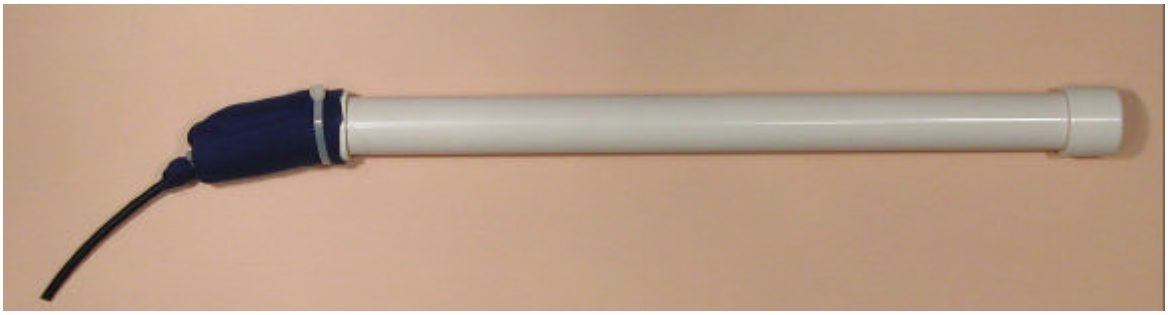
Model US - SlimLine(TM) Reference

Typical Applications:

- Underground and aboveground storage tanks, buried pipelines, elevator shafts

Featuring:

- 30 year design life with EDI's LongLife(TM) gelled element
- Can be installed in a 2 inch (5 cm) diameter hole
- Proprietary backfill mix to retain moisture and minimize migration of contaminants from the surrounding soil
- 50 feet (15 m) of #14 AWG HMW/PE lead wire is standard



Housing Specifications

Size – 1 5/8 inch dia. x 18 inch long
(4.2 cm dia. x 45 cm long)
Shipping weight – 5 lb (2.3 kg)

Element Specifications

Design life – 30 years
Shelf life – 1 year minimum
Stability - ± 5 mV

Element Types

AGG - saturated gelled Ag/AgCl
CUG - saturated gelled $Cu/CuSO_4$

Terminations

SW – 50 feet (15 m) of #14 AWG HMW/PE
LWnnn - nnn feet #14 AWG HMW/PE
CWnnn - nnn feet of custom wire
(#12 HMWPE is the largest size wire that can be used on this model)

Model Designation

Specify as EDI Model US-xxx-yy
xxx = Element type
yy = Termination type

Design Compatibility

The **Model US** is designed for installation in a 2 inch (5 cm) diameter hole. It is ideal for retrofit through asphalt or concrete where it is difficult or costly to drill a larger diameter hole. This electrode can be used between storage tanks at service stations or between the primary and secondary containment of an aboveground storage tank. Also, the **Model US** weighs far less than the industry standard bagged electrode, which reduces shipping costs where this is a consideration. Also see Model US50 which has been optimized for a 50 year design life.

Installation

Drill a 2 inch (5 cm) dia. hole, lower the electrode into place and slurry in backfill.

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U Series Underground Reference Electrodes

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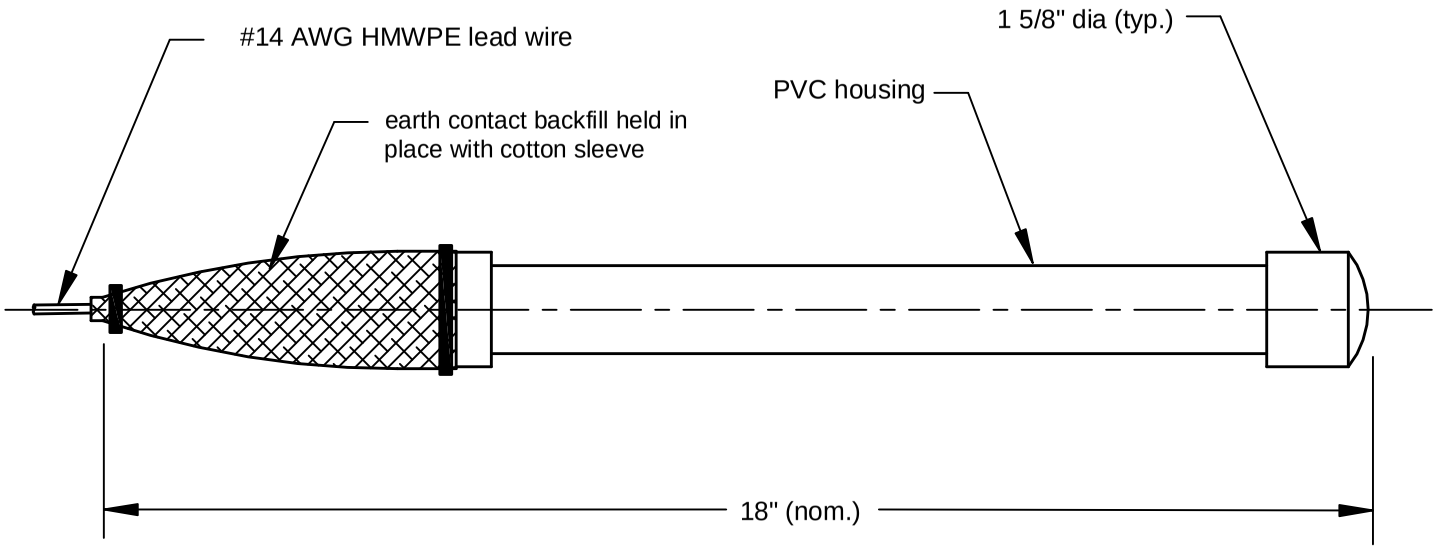
Model US - 30 year (nom.) design life



