



Soil Moisture Probe Installation

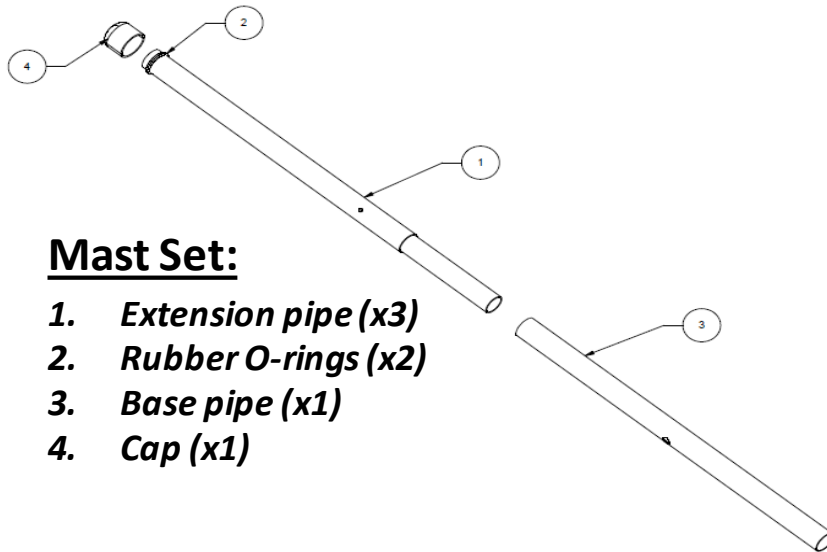
February 2015



Version 2.0



Components



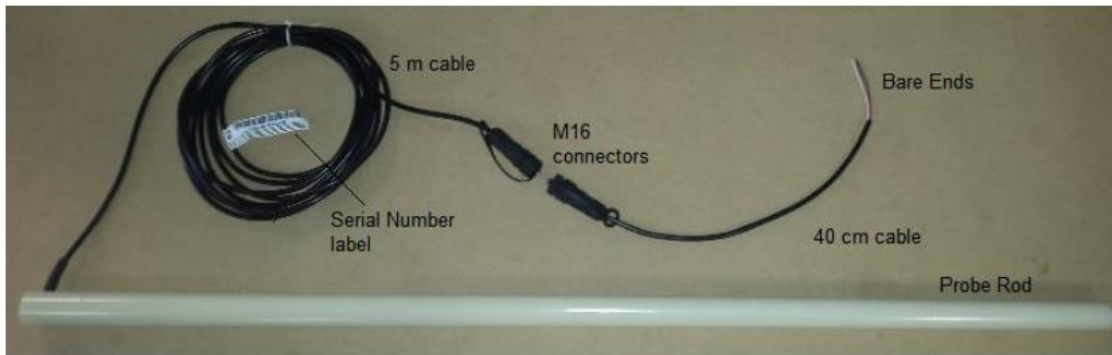
Mast Set:

1. *Extension pipe (x3)*
2. *Rubber O-rings (x2)*
3. *Base pipe (x1)*
4. *Cap (x1)*



