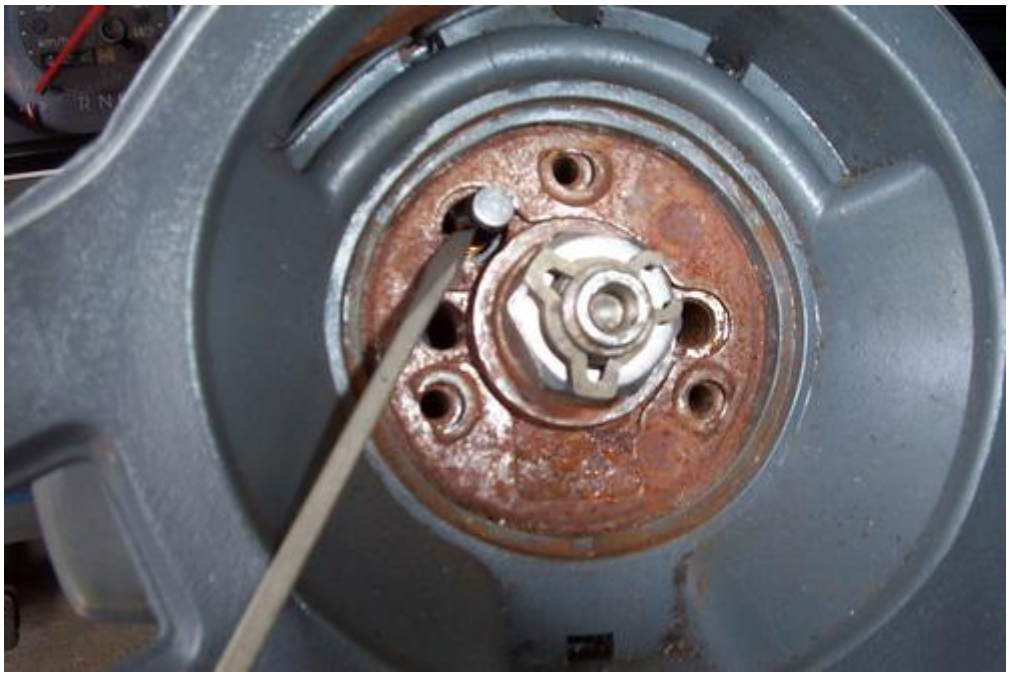
This is the correct and preferred method for performing this repair for a very common problem. This will also work on many GM Tilt Steering columns.

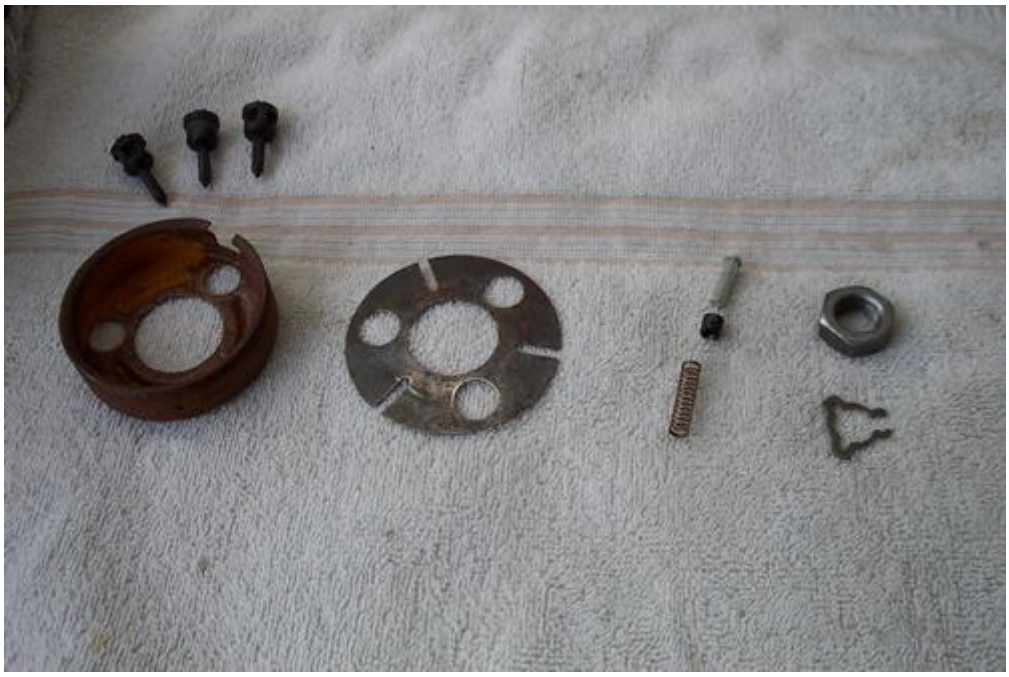
Our example car is my own 1987 El Camino SS, your steering wheel may vary is style, but the method remains true.
Tools needed are:
Phillips screwdriver #1
Phillips screwdriver#2..
Small flat blade screwdriver.
Ratchet.
13/16 socket.
Small brass hammer.
Small picks.
Needle nose pliers.
Torx bit #20
Torx bit #30
Inverted Torx bit #E8
7mm socket.
1/4 socket.
Small chisel.
Modifed, (ground down) 1/4 socket driver.
Steering wheel puller.
Lock plate remover/installer.
Pivit pin remover.
Locktite thread locker.
Wheel bearing grease.

Let's begin by removing the horn button, horn contact assembly and the horn lead assembly.



Remove next the steering wheel nut retaining ring, and then the nut.

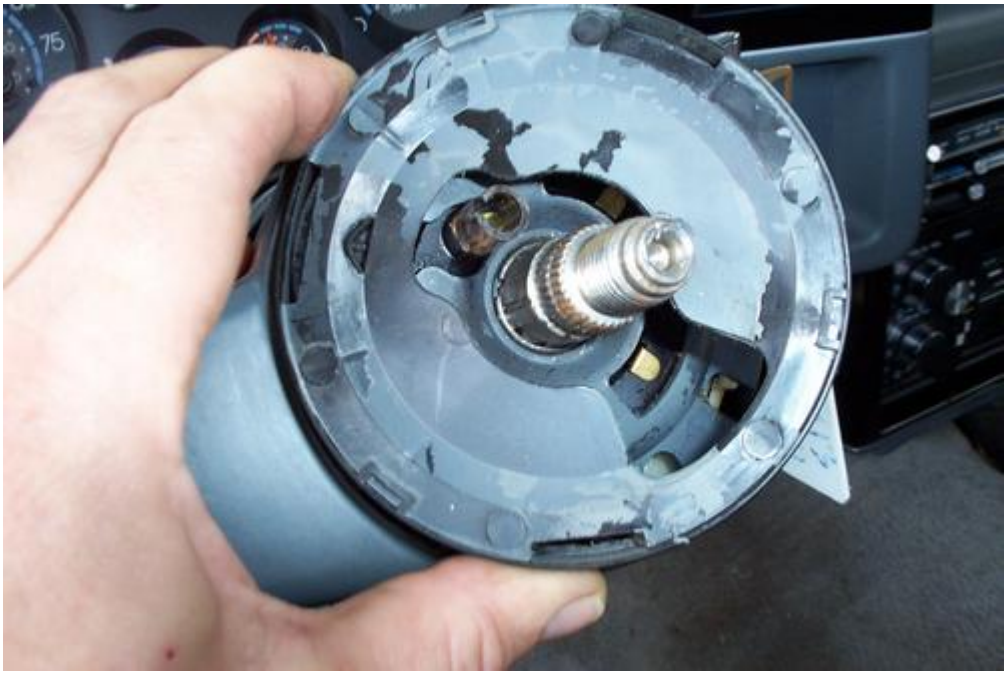
You should have a pile of these parts by now:

