



BMW F Chassis Steering Wheel Installation Instructions

Disclaimer: This guide is meant to be used as a reference and Carbonex is not responsible for any damage and harm to the steering wheel and its components, vehicle, or the people involved during the installation process. In addition, different vehicle options, build year, and model have different components and certain steps could be different.

Tools required

- Flat head screwdriver
- T-20 torx screwdriver
- 10mm socket
- 16mm socket
- Ratchet or breaker bar
- Torque wrench
- Trim tools

Instructions

1. Disconnect the battery's negative terminal with the 10mm socket. The battery is in the trunk located either near the passenger tail light or underneath the trunk liner depending on the vehicle model.



Note: do not close the trunk while the battery is disconnected

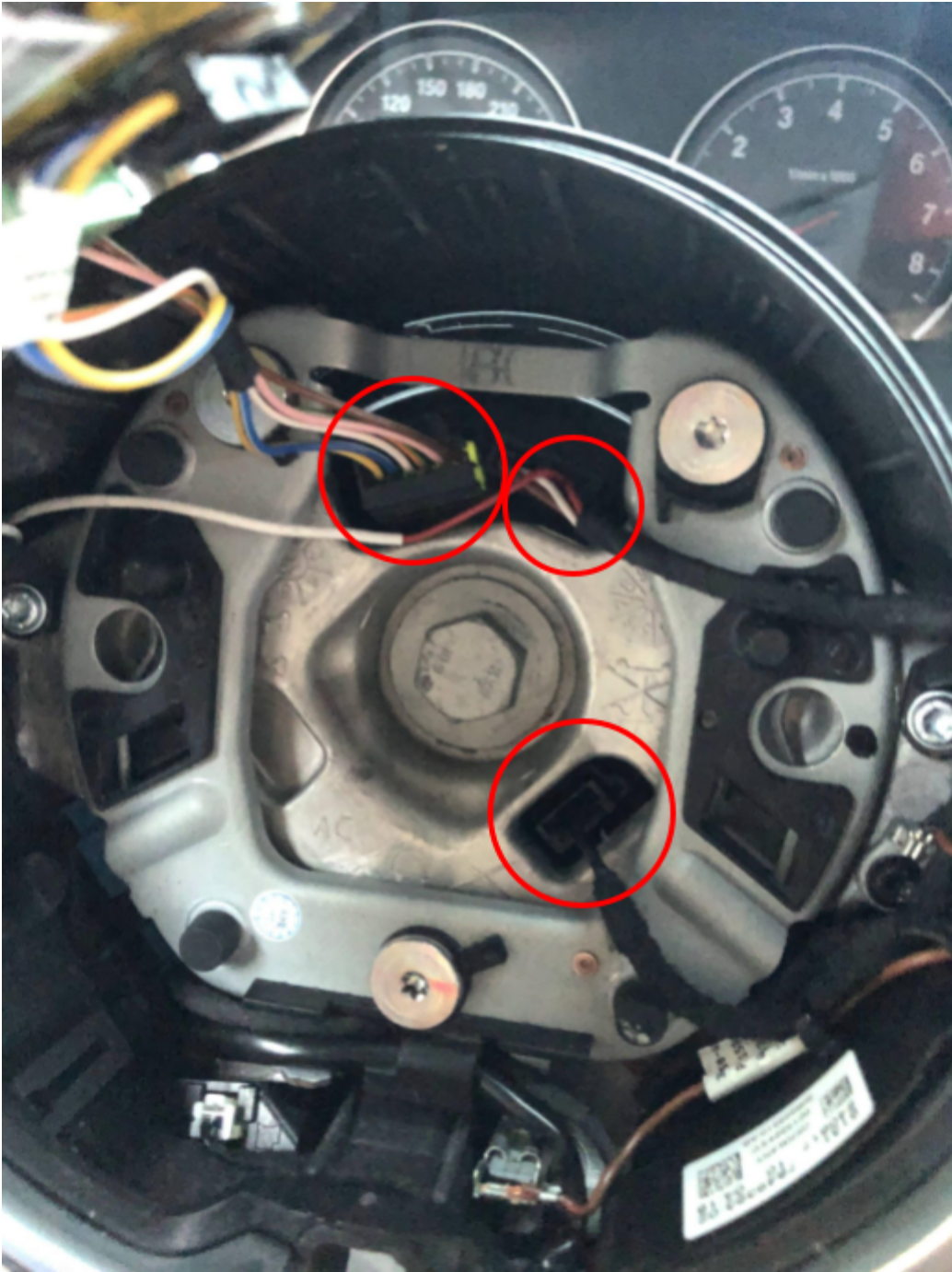
2. Loosen the airbag. At the 4 and 8 o'clock position of the steering wheel are two holes. Start on one side by inserting the flat head screwdriver and press in on the spring loaded retaining clip. Once the clip is fully compressed, pull gently on the same side of the air bag and you should feel it come loose from the retaining clip.



