
QP451

Series 4 Portable pH Meter Manual



SETTING UP

BATTERY INSTALLATION:

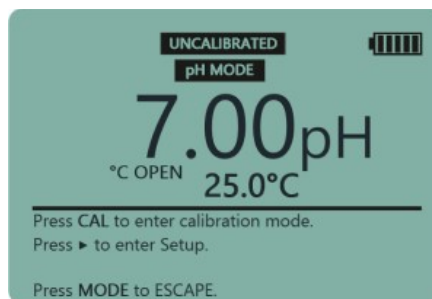
Remove the battery cover by loosening the retaining cross head screw. Please note this screw has a retainer and will therefore remain with the cover to prevent loss.

Once open unpack the 4 AA Batteries supplied and insert ensuring the polarity is correct for each battery. Replace the cover.

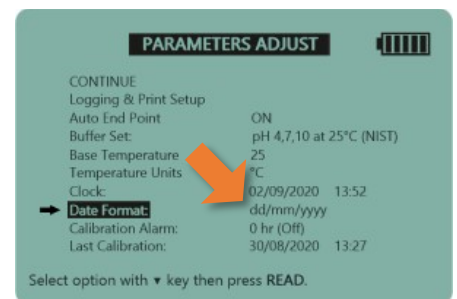
SETTING THE DATE & TIME:



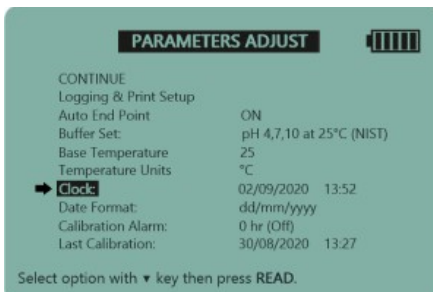
Switch the unit on using the **power** button.



Press the **right arrow** key to enter the Parameters Adjust screen.



Scroll down to the Date Format option and press **READ** until you reach the desired format.



Scroll down to the Clock option using the **down arrow key** and press **READ**.



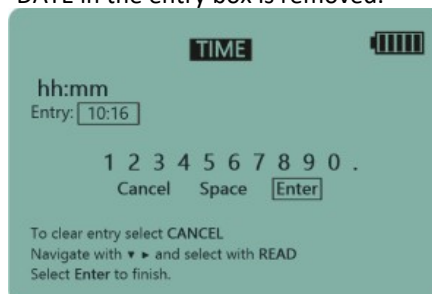
Select CANCEL using the **down arrow** key and press **READ** until the current DATE in the entry box is removed.



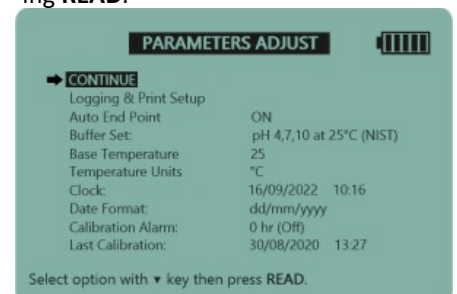
Select the current date digit by selecting the correct number and pressing **READ**.



When the entry box contains the correct date, select ENTER and press **READ**.



Repeat the steps above to enter the correct time and then press **READ**.



Press **READ** to return to pH mode.

CALIBRATION AND MEASUREMENT

pH CALIBRATION:

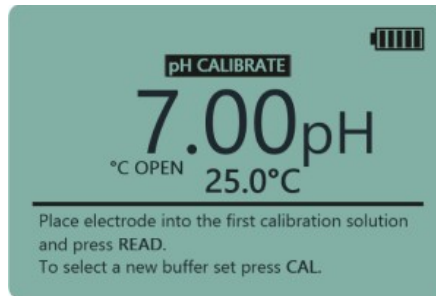
Accurate pH measurement requires that you do not cross contaminate buffers and samples. Before using the pH probe ensure it is rinsed with deionised water and blotted dry. Repeat this procedure when transferring between all standards and samples.

Connect the pH Electrode to the BNC connector on the top rear of the instrument.

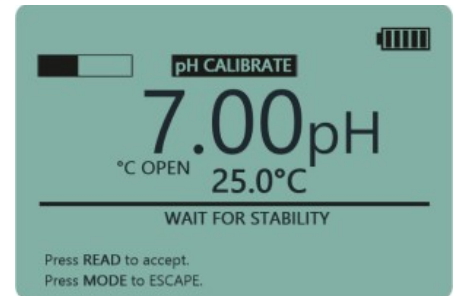
Connect the ATC probe Jack into the 3.5 mm Jack socket next to the BNC socket.



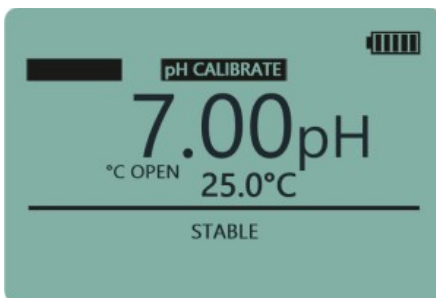
Switch on the meter and press **MODE** until you are in pH Mode.



