

INSTALLATION



Installing a new steering wheel is way less daunting of a task than it seems. It's not one of the things you remove often, so it may seem overwhelming but I assure you, it's not.

However, you can make some pretty costly mistakes along the way if you try to muscle your way through it and avoid following these steps; this isn't the Billy Bookcase from IKEA.

Tools Needed:

- T27 Torx bit
- Plastic panel remover
- Flathead screwdriver
- Phillips-head screwdriver
- 19MM socket and socket wrench

- Permanent marker (black or red)

STEP 1. REMOVE STEERING WHEEL PANEL SCREWS



In order to get started, the first step might be easiest if you turn the engine on; a.) so the power steering kicks in and b.) so that you can reach screws behind the left and right side of the steering wheel.

With the engine on, roll the wheel to the left so you can expose the left-side screw that keeps the steering wheel column panels in place. Remove the screw.



Next, turn the steering wheel to the right exposing the right-side screw, and remove it. Both screws will be reused, so put them aside for later use.

Turn off the ignition.

STEP 2. DISCONNECT BATTERY



Now that the engine is off, disconnect the battery. Why? You're going to be removing the steering wheel, the main airbag is hiding right behind the steering wheel, and you don't want that thing blowing up mid-install.

In fact, you don't want the airbag to go off at any point during the installation, so disconnecting the battery will ensure you don't have any misfires!

STEP 3. REMOVE STEERING WHEEL PANELS



With both of the steering wheel panel screws removed, both the upper and lower panel can be removed.

Either with the use of the plastic panel removal tool or just getting a good grip, pull the lower panel down and towards you. Be patient, it will eventually disconnect from the upper panel. Once removed, place the lower panel to the side.



Next, loosen the upper panel. This panel is tied into a pleather dust protector which doesn't need to be disconnected altogether to finish the proceeding steps. So, simply lift it up and push it back towards the gauge cluster so it's out of the way.

STEP 4. REMOVE COVERS & T27 TORX SCREWS



Using the plastic panel removal tool, remove the left and right side panels affixed to the steering wheel.



This will expose a T27 Torx screw on each side that needs to be removed.



Remove the two (2) T27 Torx screws. Both screws can be loosened but not removed completely since they are held in place with clips (likely so as not to drop inside the steering wheel column housing).

If you remove one completely or it falls into the housing, no worries; the whole wheel is being removed and you'll have the ability to retrieve it in a future step.

STEP 5. REMOVE AIRBAG & DISCONNECT GROUND



Now that the two (2) T27 Torx screws have been backed out, the airbag can be removed.

Next, remove the black ground wire connected to the bottom portion of the airbag.

