



Optio Fuel™

Gear Replacement & Cleaning

www.interactio.co

Optio Fuel™ Disassemble Sensor

1



2 Philips screwdrivers - #2 (large) and #3 (small)



Cotton swabs



Tweezers



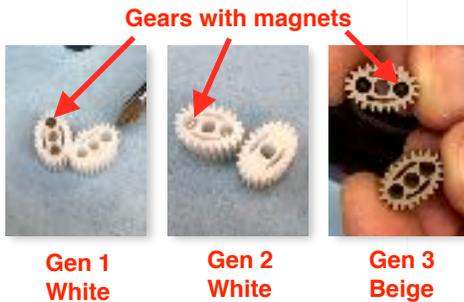
Acetone

Notes:

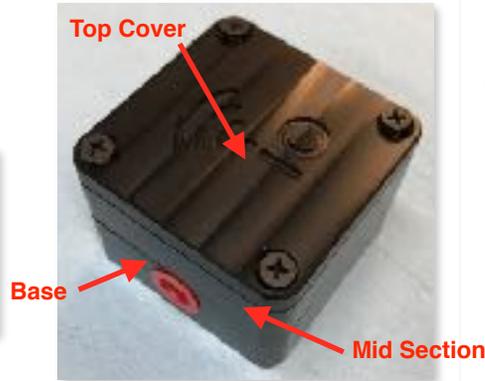
- To disassemble the sensor you will need to remove the mounting screws that run through the sensor. You do NOT need to disconnect the hoses, but if you leave the sensor installed in the fuel line you may need to shut off valves or otherwise clamp the fuel lines so as to prevent fuel free-flowing out of the sensor once you open it up.

2 **Disassemble your sensor**

- Component identification:



- Start by removing the 4 black flat head screws and remove the cover.



- Remove the sensor battery
- Next, remove the circuit board by removing the 2 small M3 screws. Use the smaller of the 2 Philips screwdrivers for the PCB screws.



- Lift the Circuit board out by holding it by the battery holder



3

Open up the gear cavity and remove the gears

6. Next, loosen all 4 of the M5 Pan head screws but do NOT remove the mid section yet



7. Carefully lift off the mid-section with the screws still in and set aside.
8. Since the bottom of the mid-section is the top sealing surface of the gear cavity it needs to be smooth and unmarked. Check to make sure it is clean and smooth. There should be no signs of rubbing or contact with the gears on the mid-section.



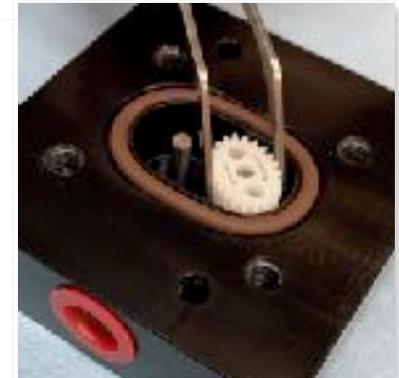
9. Once the top is removed carefully inspect the gears. Make sure there is no debris or foreign matter in the gear cavity, between the gear teeth or anywhere on the gears. Also check to see that they are meshed properly (see re-assembly photos).



10. Now lift the Magnetic gear out by using a screwdriver attracted to the magnet to pull the gear out.
11. Carefully inspect the whole gear and all of its teeth to make sure no debris or foreign matter is on the gear.



12. Next, remove the non-magnet gear with tweezers and inspect it as well
13. Clean the gears by rinsing with acetone and wiping all surfaces. It may be necessary to clean between the teeth with a small brush. Dry the gear when done.



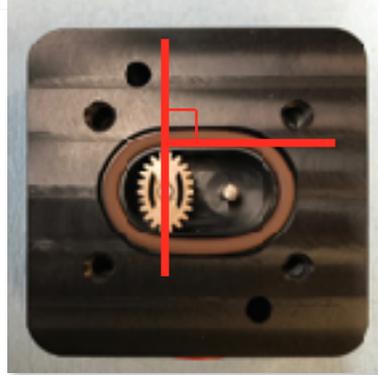
14. Last, clean out the gear pocket with the cotton swabs and acetone, if necessary. It's a good idea to give it a thorough wipe with the swab to be sure no grit or debris is in the pocket.



