



www.OdometerGears.com

Crown Victoria and Town Car Fascia Panel Removal and Odometer Repair

Submitted by no0c / 09-08-06

<http://www.lincolnonline.com/tech/00176.html>

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Please read the first few steps carefully as these are our most common questions we receive after a client has performed a repair and the odometer still does not work.

The reason the original gear or gears have failed is that they are made of urethane and lubricated with petroleum grease. This combination breaks down the urethane into a waxy substance which flakes and breaks away. This will also leave a waxy film and deposits on the shafts, gears, housing and peg on the pods.

** Work smart, meaning have a clean area to work and the proper tools to perform the repair. General tools that will be needed depending on the vehicle are small standard screwdriver, small Phillips screwdriver, assortment of torx drivers, diagonal cutters (dikes), 1/4" socket set are just a few of the items that may be needed.*

** No grease is needed with the new gears. Our gears are made using Celcon® which has graphite mixed into the material and does not require any additional lubricant.*

**** Make sure that you have blown the speedometer and odometer assembly clean with high pressure compressed air. Even if you think that you have found all of the broken pieces you still need to perform this step.***

**** Wipe the area around the gears, any shaft or shafts that the gears may ride on, the motor shaft and the peg on the pod that the small gear spins on clean, using a clean cloth and rubbing alcohol. Any residue left over from the old gears can allow the new gears to stick and not allow the odometer to work.***

**** Use a small screw driver to remove all of the old gear and residue in the drive gear cradles. Once you have the bulk of the debris removed use a few cotton swabs to thoroughly clean the cradles.***

Introduction

There are several reasons you may need to remove the instrument fascia panel – to replace the main light switch illuminating bulb, access the passenger’s air bag, to repair the EATC controls or repair your odometer.

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Safety First

Remove negative battery cable, set parking brake, chock wheels.

Let's Get Started

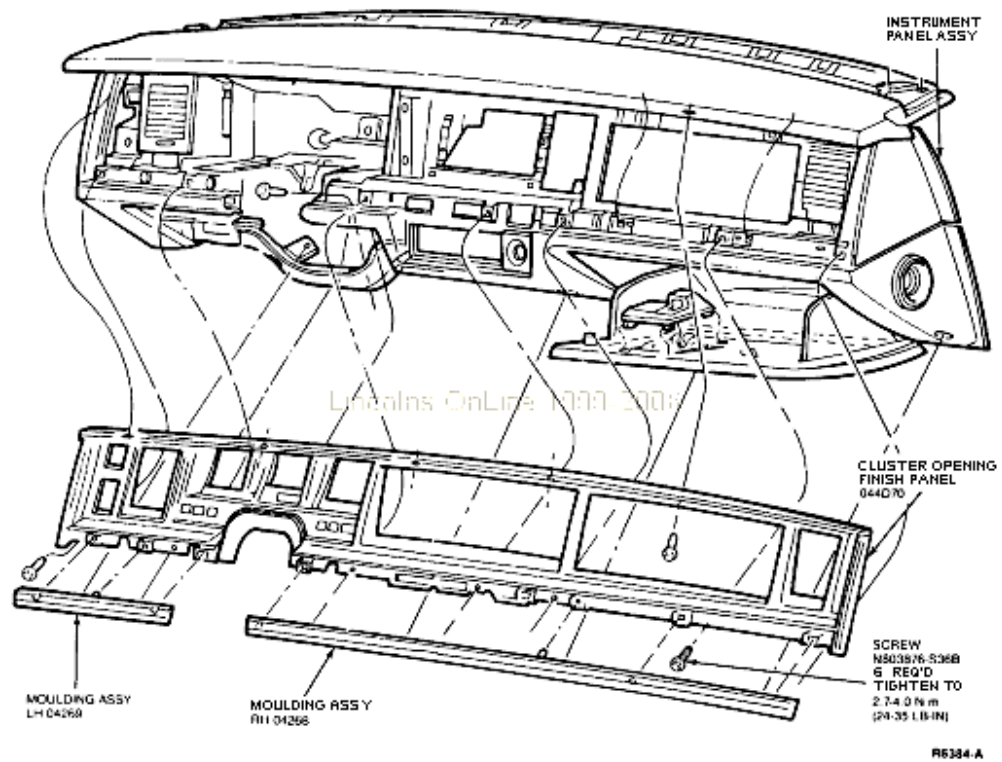
The fascia panel removal is easily accomplished by removing:

