



www.OdometerGears.com

Volvo 850's Odometer Gear Repair

<http://www.matthewsvolvosite.com/2005/01/odometer-fix-how-to/>

Odometer Fix Tutorial

OVERVIEW

How many miles do you have on your Volvo? Don't know? Maybe it's time to fix the odometer 😊 . Note: MVS reader Steven reports this impacts both the trip meter and odometer. If you have a Volvo with an OBD system under the hood (generally up to 1995 and some '96 models), you can [read the actual miles from the ECU](#) so that you can set your odometer to the correct number after it's fixed.

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.

* On units that use a gear and pod combination: install the gears into the housing first and then install the motor assembly. Before installing the screws that secure the motor and circuit board use a small standard screw driver and rock the tenths digit of the odometer up and down. This will help to seat the gears into place and allow the motor assembly to seat fully.

PROCEDURE

Jump to Addendum



Remove vents to access inner fastenings

Odometer Fix Step 01

Odometer Fix Step 02



More screws around the dash to come out

Odometer Fix Step 03



Odometer Fix Step 04



Odometer Fix Step 05



Separate the second wiring plug

Odometer Fix Step 06



Flip up the latches that hold the unit in

Odometer Fix Step 07



Pry open the second clip

Odometer Fix Step 08



Lay back the latch tops

Odometer Fix Step 09



Begin to wiggle and lift the unit upward

Odometer Fix Step 10



When the unit is loose cover the top and front with a towel to prevent scratches on either area