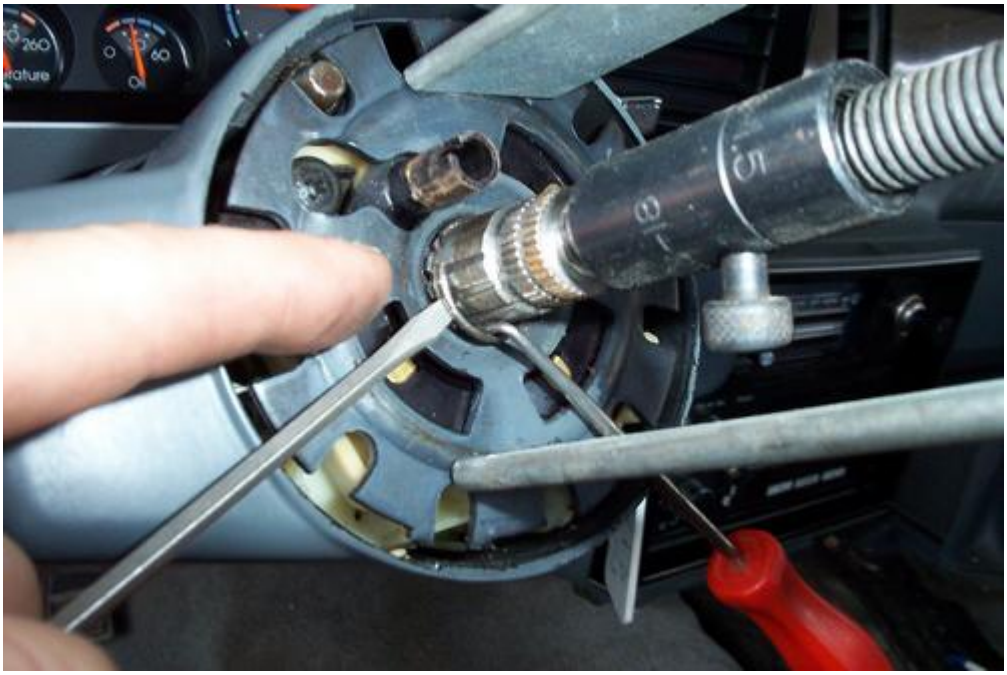


If your wheel and shaft do not have corresponding alignment marks, (mine did not,) use a chisel or similar tool to mark them for proper alignment upon re-assembly.

Using a steering wheel puller or crankshaft puller, remove the steering wheel.

Next, remove the lock plate dust cover. And using a lock plate removal tool, depress the lock plate just enough to expose the locking ring, (careful not to war the lock plate.) I usually use a small flat blade screwdriver and a small pick to easily remove the locking ring.





Once you have removed the lock plate assembly, you may now remove the turn signal canceling cam and upper steering column shaft bearing spring.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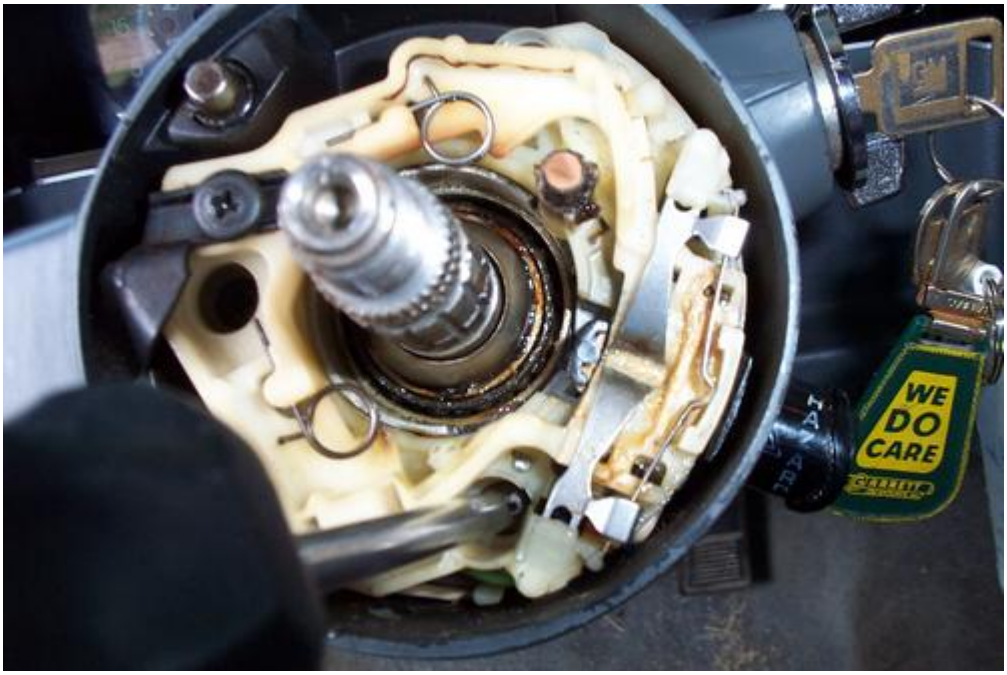
Remove the turn signal switch actuating arm, hazard warning switch button, and the three screws securing the turn signal switch to the upper bowl assembly.

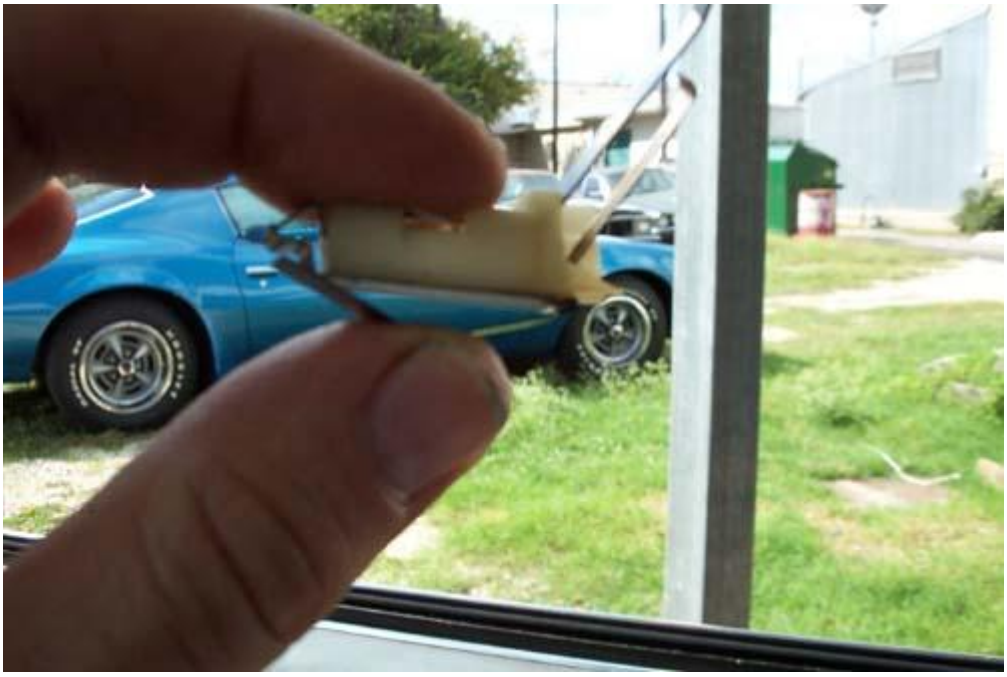


Grab the turn signal lever/cruise control switch and pull it straight out of the windshield wiper switch.

Next, we will remove the drivers hush panel, and lower steering column cover. Locate and unplug the turn signal switch and wiper switch electrical connectors.

Pull the turn signal switch and wiring towards the back of the car as far as it will go, (do not worry, it will pull out far enough to do the fix,) there is no need to remove the lower steering column support bracket. Let the switch hang free.

Remove the key-in ignition warning buzzer switch and spring.



