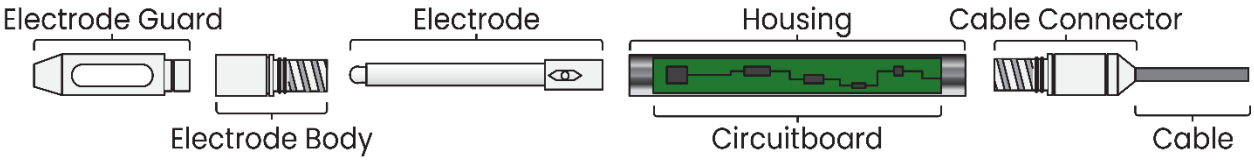
STs Series O-Ring Replacement Instructions

For Cable Connector O-Rings

Required Supplies

- pHionics STs Series Sensor
- pHionics STs Series O-Ring Replacement Kit – Cable Connector & Electrode Body
- Silicone Grease
- Towel
- Dry workstation

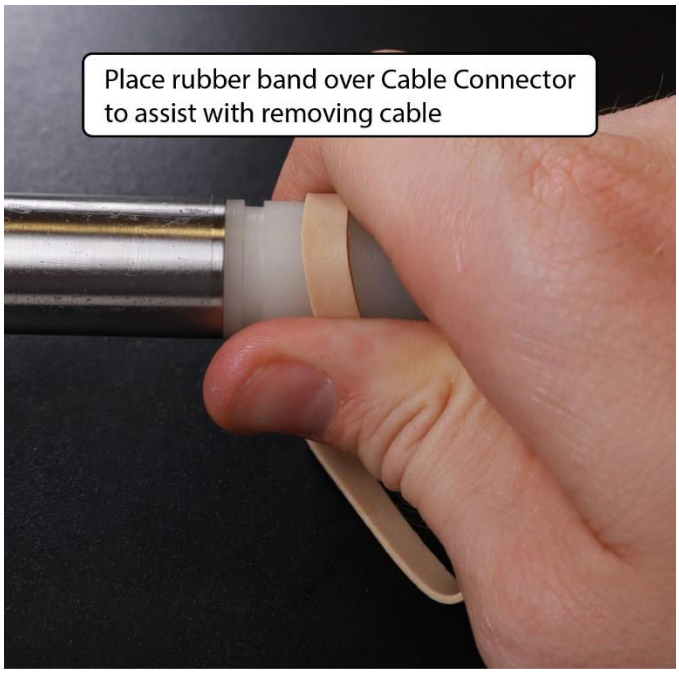
Sensor Anatomy



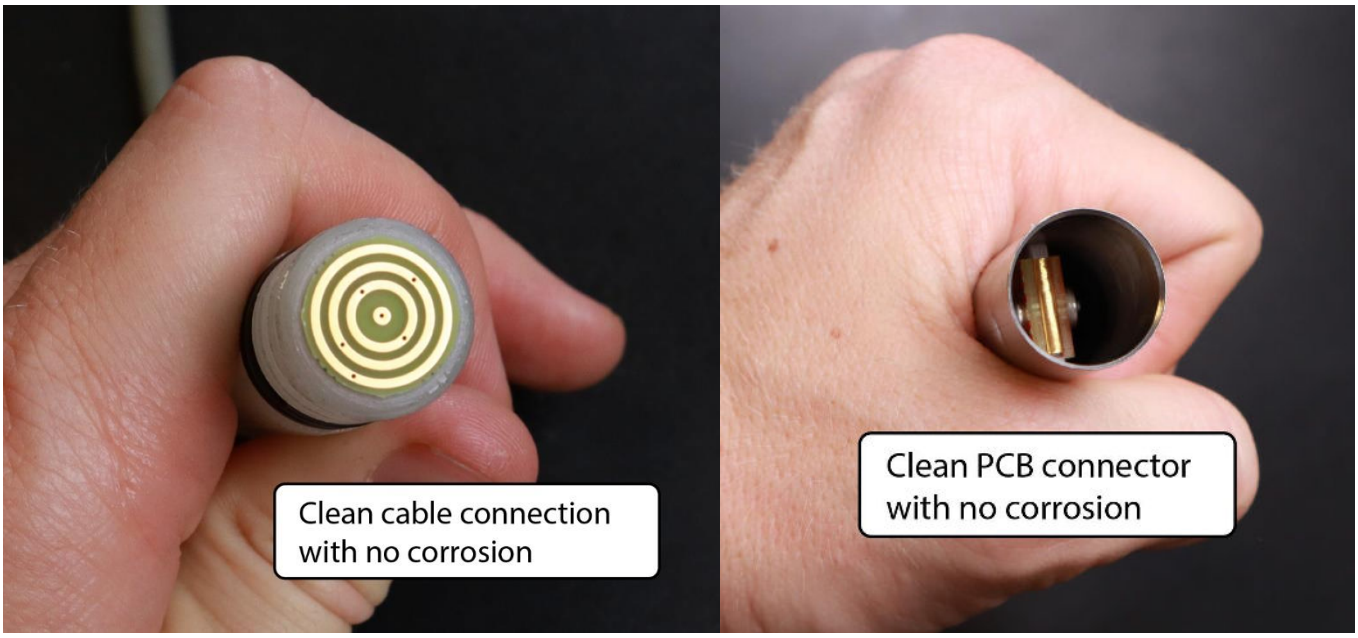
Instructions

You may also view our instructional video here.

