USB pH MONITOR

DataApex Clarity Control

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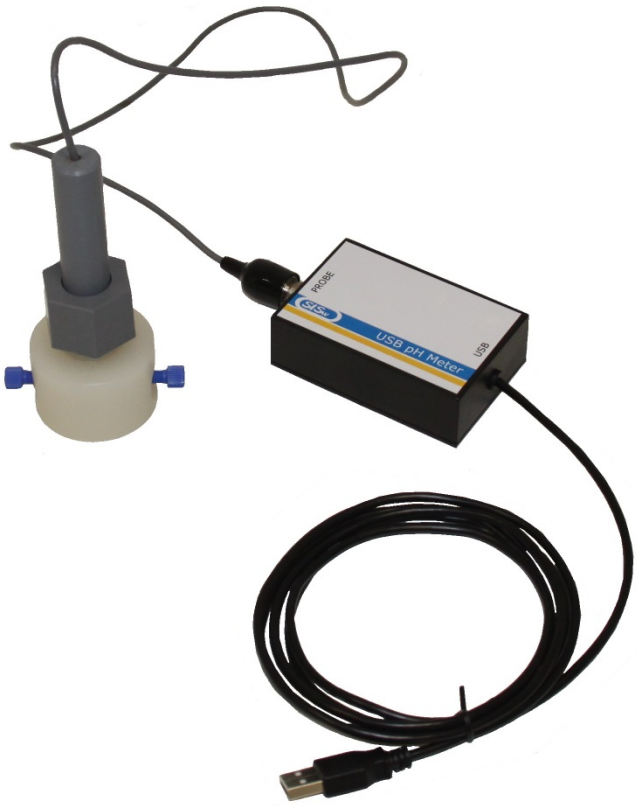
SISW PH MONITOR CONTROL MODULE

This manual describes the setting of Science Instruments and Software **USB pH Monitor**. The control module enables direct control and continuous monitoring of pH measured by device. The pH measuring device is powered and communicates via computer USB interface.



Direct control means that the pH measuring activity is fully controlled from Clarity environment. Measured pH data may be permanently stored in the measured chromatograms.

The control is performed via the UNI Ruby control module and SISW USB pH Monitor profile.

REQUIREMENTS

- Clarity installation package with appropriate control license (P/N A24 – LC Control)
- Free USB port in the PC
- USB pH Monitor Installation CD with USB drivers and pH Monitor Utilities

INSTALLATION PROCEDURE

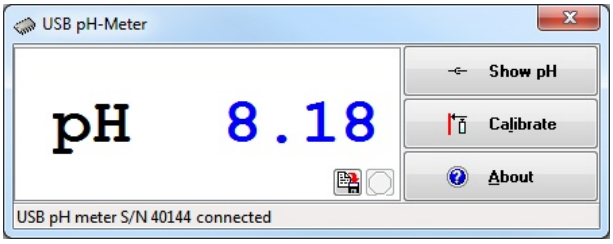
Following chapter describes installation of pH Monitor USB drivers and utilities followed by Clarity system configuration.

INSTALLING USB PH MONITOR

Installation of software package of pH Monitor should be performed prior to connection of device to the computer. To install the software and drivers, insert the software CD into drive on your computer. The installation process will normally start automatically. If the auto play function is disabled, run setup.exe from the root folder of CD. Then follow the instruction of the software installer.

