

## 1998 Dodge Ram with 5.9L 12V CTD - Fuel Sending Module Repair

December 3, 2013

One hell of a lot of work, especially when there is no extra help around. But then again, who wants to work under a dirty truck in the cold.

I moved the truck into my garage about 2 weeks ago and procrastinated quite a bit, not really looking forward to this. But over time, I lowered the tank, disconnected fill, vent and fuel hoses, then dropped it all the way to the floor. There is a fuel sending module that sits about the middle of the tank. A new unit looks like this:



The one in my truck had the top plate completely rotten out, and the fuel lines were still functioning, although they could move up and down to some extent. The top of my unit looked like this:



I priced a new unit out of the USA for \$US 406.00 plus shipping and likely some taxes. I was not prepared to spend that kind of money. Junk dealers in T. Bay did not have an old unit. Seems that anything to do with Ram diesel part - they don't last very long and get scooped up pretty quick, but I got a lead to one of these 'Scooper' guys and called him and told him about my problem. He said that this is a common corrosion problem with the Ram fuel sending unit and that he had a fix for it. So I went to see him. Sure enough, he had a specially machined steel

plug that fits the opening at the top. He was kind enough to drill two holes through it for me using his drill press. I think for \$20 I got a bargain. I took it home and installed two fuel lines (used steel brake line for this). Good thing that Toe has a pipe bender in his tool box.

The piece that was made up looked like this after the fuel lines were fitted into the plug.



I then had to modify the fuel and return line connection inside the fuel sending module, cutting out the rotten stuff, shortening some lines and fitting some fuel hose to connect to the bottom of the plug. The mods inside looked like this:



With that finished, the module was re-assembled with the new plug installed.



The final installation of the fuel sending module into the tank looked like this.



After that, it was almost a full day's work for an old retired guy like me getting the tank back up and into place and connecting new fuel and return line hose. I started the truck and let it run for about 25 minutes to make sure that all was OK. Anyway, it seems so but it has not left the garage yet, so I'm not sure how it will perform on the highway. I'm hoping all will be well.

Following all this neat work, I spent time after that troubleshooting and trying to find the reason why the back-up lights do not work. Actually haven't worked for about 5 or 6 years. It's never been a great issue for me. But I have to get this fixed so the truck can pass a safety inspection such that ownership can be changed. It appears that the switch on the transmission is working (according to my multimeter - putting out 12VDC with the ignition on and tranny in reverse) - but no lights. Took the tail light assembly apart and checked bulbs. All was well there. So, now I have a choice, order a new switch from

a US vendor (I'm in Canada) or add some wire and put a manual toggle switch on the dash. I chose the latter and finished wiring today (Dec. 6, 2013). Backup lights work like a charm. The toggle switch has a built-in red LED to let the driver know that the backup lights are on. I installed it with a 5-amp fuse direct wired to the battery. Now if one ever needs lights at the back of the truck for any specific task, it doesn't have to be running and in reverse. Just flip the switch.