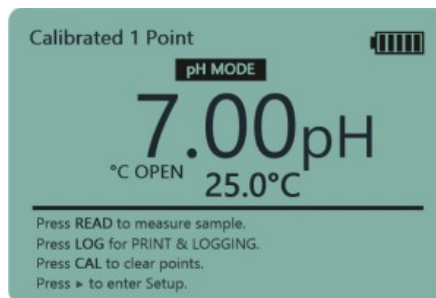
Press **CAL** to start a calibration.



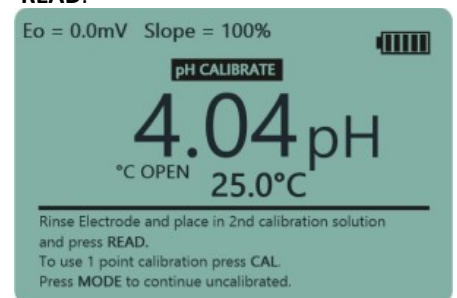
Insert the pH Probe and ATC Electrode into the pH7 Buffer Solution and press **READ**.



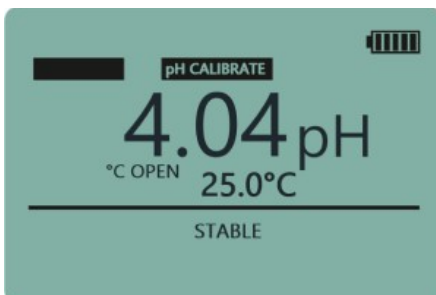
When stable the meter will set itself to pH7 (or the corrected value).



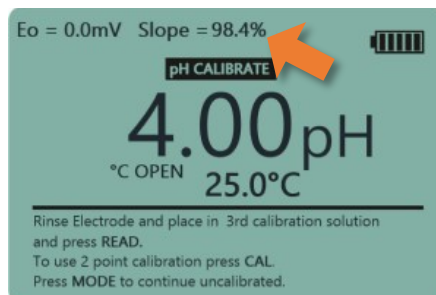
For a 1-point calibration press **CAL**.
(We recommend a 2-point calibration)



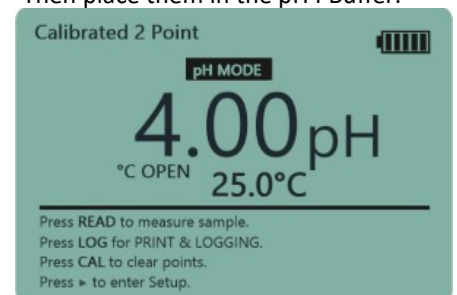
For a 2-point calibration, rinse the electrodes with DI water and blot dry. Then place them in the pH4 Buffer.



Press **READ** and when stable the meter will set itself to pH4.



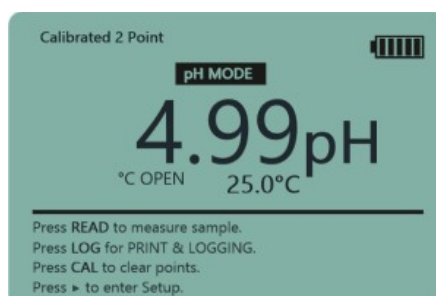
To accept the calibration, check the slope is over 80% and press **CAL**.



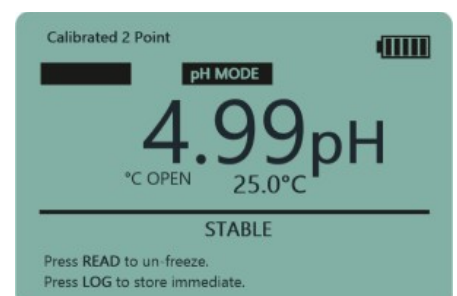
You are now in calibrated pH Mode and ready to take sample readings.

For a 3 point calibration instead of pressing CAL to accept the calibration, you may repeat the steps above using the pH10 Buffer solution.

To take a sample measurement rinse the pH Probe and ATC Electrode with de-ionised water and then blot dry.



Place the electrode into the sample solution and then press **READ**.

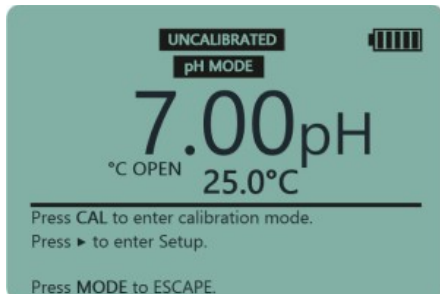


The auto-endpoint will freeze the display when the reading is stable.

