

## **Replacing the Fuel Sending Unit in the Tank**

Recently I had to finally replace the fuel sending unit in my fuel tank on my 1978 Li'l Red Express. This is how I installed the new unit.

First, determine if it is the sender or the gauge. This is easy to do, if you ground the blue/black wire at the sender, and watch the gauge, the gauge should start to rise to the full position. (Do not hold it there long, it could damage your gauge.) The gauge movement indicates the sender is bad. If it doesn't move, the gauge or current limiter on the panel is bad.

Second, check the sending unit operation before replacing it. Just check the ohms between the 2 contacts on the sender and they should read 5 - 8 ohms in the full position and 60 – 75 ohms in the empty position.

I was getting tired of seeing empty on the fuel gauge and found that the brass float on the sending unit was completely full of gas, once we removed the old sender, see pic.



The easiest way to gain access to the sender is to remove the 3<sup>rd</sup> board from the driver's side and this gives you full access to remove the sender, it also keeps you from possibly cracking the fragile old plastic tank during removal and reinstallation. I was apprehensive about removing this 47-year-old plastic tank.

Third, remove the spare tie and hanger, if applicable.

Fourth, remove the 6 carriage bolts from both skid strips on each side of the #3 board to gain access, this can be tricky and usually takes 2 people to get them out.



The only casualty I had was one skid strip carriage bolt had to be cut, to get the skid strip out. Not bad for being as old as it was.

Fifth, remove the 2 electrical connections, fuel and vent hoses and the 6 Phillips head screws, holding the sender in the tank.

Sixth, remove the old sender and install the new sender and reconnect the electrical connections, hoses, and clamps.

My original sender had the fuel line pointing to the outside of the bed and the vent line pointing to the inside of the bed, however, the new sender had both lines pointing to the inside of the bed, see pics.



The original fuel line was now too short to reach to the new sender, so we just installed a new, 4" longer rubber line. We replaced the old "crimp" type hose clamps with the new screw type clamps. The 6 Phillips head screws came out without any problem. I had sprayed the screws with PB Blaster a few days earlier, I don't know if this is the reason they came out, but they were no problem. We did have to cut the vent line at the sender; it would not come off. However, there was enough line left, so we didn't need to replace that line. The white wire is the ground and the blue wire with a black stripe is power for the gauge. They are just "push on" plugs, see pics.



The 6 screw holes are offset, as to allow the sender to align properly when installed in the tank. We installed the unit with the new rubber seal, replaced the board and skid strips and the job was finished.

I hope this helps someone in the future!

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