



# WATER-INSIGHT

## QIMS Remote Solar Station Quick Start

---



Accessory kit contains the antenna mounting plate and hardware. This is supplied together with the 60mm Galvanised Support Pole, Solar Panel assembly and RSS01 Equipment Box.

First mount the Antenna Mounting Plate at the top of the 60mm Galvanised Pipe with the U Bolts provided. Use a flat washer and spring washer under each nut.

The Antenna will be mounted later.





Next mount the solar panel mounting bracket to the 60mm Galvanised Pipe using the supplied U-bolts, washers and screws.

Position the Solar Panel directly under the Antenna Mounting Plate so that the solar panel is oriented as shown in the picture.

The solar panel mounting assembly can vary from batch to batch.





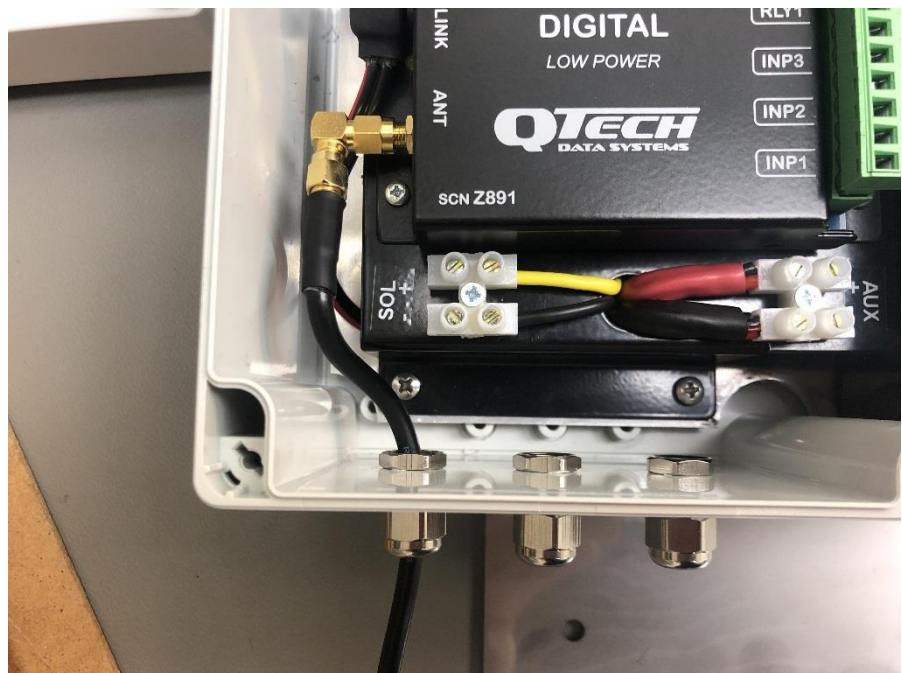


Next mount the Remote Solar Station equipment box to the 60mm Galvanised Pipe using the U-bolts, nuts and washers provided. Locate the box directly below the Solar Panel Mount.

Now install the Antenna onto the Antenna Mounting Plate using the Bolts, washers and nuts provided. Route the antenna cable up alongside the solar panel assembly and secure cable with the cable ties provided.

Route the solar panel cable down into the middle Cable Gland labelled Solar on the equipment box lower side. Strip Cable and terminate to the SOL Terminal block shown in the picture.

Note: the black wire goes to the black negative terminal and the red goes to the yellow positive terminal.



## **Installing Sensors**

### **Moisture Sensor installation**

Soak the sensors overnight in irrigation water. Always install a wet sensor. If time permits, slowly wet the sensor by partially submerging (no more than half way) for 30 minutes in the morning and let it dry until evening, wet for 30 minutes, let it dry overnight, wet again for 30 minutes the next morning and let dry until evening. Soak over the next night and install WET. This will improve the sensor response in the first few irrigations. Make a sensor access hole to the desired depth with an 22mm O.D. rod, we recommend one sensor to be a depth of 200mm and the other at 400mm. Fill the bottom of the hole with a thick slurry made from soil removed from the hole and water, then firmly push the sensor down into the mud in the bottom of the hole. This will “grout in” the sensor to ensure maximum surface contact between the sensor surface and the surrounding soil. Alternately, the sensor can be firmly pushed to the bottom of the access hole as long as it is a tight enough fit to ensure adequate contact; a snug fit is absolutely necessary. This video linked shows the installation: <https://youtu.be/GnpsO97a9IE>

### **Temperature Probe installation**

Make a sensor access hole to the desired depth with an 6mm rod, we recommend to be at a depth of 200mm. Fill the bottom of the hole with a thick slurry made from soil and water, then firmly push the sensor down into the mud in the bottom of the hole making sure not to bend the probe. This will ensure maximum surface contact between the sensor surface and the surrounding soil.