- The headlamp switch knob (depress locking clip behind the knob and pull)
- Instrument panel dimmer knob (Just pull)
- The auto dimmer rheostat slider knob (another gentle pull)



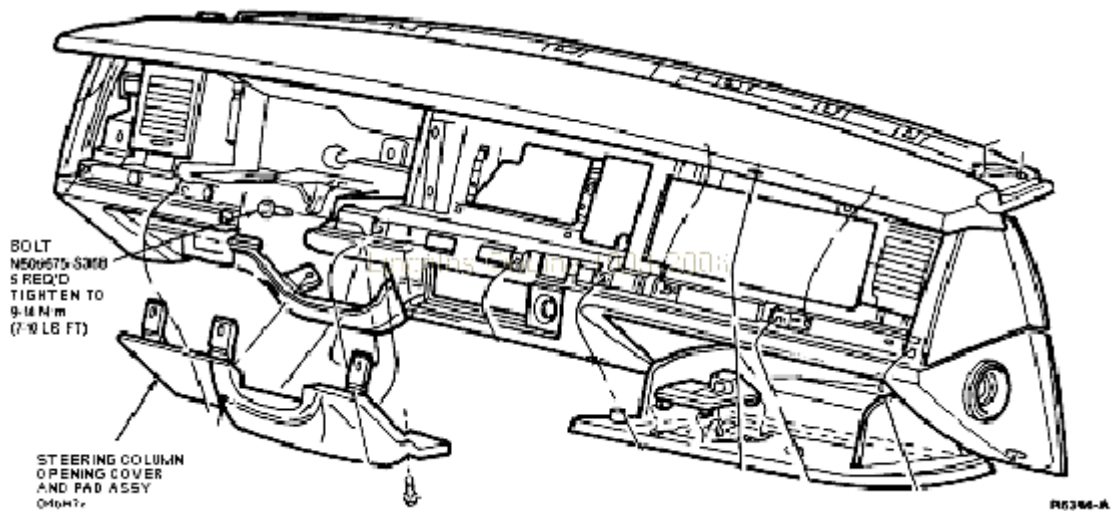
- The left and right fascia trim moldings (Pry gently on the outboard ends working towards the center as each clip is pulled free)





- Left and right fascia trim molding strips (pry gently on outboard ends, moving inboard as each mounting pin is pulled free)





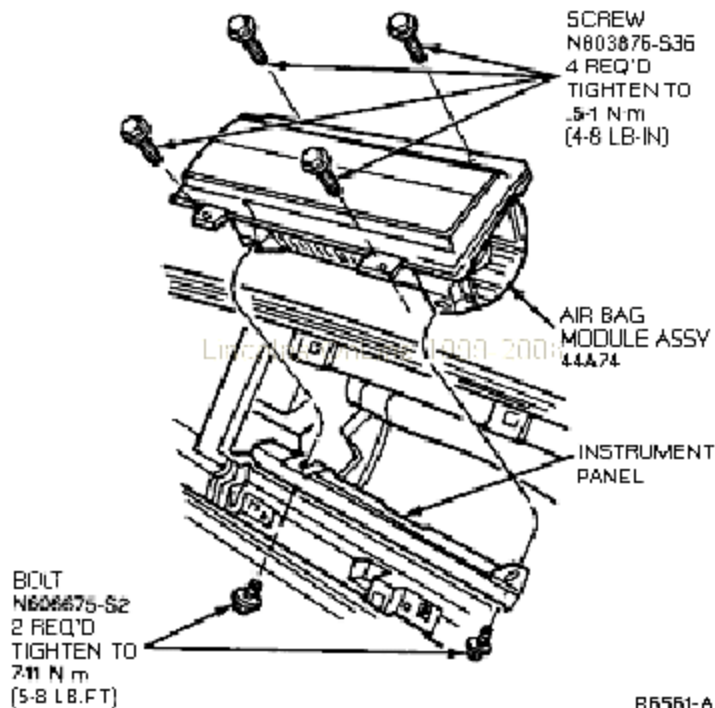
- Pull out and disconnect the fuel door switch, insta-clear windshield switch (if fitted) and the heated back light switch.
- Undo 13 screws securing the fascia, 7 lower screws behind the removed trim strips and 6 along the upper edge of the fascia panel (under the dash pad)



- You will also have to remove the main light switch illumination lamp (just twist and pull)
- Unhook the shift nomenclature cable and undo the one screw securing the cable to the column.