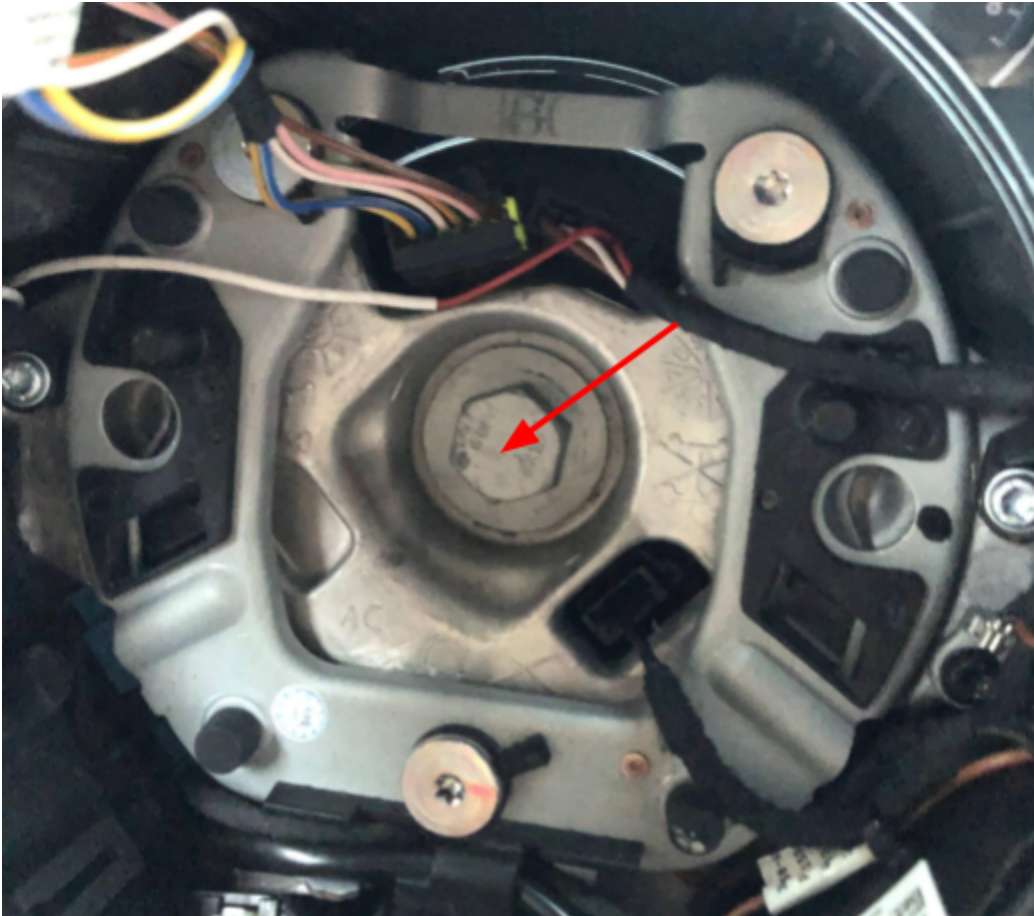
The image below is the internal structure behind the airbag (you won't see this until the airbag is removed). The screwdriver is pressing on the silver retaining clip indicated by the red arrow. Once compressed, the retaining clip at the red circle area will be fully compressed and out of the way, letting the airbag come free



3. Once the airbag is loose, carefully disconnect the 3 connectors to the steering column and set aside the airbag in a safe place.