Odometer Fix Step 11



Wedge the dash up as far as possible

Odometer Fix Step 12



Disconnect the next wiring plug

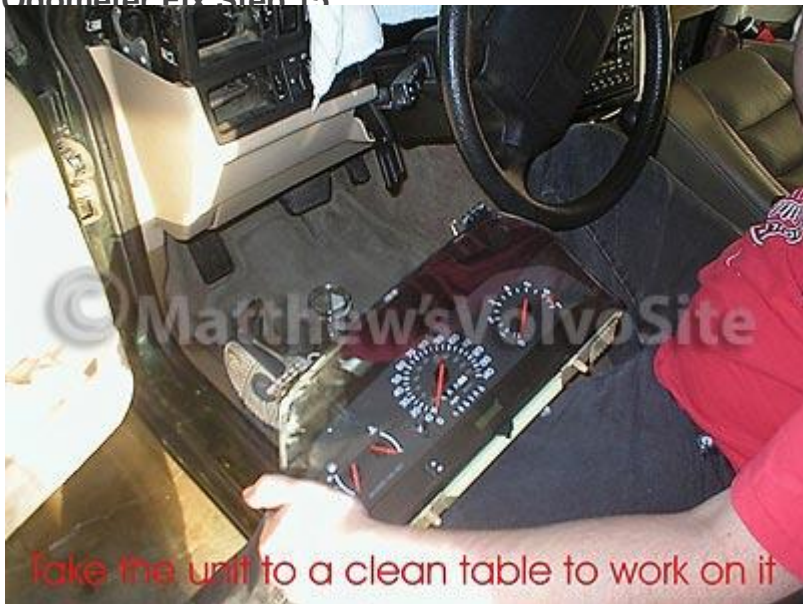
Odometer Fix Step 13



Odometer Fix Step 14



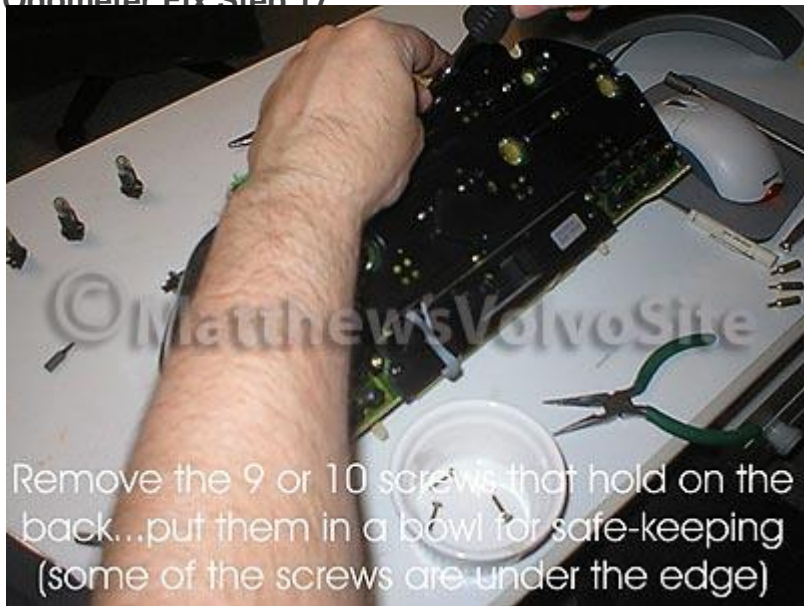
Odometer Fix Step 15



Odometer Fix Step 16



Odometer Fix Step 17



Odometer Fix Step 18



Odometer Fix Step 19



NEW! STEP 19.5 (October 6, 2009):

There is a brass nut and washer on the back of the cluster that must be removed before you can gain access to the odometer and trip gears. Do not tighten too much after the repair as you can crack the circuit board.

<http://img222.imageshack.us/img222/2110/dsc00061kn6.jpg> <- brass nut

Odometer Fix Step 20



Odometer Fix Step 21



Odometer Fix Step 22



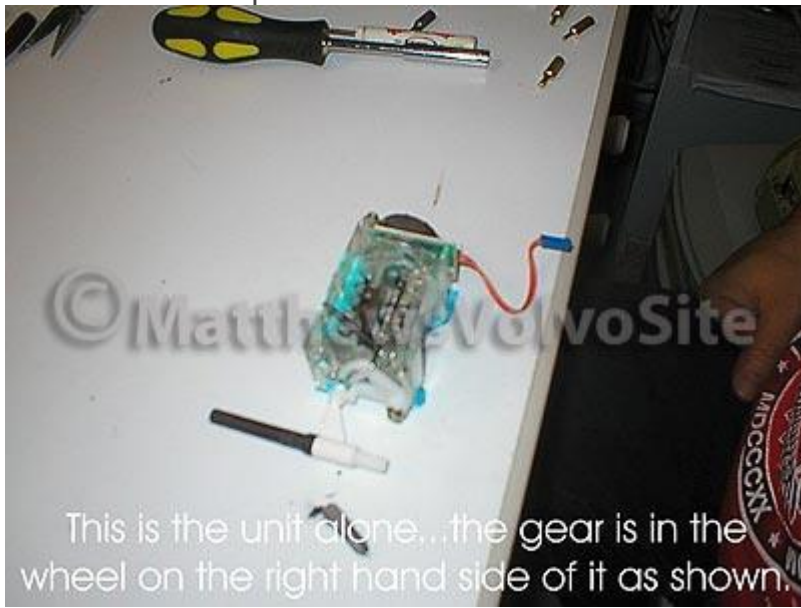
Odometer Fix Step 23



Odometer Fix Step 24



Odometer Fix Step 25



Odometer Fix Step 26



Odometer Fix Step 27



The gear section separated from the unit

Odometer Fix Step 28



The broken gear is the yellow spot in the gear assembly...

Odometer Fix Step 29

My cheap digital won't focus this close, but the broken gear and the tooth can be seen even though they are fuzzy...that little piece causes all this work!



Odometer Fix Step 30

The new gear is the white spot on the right... it will set into the wheel on the left



