Replacing the Fuel Tank Sending Unit
By Simon Dix

Well, as I’ve been working on getting my 72 MGB operational again I have had the opportunity to tackle several jobs I have never thought of before, or that I have any experience in tackling. The fuel tank sending unit was one such job and so I thought I’d share my findings on how to fix this. No big secret for many perhaps, but, if you’ve never had to deal with this, it’s not nearly as bad as I (or you) might have thought. This took about 30 mins for me including taking a few pictures at each step.

All of my other gauges were working except the fuel gauge. I tested the gauge itself by briefly grounding the wire (Green and Black) by removing it and putting it on the other connector on the sending unit (any ground source should work) and saw that the needle went from empty to full pretty quickly. It’s probably best not to leave the gauge grounded for too long to avoid damaging it. So have someone ready to watch the gauge while you ground the wire.

The sending unit basically works like the float (ball cock) in a toilet (helps me understand things when I can find something to relate to). A faulty sending unit will probably be: a float that has sprung a leak and is holding fuel and no longer floating, a problem with the electrics/resistance of the sending unit or simply that the sending unit arm isn’t moving freely.

To make sure your new unit is working, simply connect it to the sending unit wire and move the arm/float. Have someone check the gauge is moving. If all is well you can proceed.

**Step 1.** You'll need the tank to be virtually empty or minimally raise the car on the right side to keep your gas from leaking out through the sending unit hole. I had 2 gallons or less in the tank and didn’t need to raise the car.

**Step 2.** Remove the outer retaining ring by tapping on the tabs and rotating the ring anti clockwise. You’ll see how the retaining mechanism works once you get close to the unit. I used a screwdriver and a rubber mallet for this.

**Step 3.** Remove the sending unit from the tank. You'll need to angle the float and arm as you do this to get the unit out of the tank.

**Step 4.** Remove the rubber ring that acts as a sealer for the sending unit. That’s one of the might as wells in this process since I went for the complete sending unit replacement. I didn’t want to assume the float was the problem and then later have to order a sending unit. I also got a new sealing ring and retainer clip. The seal might be a little stuck, so carefully pry it off the fuel tank (especially if you choose to reuse it).

**Step 5.** Replace the rubber sealing ring and insert the new sending unit into the tank. Make sure the sending unit is the correct way up. It can be verified from the outside with the electrical connector spade pointing to the rear of the car.
Step 6. You may need to jiggle the sending unit a little to get it to seat flush against the rubber seal. Take your time with this, if it’s not flush remove it and try again. Once it’s flush you can then use the retaining ring to hold it in place. Line up the raised tabs and then rotate clockwise to lock in position at the 3 locking points. Tap the securing ring with the screwdriver and hammer to make sure it’s really tight.

Step 7. Connect the green and black sending unit wire to the main spade on the sending unit. Don’t worry about ground – the ground is handled by the connection of the unit to the tank. You should now have a working sending unit. Add some gas and check the gauge again!

The Process in Pictures

Sending Unit with the 1 wire removed. Notice the notches holding the unit in place
The retaining ring has been removed so that the unit can start to be removed from the fuel tank.

The removed sending unit & retaining ring. The float was half filled with gas – most likely the problem.
Removing the rubber sealing ring from the tank.

Reinstalled and sealed tightly with a new retaining ring. The single sending unit wire is reconnected.