4. Use a breaker bar or ratchet with a 16mm socket to remove the bolt securing the steering wheel to the steering column. Remove the steering wheel from the vehicle and we are now ready to transfer the components over to the new steering wheel.



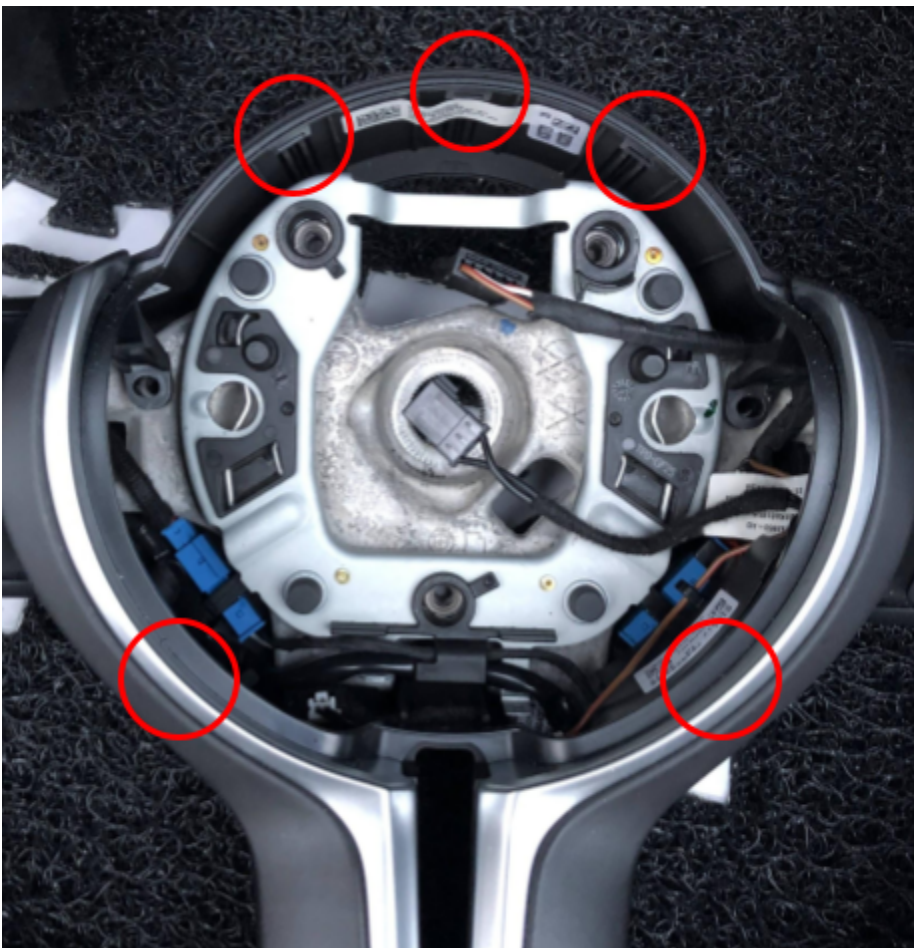
5. Use the T-20 torx screwdriver to remove the two screws securing the top of the steering wheel trim.