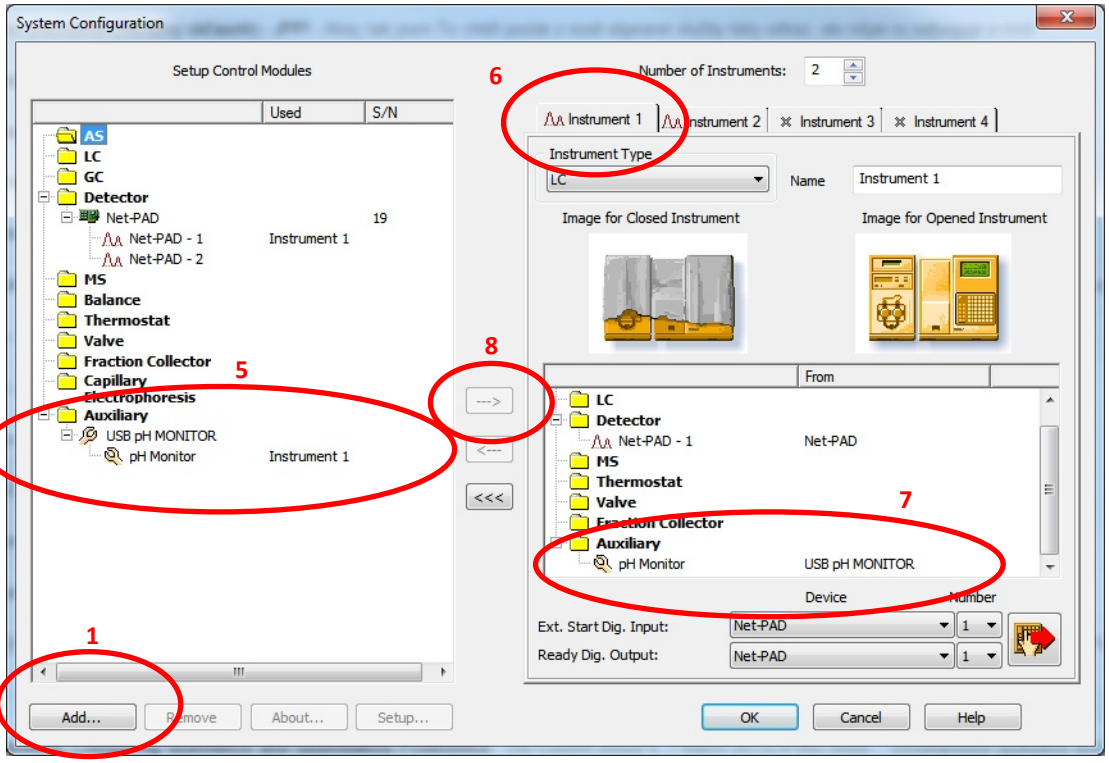
Now connect the pH Monitor to a spare USB port on computer. The installation of USB drivers will be finalized within a minute.

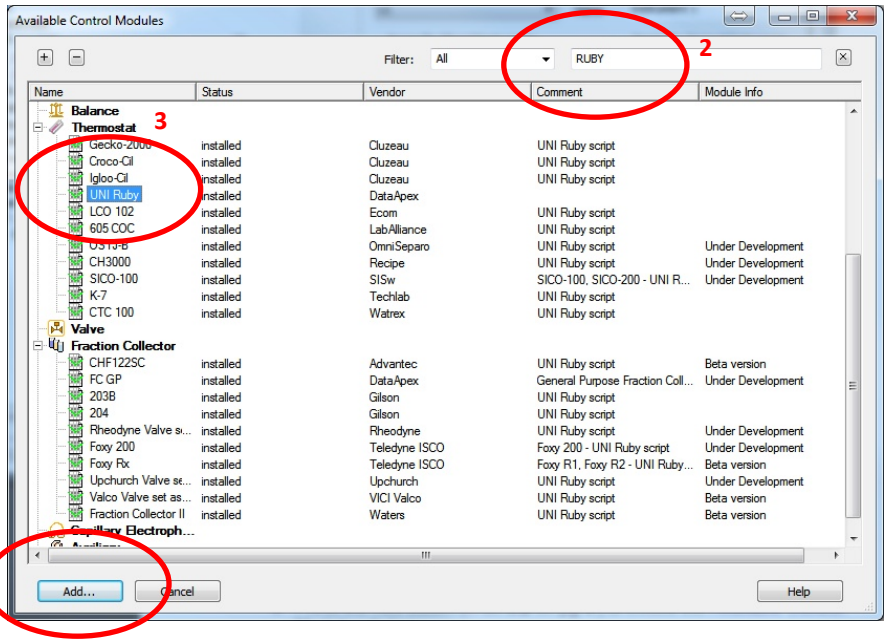
Verify the correct installation of drivers using USB pH Monitor software utilities. Start the application from Windows **Start|All programs|SISW|USB pH Meter**. The application window as on the picture below should appear. USB pH Monitor should be automatically found and connected. Quit the application.