Odometer Fix Step 31



Odometer Fix Step 32

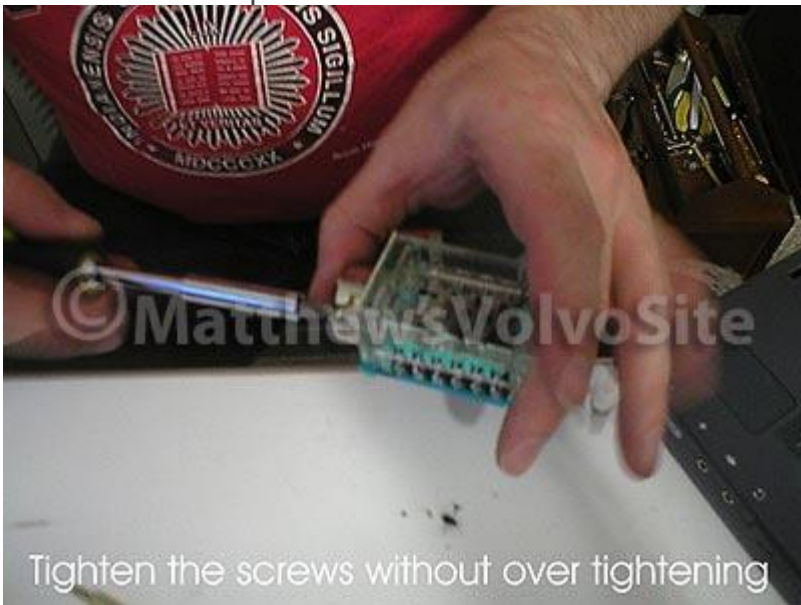


Odometer Fix Step 33



Replace the end cap onto the unit

Odometer Fix Step 34



Tighten the screws without over tightening

Odometer Fix Step 35



Reconnect the plug to the base

Odometer Fix Step 36



(sorry it is blurry) - this is the unit replaced back into the base and plugged in

Odometer Fix Step 37



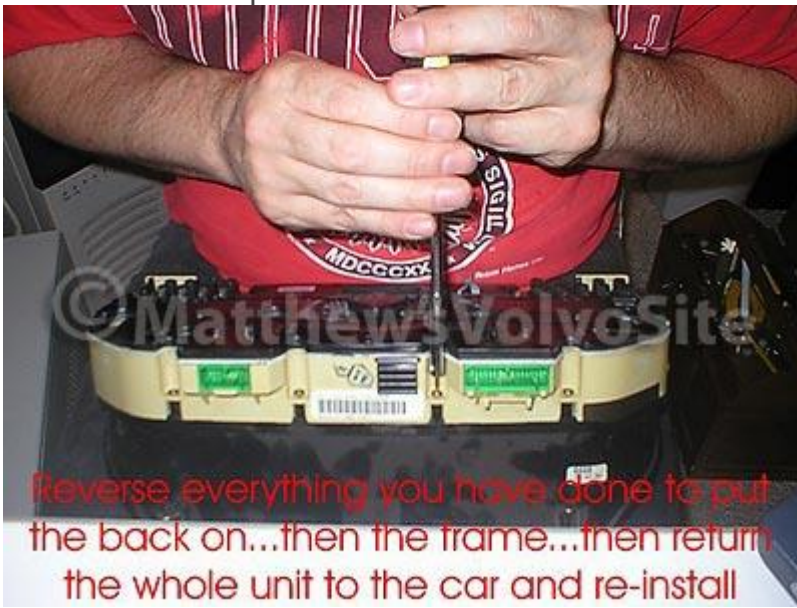
Carefully press the button to reset the trip-ometer to zero to see if it works

