

INSTRUCTIONS FOR TOYOTA YARIS GR STEERING WHEEL SPACER

Warnings:

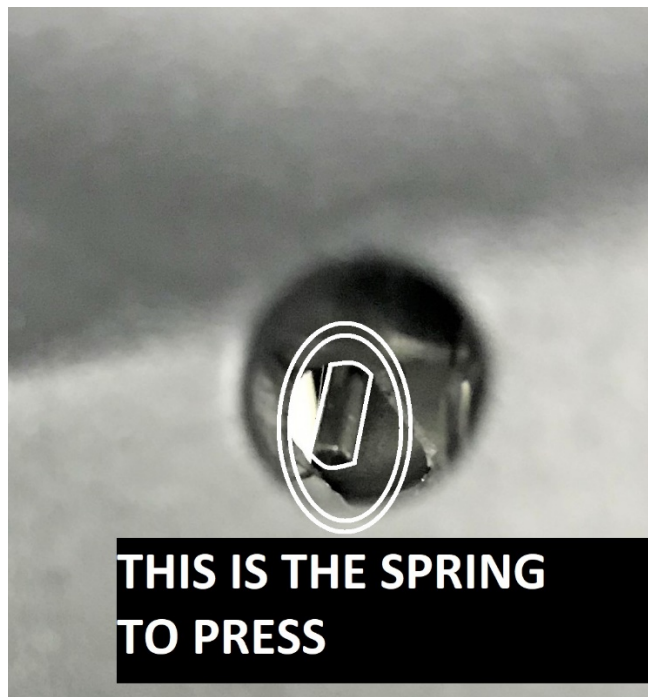
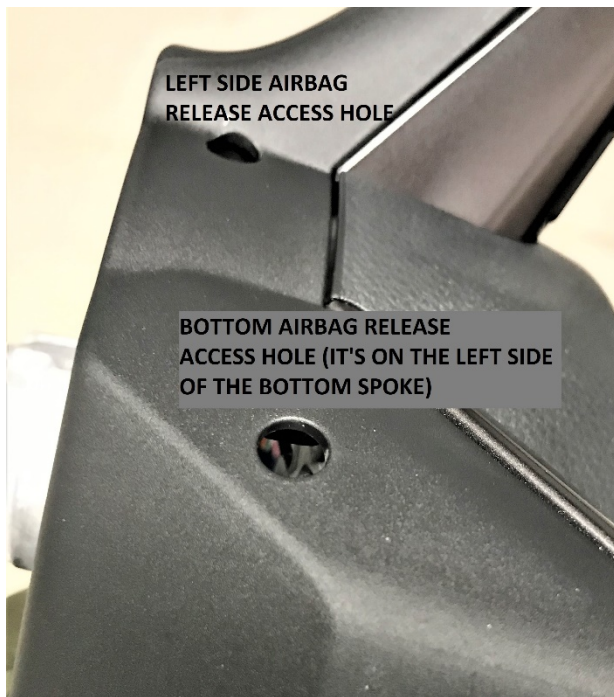
- 1) Do the whole procedure **disconnecting the battery first**, to avoid airbag warning lights switch on after the assembling.
- 2) The Yaris' spline is made of many little teeth, and there isn't any kind of marker or thicker tooth to maintain a unique orientation of the steering wheel while sliding it inside the column. This makes very easy missing a tooth or two while re-fitting the steering wheel on the column, and the spacer too. This will result in your steering wheel turned a little bit off-centre while driving on a straight line. **Park your car with straight wheels** before following the entire procedure, and let a friend hold the steering wheel while unscrewing the main centre bolt. This will help maintaining the correct position.
- 3) **Handle the OEM harness with care**, especially while (un)connecting the plugs. Usually, all the connectors in all cars does have a secure lock clip/lever which **MUST** be unlocked before pulling. If you pull a connector without unlocking it, you may damage the connector itself, the corresponding housing, strip the wires or even all this together.

EXTRACTING THE STEERING WHEEL : There are many tutorials on the internet / youtube, I resume here the steps required, but it's much easier after looking a video.

- 1) Pull out the airbag unit from the steering wheel. Unlock the 3 clamp springs inserting a flat screwdriver in the 3 holes at the sides and bottom left of the steering wheel. Grinding a bit the screwdriver in the middle of the flatness point, making a kind of "C" will help you finding the clamp springs.