CLARITY CONFIGURATION

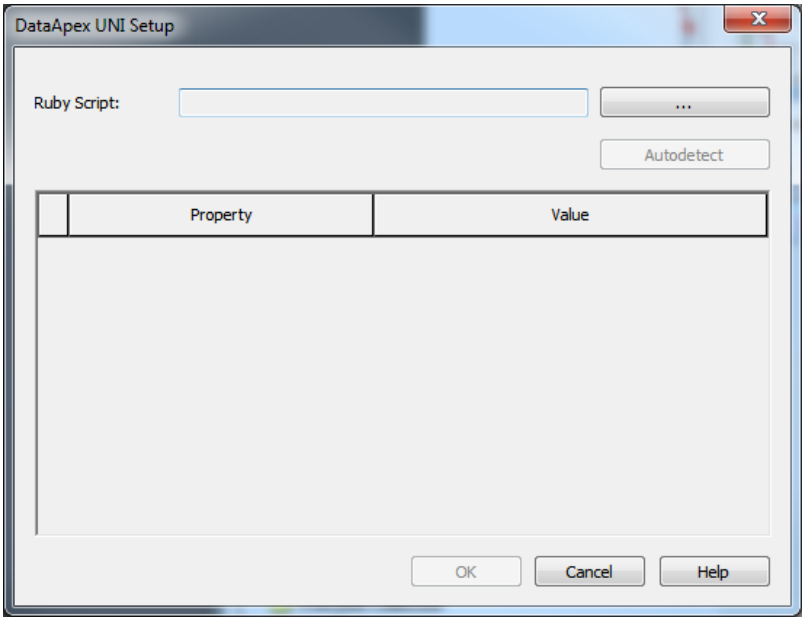
- Start the Clarity by clicking on its icon on the desktop.
- Invoke the *System Configuration* dialog from Clarity window using **System|Configuration command**.
- Click the *Add…* button (**1**) on System Configuration window to invoke the *Available Control Modules dialog.*





- Specify the search filter “RUBY” (**2**)..
- Select the correct item (**3**) and click the *Add* button (**4**).

- The DataApex UNI Setup dialog will appear.



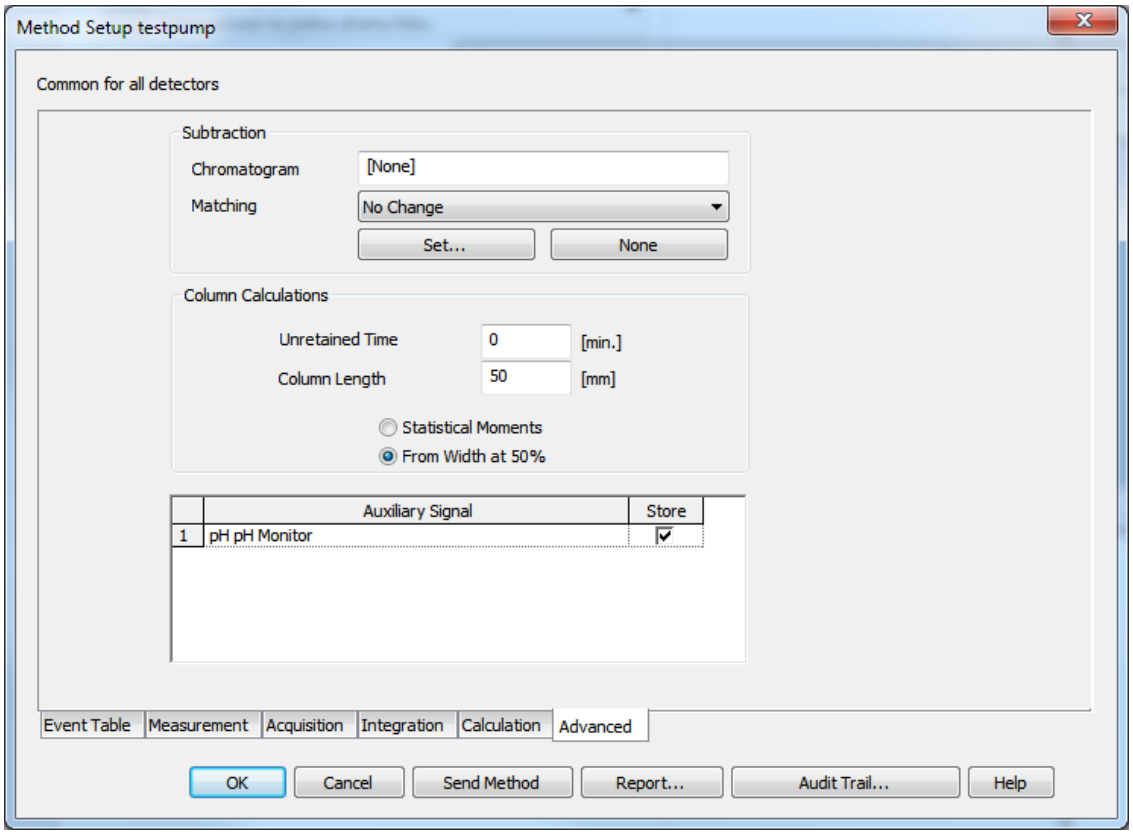
- Set desired Ruby Script for USB pH Monitor. The correct SISW-USB-PH-METER.RB script for SISW USB pH Monitor can be found in the *Utils\Uni_Drivers\SISW* folder (accessible through the ... button) of the Clarity root directory.
- Select the correct USB pH Monitor from *Port* drop down box.
- You might want to change *Device Name* for the pH Monitor device.
- The USB pH Monitor item (**5**) will appear in the *Auxiliary* section of *Setup Control Modules* list.
- Select desired instrument tab (**6**).
- Drag the *USB pH Monitor* item from the *Setup Control Modules* list on the left side to the list of desired modules on the right side (**7**). You can use the **--->** button (**8**) alternatively.