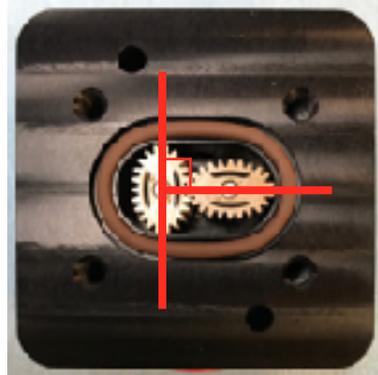
15. Start by taking the gear with the magnets and slide it onto the ground dowel pin. If your sensor has Laser etched writing on the back of it, try to install the magnet gear on the logo side of the base for consistency since this is how they are assembled at the factory.



16. Rotate the magnet gear until it is lined up with its major axis perpendicular to the gear pocket.



17. Next, install the non-magnet gear, aligning it so its major axis is perpendicular to the magnet gear. To ensure proper operation, make sure that 2 of the teeth from the non-magnet gear are fully engaged with the magnet gear.

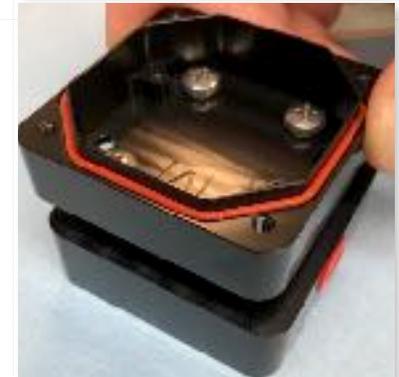


18. When properly assembled, the gears should look like this:



19. Now, assemble the mid-section back on to the base then tighten the four M5 pan head screws

IMPORTANT! Make sure to align the M engraved in the mid-section over the magnet gear! The sensor will not work otherwise.



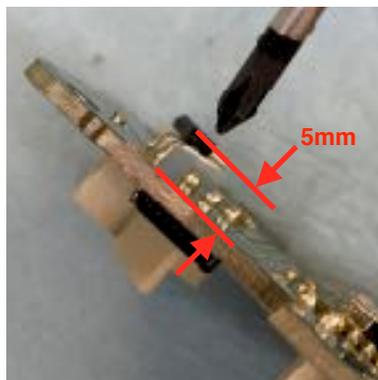
20. Re-install the circuit board, paying close attention aligning it the way it is shown in the photo. The red power switch must be at the bottom on the opposite side from the M. The circuit board mounting holes in the mid-section are asymmetrical, so the circuit board only fits properly one way.



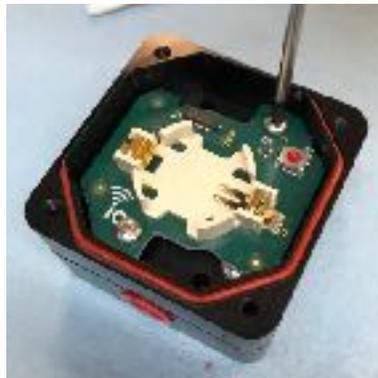
5

Final re-assembly

21. Before screwing the circuit board back down, double-check that the Hall effect sensor on the bottom of the circuit board is hanging down and didn't get accidentally bent up while you had it out of the sensor. It should protrude approx. 5mm below the surface of the circuit board.



22. Screw the circuit board back into place with the two M3 pan head screws.



23. Re-install the battery. Replace with a new one if the battery voltage is below 50%.
24. Finish by re-installing the top cover and tighten the four black, flat head M4 screws.



If you need help or support our contact information can be found on the "More" tab.

Contact us by phone:
+1 (877) 304-9476

or email us at:
support@interactio.co

Warnings:

1. *Do not blow compressed air through the sensor or it will void the warranty.*
2. *Only work on the sensor in a clean location and do not introduce dust or debris to the sensors or it could cause the gears to jam during operation.*
3. **IMPORTANT! Check for leaks after priming and regularly when engine is running!**

Be sure to check all fuel lines for leaks immediately upon starting engine(s) for the first time after the installation and regularly thereafter to ensure proper operation!

