



CORROSION MITIGATION INSTRUMENTATION  
2828 FM 758, NEW BRAUNFELS, TX 78130 TEL: (830) 253-5621

## **PRODUCT INSTRUCTIONS**

### **MODEL DB-A DIRECT BURIAL REFERENCE ELECTRODE**

- I. INSTRUCTIONS FOR UNPACKING AND INSPECTION
- II. LENGTH OF WIRE
- III. TIE-OFF OF WIRE
- IV. MIXING RESIN COMPOUND
- V. INSTALLATION IN SOIL
- VI. SHELF LIFE OF REFERENCE ELECTRODE

Web: [www.tinker-rasor.com](http://www.tinker-rasor.com)

E-mail: [Info@tinker-rasor.com](mailto:Info@tinker-rasor.com)



CORROSION MITIGATION INSTRUMENTATION  
2828 FM 758, NEW BRAUNFELS, TX 78130 TEL: (830) 253-5621

## PRODUCT INSTRUCTIONS

### I. INSTRUCTIONS for UNPACKING and INSPECTION

**INSPECTION** of products should be performed upon receipt. If damage has occurred in shipment, file a claim with the carrier immediately. Check components (against packing slip) to be sure nothing is missing.

If it is necessary to contact your supplier or Tinker & Rasor concerning damaged or missing items, be sure to include all information such as purchase order number and invoice number.

### II. LENGTH OF WIRE

Ensure that enough wire has been allocated to place the Model DB-A in the location desired without causing any stress on the wire, the tie-off point on the reference electrode or the tie point on the test station on the surface.

Some slack is recommended to ensure against breakage of the wire or loss of contact with the reference electrode.

### III. TIE-OFF OF WIRE TO REFERENCE ELECTRODE

Direct burial reference electrodes are commonly placed underground in locations difficult to excavate after installation, therefore it is very important to ensure a strong tie is used when connecting the wire to the reference electrode.

Diagram 1 (Below) shows a solderless lug (not supplied), which is recommended to tie-off the wire to the reference electrode. Place wire into open end of the lug and crimp tight.

Diagram 2 (below) shows detail of the connection. Place the solderless lug onto post at top of the reference electrode. Tighten nut down on lug. Coil the wire into three or four loops inside the reference electrode.



Diagram 1



Diagram 2

Web: [www.tinker-rasor.com](http://www.tinker-rasor.com)

E-mail: [Info@tinker-rasor.com](mailto:Info@tinker-rasor.com)



CORROSION MITIGATION INSTRUMENTATION  
2828 FM 758, NEW BRAUNFELS, TX 78130 TEL: (830) 253-5621

## PRODUCT INSTRUCTIONS

### IV. MIXING RESIN COMPOUND

An epoxy resin compound should be used with the DB-A Direct Burial Reference Electrodes. This type of compound usually comes in a two-part mixture. It must be water-proof after application.

The resin will come with its own instruction manual for mixing and pouring, as well as proper disposal methods.

**WARNING: MANY RESIN MIX TEMPERATURE WILL RISE TO OVER 150° F WHEN MIXED! READ INSTRUCTIONS BEFORE MIXING**

After mixing epoxy resin, pour into top of the reference electrode, completely covering wire connection and top of copper electrode. Fill the reference electrode to top with resin.

Discard resin per separate Resin Compound instructions.

### V. INSTALLATION IN SOIL

The reference electrode should be placed in the soil nearby the structure being measured. Because soil can change in potential in a few feet one direction or another, placing the reference electrode as close to the structure is important for proper reads.

A rapidly wetting backfill, such as Bentonite, is required to keep the reference electrode moist. To install a reference electrode with backfill, place electrode in bag of backfill. Tie bag closed. Submerge bag in water for approximately five minutes. After soaking, place bag in soil at desired location.

### VI. SHELF LIFE OF MODELS DB-A REFERENCE ELECTRODES

The Models DB-A and DB-E have a shelf life of one month. It is suggested that reference electrodes be stored in a cool, dark location in a sealed container, with a small amount of moisture included.

It is recommended that the reference electrode not be installed after this period.

**NOTE:** Additional information may be found on the Tinker & Rasor website:  
**[www.tinker-rasor.com](http://www.tinker-rasor.com)**

010-278

Web: [www.tinker-rasor.com](http://www.tinker-rasor.com)

E-mail: [Info@tinker-rasor.com](mailto:Info@tinker-rasor.com)