USING THE CONTROL MODULE

No additional tab is created in the *Method Setup* dialog when USB pH Monitor is installed. New item is available in the *Auxiliary Signal* list on the *Advanced* tab of Method setup dialog. The pH Monitor section is created in the *Device Monitor* window.

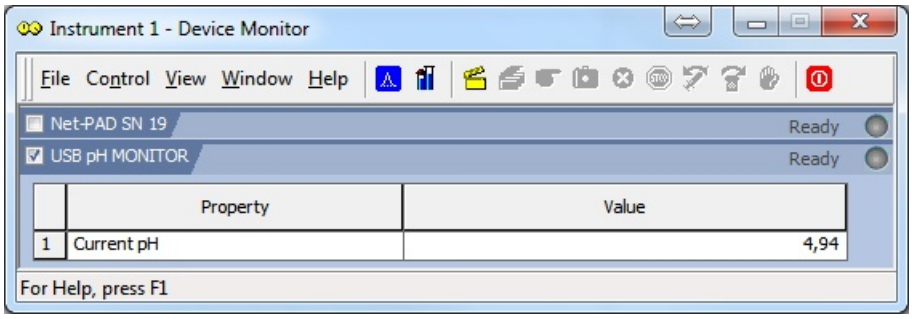
METHOD SETUP – ADVANCED

New auxiliary signal (pH measured by pH Monitor) is now available on the *Advanced* tab of *Method Setup* dialog. Checking the *Store* checkbox enables displaying pH auxiliary signal in the *Data Acquisition* window. pH data will be stored in the measured chromatograms.



