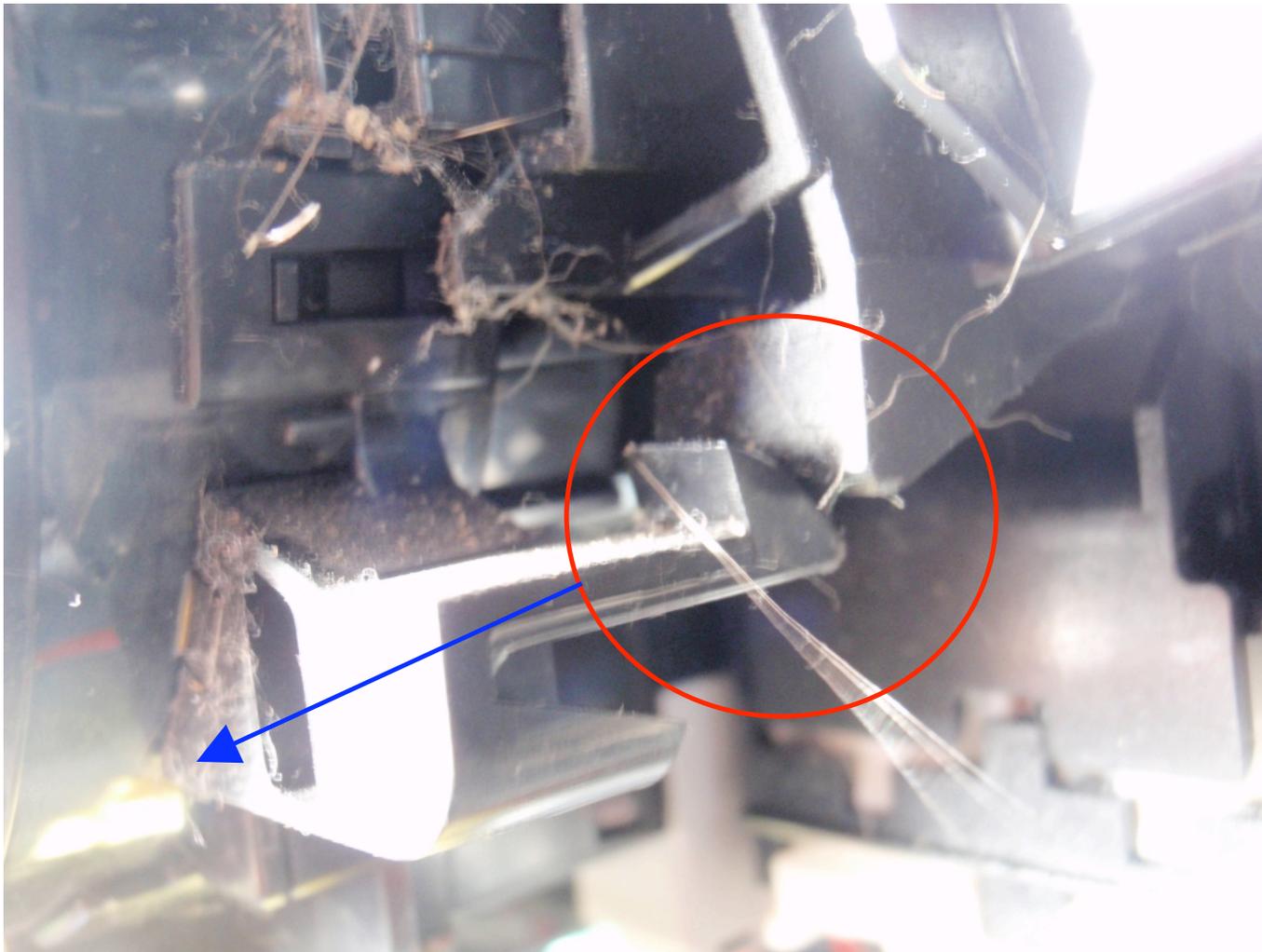
Remove the two screws on the front face of the steering column shell. Release the tilt lever handle and remove the single screw beneath it (sorry no picture!) to separate the top and bottom shells of the steering column cover. Remove the top half.



Unplug the **3 plugs** from the clock spring. 2 are shown, the 3<sup>rd</sup> “underneath” is hidden.



