

# E70 Heated Steering Retrofit

## • Warnings

- **Disconnect Battery before removing airbag**
- **Keep the battery disconnected during the retrofit**
- **Important – When you are finished, connect the airbag before you reconnect the battery.**
- **All the usual disclaimers apply. If you mess up your car I cannot be responsible**
- **Do not fiddle or turn the steering angle sensor or the coil spring (locked in center by tab under red cover – released on steering install)**

## • Things you will need.

1. A complete Heated Steering that works with the E70. Search Real OEM, Ebay or dealer. Part numbers and prices will vary.
2. A coil spring cartridge – 61319122381 (double check with Real OEM using you VIN) \$130
3. (3) socket contact PN 61131393724. Buy more than 3 just in case one gets damaged.
4. The **E71** uses a different cartridge PN (61319179522). I did not attempt the retrofit on the E71 but I assume it should be similar.
5. The connector that plugs into your new coil spring cartridge PN 61136954518 (\$6)
6. Soldering kit
7. Heat shrink
8. Optional SPST 12V automotive relay (if you want to get the power from the front fuse Box (F12). More on that later.
9. Plastic trim removal tool set (\$10)
10. 16- 18 AWG wire
11. 10 Amp inline fuse with holder

Steering must have module



Complete heated steering with heat control module and controls

The controls can be procured afterwards



Heat control module. Steering with either white or black Module should work. PN 9217867-02 if you must know

Good luck trying to find the heat control module separately

Power connector for your new heated steering



New coil spring cartridge With power harness

Real Pain in the #@# To get the PN of this connector



12 pin connector plugged into New coil spring. Old coil spring Has a 6 pin.

# E70 Heated Steering Retrofit

- Steps

1. Adjust your steering wheel to the fully extended (towards the driver) and center it vertically
2. Disconnect battery **then** remove airbag. Plenty of DIYs to remove airbag. If you need help with this let me know.
3. Remove steering wheel. Plenty of DIYs. Basically remove the plugs from the coil spring and the 16mm bolt at the center. **Please ensure the front wheels and steering wheel are straight before removal.**
4. Remove the upper and lower trim. Search for other DIYs.
5. Remove lower kick panel

Pry hard with plastic trim tool



Tabs holding trim



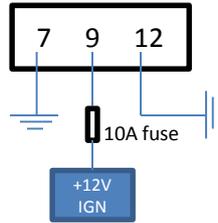
Remove kick panel

Remove lower trim. Carefully observe all the tabs that hold it in place

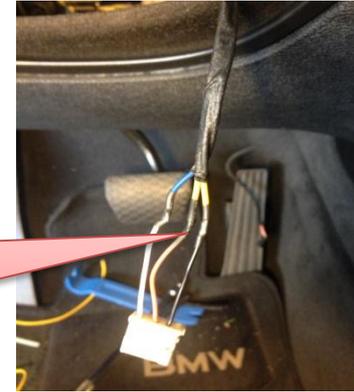
# E70 Heated Steering Retrofit

- Steps

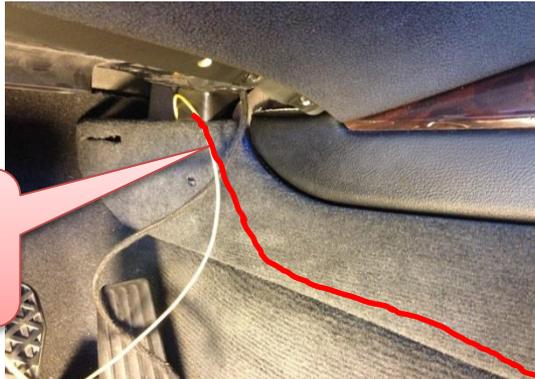
Pin 12 goes to the climate control but needs coding and further research. Not a show stopper for now Just ground it – will not work without grounding