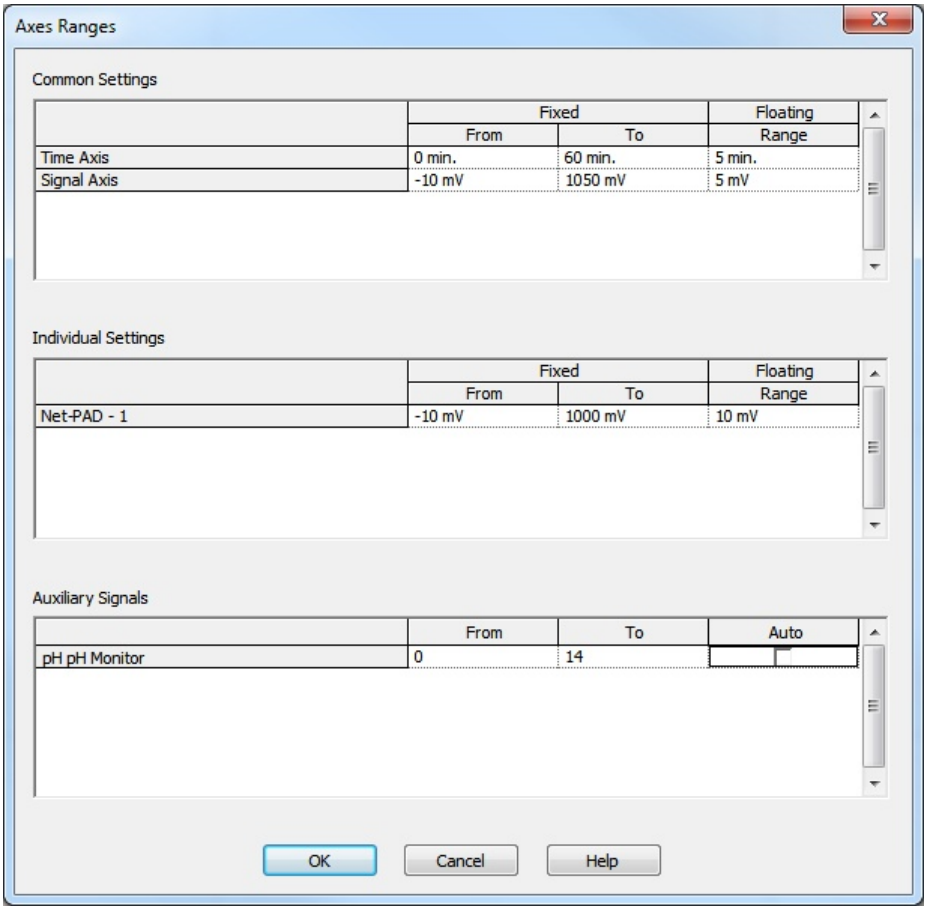
DEVICE MONITOR

Monitor|Device Monitor command from the Instruments window invokes the *Device Monitor* window with actual USB pH Monitor status. The *Current pH* value is continuously the updated.

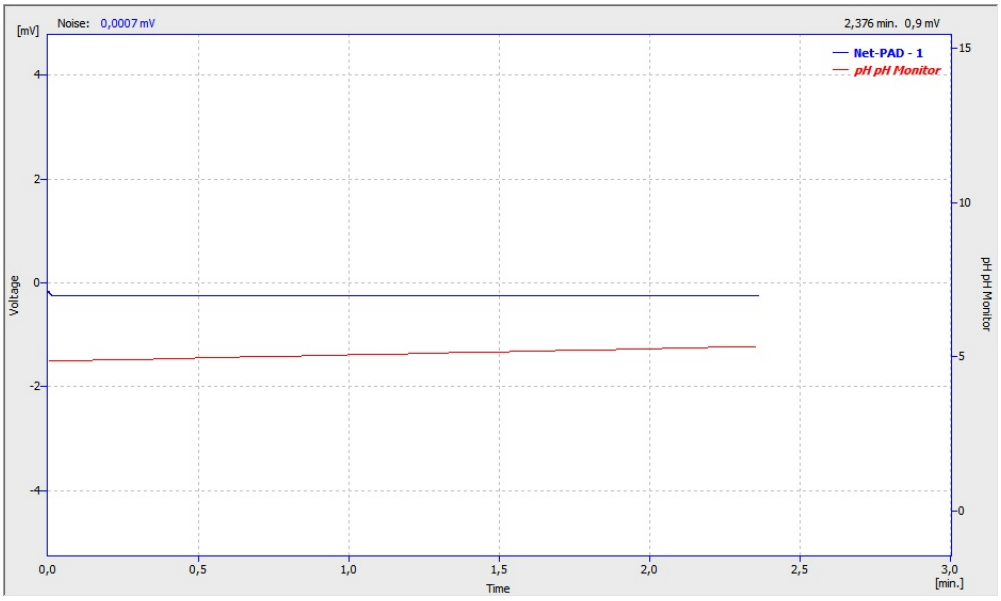


DATA ACQUSITION WINDOW

When enabled in the *Method Setup* dialog – *Advanced* tab, auxiliary signal pH is displayed in the *Data Acquisition* window. Axis range for pH signal can be set in the Axes Range dialog. Axes Range dialog will be invoked by View|Set Axes Ranges… in the Data Acquisition window. When *Auto* checkbox is checked, the pH signal axis range starts at a minimal value and enlarges according to the signal change. When unchecked, the axis range is fixed to the entered values.