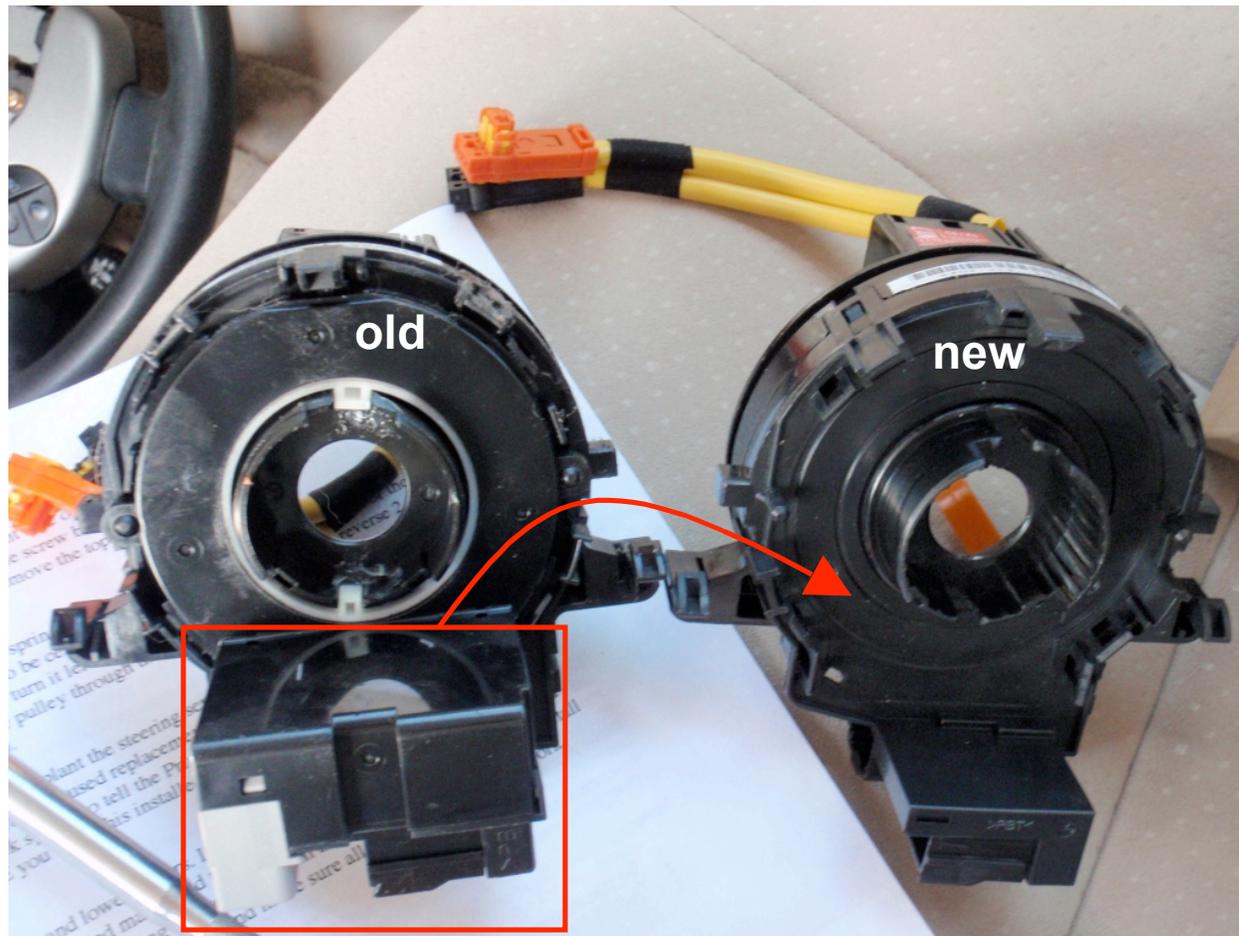
After unplugging the 3 plugs from the clock spring, **three “latches” need to be unclipped** to **remove the clock spring unit**. They look like this and are situated around the perimeter of the clock spring.



When installing a new clock-spring, it should come pre-centered and **held in place with a clip**. A used one may need to be centered before installing. Look at the front of the unit for a **clear window**. **Gently turn it left or right till resistance is felt then reverse 2 1/2 turns**. Look for the **orange pulley** through the **clear sight window**. When seen, you're centered (approximately).



Make sure you either **transplant the steering sensor** from the back of the old clock spring assembly or make sure your used replacement has it already installed. It is held on with more small plastic “latches”. It indexes with the front half of the clock spring to tell the Prius which way and how fast you're turning the wheel. **Make SURE you have this installed before re-installing the replacement clock spring!**



Place new clockspring (with transplanted steering sensor!) back onto steering shaft, snapping the 3 “latches” to secure it. Plug the 3 cables back into new clockspring. ***Be extra sure the yellow airbag plug and pins are lined up before shoving it in. I had “resistance” to this and had to align the inside of the plug pins to get it to engage.*** Re-install the upper and lower covers. Install the steering wheel making sure to align it with the previously created marks and tighten the locking nut. Re-connect the ground wire and two plugs to the airbag and reinstall with the two T-30 Torx screws. Reinstall the covers, then reconnect the battery and make sure all buttons and the horn work. You're done!!!

Total time about 1 hour.  
(Plus an extra 30 minutes  
to find tools in moving  
boxes!) YMMV.