Communication Module

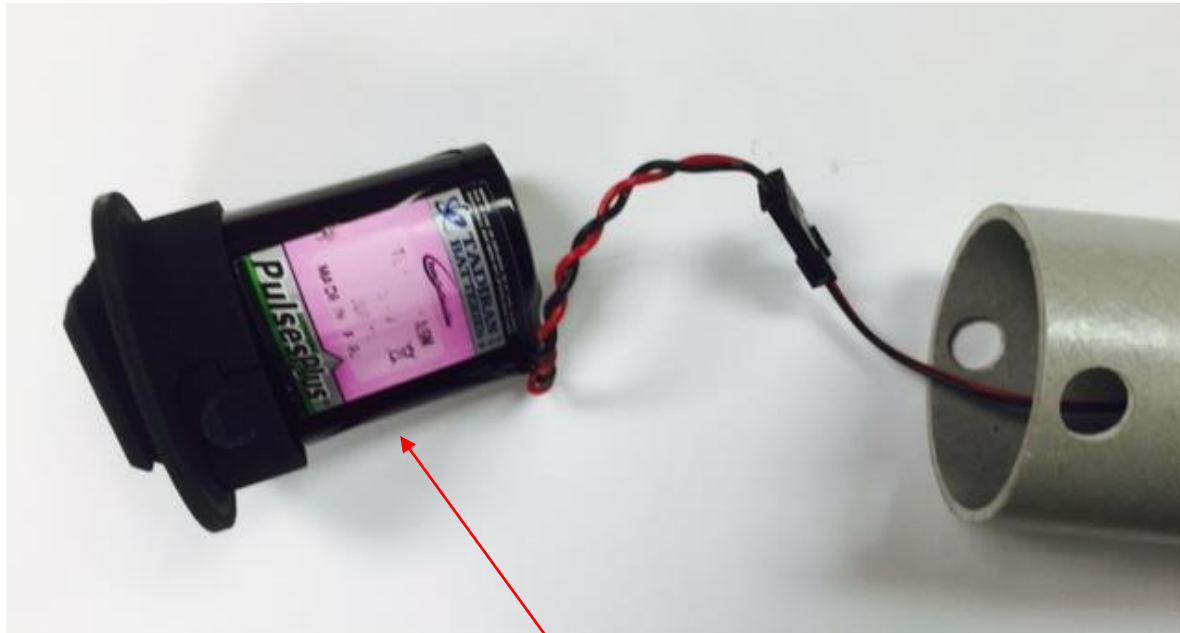
- Cellular
- Mesh
- Gateway



Sentek Drill & Drop Probe

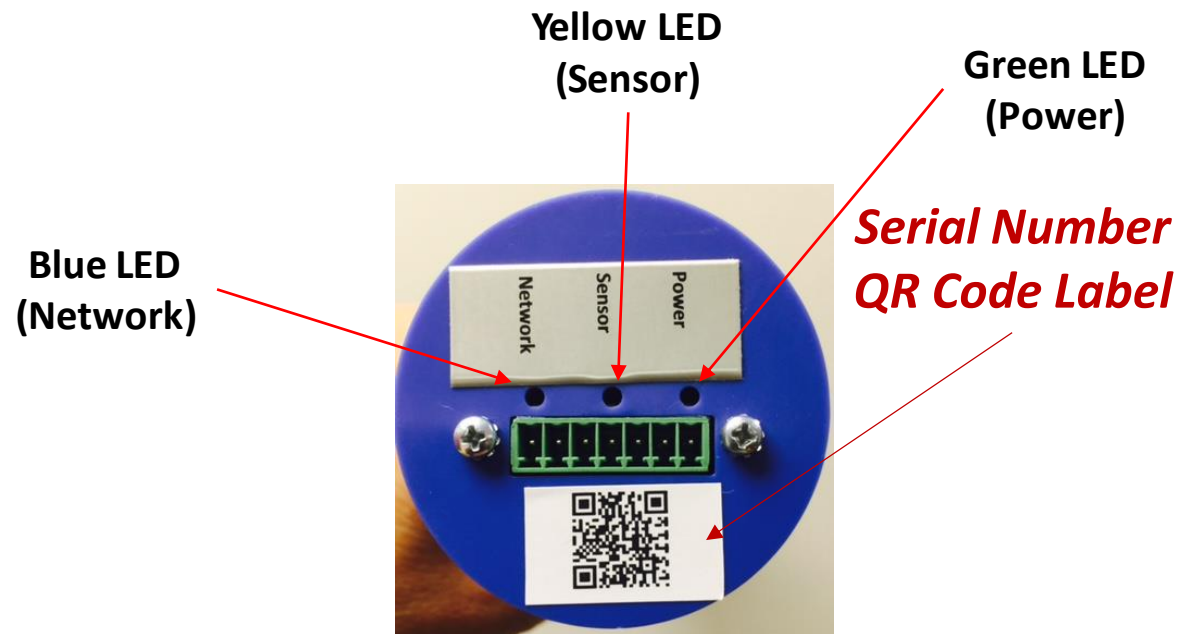
- 2, 3 or 4 ft lengths
- Moisture & Temp Sensors
- Sensors pairs every 4"

Power Powered for Multi-year Operation



Battery/Cap replaced every two growing seasons

LEDs Indicate Problems and Status



***Bottom End Cap
Of Communication
Module***

LED Status Indications

Cellular



On Solid: Power on, Battery charge level ok
Blinking: Power on, Battery charge low
Off: Battery discharged



On Solid: Sensor comm good
Off: Sensor comm failed
Blinking: currently attempting Sensor readings



On Solid: Device operational
Blinking Slow: attempting to Access the cell modem
Blinking fast: attempting call to the Database over cell network
Off: Not able to communicate

Mesh

On Solid: Power on, Battery charge level ok
Blinking: Power on, Battery charge low
Off: Battery discharged