Pin 7, 9, 12. Harness Solder connection to smaller wires to fit in connector

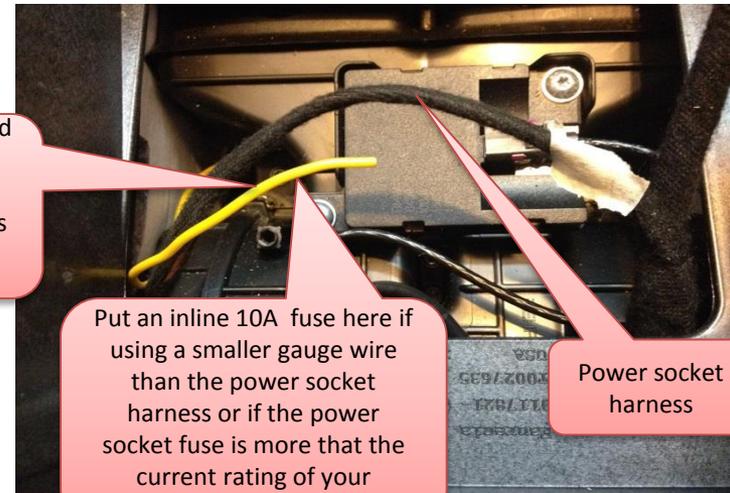


6. Prepare 12 pin connector with 3 inch 20 - 22 AWG wires to pins 7, 9, 12
7. Use a pliers to crimp the wires to the socket contact and follow up by soldering them
8. Solder the 20 – 22 AWG wire to the 16 – 18 AWG harness
9. 16 - 18 AWG Harness need to be long enough to get to center console power socket
10. Remove center console. There is a good DIY on you tube. **Do Not remove console around front ashtray area, PITA to re-install.**
11. Route harness as shown



Tuck harness under trim in red and run to center console area

Center console and gear shifter removed. Yellow wire is my harness to the 12 pin connector



Put an inline 10A fuse here if using a smaller gauge wire than the power socket harness or if the power socket fuse is more than the current rating of your harness wires

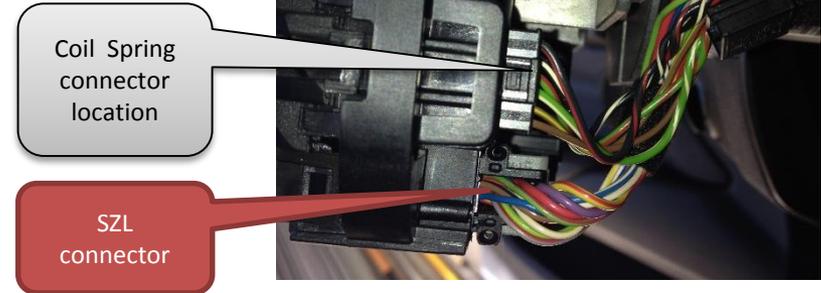
Power socket harness

12. Splice into the center console power socket harness shown above. Brown is ground and the other color is a +12V ignition. Be mindful of plugging in your laptop (high power device) while using the heated steering. The heated steering takes about 6 amps so you will have 4 amps or about 50 watts left at this socket with the heat on. You can opt to use a relay and F12 in the front fuse box to keep the 10 amps in your center console socket. More on that later.

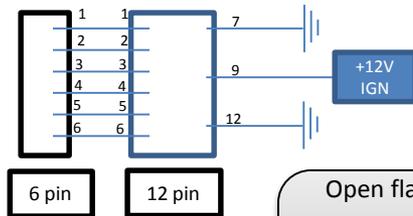
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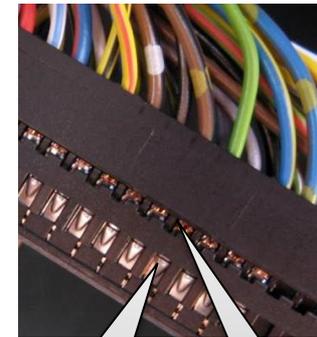
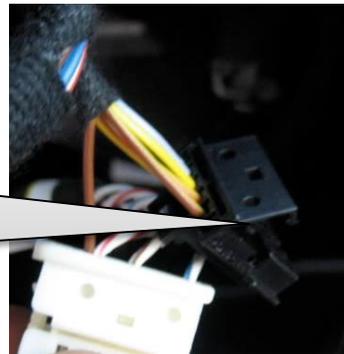
13. Now you have the power wired to the 12 pin connector at the steering column.
14. Unplug the existing 6 pin connector that plugs into your clock spring.
15. Do not unplug the cam lock connector to the SZL module