1. Dry sensor thoroughly with a towel.
2. Grip the cable connector and metal housing, then unscrew the cable.
    a. Placing a rubber band around the cable connector may help with grip.

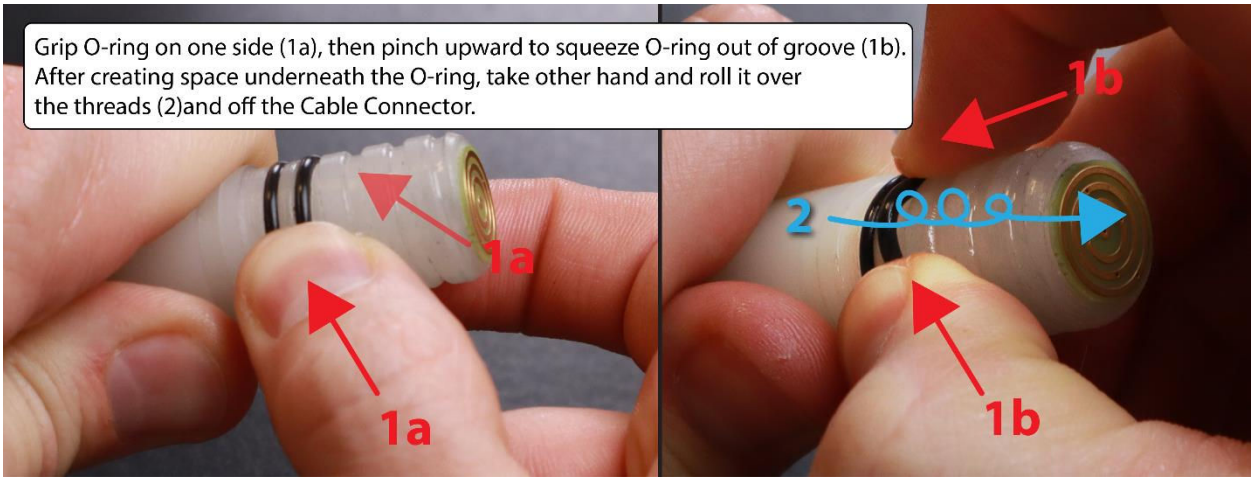


3. Check the connectors for any signs of corrosion or wear. Contact support@phionics.com if there are visible signs.



4. Place sensor and cable on dry workstation.
    a. Make sure the sensor is placed somewhere it will not roll off the workstation.
5. Using a dry part of the towel, wipe the exposed interior of the housing to remove any water. Place the sensor back on the table.
    a. **IMPORTANT:** Be careful not to scrape the PCB connector roughly 1" deep in the housing. A towel won't damage it, but fingernails or other hard objects may cause damage.
6. Using a dry part of the towel, wipe the exposed threads of the cable connector to remove any water.
7. Remove the cable connector O-rings by placing two fingers on one side of an O-ring, then pushing toward the other side with both fingers to stretch it. This process lifts the O-Rings out of the groove so they may be pushed onto the threads or cut and removed. (see image below)
    a. **IMPORTANT:** Do not scrape the bottom of the O-Ring grooves. Even small scrapes may prevent a proper seal and destroy the sensor.

b. Removing the O-ring closest to the cable is easiest. If the other O-ring is removed first, this O-ring will fall into the empty slot as it is removed and will make the process take longer.
c. Wipe O-rings free of grease to make them easier to grip and pinch off.



8. Using a dry part of the towel, wipe the two exposed O-Ring grooves to remove any trapped water and old grease.
9. Take the O-Ring Placement Tool from the O-Ring Replacement Kit and place it over the threads of the connector.
10. Take a greased O-Ring from the O-Ring Replacement Kit and slide it over the Insertion Tool until it falls into the first O-Ring groove.
    a. **IMPORTANT:** Always use O-Rings provided by pHionics. The watertight seals are engineered precisely based on one size of O-Rings. Other sizes may not seal properly and will void any warranty.

11. Take a greased O-Ring from the O-Ring Replacement Kit and slide it over the Insertion Tool. Push the O-ring over the first O-Ring and into the second O-Ring groove.

12. Apply a small amount of grease to the exposed interior of the housing. Spread the grease 360° around the interior with a dry finger. The grease only needs to reach roughly ¼" deep into the housing.
    a. **IMPORTANT:** Be careful not to scrape the gold connector which is about 1" deep in the housing. A towel won't damage it, but fingernails or other hard objects may cause damage.
13. Screw the cable connector into the housing until the connector is flush with the housing.
    a. Attempting to overtighten may strip the thread and damage the sensor.

Your sensor is now ready for many more years of reliable service. For any questions or feedback, please reach out to support@phionics.com.