TINKER & RASOR

SPECTRE REFERENCE ELECTRODE INSTALL INSTRUCTIONS

SPECTRE 2 SSC

SILVER-SILVER CHLORIDE
(Ag-AgCl)

1. Unpacking the Electrode

- Remove the plastic shipping bag from the reference electrode just prior to installation.
- Some slight moisture inside the shipping bag is normal. The ceramic portion of the Spectre electrode is **pre-soaked** before packaging to retain moisture during storage and shipping.

2. Temperature Handling

- **Do not allow the electrode to freeze before installation**. Freezing may cause the ceramic to crack due to moisture expansion.
- Once installed below the frost line, the electrode will function as intended.
- If the electrode freezes after installation, it should resume normal operation after thawing.

3. Installation Depth

- Install the Spectre reference electrode **below the normal frost line** to ensure consistent year-round performance.
- Voltage readings can be difficult to obtain in frozen soil due to increased resistivity.

4. Auger Hole Requirements

- A 2" to 3" diameter augured hole is required.
- Install the electrode below the spring line of the pipe or structure— **within 24" of the structure**. Corrosion is most common on the underside of pipelines, so placement should reflect this.

5. Moisture & Backfill

- The Spectre electrode is pre-soaked and sealed for shipping. It should not require additional soaking before installation.
- Lower the electrode into the hole and flood with **2.5 gallons of seawater-equivalent solution**. A seawater mix packet is included with the electrode and should be mixed with 2.5 gallons of fresh water to create the flooding mixture.
- Immediately after flooding, backfill the hole with native soil only—do not use sand.
- Tamp the soil to ensure good compaction around the electrode.

6. Electrical Connection

- Connect the reference electrode lead wire and the structure test lead wire to **separate** terminals in the test box.
- **Do not connect the leads together— doing so may polarize the electrode and damage its accuracy.**

In areas with extremely moist or flooded conditions or high-water tables, it is recommended to bag the electrode in a 3" diameter cotton bag, and use a special non-polarizing backfill to prevent leaching and ensure stable performance.

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