16. Transfer the pins to the 12 pin connector. It's a one to one connection. These are your horn and airbag connections. Look at the connector numbering carefully and get them right and secure!



Open flap and remove pins from 6 pin connector: transfer to 12 pin connector



Example: After opening connector flap, push this tab first and pull on wire

Example: Push again on tab here to remove pin

17. Insert the contacts all the way until it clicks securely. Close the flaps

# E70 Heated Steering Retrofit

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18. Remove the coil spring cartridge.

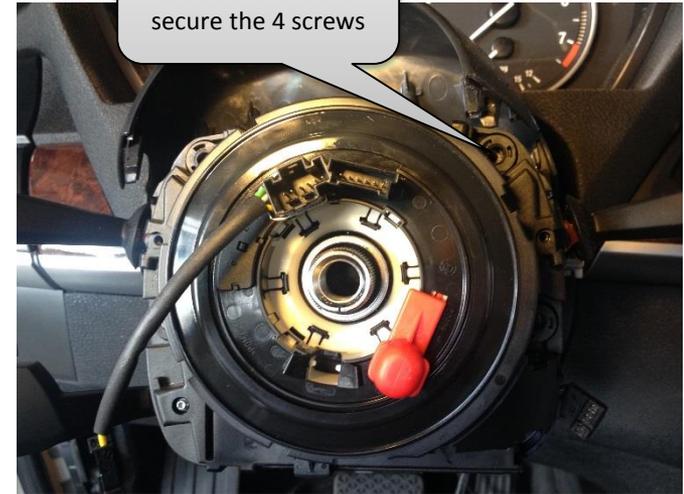
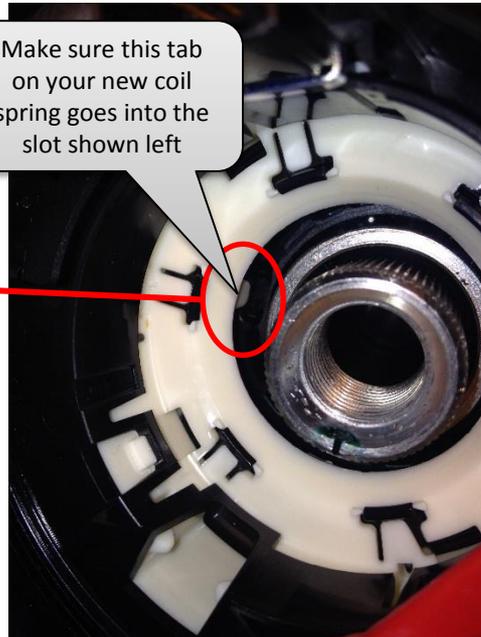
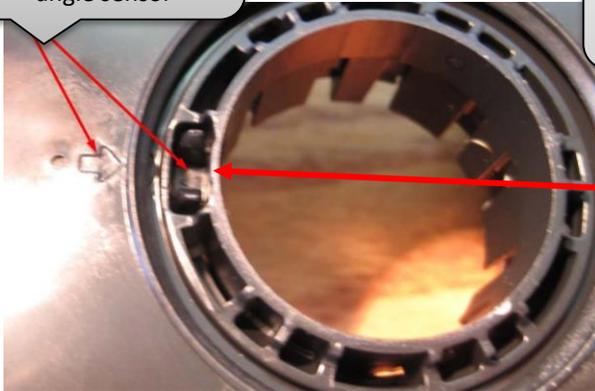


19. Install the new coil spring cartridge

Make sure the arrows are aligned on the steering angle sensor

Make sure this tab on your new coil spring goes into the slot shown left

Double check the tab to the left and secure the 4 screws



# E70 Heated Steering Retrofit

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20. Connect the 12 pin connector with all the transferred wires and power harness to your new coil spring.

