



POGO QUICK START INSTRUCTIONS
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I. BEFORE YOU START

Thank you for purchasing the new POGO portable soil sensor. The POGO, with exception of the sensor itself has been designed for temporary deployment and is not considered a weather resistant or weatherproof unit.

- **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 POGO.** Place it down gently to ensure a longer lifetime for the main unit and the PocketPC, if the PocketPC is affixed to the unit.
- **Do not store it inserted in the soil.** Remove the POGO from the soil and store in its carry bag when done.
- Prolonged heat or cold within normal ranges will not affect the POGO's operation. **However, as with other electronics, do not leave it in an enclosed car in the sun.**
- **The POGO 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.
- **The Hydra Probe 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 Hydra Probe must be in full contact with the soil.
- **For turf applications, you may need a cup cutter** in order to expose the soil for making the actual measurements.

Software

VI. USING HYDRAMON

Under “Start” menu, find “Stevens HydraMon” and select it (You may also have it loaded into your “Programs” menu).



Connecting and COM Port selection

When the HydraMon screen appears, click on the “Probe” menu at the bottom and select “Connect.”



Connect the RS232 adapter cable to the PDA. The first time you use the software you will be prompted for a COM port number. Select COM Port 1. The prompt window will close and take you back to the program screen. Click on the Hydra Mon Icon to restart the program. The Hydra Mon software will remember the last COM port used and prompt you with that COM port number each time you wish to connect.

After you click on the COM port, HydraMon will take you back to the main screen. Open FILE, and make sure the RS485 DIRECT is not checked. If it is, then you need to un-check it.

Switch battery pack to the on position to power the sensor and display. Next, select PROBE, and click CONNECT see the connection indicator over the "Sample" button change from "connected No" to "connected Yes" (see below). If you do not wish to log data, you are now ready to sample soil. Please see **Sampling without Logging**



Sampling Without Logging

Sampling without logging permits you to take soil measurements but will not record the measurements for later uploading. This mode is for one-time spot checking where trend data is not required.

When you open the HydraMon program, “connect” to your POGO, Click on the Logging menu and de-select Logging Enabled. The check mark next to the option should disappear, allowing you to sample without logging.

NOTE: The option cannot be de-selected without the PocketPC being connected to the POGO.

On the main HydraMon screen, open the “Probe” menu and select “Soil” and then a soil type: “Sand,” “Silt” “Clay”, “Loam” and Custom.



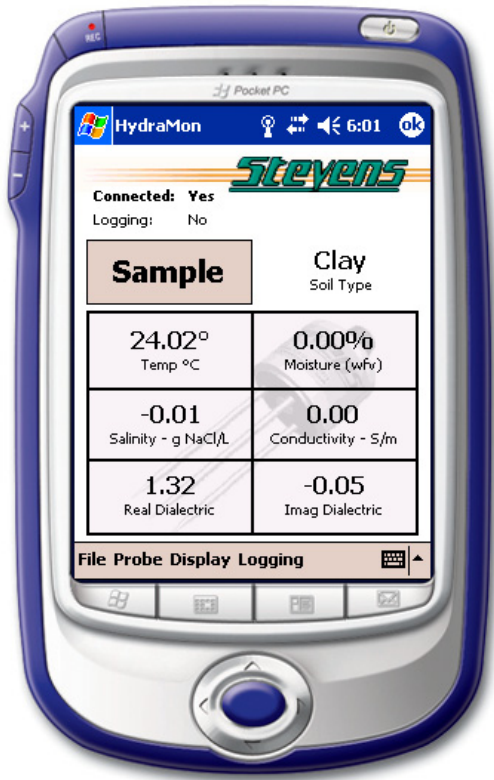
NOTE: The soil selection function is only operational when your PocketPC is “connected” to the POGO.

The Soil Type indicator next to the Sample button will display the type of soil you have selected.

Gently push the unit down so the tines slide into the soil. Push the tines in as far as they will go so that the base where the tines are attached is firmly against the soil. Use care in the event that you encounter rocks under the surface.

If this is the first time that you have used the POGO after bringing it out from a hot or cold environment, wait for 1 minute for the temperature of the tines to achieve an equilibrium with the soil temperature.

On the main HydraMon screen, click on the large “Sample” button. The various boxes on the main display screen will display the appropriate data collected by the POGO for the site where you are.