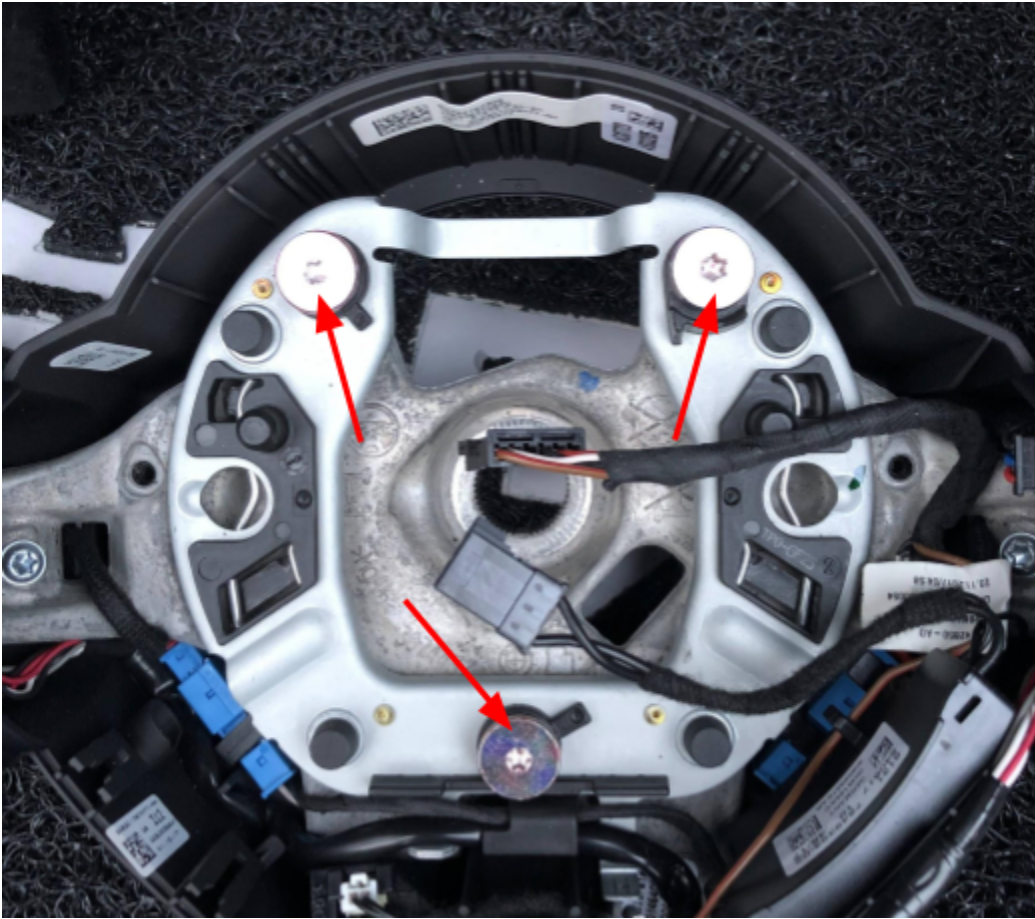
6. Flip the steering wheel over and use the T-20 torx screwdriver to remove the screw securing the back of the steering wheel trim at the 6 o'clock position.



7. Undo the 2 clips near the bottom of each side and 3 clips at the top with a trim tool. Once the clips are undone, the trim can be removed from the steering wheel.