Take your time, even a LOT of time, looking at where the 3 holes are and where the springs are. This is the most critical step, because the springs must be unlocked pushing the screwdriver inside the steering wheel, behind the airbag detonator, without direct visual on the spring you're going to press. So, you may accidentally press a wire or a connector and make a damage.

It's very easy to loose patience in this step, again, take your time. Watch the following pictures before proceeding.



The screwdriver enters not more than 1" (2+ cm), and when you reach the spring, press it a little bit before go any further, to make sure you are making force on an elastic part. The press stroke is not more than ½ " (1-1,5 cm)

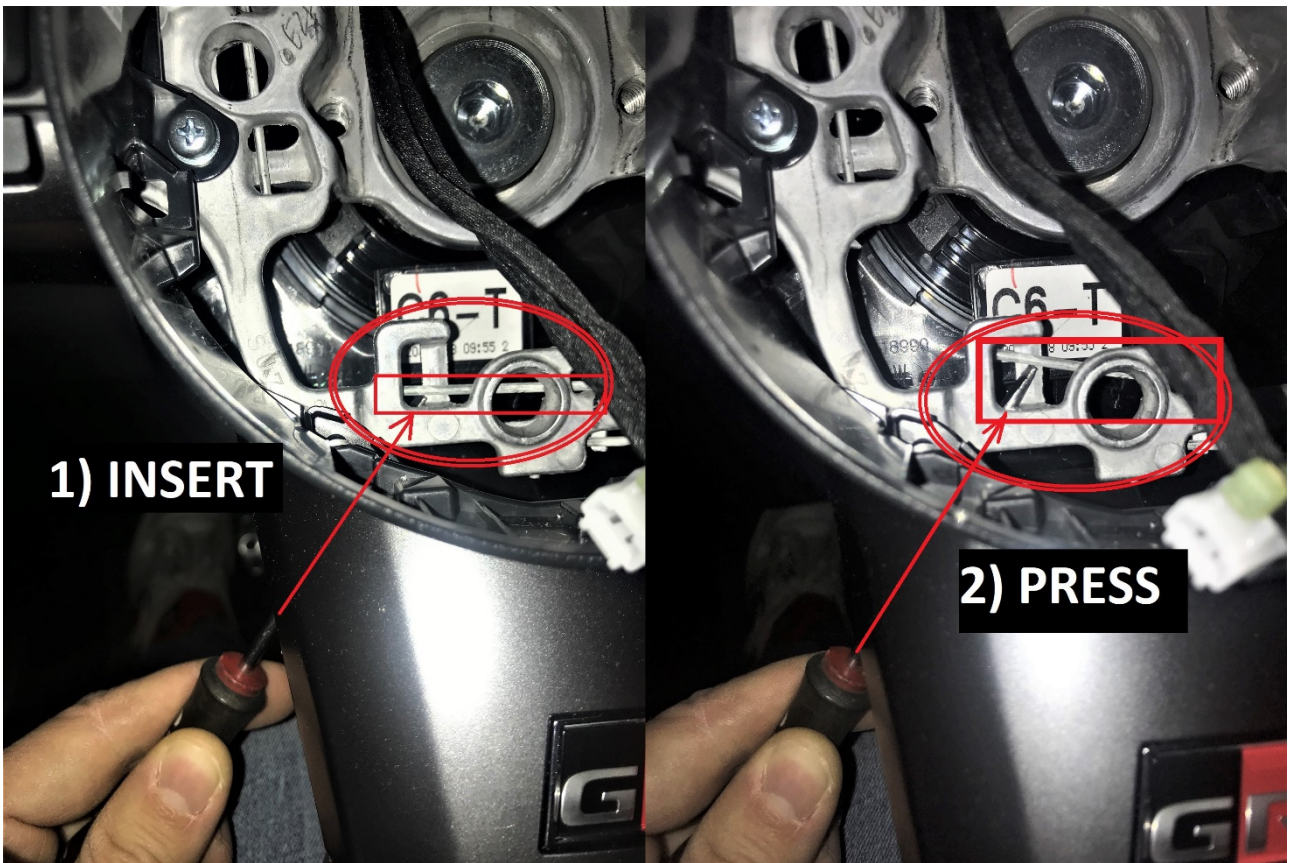


To find the springs, the screwdriver must be slightly pointed towards the driver, not just perpendicularly. You may find the correct orientation after several attempts. When you will have found it, you will feel the flexibility of the spring.



These pictures show the screwdriver pushing the springs after the airbag unit has been removed. Obviously, you can't have this view while operating, but you can consider this a forecast view to help doing the job.





