Fuel Gauge Send Unit Repair

by Mr. Jethro of the GS Resources Forum

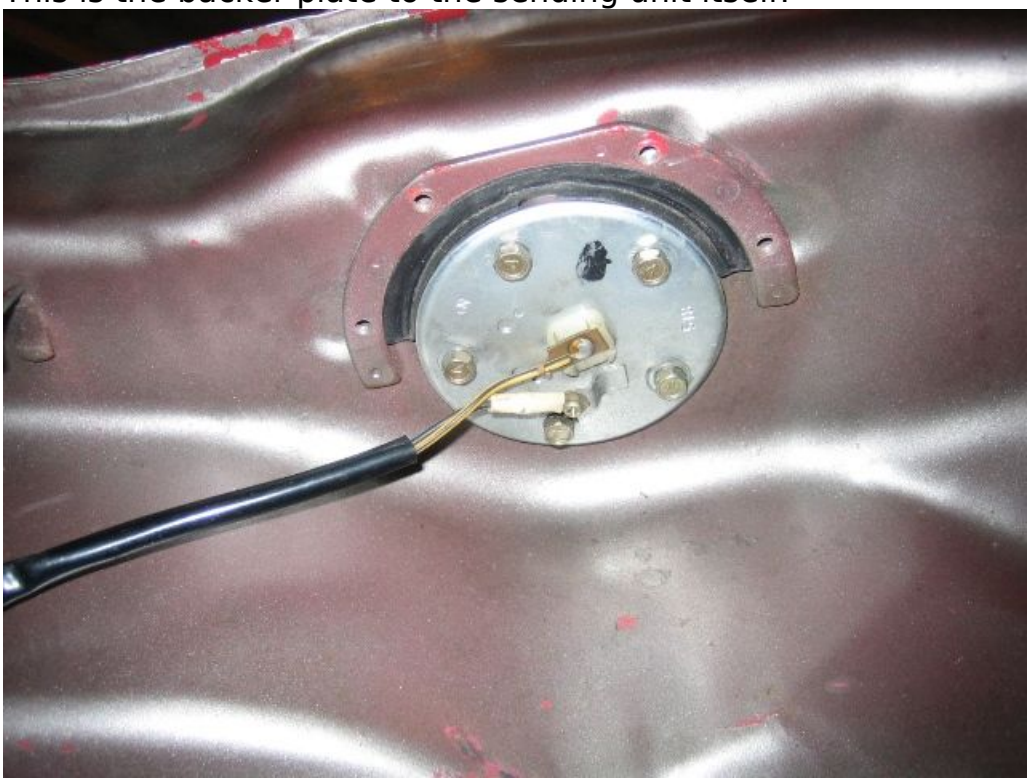
Tonight I decided to rework my fuel gauge sending unit. I've gotten pretty good at working these things out, and I'm sure lots of you guys have malfunctioning fuel gauge sending units. The most common problem I have seen is the float arm pickup not hitting the coil properly or at all. Hopefully I'll explain the process well enough for you.

This is the sending unit location (duh) :

It's the unit on the inside of the tank, with two wires and the drain hose coming from it. There isn't a need to drain all the gas out of the tank, I drained until I hit reserve and left it at that level. Then keep the cap on, and lay it on its side. My Workmate bench is perfect for this as it has two big jaws that open up and can hold the tank nice. Use a blanket so you don't scratch the paint.

Take the four Phillips head screws off to remove the drain unit. I'm missing one!

This is the backer plate to the sending unit itself:



Make note of the position of the backer plate in relation to the tank. It needs to go back in exactly this position. If there is no alignment mark, use a Sharpie to make a line on the sending unit and the tank so that it can be realigned. Remove the 5 8mm bolts to free the sending unit.