Specify as Model US-xxx-yy where
xxx is element type and
yy is termination type

Element Types
AGG = Ag/AgCl (saturated, gelled)
CUG = Cu/CuSO4 (saturated, gelled)

Termination Types
SW - 50' #14AWG HMWPE lead wire
LWnnn - nnn' #14 AWG HMWPE lead wire

Refer to the following EDI drawings for installation guidance:
USAPP1 - Installation in a bore hole
USAPP2 - Installation beneath an above ground storage tank
USAPP3 - Installation in a test station riser

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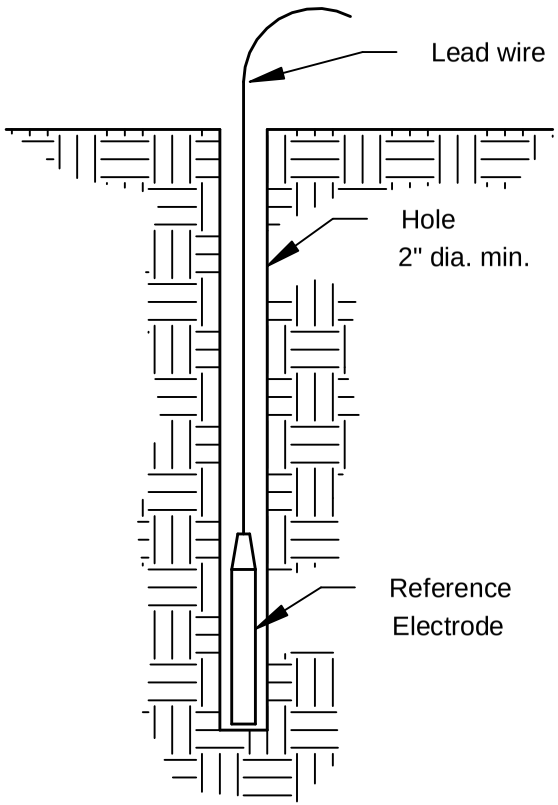
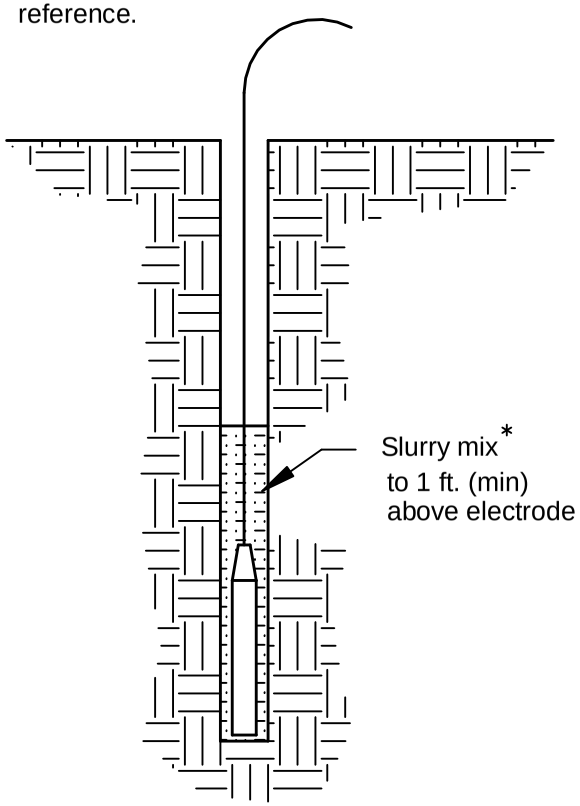
SlimLine™ Underground Reference