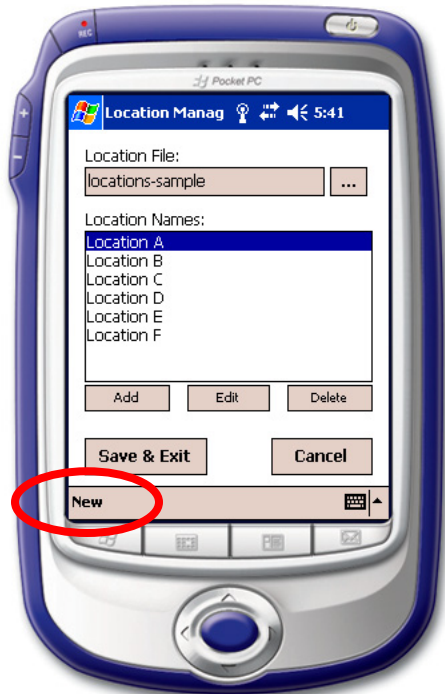
Resample or change soil type as needed.

Logging Set-up

If you wish to log data, click on the “Logging” menu at the bottom of the screen and select “Logging Enabled” so that a check mark appears next to it. This means that logging is enabled and the indicator over the sample button will display “Logging: Yes”.



To enter customized locations, click on the Logging menu again and select “Location manager”. If a Location File is not listed, you can create one by going to the far left bottom of the screen and click “New”. This will allow you to create a location file.



To add a new location, click on the “Add” button, place your cursor in the “Location name” field and then use the keyboard to enter a new name. You may also want to describe the site or use standard coordinates in the “Location coordinates” field.



Press “Save” when you have completed your new entry. It should appear in the list of locations on the location manager screen.



Use the “Edit” and “Delete” buttons on the location manager screen to modify the names of locations or delete them entirely. *When adding and editing names, do not forget to save the new or modified names by clicking the Save/Exit button!.*

Logging Data

Logging of data occurs AFTER sampled data is displayed. When you are in logging enabled mode and you press the Sample button (see **Sampling without Logging**), HydraMon will display a text box of the data for the current reading and will ask “Store these readings?” To log the data select a location from the drop-down list of location names and press the “Store” button.

NOTE: The data for each location cannot be redisplayed on the PocketPC. However, it will upload normally to a laptop or PC. Essentially, a total of 20 parameters are logged including Date, Time and Soil Type. However, the Pocket PC only displays current readings.



VII. UNDERSTANDING AND USING THE RESULTS

Soil chemistry for every area is different, and understanding your own soil, soil trends, optimum conditions, and critical limits, through the data provided, may take repeated sampling over time.

For more information please refer to the Hydra Probe manual on your CD.

VIII. WHEN FINISHED

On the HydraMon menu, select “Probe” then “Disconnect.”

Exit HydraMon program.

Turn off Pogo power using the switch located at the end of the box.

If clumps of soil remain attached to the tines, wipe them off and clean the unit with a cloth. Do not let soil cake on the tines or the base where the tines attach, as this will impede proper functioning.

IX. RECHARGING THE POGO'S INTERNAL BATTERIES

Use battery charger, TENERGY, 15 V, 400mAH DC power Supply, Input 100-240 V, 50/60 hz. 450 mA,, output: 14V – 300 mA, supplied with the system.

The other power supply included is for the PDA.

X. DOWNLOAD LOGGED DATA TO PERSONAL COMPUTER (PC)

To download your logged data from the pocket PC to you laptop or desktop computer (PC) will require using MicroSoft (MS) Active Sync that should have been provided with your Pocket PC and loaded on your PC. The settings of Active Sync need to enable the synchronization of "Files". Please refer to you Active Sync instructions for complete configuration procedures and how to synchronize your PDA with your PC. To enable "Files" to be synchronized:

1. Open Active Sync (this can be done with or without you Pocket PC in synchronized to the PC.
2. Click on the "Options" button
3. Check the box that says "Files"
4. Click on O.K and you are done.

Next, to open the files that are synchronized to your PC from the Pocket PC, you first need to know the directory location that your Pocket PC places the Files. To find this location:

1. Click on the Options button.
2. Click on the "Files" category so that it is highlighted (likely highlighted in the color blue).
3. Click on the "Settings" button.
4. This should say "On this computer, synchronized the files in this folder" and then in the box below this message will show the directory where the Files are located on your PC.
5. Once the location and files synchronized, go to Window Explorer and locate the directory identified. There you will see the file name that you saved the logged data to when using HydraMon. It is likely in a .csv file. Click on this file and it should open in MS Excel which presents your logged data in a tabular format for review and analysis.
6. You can resave this file in the same directory or in a different file name and/or directory of your choice.