Addendum to YSI Dissolved Oxygen sensor instructions.

WARNING: FAILURE TO READ THIS NOTE CAN RESULT IN DAMAGE TO YOUR NEW ELECTRODE

The YSI 5739 dissolved electrode is shipped dry from the TPS factory. Ensure to fill the electrode before use.

Why is correct membrane fitting SO IMPORTANT?

There are two reasons why the membrane must form a perfect seal…

1. It stops the internal fluid leaking out and causing air bubbles to form behind the membrane.
2. Most important: It resists contamination from outside getting INTO the probe. Substances such as Sulphides will poison the silver anode. (This is triangular-shaped piece behind the probe membrane.)

How to fit the membrane correctly...

Section "d." of the YSI "PROBE PREPARATION" of the enclosed instruction leaflet, says to stretch the membrane up and over the end of the probe.

This point cannot be overstated. The act of physically stretching the membrane is what forms the correct shape to seal the probe from the outside world. The "O" ring itself DOES NOT guarantee a correct seal of the probe membrane. It only helps to hold a correctly formed membrane in place.

The correct stretching technique will form a "CUP" shape in the membrane. Note that the membrane will stretch up to twice its original length without breaking. It is better to tend to over-stretch the membrane than not to form this "CUP" shape correctly.

It is also essential that the membrane is neatly trimmed off after fitting. If "scraps" of loose excess membrane are left behind the "o" ring, these can catch in the membrane protector thread as it is re-screwed, and pull on the end of membrane, opening the seal.

How to check the membrane is fitted correctly...

Remove the plastic "Humidity" bottle from the end of the electrode. Rinse the electrode tip in distilled water and wipe it dry with tissues etc. Hang the electrode up overnight in a dry place.

If the membrane seal is leaking, white crystals of Potassium Chloride will have formed under the edge of the membrane near the "o" ring, where the filling solution has leaked and crystallized. If these are visible, re-fit a new membrane and re-test.

What will happen if the membrane is not fitted correctly?

The silver anode will usually turn black when it is poisoned. When the anode is poisoned, the whole electrode is usually rendered unserviceable.

1. **Incorrect fitting of the membrane causes poisoning of the electrode.**
2. **Poisoning of the anode is NOT covered by warranty.**

Cleaning Instructions

Empty chambers, then thoroughly clean all matter from the probe.

Decontaminate all exposed surfaces with 70% isopropyl alcohol, a fresh solution of ¼ cup bleach to 5 litres of water or 5 % ammonia solution.