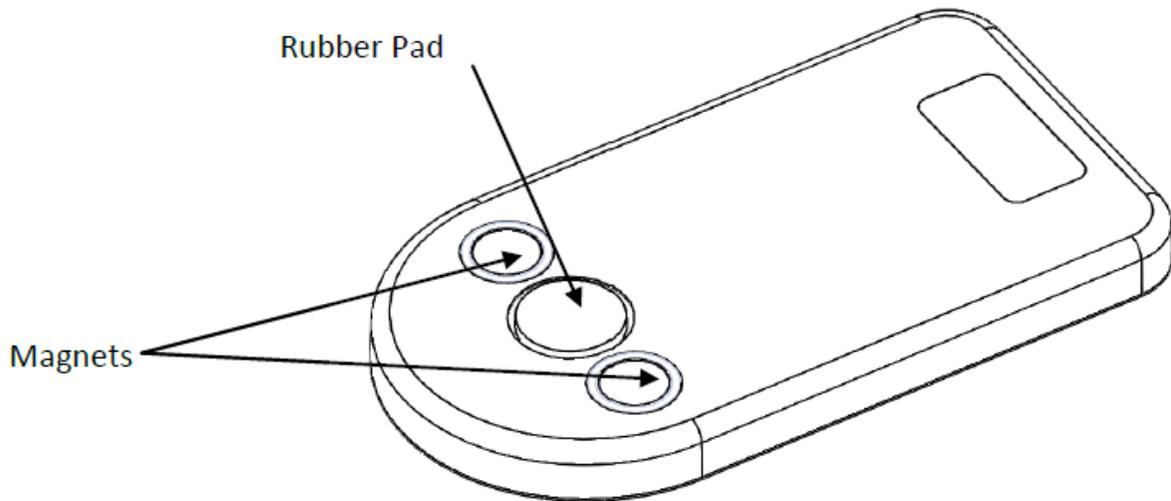


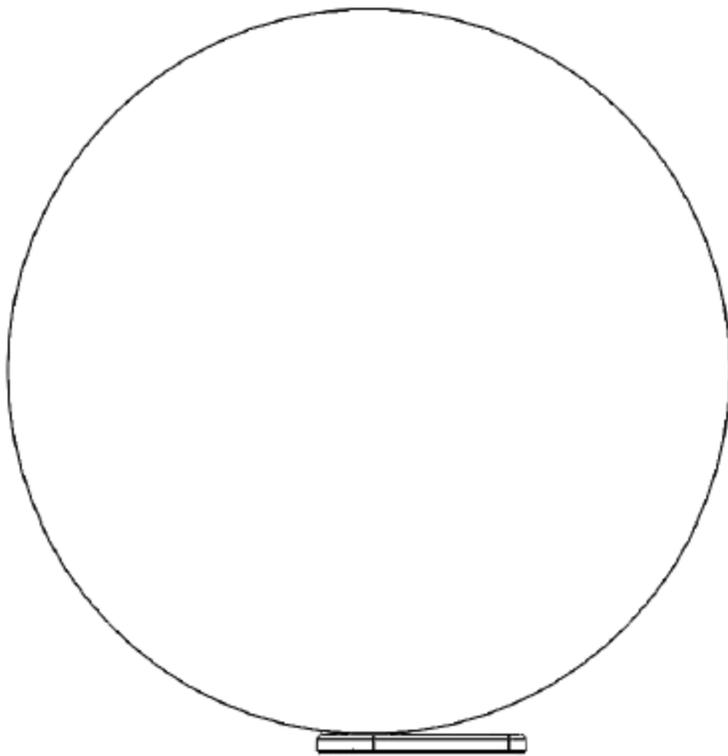
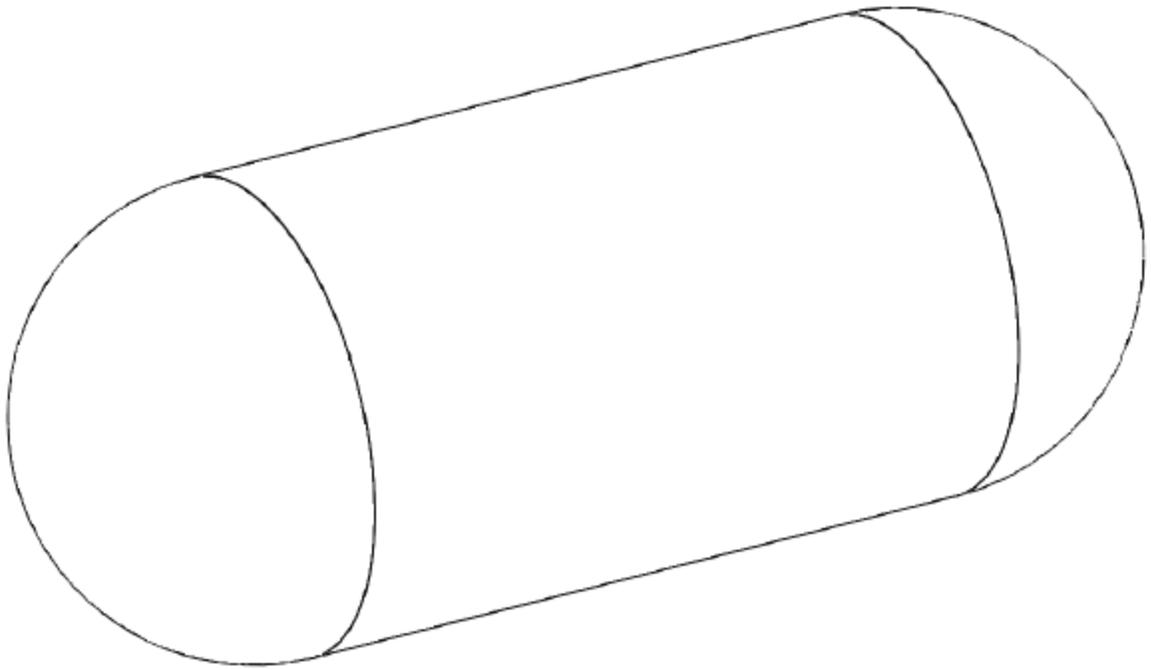
Mounting a Propane Tank Sensor on a Motorhome

When I saw that RV Whisper integrated with a Mopeka propane tank sensor I was interested. My small Class C has a 13-gallon propane tank mounted horizontally in the middle of the passenger side. The standard gauge is very low and angled down, so very hard to see without kneeling. But I was concerned about mounting one, given the inevitable jolting and possible gravel and other debris that might knock it off.