When the spring is pressed correctly, the corresponding side of the airbag unit will pop out not more than 1/2" (1 cm +), without making a particular noise.

When the airbag unit extraction is completed, you will have the unit in your hand, with the wires still connected to the car. Be careful not to scratch the airbag and the steering wheel's plastics with the cutting edges of the steering wheel.



- 2) To fully separate the airbag from the car, you have to disconnect 3 connectors. 1 for the airbag itself, yellow/orange, another white little connector, and the horn's faston. You will need a little flat screwdriver to lift the secure locks. Start with the airbag wire, lifting the orange secure clip and pulling out the connector as shown in the pictures.



Unlock the tricky white connector and pull it out.



The horn's faston is very hard, don't just pull it, make it softer to pull out bending its edges with the point of the screwdriver.

Store the airbag in a safe place when all is disconnected. Far from children, rain, dust, wet, and the possibility for it to fall down.

- 3) Unscrew the big central bolt. While doing it, let another person holding the steering wheel in its straight position. This will help maintaining the steering wheel straight, and divide by two the effort of unscrewing. Don't pull the bolt out before making sure that the steering wheel slides freely on the steering wheel column. Because it can make a sort of glue-effect which leads to attempt to pull out the steering wheel with a lot of force, making it come out suddenly and hit your face and damaging the wires.

When you are sure that the steering wheel slides on the steering column, disconnect the big black connector above the bolt (it's the big black connector for the steering wheel buttons, and it has a lever above it to unlock it), and the white connector for the heating system if your car is equipped with it.

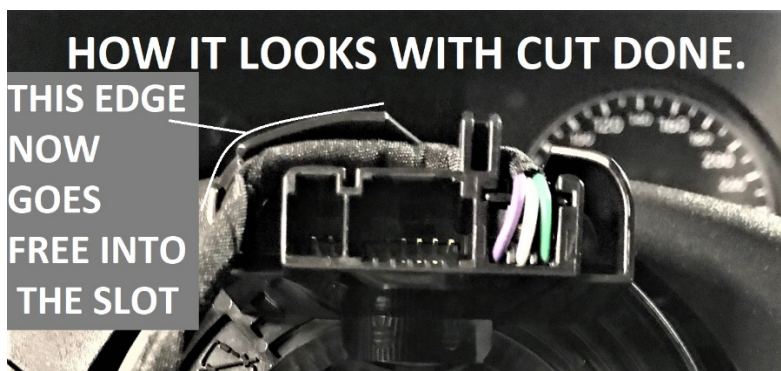


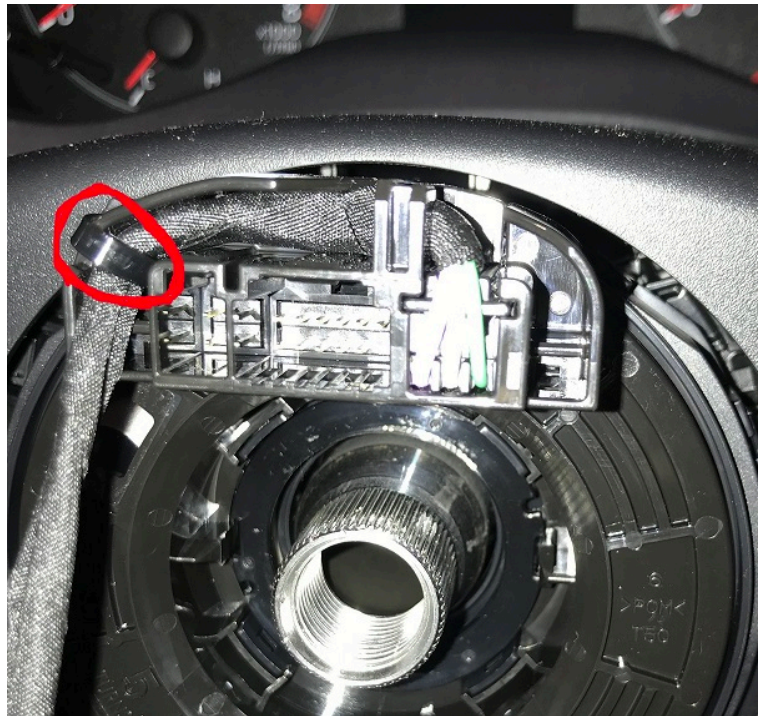
- 4) At this point, the steering wheel will come out easily, while you pull it out, gently make the airbag wires slide across the slot in the steering wheel, without being pulled in any moment.