## Wiring Guide for the Soil Moisture Logger



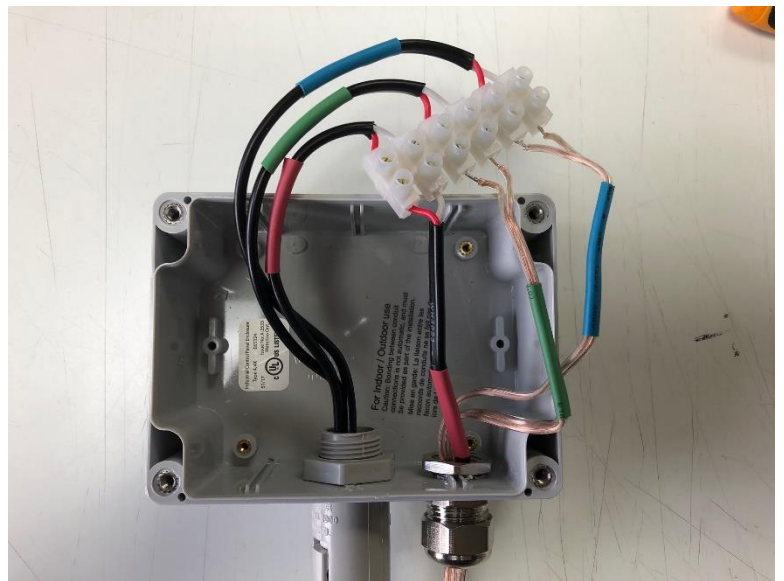
Strip the ends on the Soil temperature Probe (marked red) wire to expose around 5mm of the copper. As shown in the picture

Route the three sensors cable through the Cable Gland and connect to the corresponding colour on the terminal block shown in the picture.

Note: the polarity of the wires does not matter. As long as the colouring is matched.

Once all the wires are connected replace the lid. This now can be placed in the ground or mounted to the bottom of the pole.

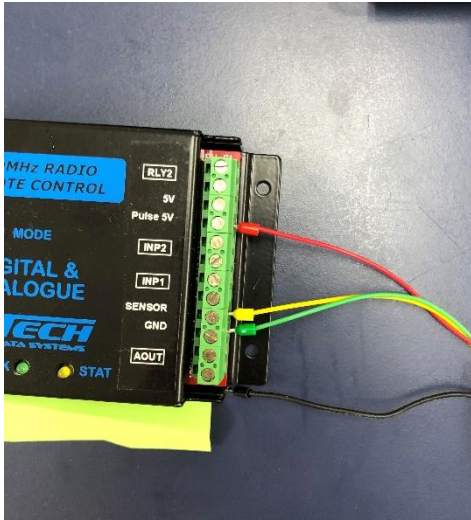
Note: if mounting to the pole make sure the cable glands are at the bottom.



Open the Remote solar station. The soil moisture wiring as been done in the factory, all that is required it to connect the positive battery terminal.

The terminal plugs can vary from batch to batch.

## Wiring Guide for the ITU tank level meter.



The tank level sensor comes prewired from factory but may need unplugging for installation in the tank. The table and the picture below show how the sensor is wired into the ITU. When installing sensor in the tank make sure the cable isn't bent too much as this could damage it.

Tank level sensor wires	ITU and RSS01
Red	Pulse 5V
Yellow	Sensor
Green	GND
Black	RSS01 AUX negative

Open the Remote solar station. The ITU tank level meter wiring has been done in the factory, all that is required it to connect the positive battery terminal.

The terminal plugs can vary from batch to batch .