Using a number 20 Torx bit, remove the lock cylinder retaining screw, and pull the lock cylinder straight out.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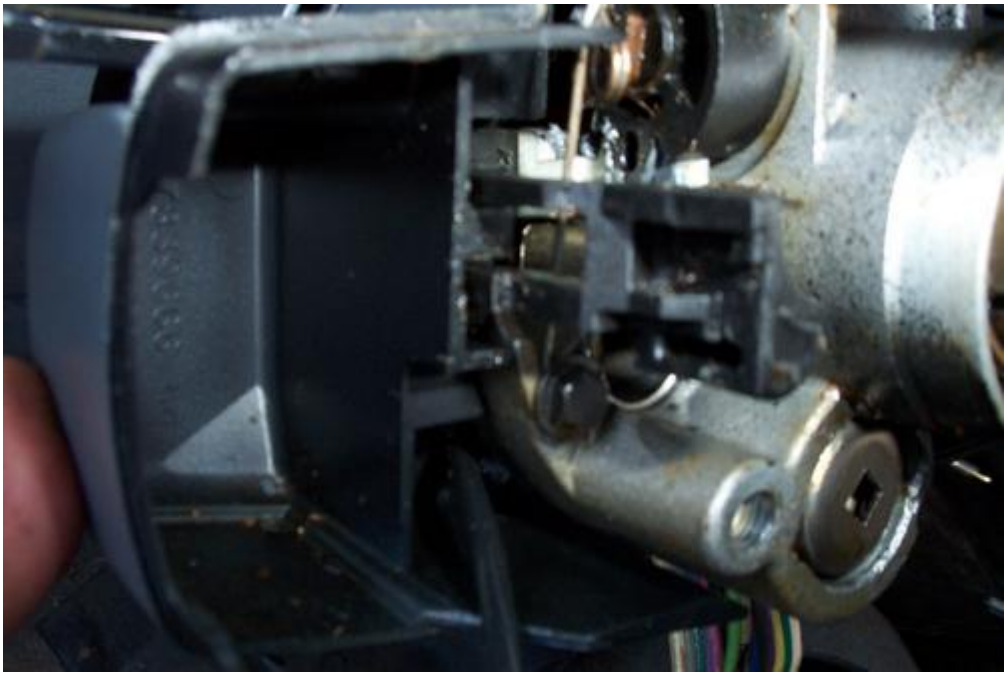
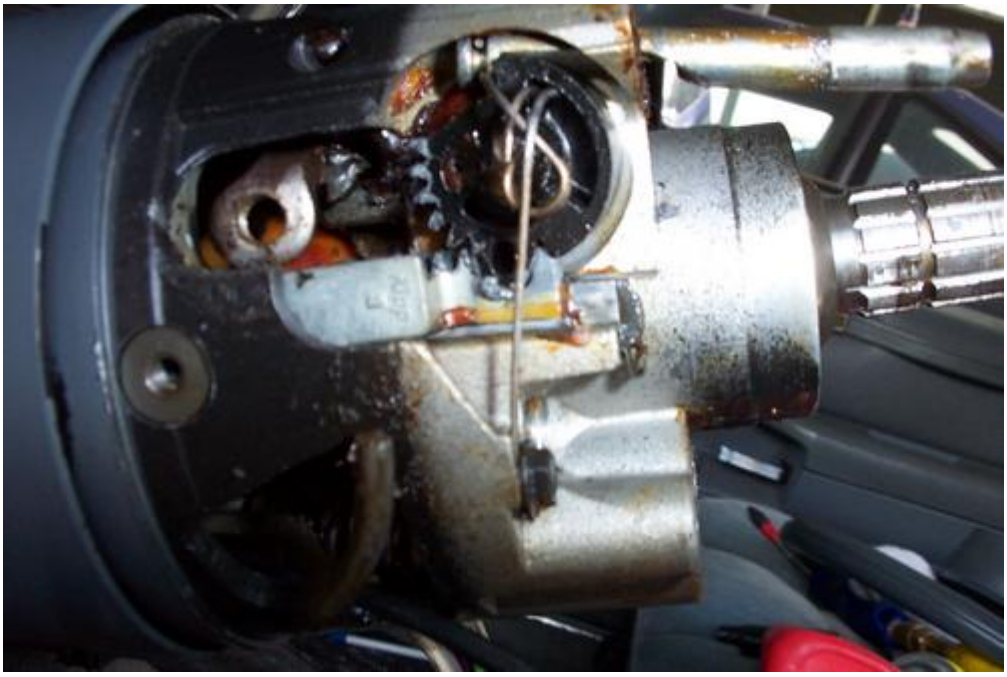
Remove the three screws securing the lock cylinder upper bowl assembly using a number 30 Torx bit.

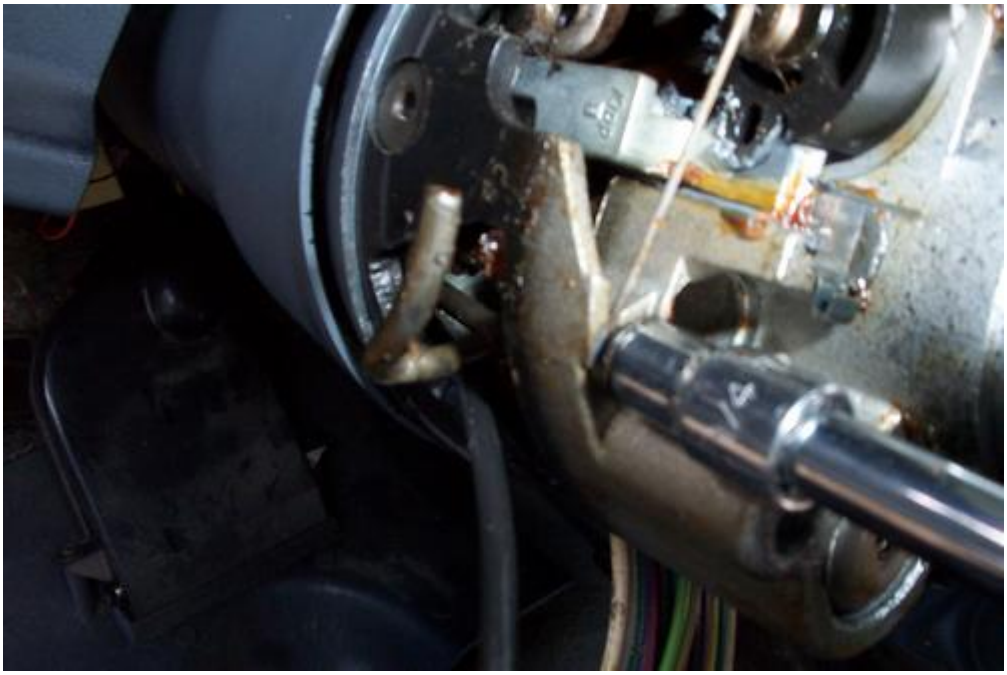
Pull the upper bowl assembly back while pulling on the wiper switch wiring and let hang free.

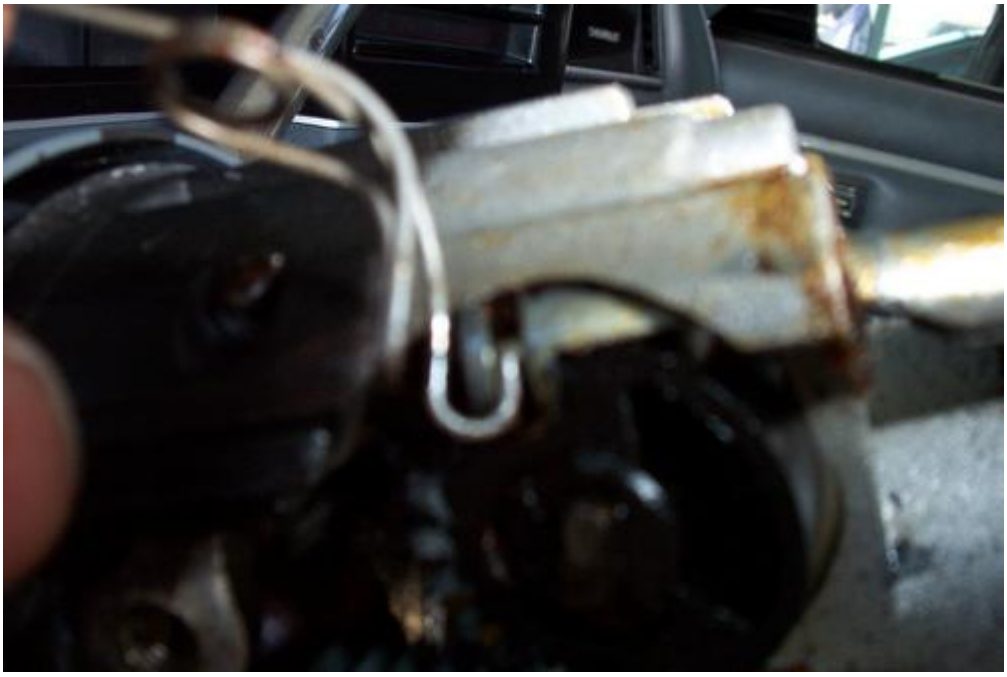
Unscrew the tilt lever, and remove the dimmer switch actuator rod and sector cover housing.