This is what you will see after the steering wheel is out, the bottom left harness+connector will be missing if your car is not equipped with heated steering wheel.

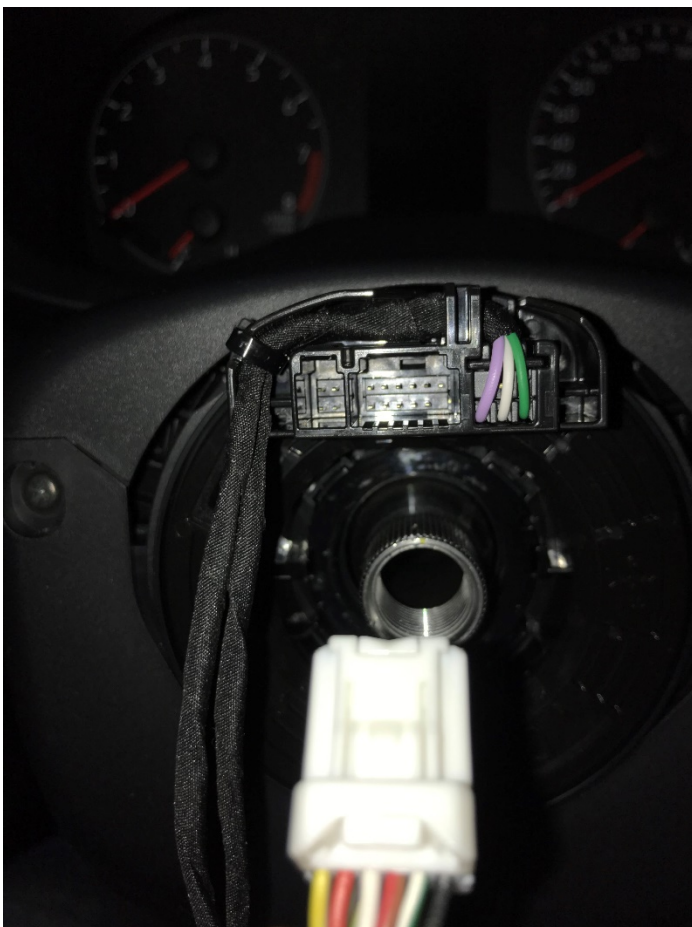


- 5) Cut the black cable tie on the top left of the clockspring assembly. This is a cheap part, very easy to replace, and pretty useless too. It free up some length on the airbag wires, and helps with the clearance between the spacer and the clockspring, which is very tight in that point. PAY ATTENTION not to cut the airbag wires too, even accidentally, or you will need to replace the expensive clockspring assembly too.