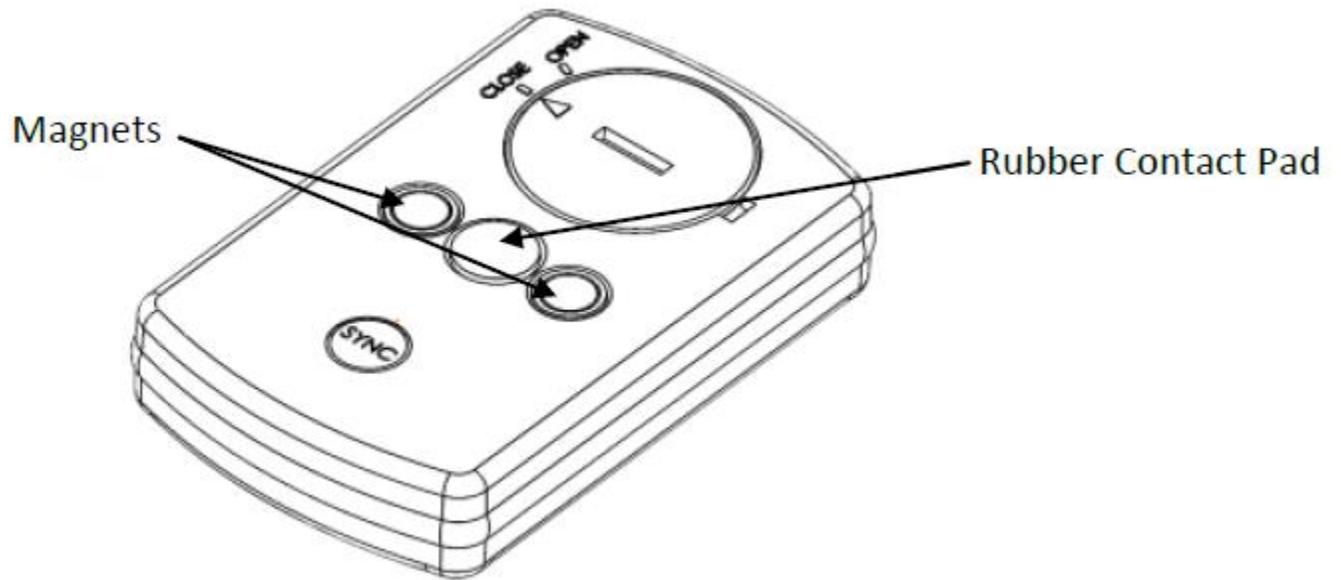
The configuration of Mopeka's standard sensor seemed especially problematic.