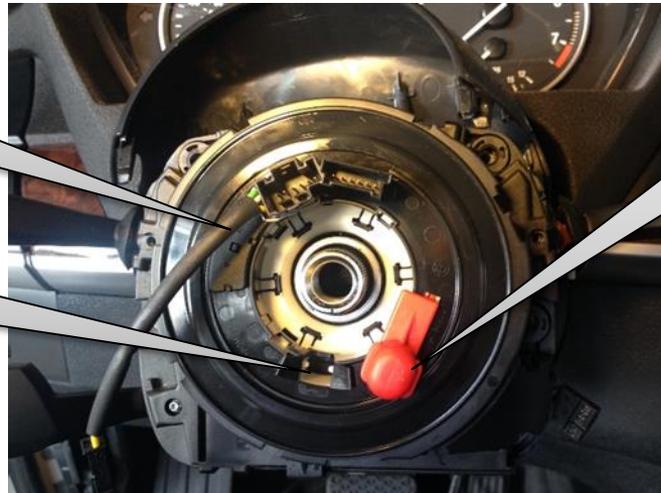


Plug 12 pin connector into coil spring

Zip tie new power harness to existing steering column harness. **Be mindful that the steering extends and contracts so leave some slack**

21. Reinstall lower steering column to tabs on column. Next the upper trim. They snap together like a clamshell.

22. Break red tab on coil spring and install steering wheel. I think the torque on the 16 mm bolt is 46 ft/lb but search to be sure.



**Route this harness into the steering wheel**

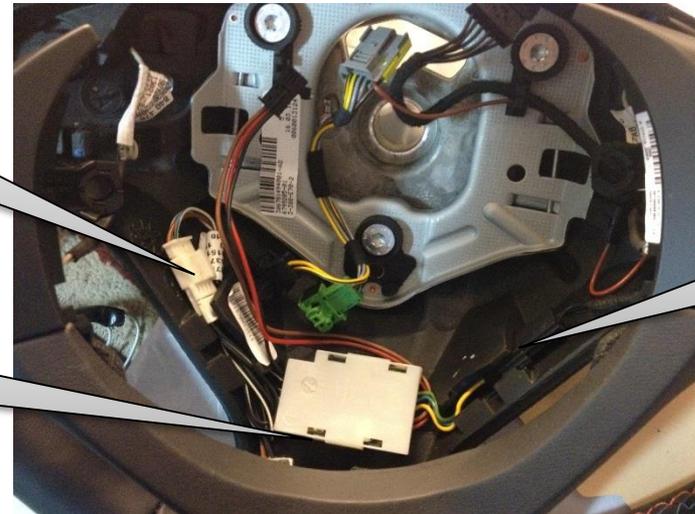
Tab on the back of the steering wheel goes into this slot