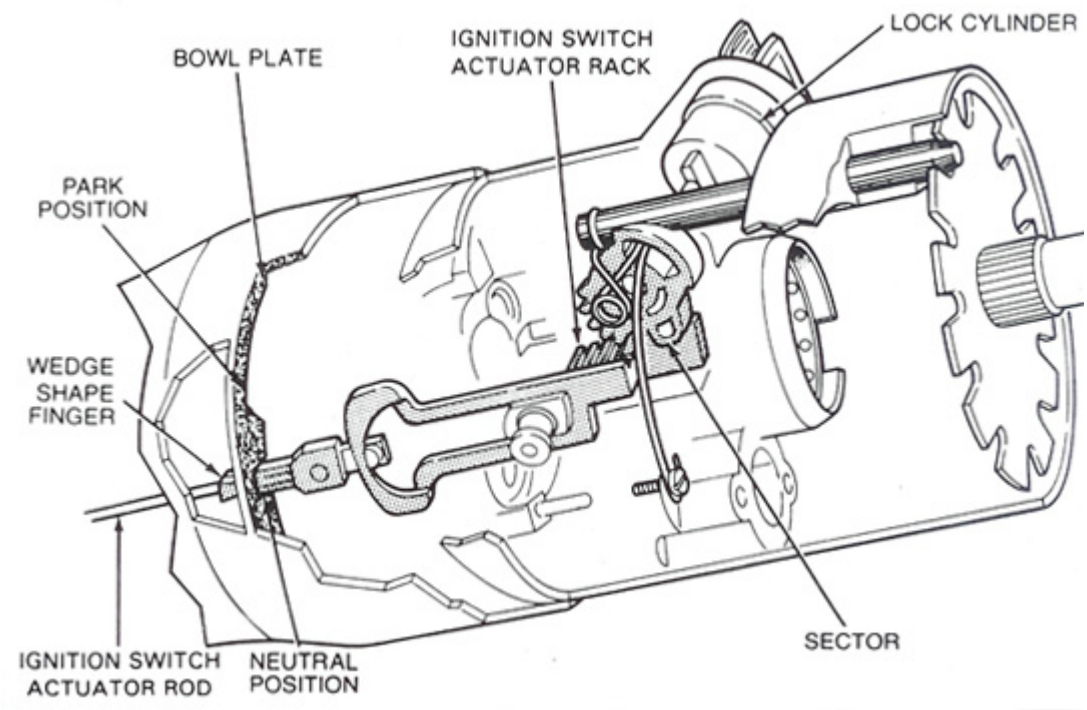


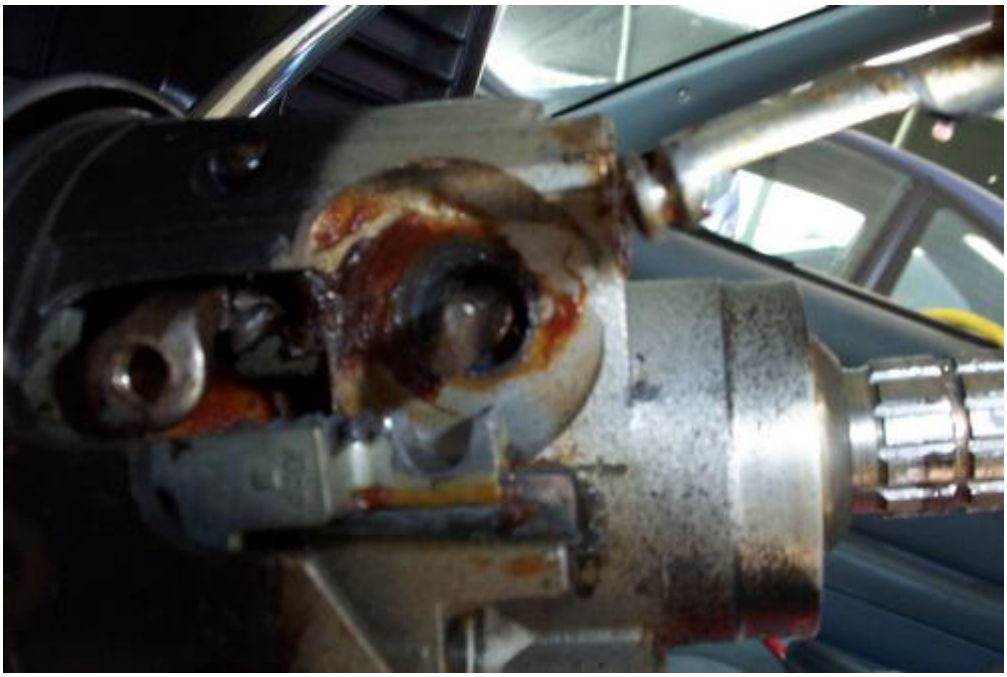
Next, using a 1/4 socket, remove the screw securing the shaft lock bolt spring. Unhook the spring from the shaft lock bolt and remove spring and bolt.



