INTEGRATED HARDWARE/SOFTWARE & TRAINING SOLUTIONS FOR THE CATHODIC PROTECTION INDUSTRY

IonX Submersible Electrodes (catalog # 14640 & 14645)

IonX Submersible Electrodes are shipped complete. There is no need to prepare chemicals etc. in the field.

They can be stored "dry" or in regular tap water (with the water level being at least up to the center hole level with the electrode in the vertical orientation).

If stored "dry" the electrode should be immersed in regular tap water at least up to the center hole level (with the electrode in the vertical orientation) overnight, or for at least 12 hours, prior to use.

Also, after shipping, the electrode should be immersed in regular tap water at least up to the center hole level (with the electrode in the vertical orientation) overnight, or for at least 12 hours, prior to use.

IonX Portable Electrodes (Package Catalog numbers 14550 & 14555)

IonX Portable Electrodes are shipped complete and arrive "ready-to-use".

Do not remove the ceramic tip, other than to perform the two operations listed below, when necessary. Also, do not attempt to remove the (black) PVC component (top piece) from the (orange) Lexan tube. Unlike conventional portable electrodes, the copper rod assembly is not designed to be removed from the Lexan tube, since, the rod assembly in the case of an IonX electrode is an integral part of a sealed unit.

The following procedures can be performed when necessary:

1) <u>How to "top-up" the solution inside the (orange) Lexan tube</u>

The solution inside the (orange) Lexan tube is the "IonX Portable Electrode Solution" (catalog # 14635). Only this solution should be used to "top-up" the Lexan tube when necessary (see below).

The topping-up process should be done if the solution level (when the electrode is right-side up and in the vertical orientation) is more than about a half inch from the bottom of the black bar. Keeping the solution above this level will ensure that the internal plug is immersed in the solution, even with the electrode lying on its side (in the horizontal orientation).

First, turn the electrode upside down (ceramic tip on top) and unscrew the tip from the (orange) Lexan tube while holding the tube in an upright position. Next, add the solution to the Lexan tube, leaving 2 or 3 threads exposed (out-of-solution) at the top. Next, screw the ceramic tip back onto the Lexan tube (do not over-torque) and return the electrode to a normal orientation (tip pointing down, or electrode on its side) and let the electrode sit overnight prior to using the electrode to take readings.

Always keep the IonX Portable Electrode Solution inside the Lexan tube at all times (at the correct level).

2) How to replace the ceramic tip

If you need to replace the ceramic tip at some point (if it is worn down), proceed as follows: First, turn the electrode upside down (ceramic tip on top) and unscrew the tip from the orange Lexan tube while holding the tube in an upright position. Screw on a replacement ceramic tip (do not over-torque) and return the electrode to a normal orientation (tip pointing down, or electrode on its side) and let the electrode sit overnight prior to use.

If the Lexan tube solution needs topping-up, proceed as outlined above, prior to screwing on the replacement ceramic tip.

Note: **Unlike conventional portable electrodes, the ceramic tips used on IonX portable electrodes are NOT pre-soaked in copper sulfate solution. Do not use a ceramic tip that has been pre-soaked in copper sulfate solution on an IonX electrode.**

When ordering a replacement ceramic tip, please specify that the tip is for use on an IonX portable electrode.

IonX Permanent Electrodes (catalog # 14660 & 14670)

IonX Permanent Electrodes are shipped complete and arrive "ready-to-use". They are designed for direct burial in soil. The electrodes should be installed in the vertical orientation (wire-side up) or between a minimum angle of 20 degrees with respect to horizontal (with the ceramic tip pointing downwards) and the vertical orientation (90 degrees versus horizontal).

After drilling a suitable sized hole in the ground, insert the electrode to the bottom of the hole and pour a slurry of native soil mixed with water into the hole to a level about 1 foot above the top of the electrode. Finally, fill the hole to grade level using native soil.