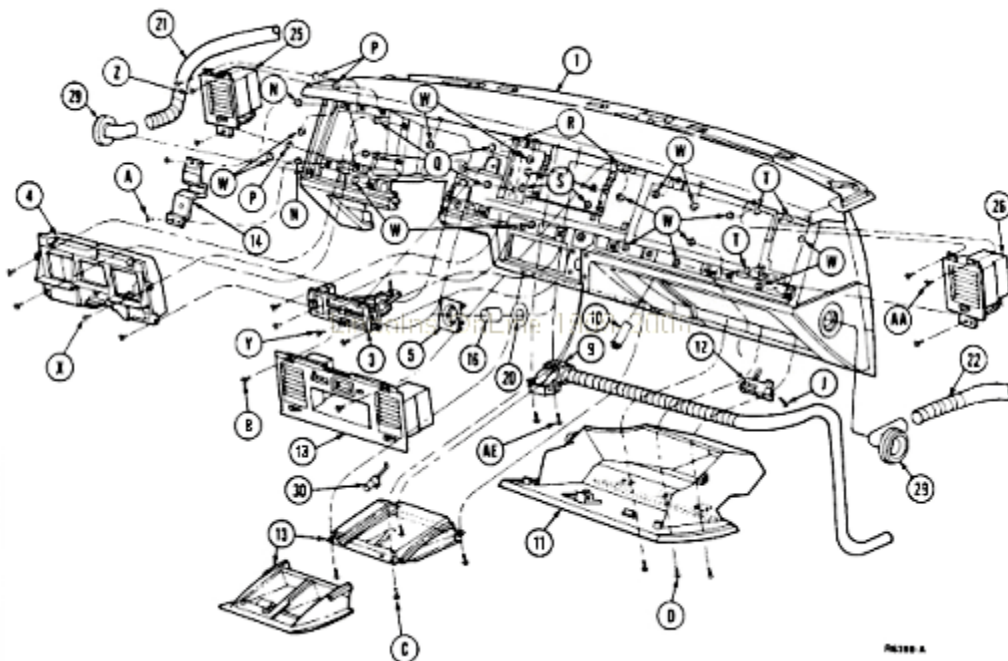
Now tilt the steering column down and shift the gear lever into “ low” (you will need to turn the ignition switch), you can now pull the fascia panel back and wiggle it out.

You now have access to the in-car temperature sensor, passengers air bag, EATC control, main light switch, instrument cluster and clock.



While I had the fascia panel off I seized the opportunity to give the vent registers a thorough cleaning. They are such a PITA to clean when in the installed position and seem to catch all the dust moving through them. I removed the 2 outboard panel vent registers (3 screws each) and also the center register panel (2 screws). One must unplug the clock harness and remove the clock (2 screws), but you then have all the registers out and they are easily cleaned with some household cleaner (409 for example) and a hot water rinse. It's amazing how nice they look and how well they operate when they are clean.

Here is an exploded view of the dash with the fascia panel removed.



If you have any further questions or would like me to mail you larger pictures do not hesitate to e-mail me at no0c@charter.net. Thanks for your time and good luck with your "Best Ride Around".

Tim

TC (ANALOG) ODOMETER GEAR REPLACEMENT

Submitted by no0c / 02-22-07

<http://www.lincolnonline.com/tech/00202.html>

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Parts You Will Need

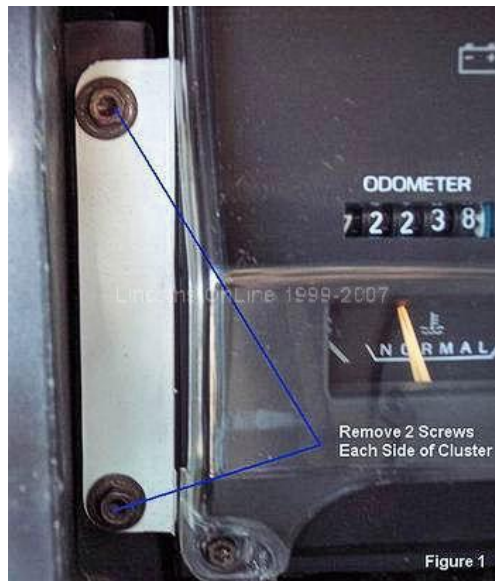
Four Odometer Gear Set <http://odometergears.com/2011/products/Ford/Crown+Victoria+92-97/101>

Let's Get Started

You will need to remove the steering column opening cover/pad assembly to gain access to the PRNDL (transmission gear selection indicator, actually PRNOD1) cable, by removing the 5 bolts that hold the cover on (3 under the fascia molding (2 left, 1 right of steering column) and 2 at bottom of the aforementioned panel).

