

QUICK START GUIDE: HydraGO Field Version

Before you start

The HydraGO has been designed for temporary "on the go" deployment and is not considered a weather resistant or weatherproof unit. We recommend that you read this quick start guide before using the HydraGO.

Soil Measurement Consideration

- Do not use excessive force and do not twist it when inserting into the soil. Rocks may be present in the soil and tines can bend with torque.
- Do not toss or drop the HydraGO. Place it down gently to ensure a longer lifetime for the main unit.
 Do not store it inserted in the soil. Remove the HydraGO from the soil and store in its carry case when
- done.
- Prolonged heat or cold within normal ranges will not affect the HydraGO operation. However, as with other electronics, do not leave it in an enclosed car in the sun.
- The HydraGO may need a few minutes to equilibrate to actual soil temperatures the first time after it is removed from a hot or cold storage environment such as a car or truck. Simply take a "Sample" reading in air using the HydraMON to see if the temperature reading is the approximate air reading before starting. It is recommended to leave the sensor in the soil for approximately 1 minute to provide the most accurate soil temperature measurement.
- For quantitative measurements, the HydraProbe tines require full contact with the soil in order to acquire good readings. That means all of the metal portions (tines including the base) of the HydraProbe must be in full contact with the soil.
- Avoid rocking the unit back and forth once it is seated in the soil. Air gaps between the tines may affect the accuracy of the readings.

Using HydraMON Software via wi-fi with iPhone or Apple Device

Download and install the Stevens HydraMON App from the Apple Store or Google Play. You can search using the following search words to locate the App "POGO", "Stevens" "Hydra Probe" or "HydraMON". The Wi-Fi HydraGO works with Apple and Android mobile devices.

Taking a quick sample reading

- 1. After you have the App loaded you can take quick sample reading.
- 2. First turn the unit on and make sure there are at least 10 volts on the LED screen.
- 3. Go to the Wi-Fi Settings on the mobile device. Connect to the HydraGO
- 4. Navigate to the HydraMON App and open it.
- Hit the "Connect" Button in the App. Once connected, it will display the Probe's serial number and the "Connect" Button will turn into a "Disconnect" button
- 6. Press the "Sample Only" button and a reading will be taken. At this point the reading has not been saved. The user can continue to take sample only readings
- 7. Or hit "Sample +Save" to sample and store readings.

Save the Data

The HydraMon App can also store the data. Connect the device to the Wi-Fi and the App the same way as described in the previous steps.

- Saving the data to locations helps the user keep track of the data that is collected in the field. Press the Location button arrow on the upper right hand section of the App. Add a location and give it a name of your choosing. Then hit the "Home" Button.
- 2. The location name you wish to save the data to should be displayed.
- 3. Press "Sample + Save". A reading is taken and it is stored on the device.



The main screen of the HydraMON App



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4. Press the "Data" button. When you press the data button, it displays all of the data sample records. If you press the "Clear all" button all of the readings will be erased. Pressing the "Send by Email" a separate email page appears with the CSV file attached. Enter an email address and subject then press "send". The CSV file can be opened in a spread sheet and will contains all of the data from the probe's measurement, along with the time per sample, and the location name. The longitude and latitude can also be included if the mobile device has the GPS turned on.

Home Select Location	Add	
Research Location 1		
Field Plot 2		
Field Plot 1		
Office (45.56852305, -122.53645007)		

Screen showing several user defined locations. Press the "Add" button to add a location

Selecting a Soil Type

On the upper right hand side of the App., there is a selection for soil type. The default soil calibration is LOAM, which is the best general purpose calibration. It is recommended to use the default Loam Setting.

Home Display data	Nome Select Soil Type
Feb 15, 2012 3:56:01 PM (Field +0.000%,+24.4°C,+75.9°F +0.0005/m,+0.0005/m,+0.757,+0.074	Sand
Feb 15, 2012 3:55:29 PM +0.000%,+24,4°C,+75,8°F +0.0008/m,+0.0008/m,+0.757,+0.074	Custom 1
Feb 15, 2012 3:41:08 PM (Office) +0.277%,+24.4°C,+75.9°F +0.016S/m,+0.016S/m,+17.489,+5.703	
Clear All Send By Email	Saved data samplings.

Charging the Battery

The Unit comes with a charger.

- Keep the unit turned off while it is not in use to conserve the battery
- The LED screen displays the battery voltage. The optimal voltage is 12 volts. It should be periodically charged when it reaches 11 volts. The unit will shut off at 8 volts.
- On the body of the charger, there are LED light that allow the user to monitor the progress of the charging. The charger is a smart charger because it controls the rate of charging based on the available voltage of the NiCd/NiMH battery and prevents over charging.

LED Colour	Mode
Orange	Battery not connected
Orange	Battery initialization and analysis
Red	Fast Charge
Green with intermittent orange flash	Top-off-charge (when almost charged)
Green	Trickle charge (when charged)
Alternating Red-Green	Error