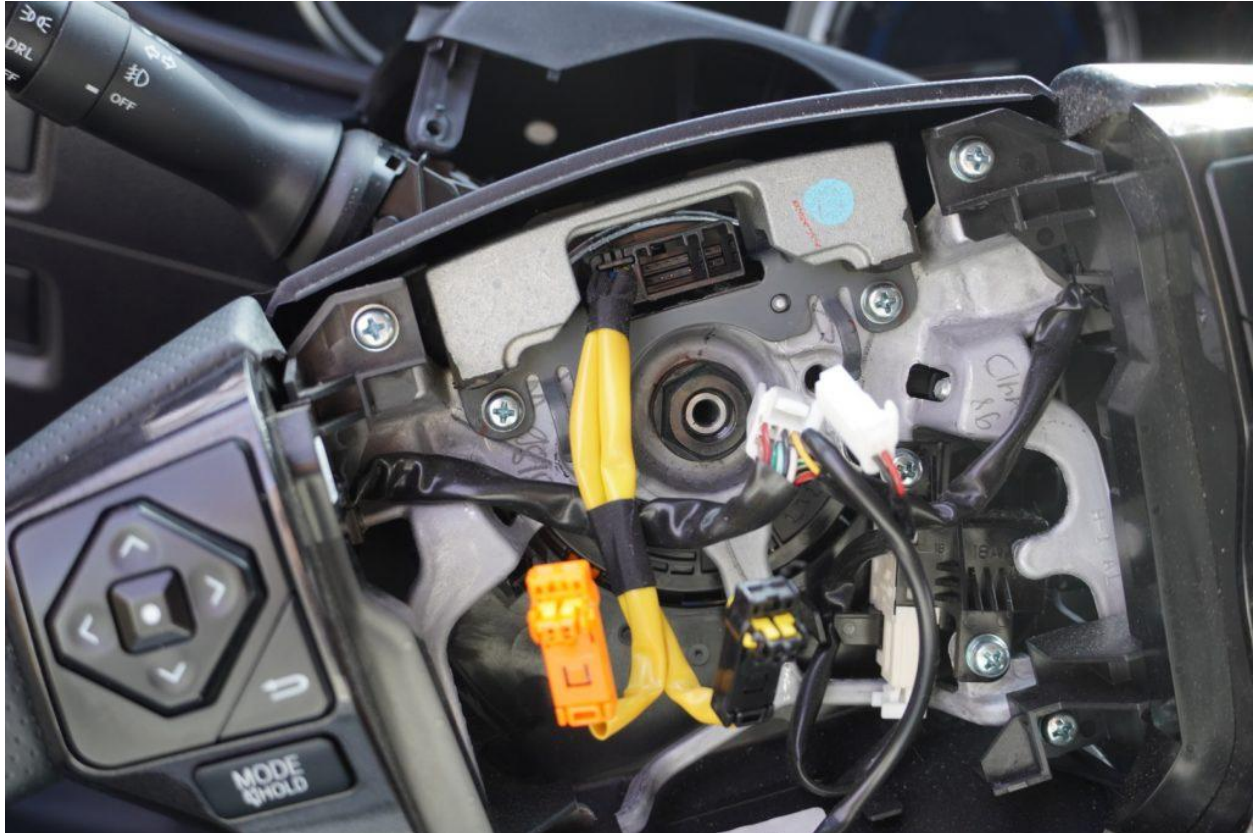
STEP 6. DISCONNECT CLIPS & WIRES



Using a flathead screwdriver, wedge in between the yellow clip holding the airbag wires (black and orange) onto the airbag. Eventually, the clip will pop back and you can remove the wire. Perform the same step on the remaining wire.

With both wires removed (including the ground), you can set the airbag aside.

STEP 7. DISCONNECT STEERING WHEEL CONTROLS



With the airbag removed, disconnect the two (2) steering wheel control clips. One of the clips is used for the cruise control functionality and the other supports all of the steering wheel convenience controls.

Loosen 19mm Wheel Nut

Before you can pull the wheel, loosen the 19mm center wheel nut with your socket wrench. To avoid swinging the wrench around, I backed the 19mm nut out completely by hand.

STEP 8. MARK CENTER POINT



With the wheel nut removed, mark the center on the steering wheel with a permanent marker to ensure it aligns with the new wheel you'll be installing.

Important: Once the wheel is removed completely, the "center" will essentially disappear when all you're left with is a bolt with teeth to sit the new wheel on. So, don't skip this step.

STEP 9. PULL STEERING WHEEL OFF COLUMN



Looks weird, right? If you were able to get to this point, you're doing everything right! However, this is a really important and sensitive step to take.

To successfully remove the wheel, you may need to grab the OEM wheel at 3 o'clock and 9 o'clock and slowly rock it back and forth. Eventually, the wheel will loosen up.

Take extra caution removing it slowly so you don't break the clock spring.

What is a clock spring? It's a set of multicore ribbon-like cables that are wound up in a circular housing. These ribbons/cables carry electronic signals from the steering column to your steering wheel for your audio/infotainment controls and cruise control. The cables are designed to rotate/spool left and right inside this housing as you turn your steering wheel.

STEP 10. SWAP OEM COMPONENTS



Now it's time to swap over all of the components from the OEM wheel to the new carbon fiber wheel.

Everything from the plastic backing to the top bracket and electric controls needs to be swapped over. Eight (8) Phillips-head screws hold down all three components.

Once removed, swap everything to the new carbon fiber wheel back in the same spots. Again, since KTJO 4x4's design is based on the OEM wheel core, everything reinstalls back into place on the new wheel.

STEP 11. REINSTALL NEW WHEEL & COMPONENTS



Lastly, reverse all the steps taken to remove the wheel in reverse. As pictured above, I kept the wheel cover on for added protection until the installation was complete.

- Set the new wheel in place and ensure you're center aligned with the mark made previously on the center bolt
- Reinstall the 19mm wheel nut
- Plug in all of the steering controls and wheel airbag wires, ensuring all wire excess is tucked back under the metal retaining clips
- Set the airbag back into place
- Install the two (2) T27 Torx screws on each side which will lock in the airbag
- Replace the two (2) panels where you just reinstalled the T27 Torx screws

- Replace the steering wheel panels
- Remove the steering wheel cover
- Reinstall the battery

FINAL THOUGHTS



It goes without saying, this is a super sweet modification that you'll use every time you drive your 4Runner, literally.

The feel and comfort of the wheel definitely give off luxury vibes. Many people complain that the leather on the OEM wheel wears down over time. While there are still leather areas on this wheel, the glossy carbon fiber sections add a bit more lifespan to your wheel and will likely be easier to clean in the long run.

If you're in the market to replace your OEM wheel, you like the look of a carbon fiber upgrade, or you're well-off and enjoy blowing money on things, consider ordering one of these carbon fiber wheels – you won't regret it.

