GUIDE

How to Clean and Restore RV Holding Tank Sensors

For those who have dealt with misreading sensors, you know how frustrating that can be. Is your tank full or not? It's a very important question to be able to answer and sadly, sometimes your sensors fib. Fortunately, the process for cleaning misreading black and gray tank sensors is fairly simple but different for each tank. In this article, we'll show you how to use Unique Sensor Cleaner to clean RV black tank sensors and Dawn Ultra dish soap to clean and restore your gray tank sensors. We will also touch on the process to clean black/gray combo tank sensors and some modifications for full-timers who need to clean sensors and use the tanks at the same time.

Why are my sensors malfunctioning?

Sensors can function for two reasons:

1. Something is covering the sensor
2. Sensors are broken

Different things can cover the sensors depending on the type of tank:

- **Black water tanks** – human waste or toilet paper
- **Gray/galley tanks** – grease/oil, soap residue
- **Combo tanks** – human waste, TP, grease/oils, soap residue

Restoring Black Tank Sensors

Cleaning RV tank sensors and restoring them to their best is quite easy using Unique Sensor Cleaner; it can be a little more challenging for full-timers who need to use the black water tank while cleaning the sensors, but we have that process covered too!

If you follow this process and your sensors still don't work, there could be two reasons:

1. There is so much waste caked on the sensors that you may need to apply more treatments with Unique Sensor Cleaner or you can try using Draino, but we recommend against using Draino unless all other options are exhausted. Caustic chemicals like the ones in Draino can cause damage to seals, valves, and other components of the tank.
2. Your sensors may just be broken and should be replaced, but we recommend trying a second or even third treatment of Unique Sensor Cleaner before assuming the sensors are broken.

Procedure

1. **Make sure your black tank valve is closed.**
2. Fill your tank with water as high as you can.
3. Shake your bottle of Sensor Cleaner very well.
4. Pour half the bottle down the toilet.
5. Let it sit for as long as possible (ideally 72+ hours).

   Note: Sensor Cleaner will not do any damage if it's in there longer than 72 hours; the longer it's in there, the cleaner your sensors will be!
6. Open your black tank valve and dump your tank.
7. Flush your tank well with a rinser wand or back flusher.
8. **Close your black tank valve.**
9. Test the sensors if you wish by filling the tank again to make sure the gauge shows tank levels correctly.
   - If levels read correctly, dump the tank. You're done!
   - If levels are still misreading, repeat this process once more to be sure Sensor Cleaner has had enough time and contact with the sensors to clean them well.

Restoring Gray Tank Sensors

Gray water tank sensors are actually pretty painless and inexpensive to restore. Even full-time RVers will have an easier time cleaning their gray tank sensors. The best way to remove the layer of grease and soap residue on the gray tank sensors is to use a strong grease-fighting dish soap. We always recommend Dawn Ultra dish soap because it's a fantastic grease-eater and pretty inexpensive; we even recommend using it to clean your dishes because it will continue cutting grease inside the tank and won't harm the break down power of the bacteria.

If you follow this process and your sensors still don't work, there could be two reasons:

- There is so much grease and scum caked on the sensors that you may need to apply one more treatment with Dawn Ultra or you can try using Draino, but we recommend against this unless all other options are exhausted. Caustic chemicals like the ones in Draino can cause damage to seals, valves, and other components of the tank.
- Your sensors may just be broken and should be replaced, but we recommend trying a second or even third treatment of Dawn Ultra before assuming the sensors are broken.

Procedure

1. Before you go to bed or on your last night boondocking, close your gray tank valve (hook-up campers).
2. Fill your tank with water (as high as the highest misreading sensor).
3. Pour 20 ounces or more of Dawn Ultra down your RV's kitchen sink line (if you think you've added enough, add a little more; the more you add, the tougher it will be on grease).

   Note: You may start to see it foaming back out of your sink or shower lines. That's okay; it means it's spreading its grease-zapping power throughout the pipes as well and tells you exactly when you've added enough.

4. Let this sit in the gray water tank and pipes overnight while you sleep.
5. In the morning, open your gray tank valve and dump the tank.

   Note: There's a very good chance you'll see a grayish/white residue on the bottom of your holding tank discharge pipe. This is the grease that was previously clinging to the inside walls of your holding tank.

6. If you want to rinse your gray tank, you can fill it with fresh water and dump again, but it is not necessary.
7. Repeat this process the next night (if needed) until sensors are restored to proper functionality.

Note

Refer to the guide on Full Time RVing: The Definitive Guide to Treating Your Tanks for more details on the best ways to treat your tanks while full-time RVing.

Restoring Combo Tank Sensors

Cleaning and restoring sensors in your black/gray combo tank may look a little different depending on how you're using it.

- **Black only** - if you are using it exclusively as a black water tank, simply follow the same steps for Restoring Black Tank Sensors.
- **Gray only** - if you are using it exclusively as a galley tank or gray water tank, simply follow the same steps for Restoring Gray Tank Sensors.
- **Black and Gray together** - if you are using the combo tank for both black and gray water, start by using the steps for Restoring Black Tank Sensors. If your sensors are still misreading, you may need to perform one more black water cleaning procedure or try the steps for Restoring Gray Tank Sensors, as grease and oil may be caked onto the sensors, something a product like Unique Sensor Cleaner (for black water tanks) will not be able to clean very well; Dawn Ultra dish soap would be the best cleaner for that problem.

Full-Time RV Sensor Cleaning

If you are a full-time RVer, cleaning RV tank sensors can be a lot trickier when you're trying to use the wastewater holding tanks at the same time; you may not have the ability to fill the tank completely with water (which is ideal).

Black Tanks:

1. Fill your tank with water half or three quarters full (depending on anticipated use)
2. Pour one whole bottle of Unique Sensor Cleaner down your toilet (let it sit for ideally 72 hours or more) and continue using your toilet normally until you need to dump.

Gray Tanks:

1. Fill your gray tank as full with water as you can before you go to bed.
2. Pour 20 oz. or more of Dawn Ultra dish soap down your kitchen sink drain, and then dump the next morning.

Note: We recommend trying multiple cleanings before assuming sensors are broken since the tanks are in use each time a cleaning is done.

Note

The best way to prevent sensor issues is to always follow The Unique Method. A guide on how to follow this method is located on the Unique home page.