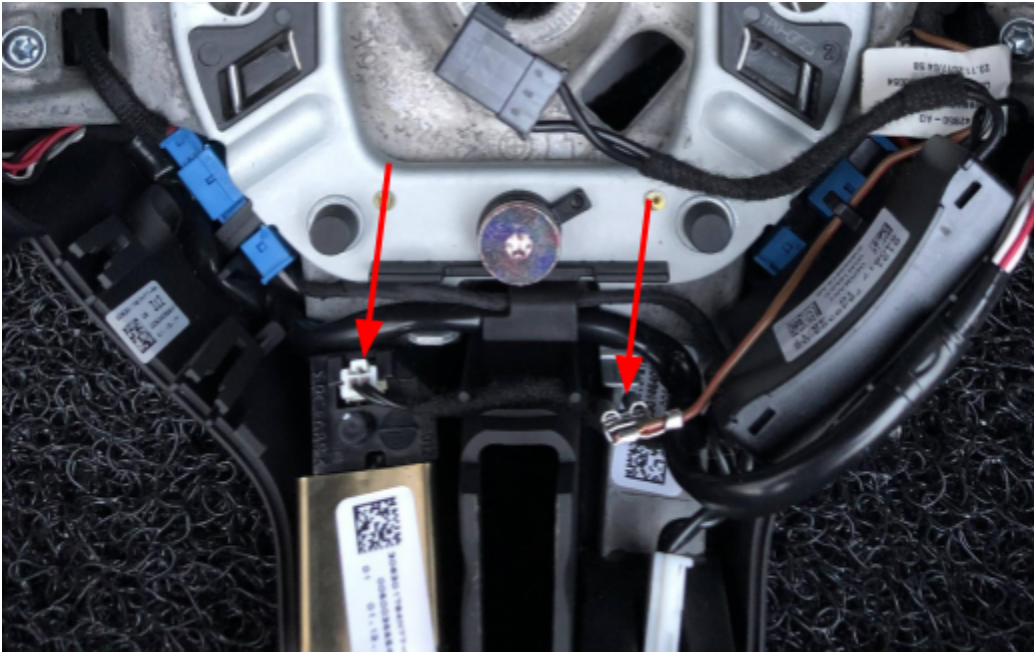
8. Use the T-20 torx screwdriver, remove the three screws holding the horn spring to the steering wheel.



9. Use the T-20 torx screwdriver, remove the ground screw.



10. Disconnect the lane departure vibration motor cable and the ground cable.



11. Starting on the left side, use the T-20 torx screwdriver to remove the screw securing the paddle shifters. Once done, do the same for the paddle shifter on the right side.



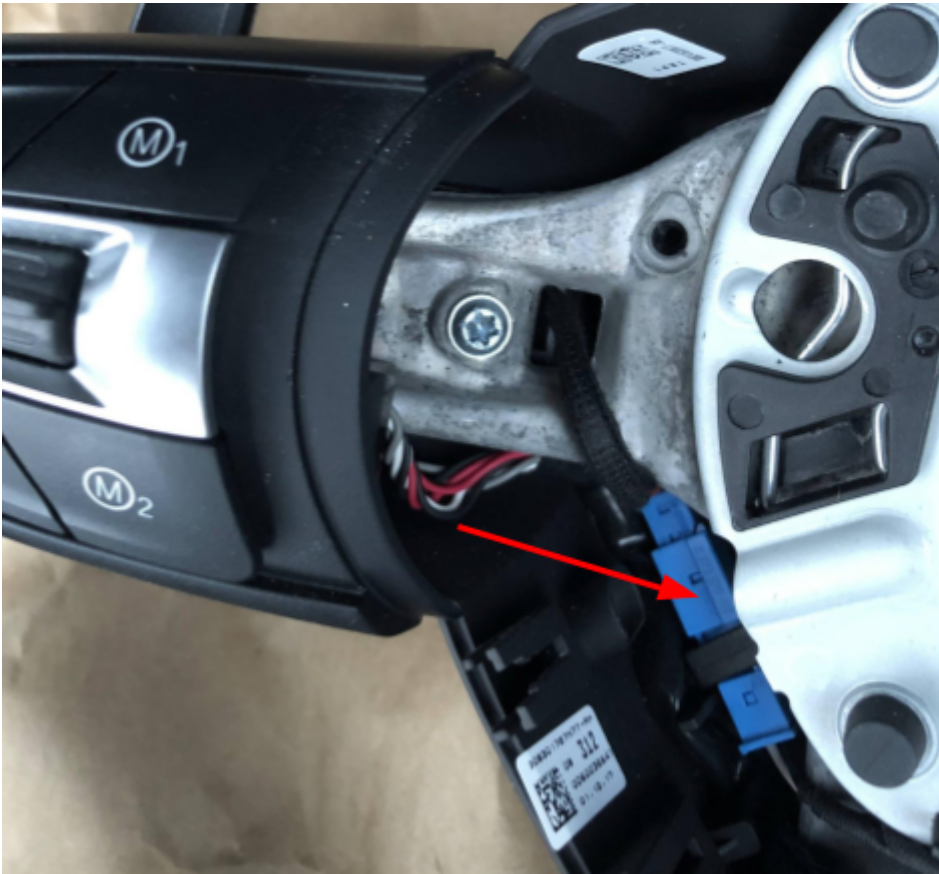
12. Undo the heated steering wheel connector.