Odometer Fix Step 38



GENTLY replace the face of the unit

Odometer Fix Step 39

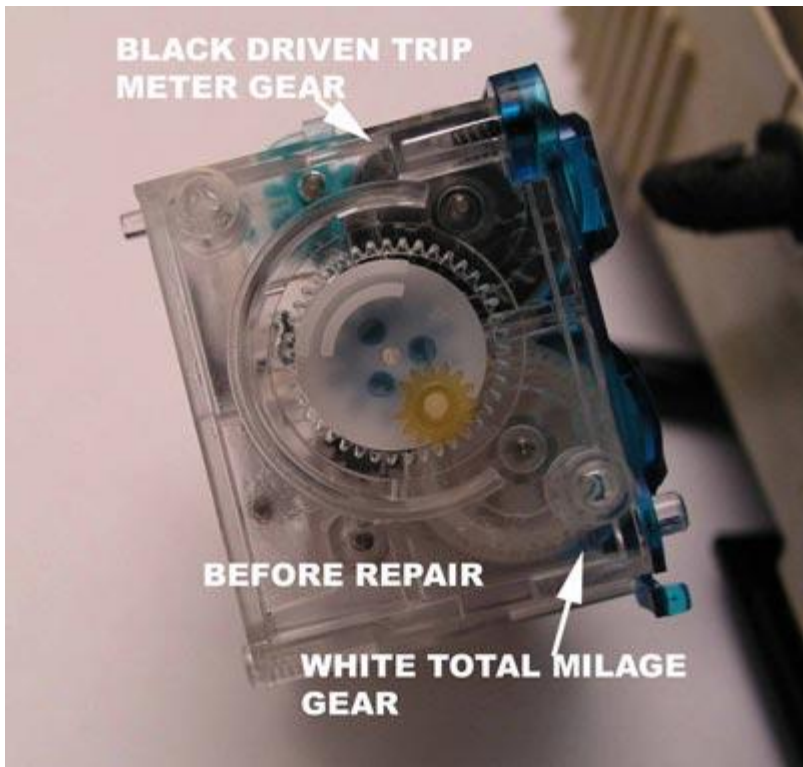


Odometer Fix Step 40

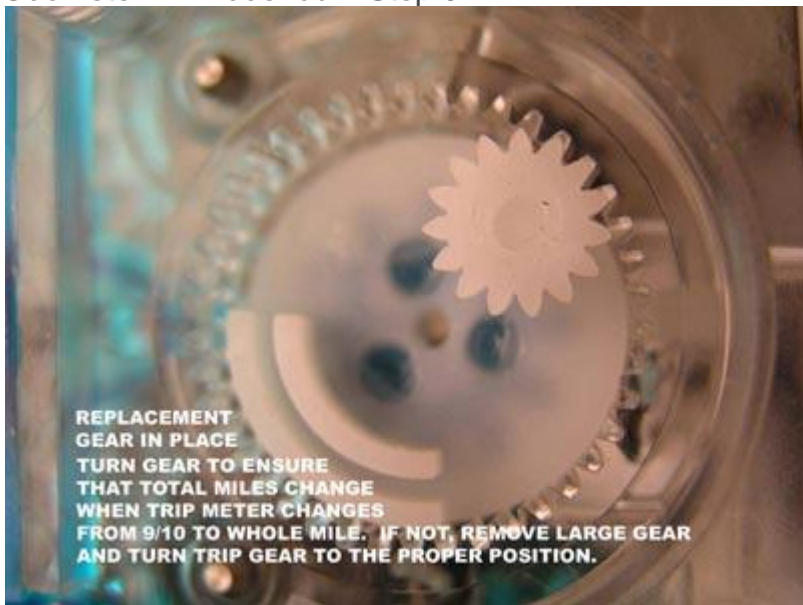
UPDATE Oct. 16 2005: More images, these from Govil. Thanks Govil!



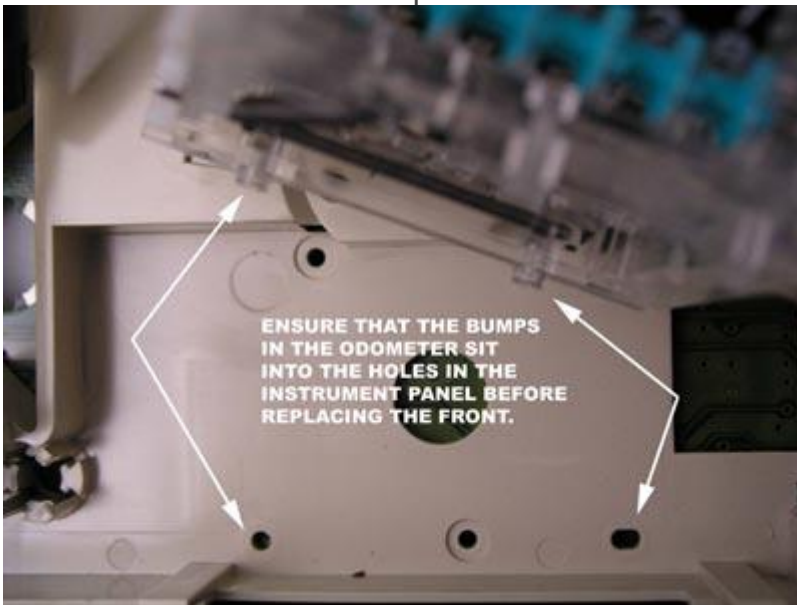
Odometer Fix Addendum Step 01



Odometer Fix Addendum Step 02



Odometer Fix Addendum Step 03



Odometer Fix Addendum Step 04



Odometer Fix Addendum Step 05



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