Now that you have the fascia trim removed you have access to the instrument cluster. Now, on to removal of the cluster and replacement of the failed gear set.

- Remove the 4 screws that hold the cluster to the instrument panel. There are two screws on each the left and right side of the cluster.



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- Remove the bolt that holds the PRNDL cable housing on right-hand side of steering column.



- Remove PRNDL cable loop from shift lever located just above the cable housing hold-down bolt.



- Let the PRNDL cable uncoil and pull back away from steering column.

Carefully work the instrument cluster away from the instrument panel to gain access to the back of the cluster.

Remove the 2 cluster wiring harnesses from the rear of the cluster by pushing both locking tabs of each connector towards the connector body, releasing them from the cluster and allowing you to pull them free.





- Remove the cluster, being careful to not damage the PRNDL cable. You now have the cluster removed from the vehicle and are ready to find a comfortable chair and a padded table to replace the odometer gears.

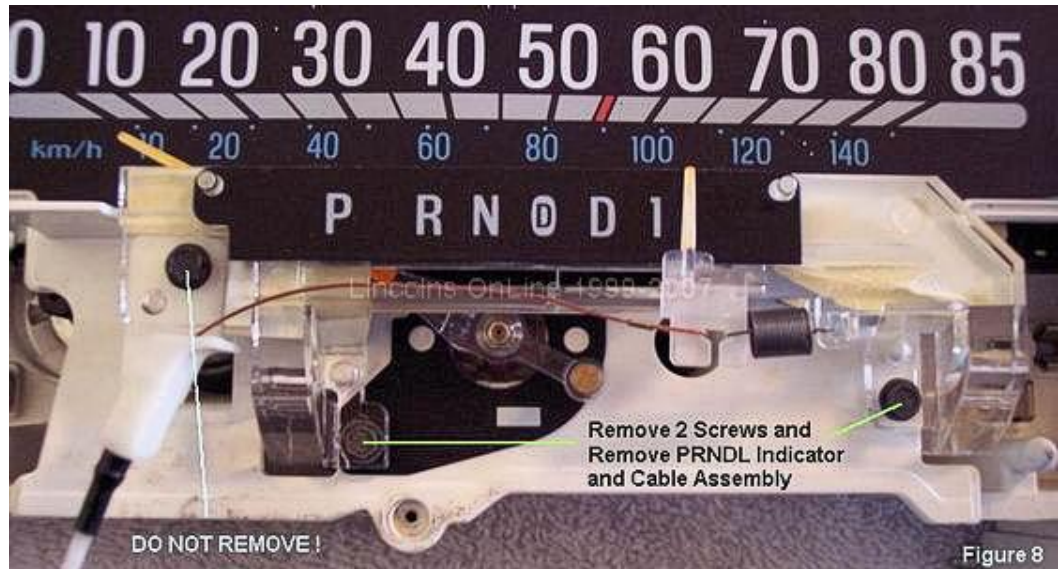
Remove the 6 screws that hold the cluster together and remove the clear plastic lens.



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- Lift off the black plastic bezel. (Sorry about fuzzy picture)



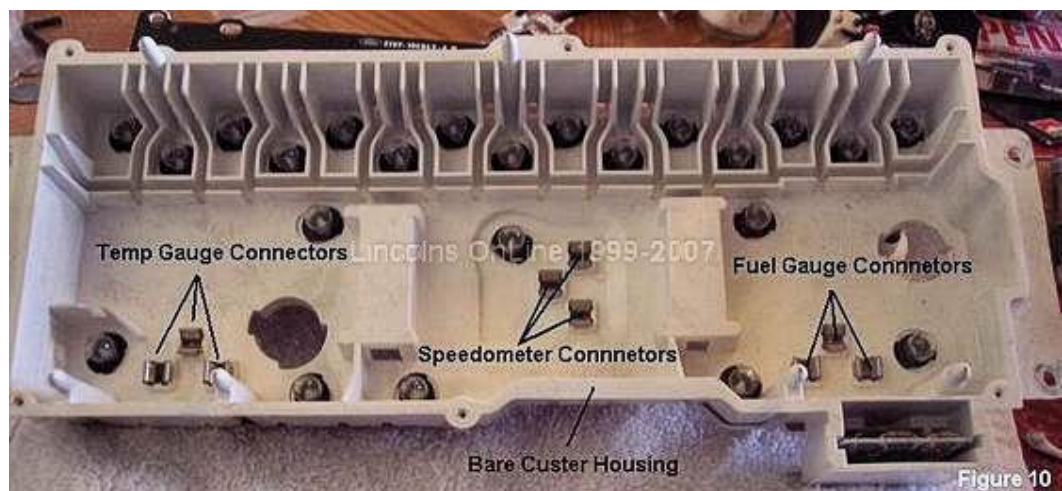
- Remove 2 screws and remove the PRNDL assembly.