On Solid: Sensor comm good
Off: Sensor comm failed
Blinking: currently attempting Sensor readings

On Solid: Gateway connection successful
Blinking: attempting to connect To Gateway
Off: Can not connect to Gateway




Gateway

On Solid: Power on, Battery charge level ok
Blinking: Power on, Battery charge low
Off: Battery discharged

On Solid: Sensor comm good
Off: Sensor comm failed
Blinking: currently attempting Sensor readings

On Solid: Device operational
Blinking Slow: attempting to Access the cell modem
Blinking fast: attempting call to The Database over cell network
Off: Not able to communicate

Go/No Go Status

<i>Good</i>		<i>Progress</i>	<i>Failure</i>
	<i>On solid</i>	<i>Blinking</i>	<i>Off</i>
	<i>On solid</i>	<i>Blinking</i>	<i>Off</i>
	<i>On solid</i>	<i>Blinking</i>	<i>Off</i>

Note: LEDs only active for 2 minutes after battery connected. All normally off at all other times and actual status not indicated.

Tripod Installation



Drill the Hole



When the going gets tough in heavy clay, spray some water onto the auger and into the augered hole. This makes the drilling process easier by allowing the lubricated clay ribbons to travel up the auger flight and out of the hole.



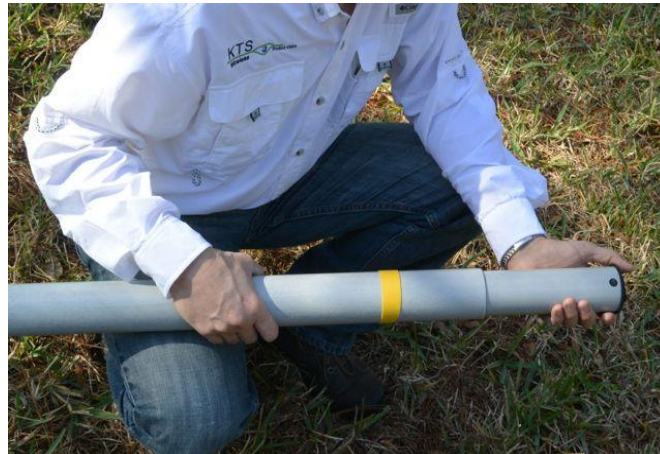
In sand, the water serves to maintain the integrity of the hole being augered (stops wall collapse).



Drop the Probe in the hole

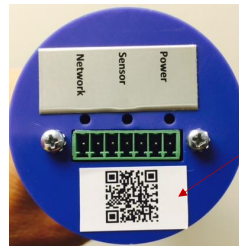
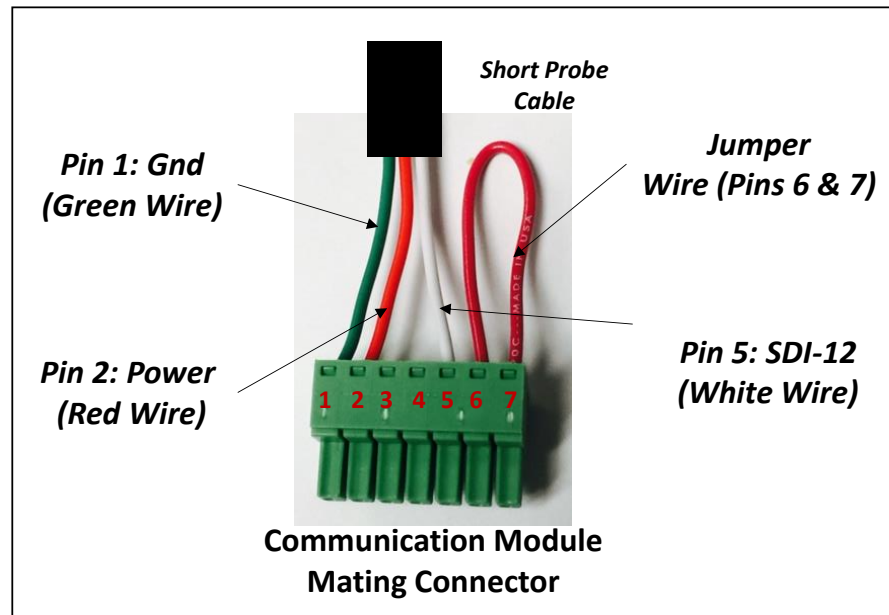


Erecting the Mast



Connect Cables

SDI-12 Cable	+Vin	0V	DATA
3-wire cable	Red	Green	White



Equipment Storage