SCALE 3/8	DATE 11/27/02	DRAWN BY FJA	DRAWING NUMBER USASY

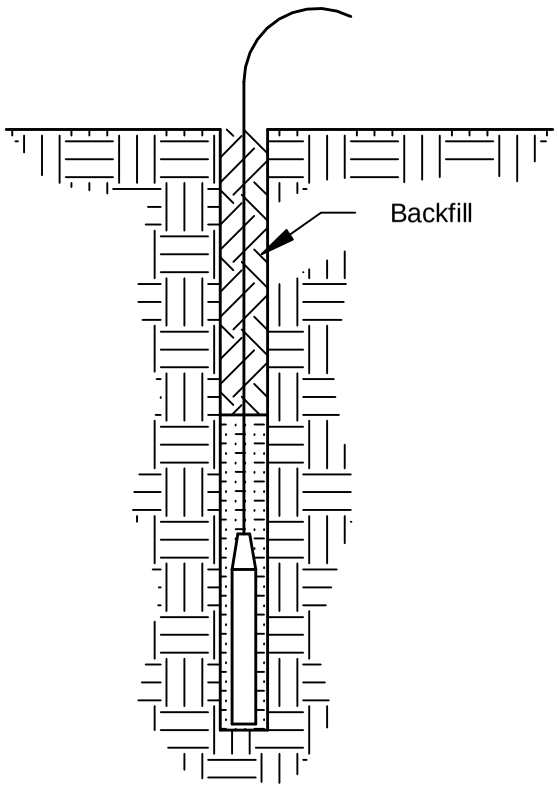
1. Drill hole 2" dia. min.
   Lower reference electrode
   into hole.



2. Pour or pump slurry mix into hole.*
   Fill to at least 1 foot above electrode.
   Measure and record potential of permanent
   reference using a calibrated portable
   reference.



3. Fill balance of hole
   with suitable backfill.



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Slurry mix *
75% sand plus 25% bentonite clay
Add water to make pourable consistency

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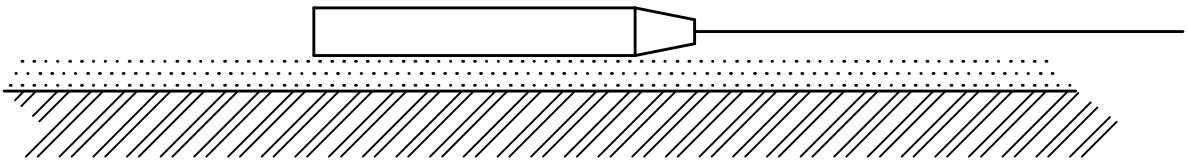
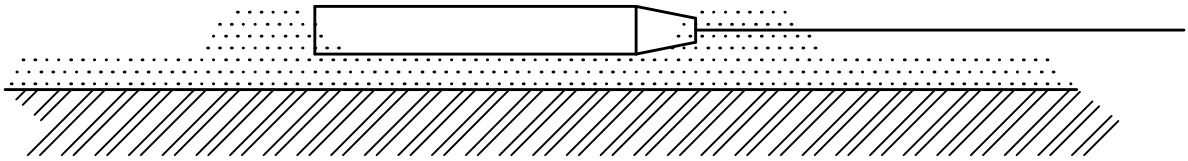
Model US - SlimLine™ Installation

SCALE	DATE	DRAWN BY	DRAWING NUMBER
NONE	11/27/02	FJA	USAPP1

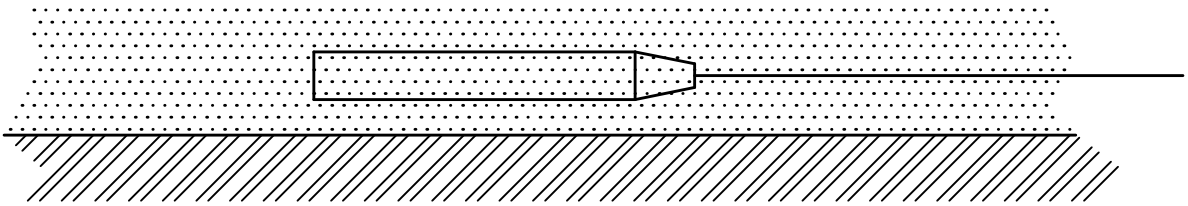
1. Place reference electrode on a bed of sand approximately 1/2" to 1" thick.