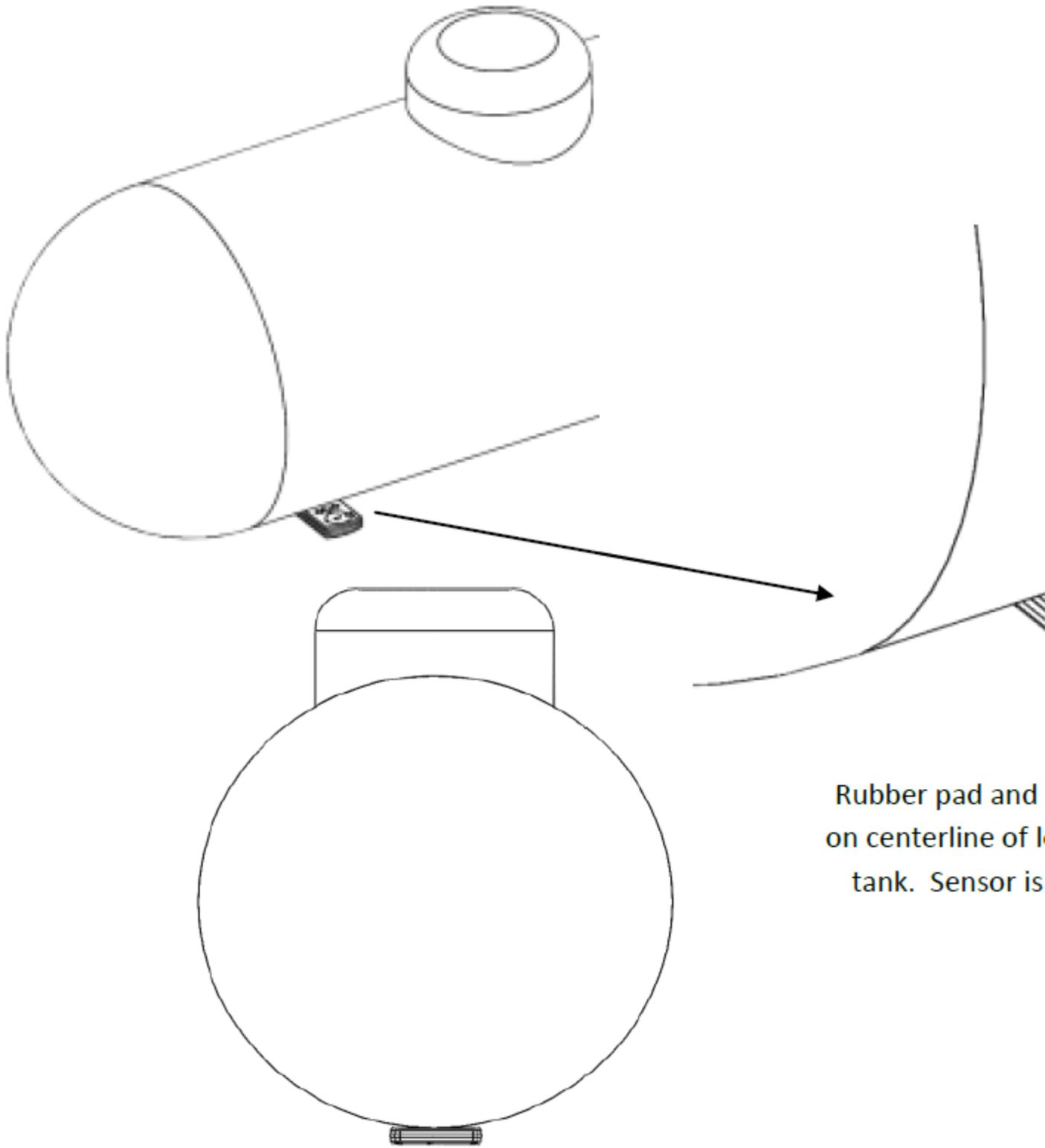


When mounting on a horizontal tank, it would look like this:



I was afraid that by, in effect, mounting a rectangle to a circle, the long overhang would act as a lever and the sensor could come off too easily. Mopeka also makes an XL sensor designed for larger tanks. Its configuration is more symmetrical:





When I contacted Mopeka to verify that their XL model would work on my smaller tank, they said that for either version, the "... sensors have 2 magnets that both have around 3 pounds of pull for a

combined total of 6 pounds of pull. Our sensors only weigh a few ounces each so they are quite affixed to the tanks.” Still concerned about the overhang, I elected to try the XL version.

After I received and test fitted it, I found that my fears had been justified. Even with the much shorter overhang, it didn't take much force to rock the XL along the circumference of the tank, causing the magnets to lose purchase and the sensor to drop. Also, the sensor could easily rotate on a horizontal axis and then even less rocking force would be needed. No way I would trust it driving.

I decided to use Sugru to create a molded bed that would keep the sensor from rocking or rotating. Sugru is billed as “Mouldable Glue”, which starts out at the consistency of silly putty but dries in about 30 minutes to a hard but flexible silicon in whatever shape you left it. Here are the steps I took:

1. **Wash and dry the tank** – to give the Sugru the best chance to adhere.
2. **Level the RV** – to make the sensor as level as possible. Don't worry about this one too much. Front to back leveling is actually not important since the mounting with the magnets will not allow adjustment on that axis.
3. **Cover the sensor with cellophane wrap.** Since we must change the batteries, we don't want the sensor to be glued to the tank. Sugru does not stick to cellophane.



4. **Fit the sensor and mark the location of the long ends.** Make sure it is level and in the center front-to-back. You can use the levelling function in the Mopeka app. Again, 100% accuracy is not vital here.

5. **Place two lines of Sugru straddling the ends you marked.** Make sure you use enough to extend below the plane of the bottom of the tank. I used 4 packets of Sugru, two on either end of the sensor. (I mixed two colors – brown & green – which ended up helping the photo contrast.)
6. **Press the sensor into the Sugru.** Make sure the sensor magnets make contact with the tank and relevel. Form the Sugru around the edges.



7. **Allow to cure, then remove.** After 24 hours, pull off the sensor and removed the cellophane. The Sugru bed should look something like this:



8. Replace the sensor.



9. **Safety net (optional but recommended).** I used some adjustable bungee cords and elastic netting to create a cradle.



Immediately after the install, we went on a trip that involved hundreds of miles of poorly maintained roads, mostly dirt or gravel. So far, the XL sensor hasn't budged.

* All illustrations from the Mopeka manuals. Photos by me.