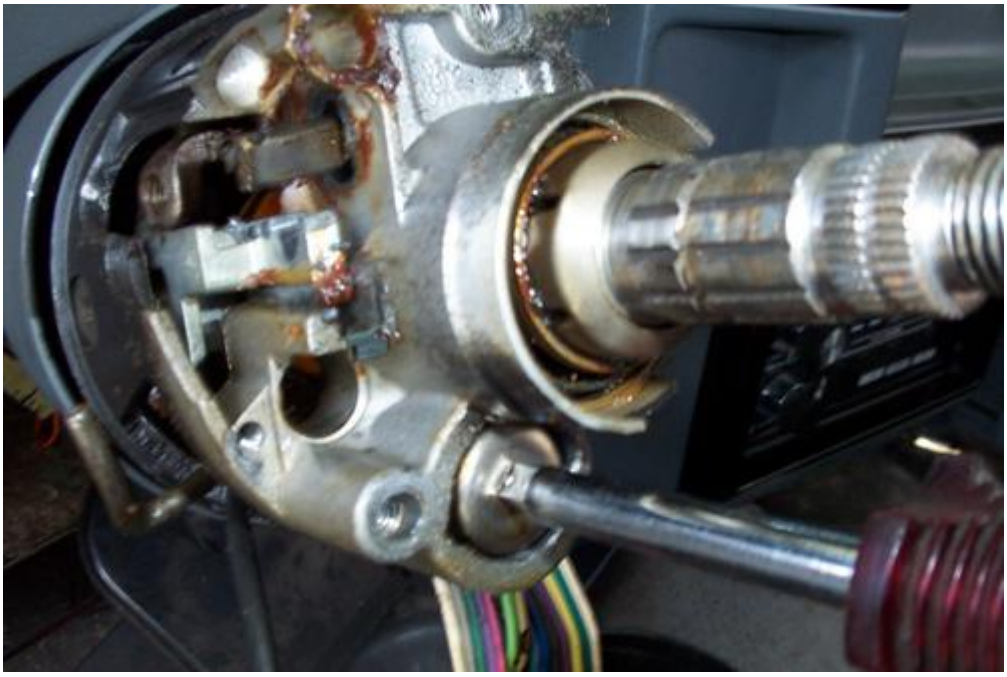


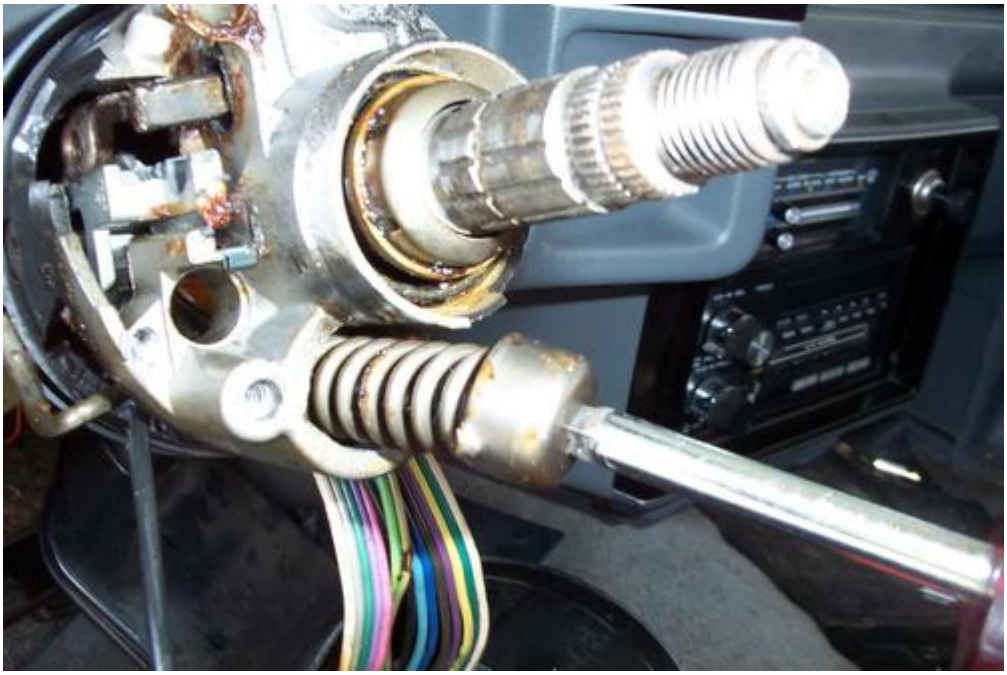
Pay particularly close attention to the lock bolt, spring, ignition rack and sector positions for re-assembly. An exploded view is given below for reference.





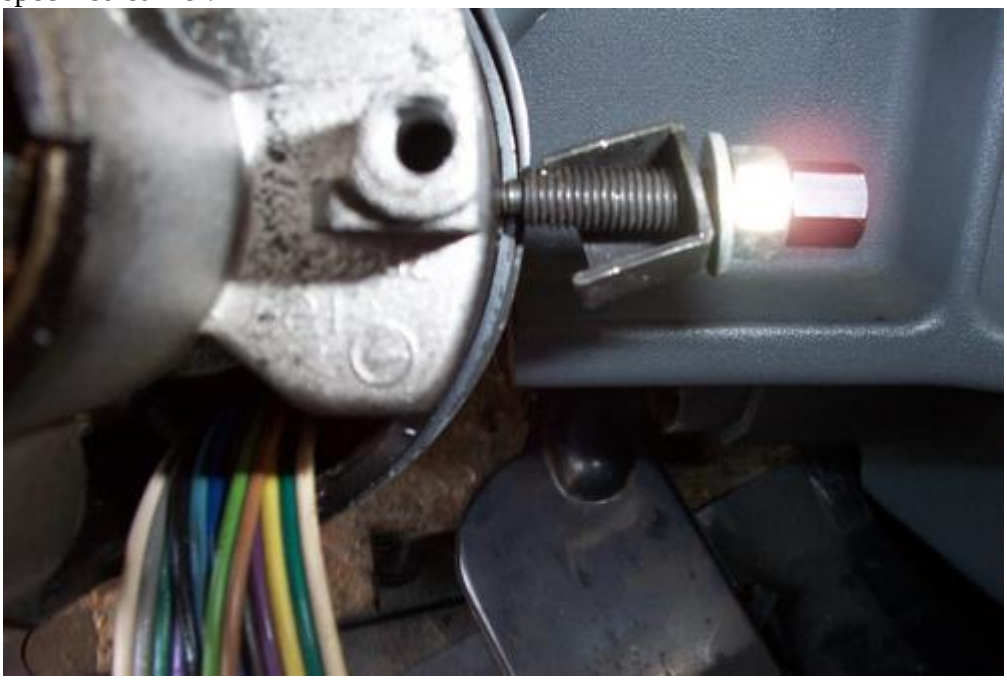
Once you have these parts removed, using the modified tool, (or flat blade screwdriver,) push the tilt wheel spring retainer in and turn counter-clockwise and remove spring, retainer and spring guide.



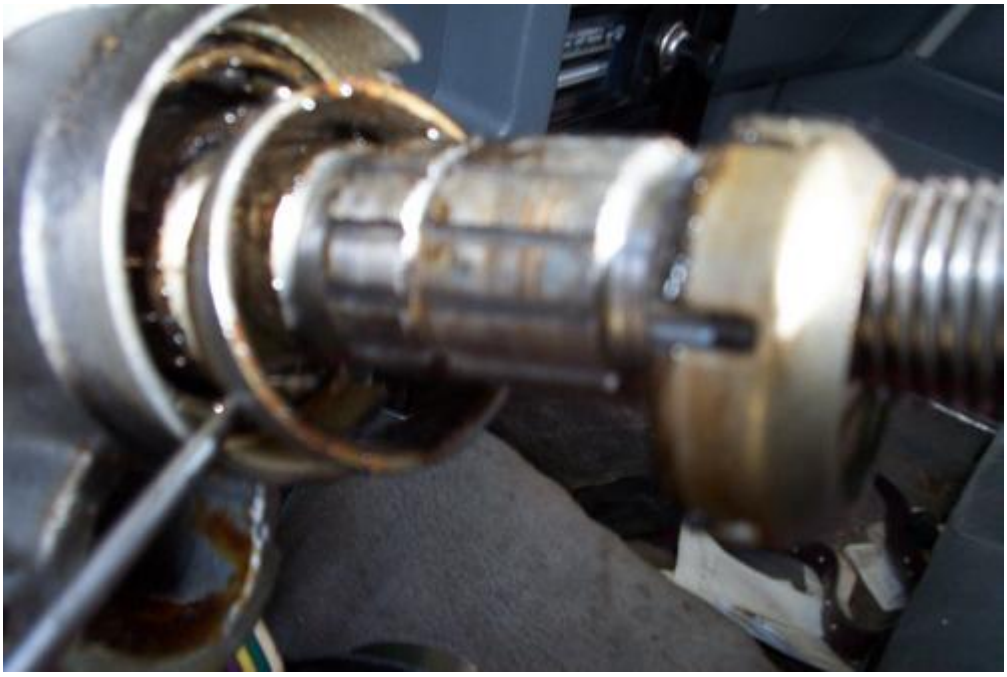


You may probably see two of the housing support screws by now.