2. Build a dam of sand around the electrode.
   Thoroughly saturate bag with potable water.
   Measure and record potential of permanent electrode using a calibrated portable reference electrode.



3. Cover electrode with at least 1" of sand.
   From this point on, the electrode must not be disturbed or moved.



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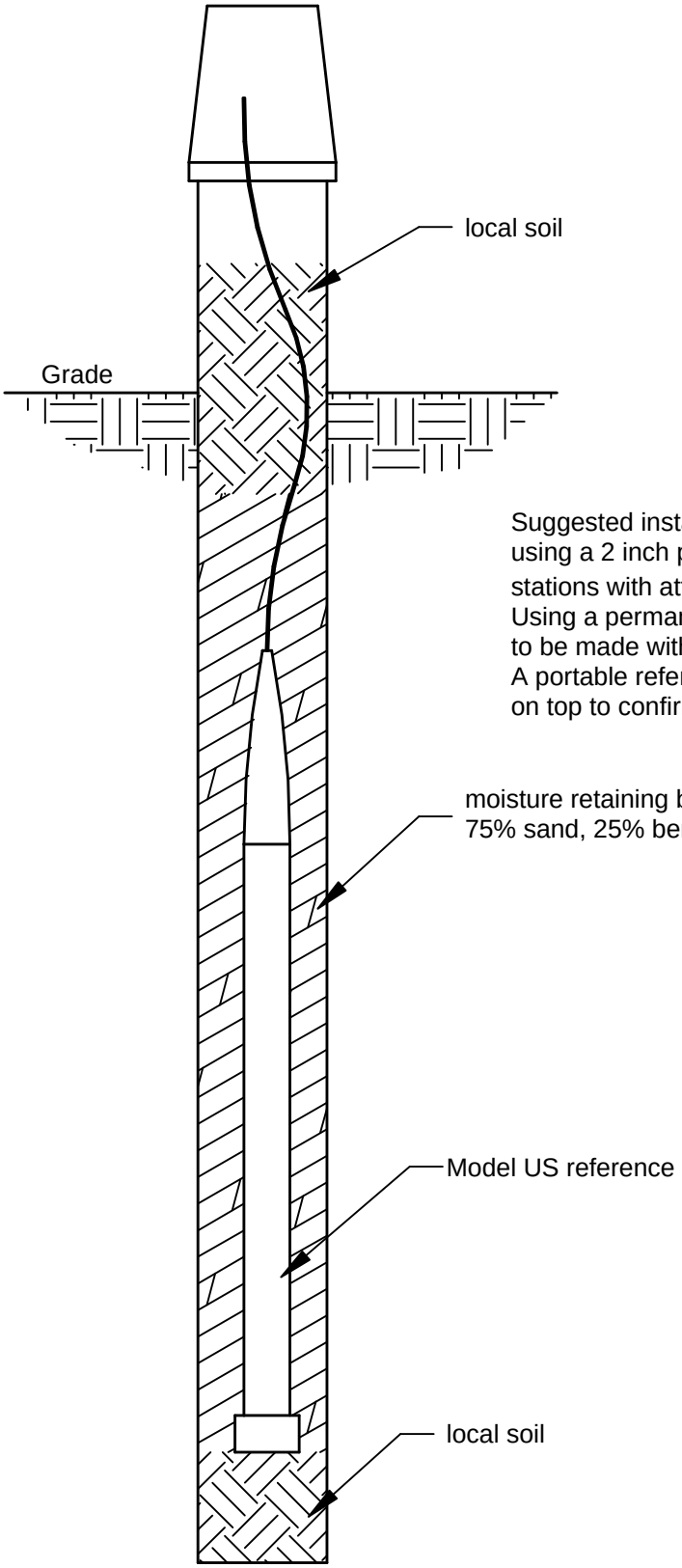
SCALE	None	DATE	03/02/00
DRAWN BY	FJA	DRAWING NUMBER	USAPP2

Model US - Undertank Installation



Suggested installation method for a test station using a 2 inch pipe size or larger riser, including stations with attached cathodic protection coupons. Using a permanent reference allows measurements to be made with data loggers or remote monitors. A portable reference may be placed in the opening on top to confirm or calibrate readings.

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SCALE NONE	DATE 11/27/02
DRAWN BY FJA	DRAWING NUMBER USAPP3

Installing Model US in a Test Station