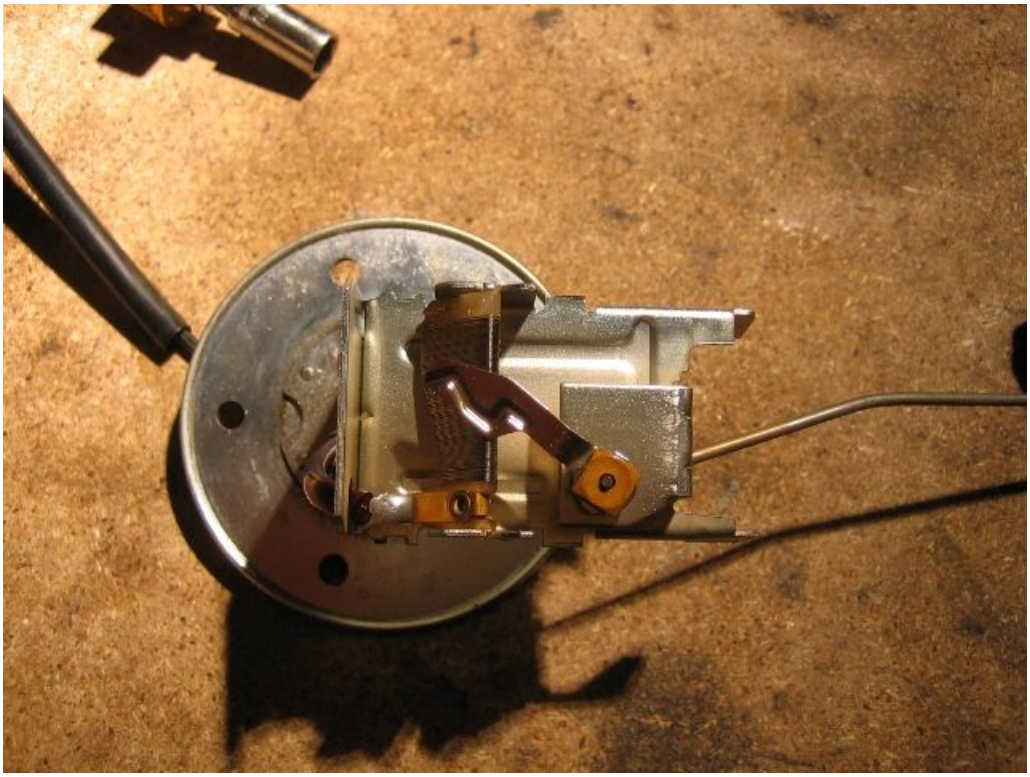
Here is a look at the gasket:

Here is the tricky part. You need to remove the sending unit from the tank without damaging the gasket. The float arm is about 10" long, and the electrics are in a housing that barely fits through. Try not to force it much, and fiddle it around until you can pull it through.