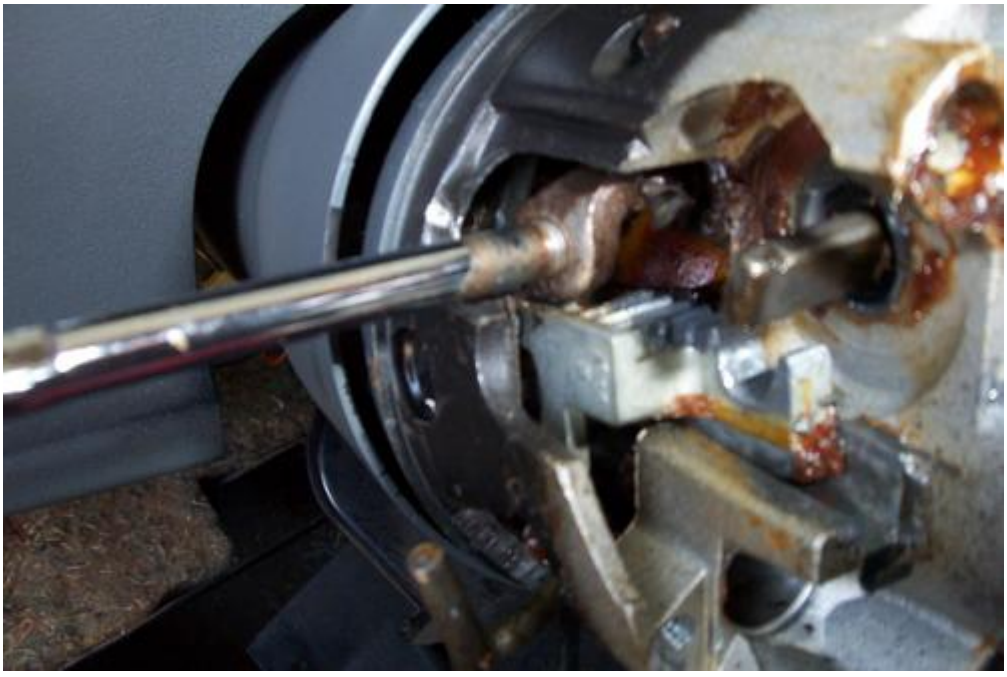
However, to do the job correctly, you will need to expose and tighten the third and fourth screws. The reason is simple...they are loose, (that's why we're here doing this repair in the first place,) and will eventually fall into the tilt steering sphere assembly and bind your steering. A BIG NO-NO. I have seen this all too often and have fired more than one mechanic for only tightening two of the four. Any job worth doing is worth doing right! Next, we'll need to remove the column housing by removing the two pivot pins using the pivot pin removal tool
specified earlier.



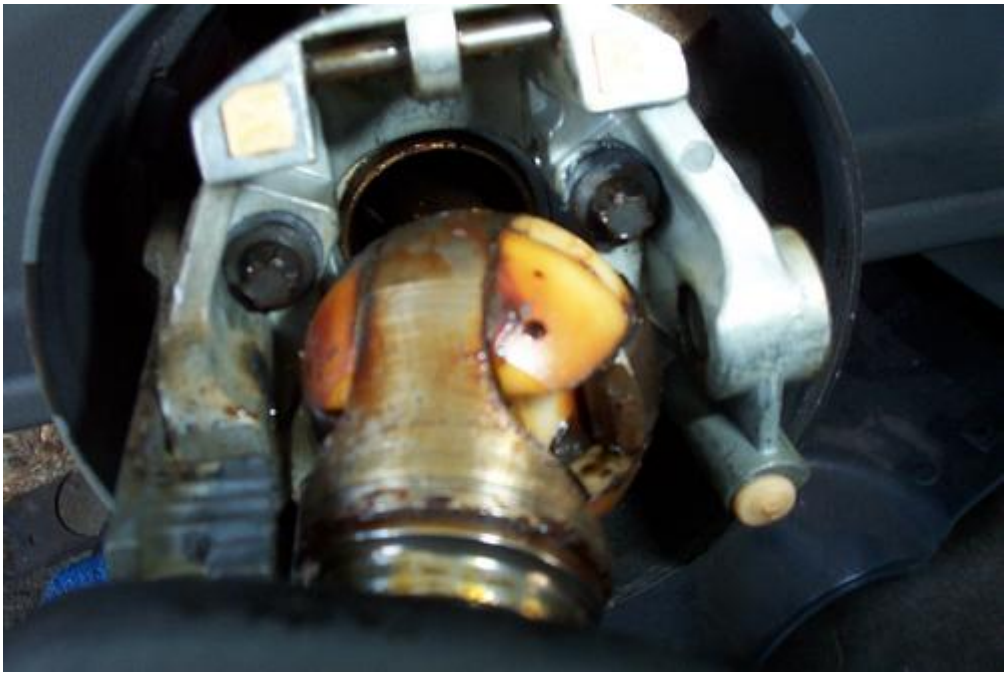
Once the pins are removed, remove the upper steering shaft bearing race and retainer.



Reinsert the tilt lever and pull toward you to unlock the housing assembly from the shoe assembly and pull the housing back and away. Remove the tilt lever again.



Now, all four screws are accessible.



Remove each screw one at a time, clean the threads, apply a dab of threadlocker. Reinstall each screw and tighten

We really have a big pile of parts to clean up before reassembly. I usually use a can of spray brake-clean and a rag to clean the parts.

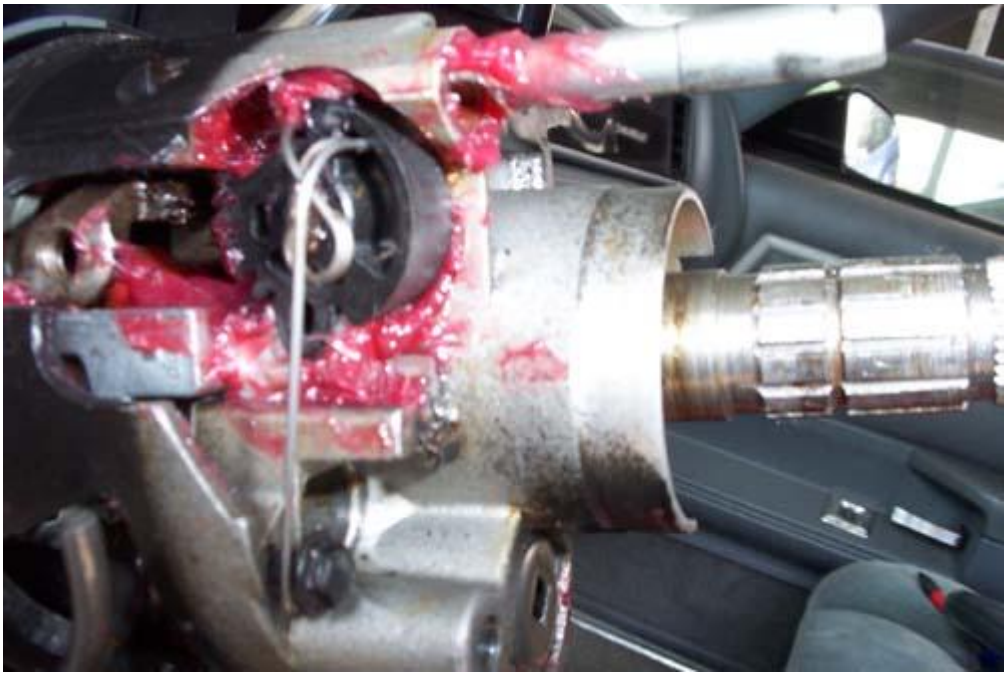
Now, we're ready to re-assemble the steering column. Before putting anything back together, it's a good idea to coat your parts with wheel bearing grease. The reason is two-fold: the first, because it needs it, and the second, because it holds everything in place during assembly.

Install the ignition rack, (making sure that you have attached it back to the ignition switch actuator rod) then reinstall the tilt lever and work the column housing back into place. Once you have the housing installed, line up the pivot pin holes and reinsert the pins using a small brass hammer.