Break red tab

# E70 Heated Steering Retrofit

- Steps

23. Plug in all connections in the steering

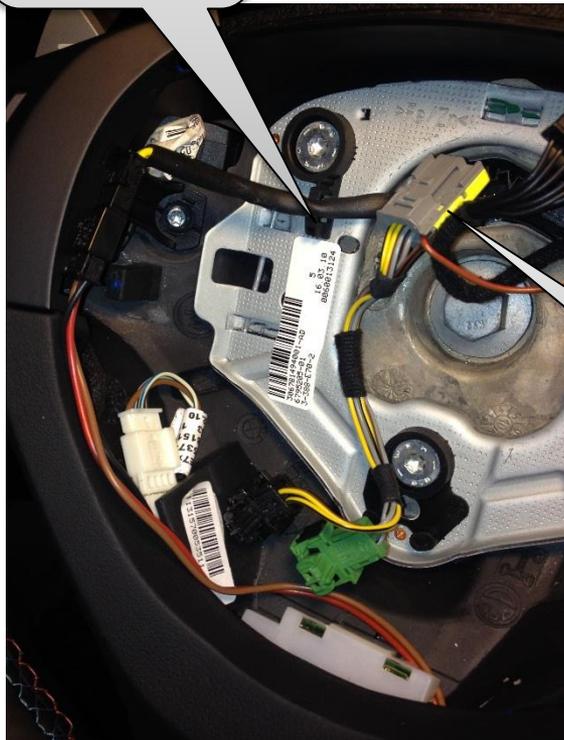


Connect module to steering heater

Connect heater module to steering wheel control

Push heat control module into slots

Route power harness and connect to module.

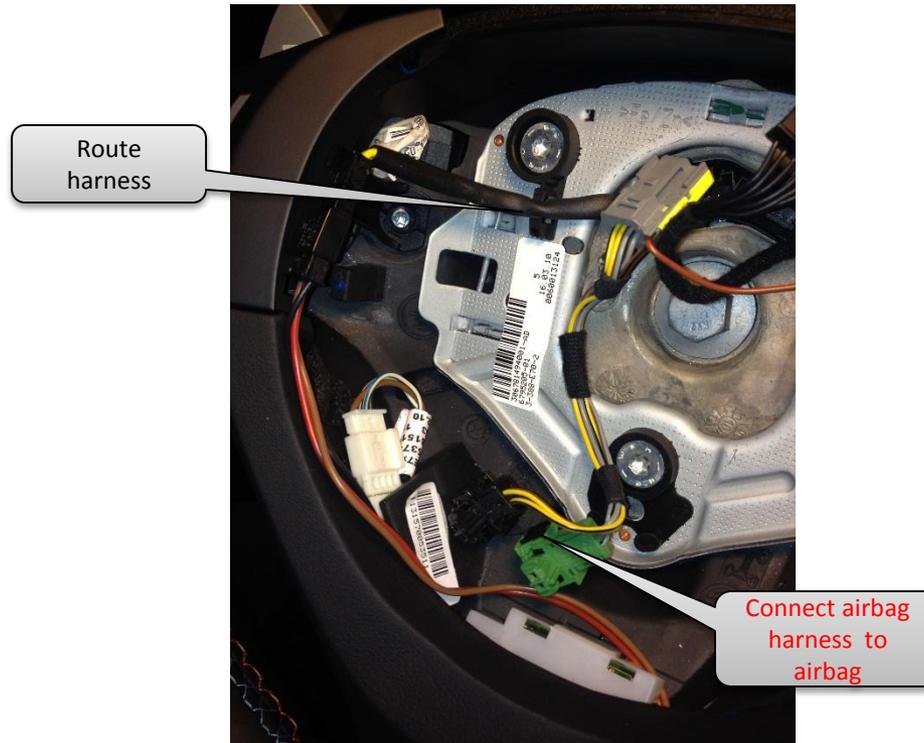


Connect multifunction connector

Connect airbag harness

# E70 Heated Steering Retrofit

- Steps
  24. Plug in airbag and install airbag by pushing down



# E70 Heated Steering Retrofit

- Steps

25. Plug in airbag and install airbag by pushing down. **Make sure your airbag is connected both to the coil spring and the bag itself!**
26. Connect your battery, switch the ignition on and test out your heated steering.
27. **Switch the ignition off and make sure the heated steering powers down.**



Connect airbag  
harness to  
airbag

# E70 Heated Steering Retrofit

- Alternate Power and control (OEM schematic connections)
- Will try to code the climate control and try this in the future. For now use the prior procedure