- Remove the Coolant Temperature and Fuel Level Gauges by simply lifting them from the housing after wedging them away from the housing with a small screwdriver.



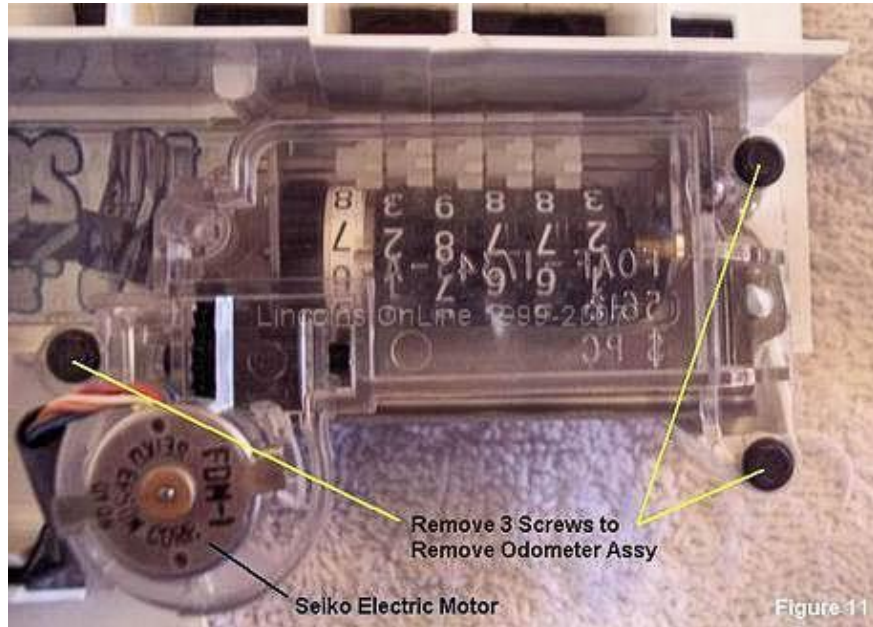
- Remove the remaining panel that houses the speedometer and odometers by wedging and lifting as you did the gauges. (See Figure 9) At this point you will have separated everything from the bare cluster housing.



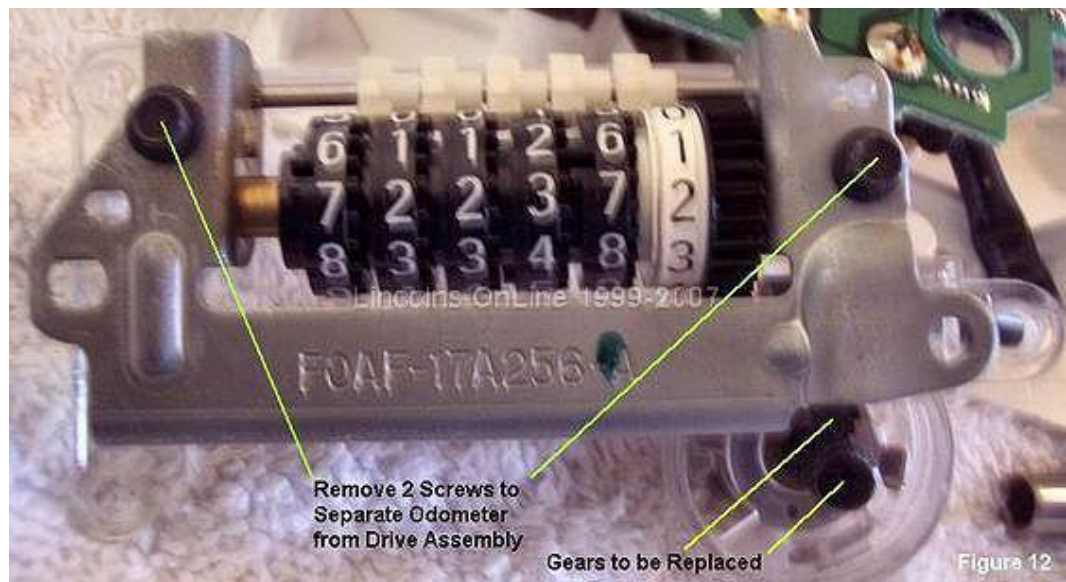
- Turn the removed speedometer/odometer panel over being careful to not disturb/damage the speedometer needle. Todd Shrewsbury suggests laying the panel inside the previously removed clear plastic lens to protect the speedometer needle from damage.