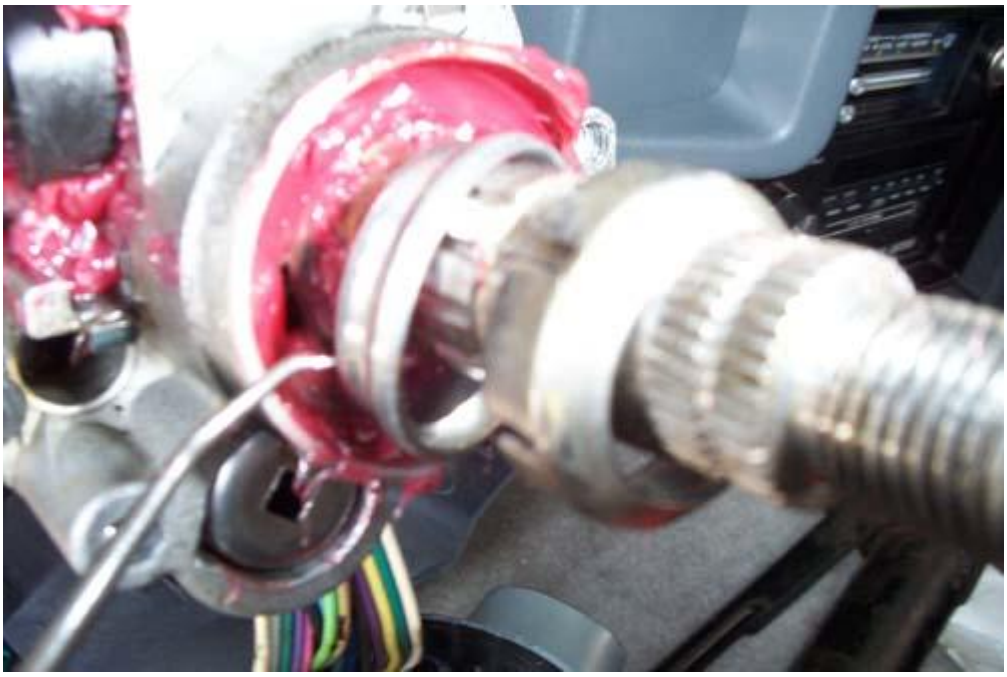
Also, you may have to line up your dimmer switch actuating rod with the dimmer switch.

Next, reinstall the tilt wheel spring guide, spring and retainer using your modified tool, or flat blade driver and depress and turn clock-wise.

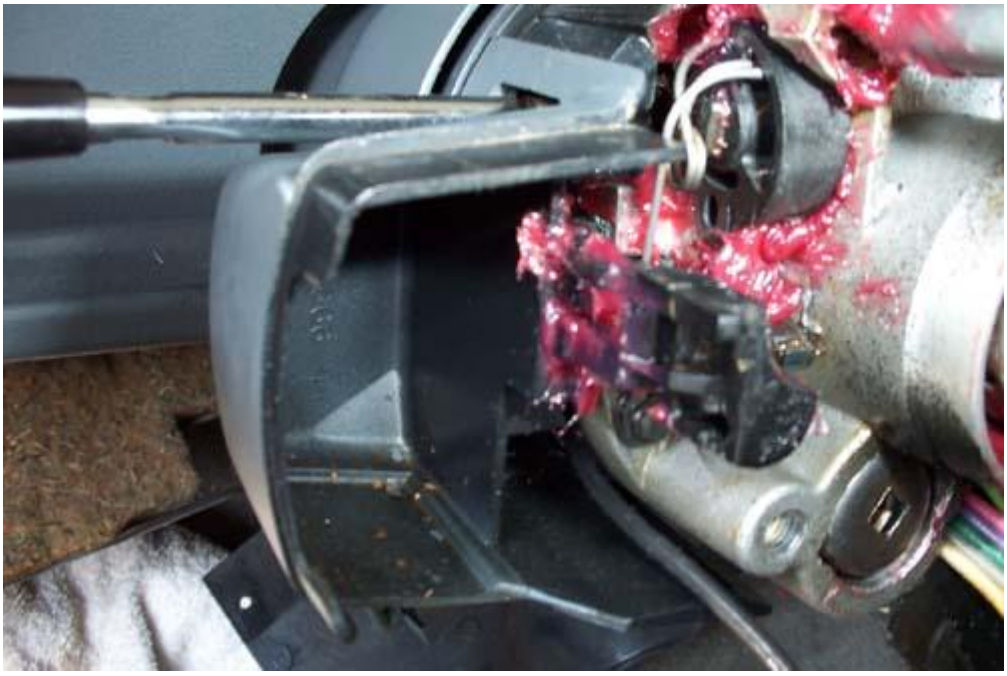
Using the explode view as a guide, reinstall the ignition switch sector, lock plate bolt and spring.



Reinstall the upper shaft bearing race and retainer.



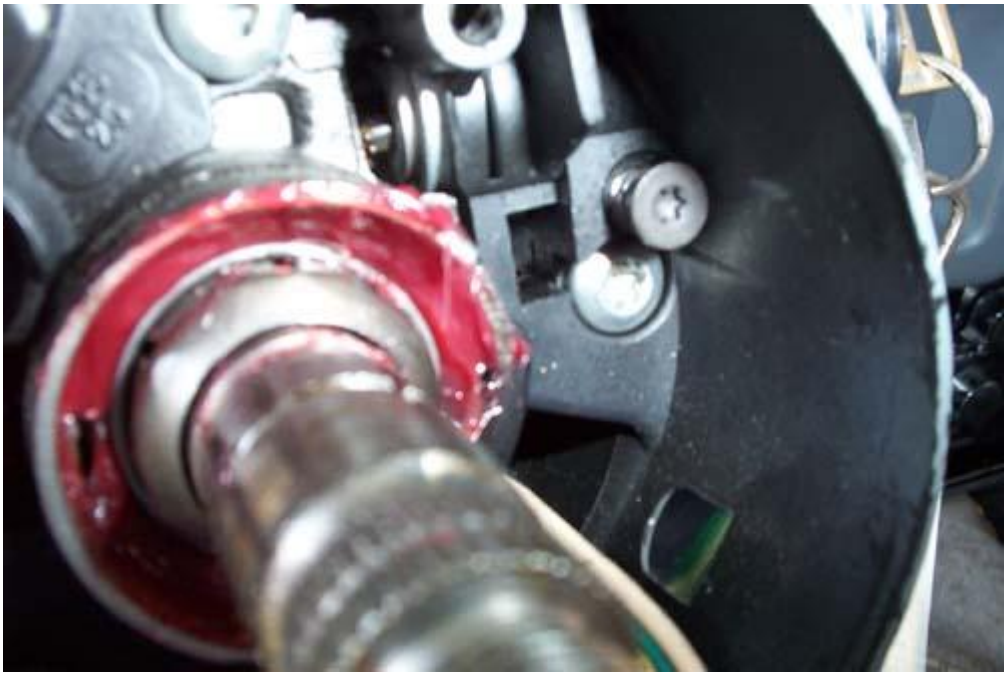
Reinstall the dimmer switch actuator rod cover housing making sure the rod and actuator are aligned.



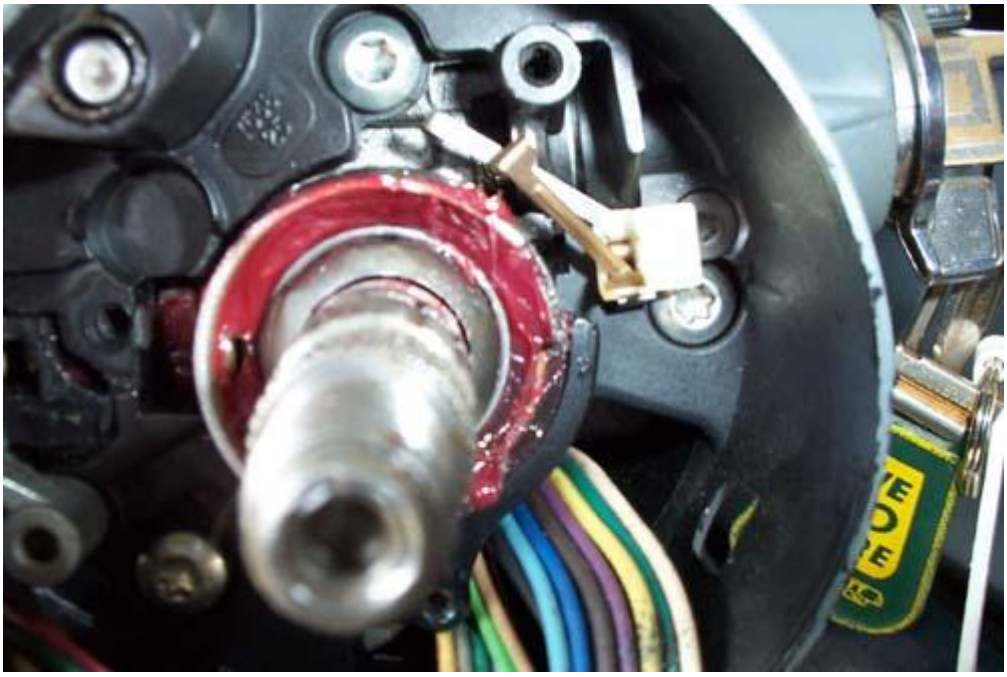
Next, reinstall the upper column housing and tighten the three screws.

