



INTERNATIONAL

MP406 / MP306

Install Guide: Augered

Versatility In Long Term Installation



The MP-306 and MP-406 are versatile soil moisture instruments, ideal for long term installation.

In some scenarios it is sufficient to install them using a hand auger and then burying the instrument; however, ensuring the pins have good contact in the soil can be difficult.

Due to the design of the MP-306 and MP-406 unit, it is possible to add an extension piece to the unit and

use this to guide the cable up to the surface, as well as use the extension to install and remove the unit. The thread on top of the MP306/MP406 is a standard 20mm/¾" plumbing/irrigation fitting that enables the use of readily available connections and pipe.

In the case of the recent installation that ICT International have undertaken as part of their work with Australian research organisations, the following installation configuration was used to bury MP406 sensors at varying depths.

2. Augered Installation Instructions

2.1 Assemble all the Pieces at the Various Lengths Required



Ensure you have calculated the various poly riser lengths to suit the required depths, factoring how deep they will reach as a complete, buried unit.

These units (left) are using a 900mm riser (top) and 750mm (bottom) that enable the MP306/406 to be buried at depths of up to 1070mm and 920mm respectively.

2.2 Connect the ¾" Coupling to the Poly Riser and the MP-406/MP306



2.2.1 Coupling to the Poly Riser

Screw the ¾" coupling to the poly riser (Cut to the desired length; see instruction 2.1 as a guide).

2.2.2 Remove the Rubber Gland

Remove the rubber gland that is supplied on the MP306/406 and set aside.

2. Installation Instructions



2.2.3 Coupling to the Sensor

Pull the MP406/MP306 cable through the coupling end of the poly riser out the other side. Then screw the coupling directly onto the threads on the top of the MP306/MP406.

2.2 Screw the 3/4" 90° M-F Elbow to the Poly Riser and Seal With The Rubber Gland



Pull the cable through the elbow, and screw the 3/4" 90° M-F elbow to the poly riser.

Then take the rubber gland that is supplied with the MP406 and seal it onto the elbow end and the cable outlet. This will reduce water ingress.

Complete and ready all units for burying.

2.4 Augering the Hole & Burying the MP403/MP306



2.4.1 Augering the Holes

If the ground is particularly dry, or in certain soil types, it is a good idea to wet the soil as you auger the hole to ensure that the hole is to the required depth (also mark the auger with the hold depth you are aiming for) without loose soil collecting at the bottom. Soil that has a higher moisture content is easier to remove than dry, loose soil.



2.4.2 Burying the Sensors

Once the hole is to the required depth, add some more water to the base of the hole (this is to allow the pins to make good contact into the soil) and then gently push the MP406 into the ground. In the case of this installation, the location was alongside an irrigation line – this gave a path for the cable to follow from the installed MP406 and riser to the IoT Node that was sending the data back to the dashboard.

Complete all holes at the required depths for each unit and bury to finish the install.



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