You now have access to both the odometer and trip odometer assemblies for disassembly and gear set replacement. I have only illustrated the odometer, but the trip odometer would be almost identical.

- Remove the odometer assembly from the speedometer/odometer panel by removing the 3 screws.



- Turn the odometer assembly over and remove the 2 screws to separate the odometer from the drive mechanism.



- If you haven't already, you will find the failed gear(s).

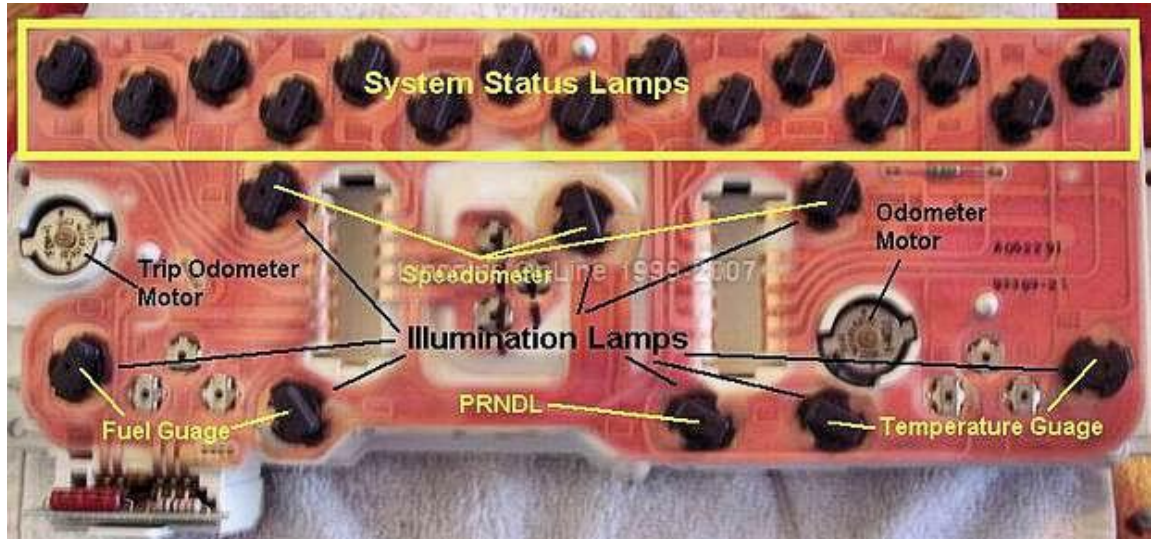


- You will now have access to the odometer gear set. Carefully remove the failed gears. Remove the driven gear first. It is held at the axle ends in standoffs that are easily, but carefully spread to allow the removal of the driven gear. The worm gear is press fit onto the motor shaft. Simply pull the old worm gear from the shaft and press the new one on the motor shaft, using a small amount of lube if necessary. Install the new driven gear last. There is no need to lubricate the gears as the new gears have graphite mixed into the material.

Once the motor is removed you will see the worm gear attached to the bottom side of the motor. Remove the old worm gear by pulling it off with your fingers or a standard screw driver. Install the new worm gear using channel lock pliers or a bench vise leaving the thickness of two business cards between the motor and the gear. The new gear is installed with the neck towards the motor housing.



- Replace any burned out illumination and system status lamps found in twist out sockets on back of cluster housing.



Clean anything you find necessary as you reassemble in reverse order for completion of the odometer repair.

Take time to adjust the PRNDL for proper indication in the window, if it is not as you like it.

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Good Luck and may your LTC odometer keep chalking up lots of miles!

Tim Any questions a please contact me at: no0c@charter.net



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