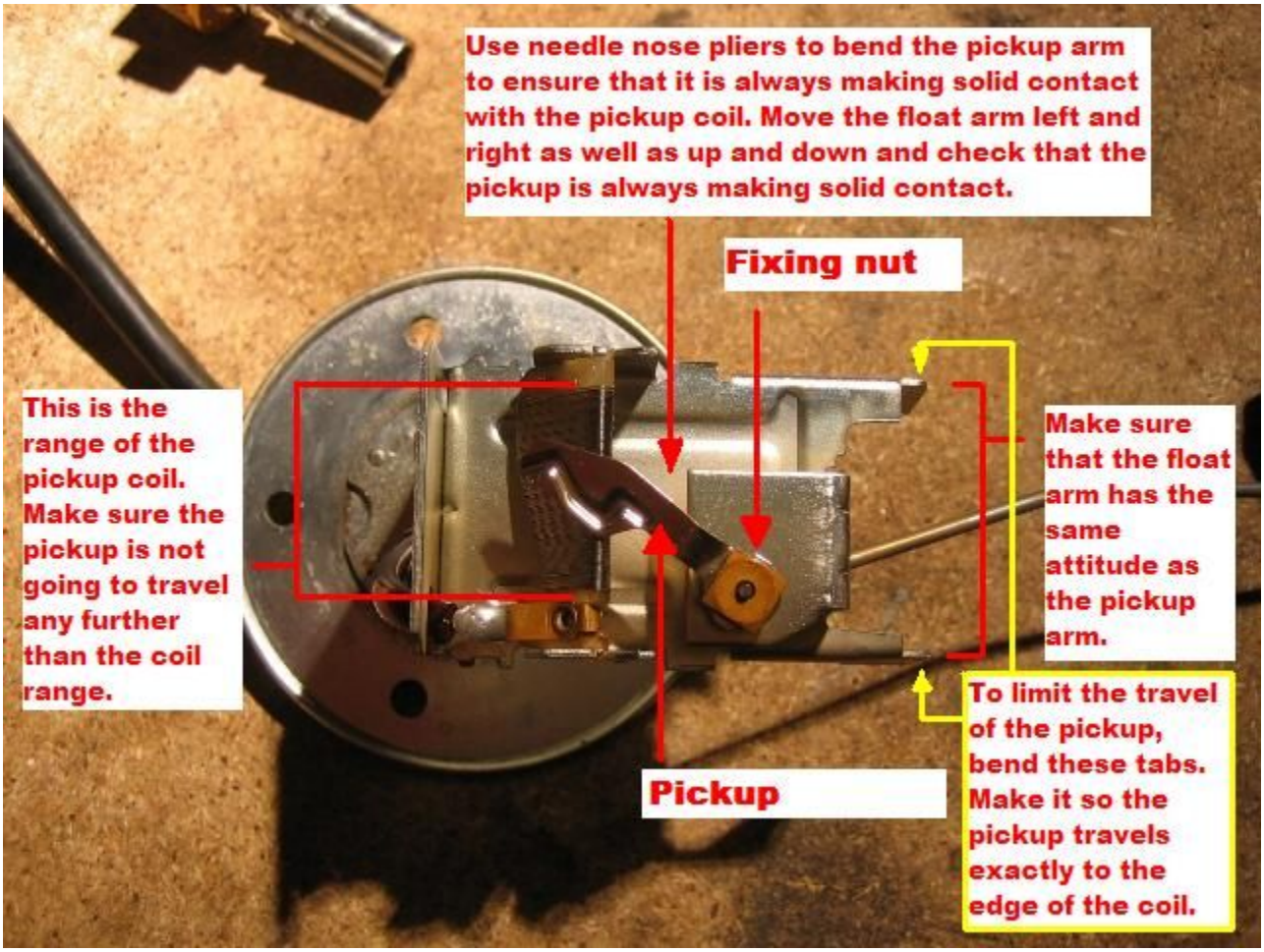
Hopefully you have gotten the unit out without damaging the gasket, and you have it on the bench like this:

Next, you need to remove the cover to the guts of the sending unit. This picture shows the small tabs you need to bend up with a small screwdriver to take the cover off:

Here is a the unit with the cover off:



Ok, now see this amazing picture I made up for the rest of the direction:



After you get the guts working well, you can test it with a multi meter. I don't know what the figures should be, but it can tell you if the resistance is changing when you move the float arm, and that's usually the key to success. I also had to bend the actual float arm to get it to read the right amount of fuel, kinda like raising the level in the toilet bowl by bending the float arm in there.

The real trick is getting this sensitive piece of equipment back into the tank. Ever do those tavern puzzles? It's kinda like that. Take your time, move it around a bunch and see what works. Sometimes the float arm gets pushed over the limiting tabs during installation. You can use a clean screwdriver to push it back over if that happens.

Hope this helps some folks, It worked for me three times so far.

I'd like to thank Mr. Jethro of the GS Resources Forum both for documenting his work and for graciously allowing it to be hosted on my little BikeCliff website.

Thank you for your indulgence,

BassCliff