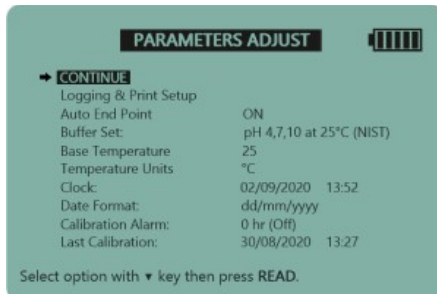
USING DIFFERENT OR CUSTOM BUFFER SOLUTIONS:

The QP451 comes complete with pH 7 and pH 4 Buffer solutions. These Buffers are automatically set up in the menu, as is pH 10 Buffer.

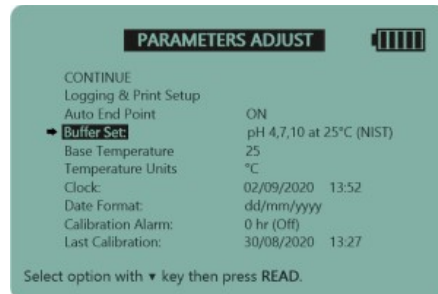
The reference temperature for these buffers is 25 Degrees C. For 20 degree C Buffers or custom values you will need to enter the Set Up menu:



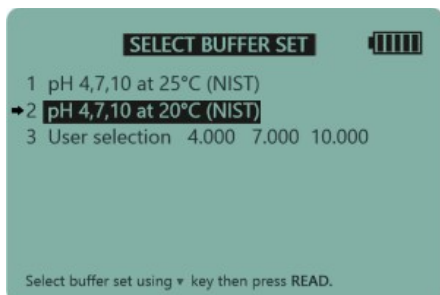
Switch on the meter and press **MODE** until you are in pH Mode.



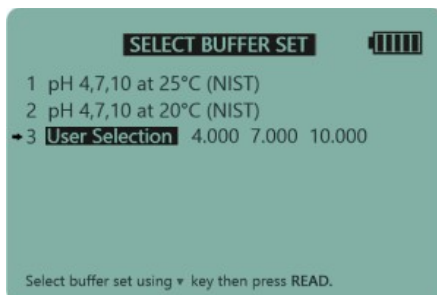
Press the **right arrow** key to enter the Parameters adjust screen.



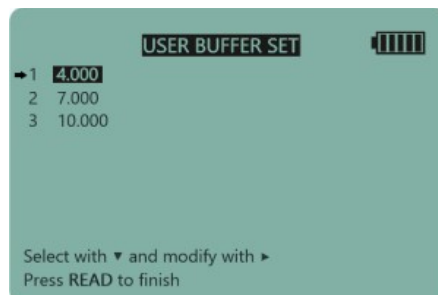
Scroll down to Buffer Set and press **READ**.



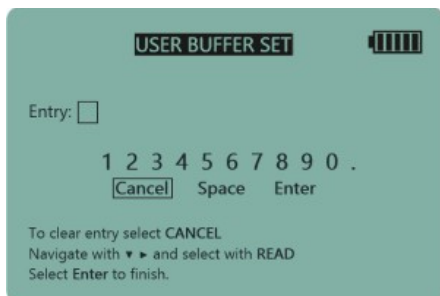
Select option 2 for pH 4,7 & 10 Buffers at 20° C.



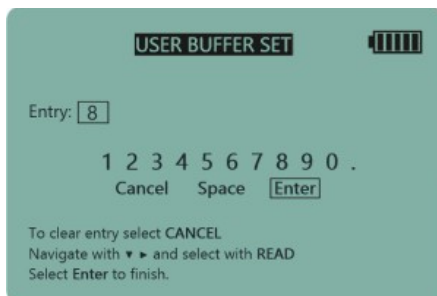
Or to input custom buffer solutions, select option 3 and press **READ**.



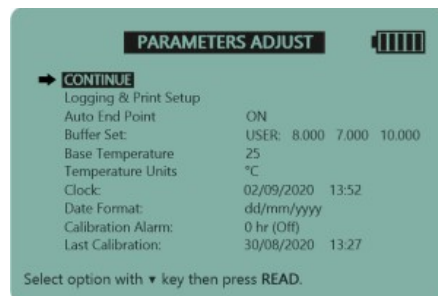
Select the buffer you wish to change and press the **right arrow** to modify.



Remove the current entry by selecting **CANCEL** and pressing **READ**.



Input the value you wish to use and select **ENTER** and press **READ**.

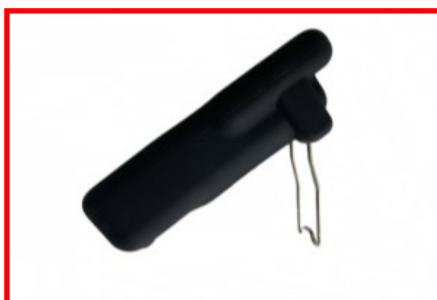


Press **READ** to return to the Parameters Adjust screen and then **READ** again to return to pH Mode.

Related Products:



Glass Combination pH Electrode
(E8081)



Rubber Boot/Stand for Series 4 Instruments
(RB400)



Data Kit for Series 4 Instruments
(DK400)