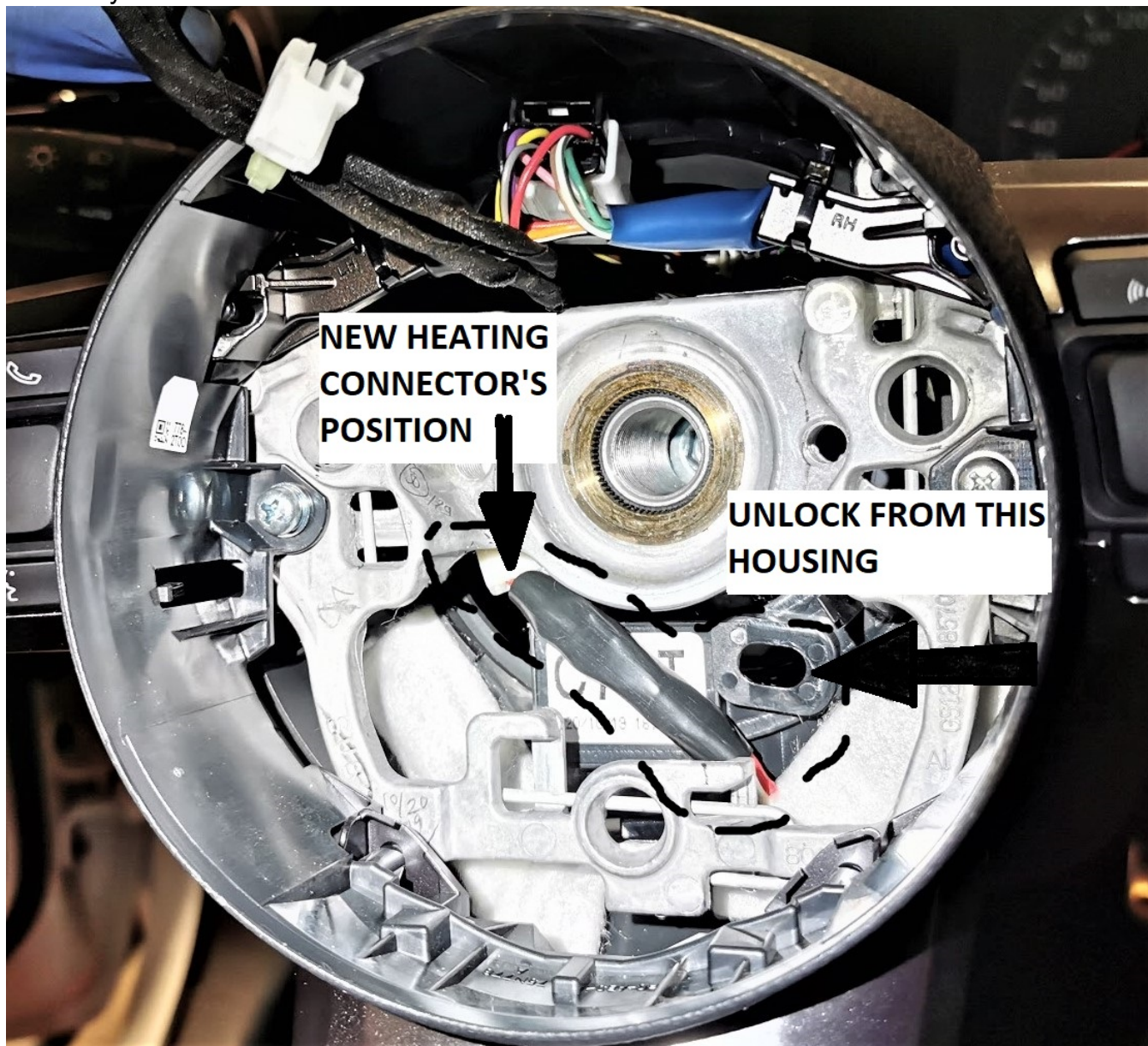


- 6) Insert the provided harness in the corresponding central connector, to extend the steering wheel buttons wires. There is only 1 orientation possible, and it makes a secure lock “click” once well pressed inside.



- 7) Fit the female splined spacer in the steering column. The back side of it has the slots exactly as in the steering wheel. The airbag + steering wheel buttons wires must cross the spacer through the top slot with a flat side. The heated wheel wires, if present, must cross the spacer through the bottom slot without flat sides.

- 8) Tight the OEM big M18x1,5 bolt to hold the female spacer on the steering column, tightening torque is 60 Nm. Be sure that there is no play between the spacer and the steering column. If there is even slightly play, keep tightening until it disappears.
- 9) Insert the steel side of the spacer in the aluminium female splined spacer, and tight the 6 bolts. The bolts are allen bolts, M6, to be tightened at 10 Nm, you may add Loctite thread locker if you wish.
- 10) **WARNING, THIS STEP IS ONLY FOR CARS WITH HEATED STEERING WHEEL.**
To extend the heated wheel wires, unlock the white connector which is connected to the black plastic base of the steering wheel, inside it. This free up enough length to make possible to reconnect the same connector to its corresponding housing coming out from the clockspring assembly.



- 11) Fit the steering wheel in the male side of the steering wheel spacer. In while, connect the 12 pin OEM black connector to the provided harness.
- 12) Lock the provided M18x1,5 bolt, tight at 60 Nm. At this point the steering wheel is fitted back in place. Have a friend help you holding the steering wheel in while.
- 13) Reconnect the 3 connectors to the airbag. Start from the airbag main connector first. Respect its own orientation, and push it inside pressing from the yellow part. When it's in, push back the orange secure lock in place.
Now push back the white connector, and the horn's faston, eventually bend/press it slightly to make sure it's hard to go in place (Remember that you had to bend it to pull it out because it was too hard).

- 14) Push the airbag back in place. Pre-align it as it was before starting the procedure, gently push it in the steering wheel housing until you require force to make the 3 springs. There is only one way for the airbag to sit in place, and you will hear a reassuring “click” when it’s in place. Make sure not to press any wire, otherwise your horn may sound permanently. If you did it properly, you will be able to press the horn exactly like before. You will have the same feeling. This step is very easy and intuitive.
- 15) Reconnect the battery, turn on the car, test the steering wheel buttons, and the self return of the stalk levers. Everything must work as before.

END.