Now it's time to insert the ignition lock cylinder and confirm that it is installed and working properly before proceeding.

If it works, install the retaining screw.

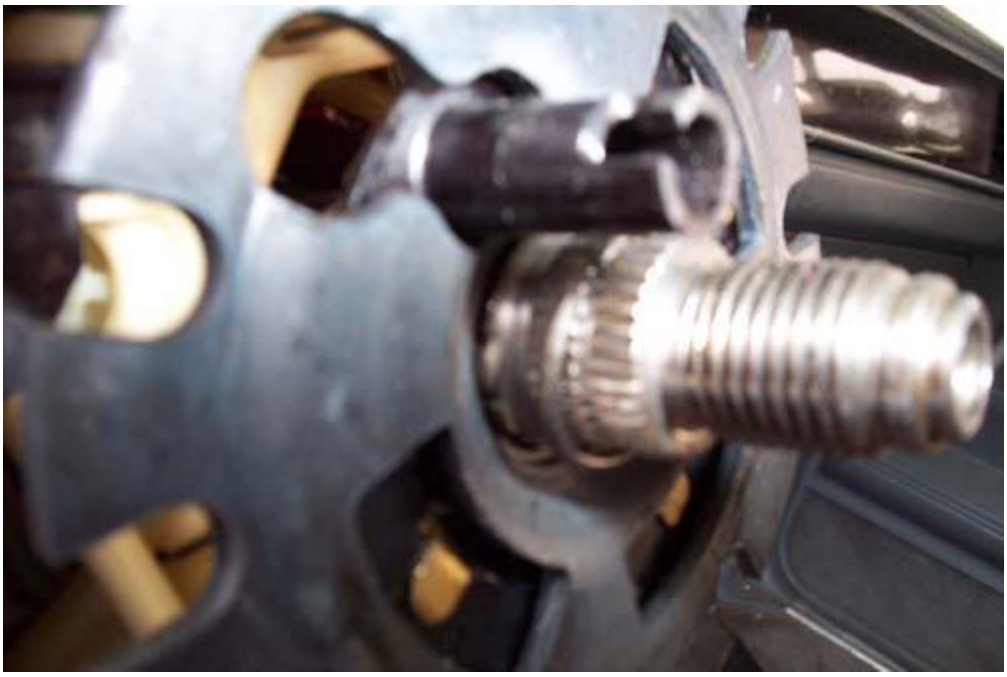


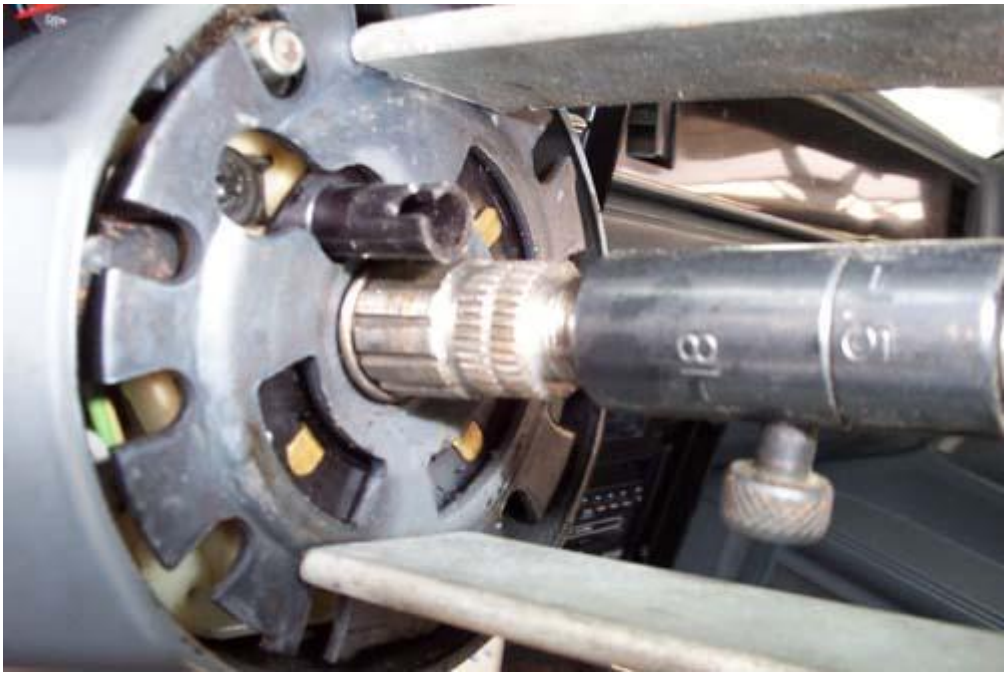
Now, using a small pick or screwdriver, locate the little plastic tab on the bottom of the lock cylinder and push it upward to install the key-in ignition warning buzzer switch and spring.

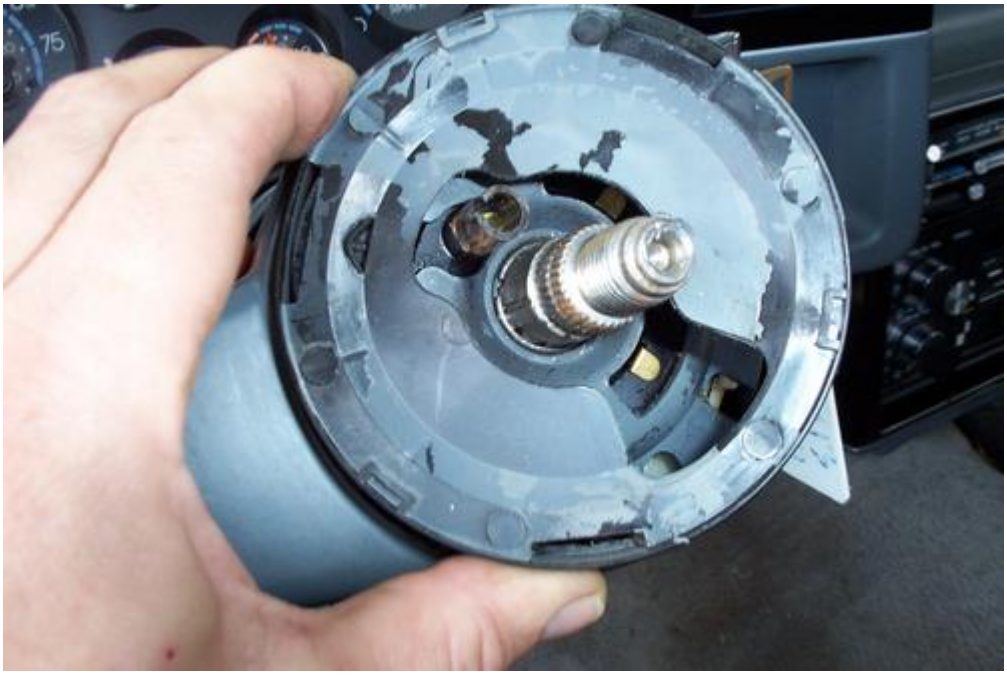


Install the turn signal switch, switch actuator and hazard button and cruise switch lever.

Install the lock plate using the lock plate tool and replace the retaining ring and dust cover.







I usually use sand paper and clean the horn assembly before reinstalling the steering wheel, nut, ring and button.