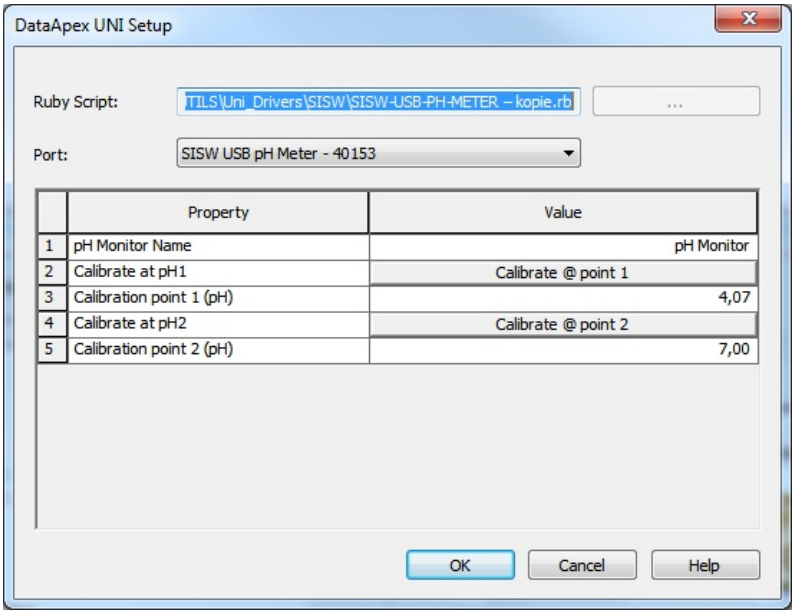


pH signal provided by USB pH Monitor is then displayed in the *Data Acquisition* window of the appropriate instrument.



DATAAPEX UNI SETUP AND PH CALIBRATION

DataApex UNI Setup dialog contains several items which can be modified. It also allows to calibrate the USB pH Monitor at two calibration points.



RUBY SCRIPT

Ruby Scrip shows actually selected UNI Ruby script for the pH Monitor device.

PORT

Port serves for selecting the USB pH Monitor.

INSTRUMENT NAME (PH MONITOR NAME)

pH Monitor Name allows customize the name of the instrument. This name (in the *Value* column) will be used throughout the Clarity station.

CALIBRATION POINT 1 AND 2

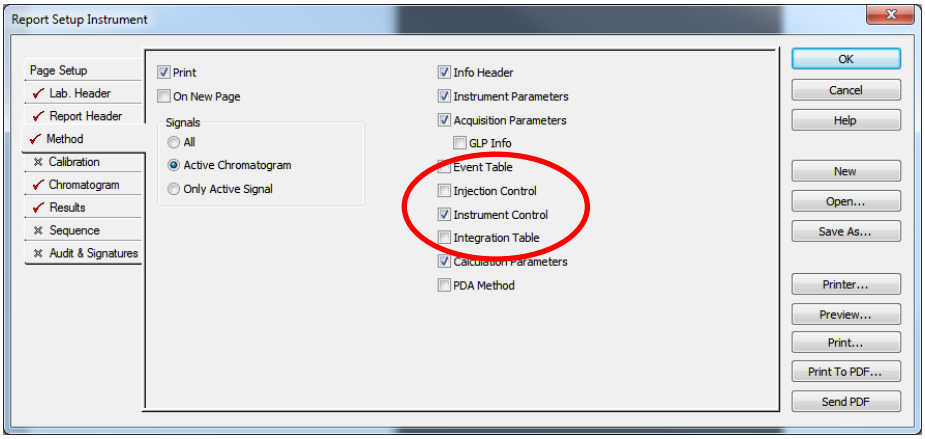
Enter pH values of two buffers used for the calibration into *Value* column at row *Calibration Point 1 (pH)* and *Calibration point 2 (pH)*.

CALIBRATE AT PH1 AND PH2

Press the *Calibrate @ point 1* button when pH electrode is stabilized at pH 1 buffer. Measured value will be assigned and stored in the nonvolatile memory of USB pH Monitor. Repeat the procedure with another buffer at pH 2 using *Calibrate @ point 2* button.

REPORT SETUP

The reporting of the USB pH Monitor in the Method section of report can be enabled by checking the *Instrument Control* checkbox on the *Method* tab of the *Report Setup* dialog.



USB pH Monitor settings are then reported.