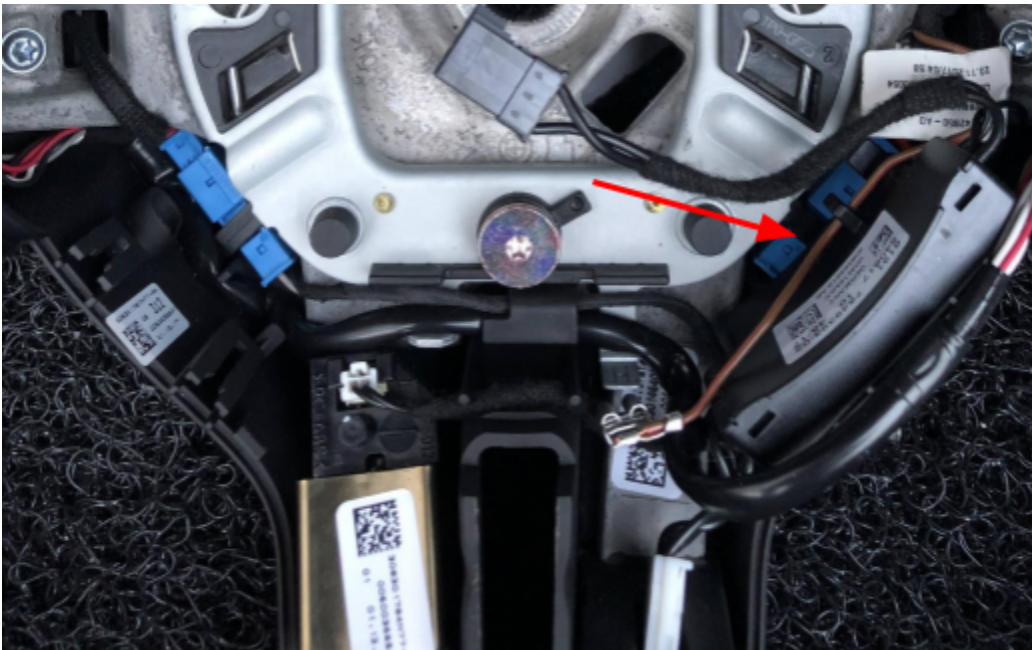
13. Turn the steering wheel over to the back side and gently pull the paddle shifters away from the steering wheel to reveal the two screws at the 3 and 6 o'clock positions securing the plastic back housing. Use the T-20 torx screwdriver to undo the two screws.



14. Turn the steering wheel over back to the front side and disconnect the blue paddle shifter connector on the left side.



15. The blue paddle shifter connector on the right side is beneath the cruise control module, which can be removed by simply sliding it out of the plastic back housing. Disconnect the blue connector.



16. Remove the plastic back housing, buttons, wiring harness, and horn springs.



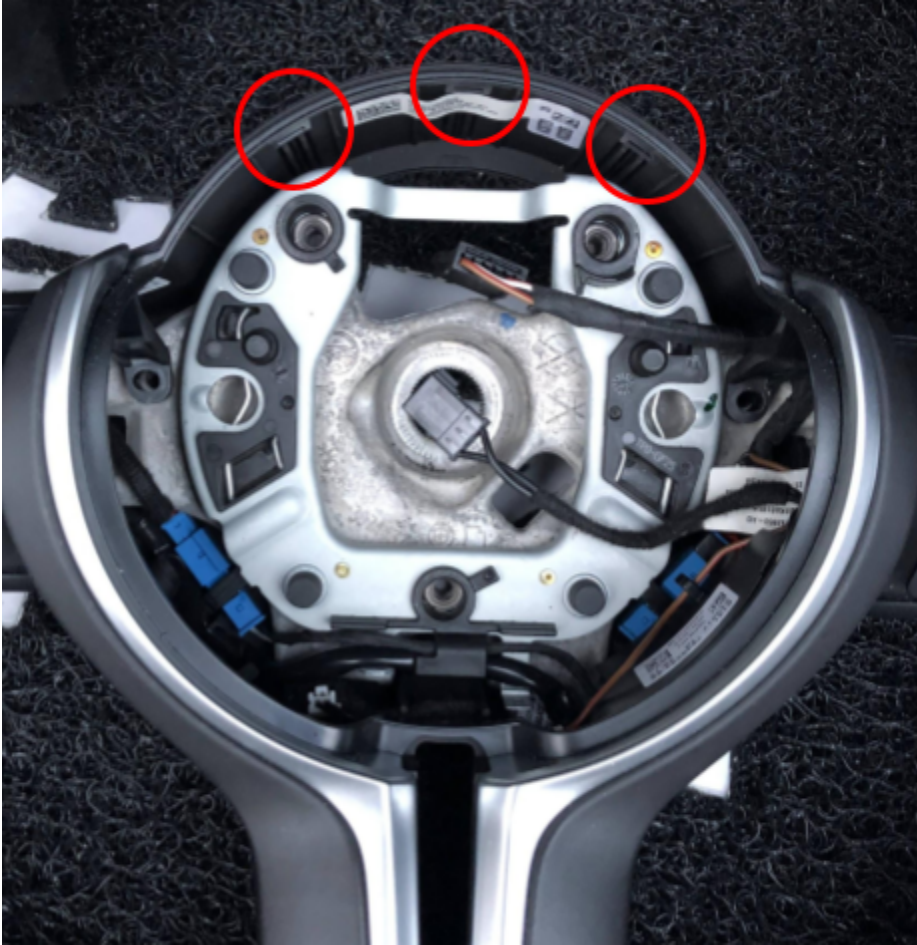
17. Turn the wheel over again and undo the metal clips on the lane departure vibration motor. The way to remove these is by pressing hard on the bracket in the direction of the red arrow. Simultaneously, use a flat head screwdriver to undo the clip.



18. All the components are now removed from the stock steering wheel and ready to be transferred to the new steering wheel.
19. Install the lane departure vibration motor on the new steering wheel
20. Install the horn spring on the new steering wheel with the three T-20 torx screws
21. Place the plastic back housing on the new steering wheel, secure the left and right buttons to the plastic back housing with the T-20 torx screws.
22. Secure the left and right paddle shifters to the new steering wheel with the T-20 torx screws and connect the blue paddle shifter connectors.
23. Connect the lane departure vibration motor and the ground pin to the horn spring (step 10)
24. Secure the ground wire to the new steering wheel with the T-20 torx screw (step 9)
25. Tuck away the wiring harness based on its original location
26. Install the new steering wheel trim. Please be extra careful to ensure the trim is sitting in the right location and all wires are clear from being caught between the trim and the plastic back housing. Also ensure the trim on the sides clear the steering wheel buttons to avoid damaging the trim.



27. Secure the trim to the plastic back housing at the 6 o'clock location with the T-20 torx screws (step 6)
28. Secure the trim to the plastic back housing at the top with the two T-20 torx screws (step 5)
29. Secure the 3 clips at the top of the steering wheel



30. Install the new steering wheel back to the hub on the steering column. The steering wheel hub has a center line marking at the 6 o'clock location, please make sure it lines up with the steering wheel's marking at the 6 o'clock location as well to ensure proper alignment.
31. Secure the steering wheel to the steering column with the 16mm bolt and use a torque wrench to torque the bolt to 45 ft.lbs.
32. Reconnect the 3 connectors to the steering column (step 3).
33. Reinstall the airbag, please ensure the airbag is properly clipped into the springs on both sides (when the spring latches onto the airbag, you will hear a clicking sound).
34. Reconnect the battery and tighten the 10mm nut.
35. Enjoy the enhanced look and feel of the new Carbonex custom steering wheel!