

Series 4 Portable Conductivity/TDS Meter Manual



SETTING UP

BATTERY INSTALLATION:

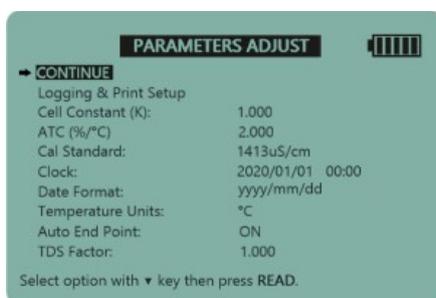
Remove the battery cover by loosening the retaining cross head screw. Please note this screw has a retainer and will therefore remain with the cover to prevent loss.

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

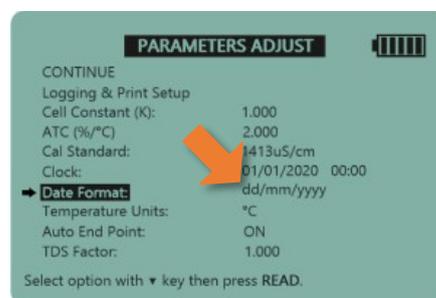
SETTING THE DATE & TIME:



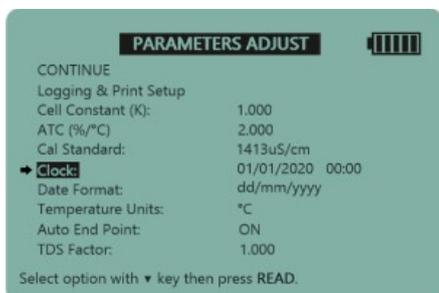
Switch the unit on using the **power** button.



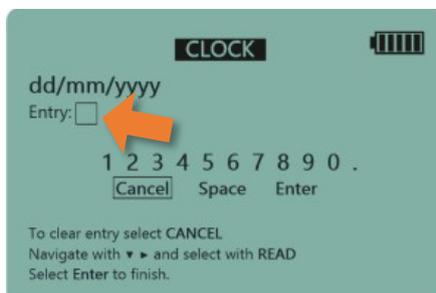
Press the **right arrow** key to enter the Parameters Adjust screen.



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 press-



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 conductivity mode.

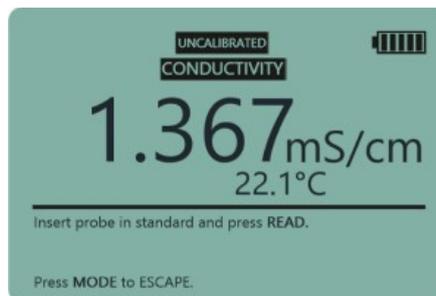
CALIBRATION AND MEASUREMENT

CONDUCTIVITY CALIBRATION:

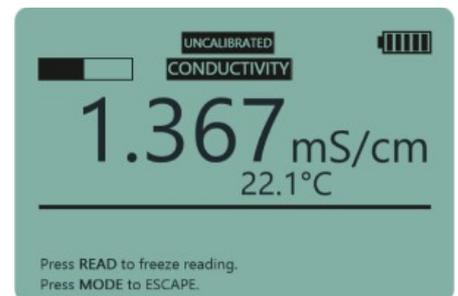
Accurate conductivity measurement requires that you do not cross contaminate standards and samples. Before using the Conductivity probe ensure it is rinsed with deionised water and blotted dry. Repeat this procedure when transferring between all standards and samples.



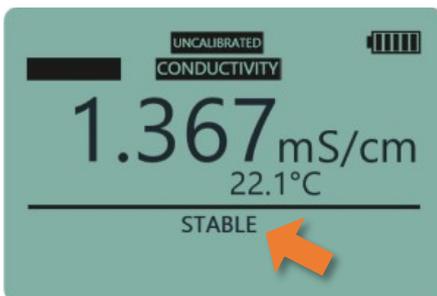
Switch on the meter and press **MODE** until you are in Conductivity Mode.



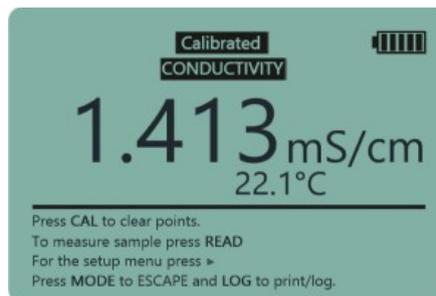
Press **CAL** to start a calibration.



Insert the probe into the solution (swirl if required) and press **READ**.



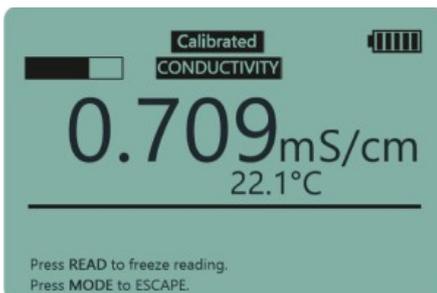
When stable the meter will set itself to the calibration value.



Remove the cell from the solution. Rinse with de-ionised water and blot dry.



To measure a sample, press **READ** and then insert the probe into the sample.



Once the probe is in the sample press **READ**.



The auto end-point will freeze the display when it is stable.

USING DIFFERENT CALIBRATION STANDARDS:

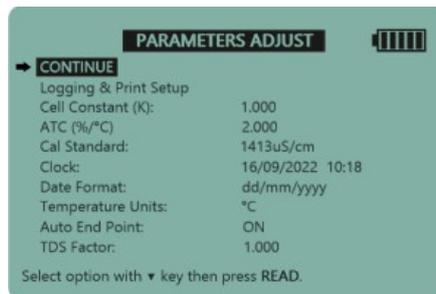
The **QP481** comes complete with a **1413uS/cm** standard solution.

This standard is automatically set up in the menu.

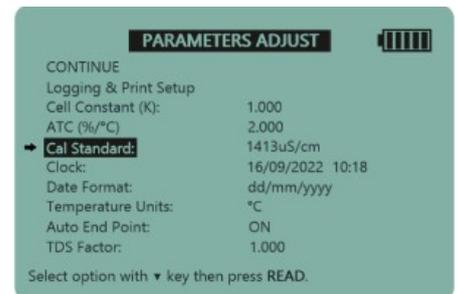
To use a **12.88mS/cm** standard do the following:



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



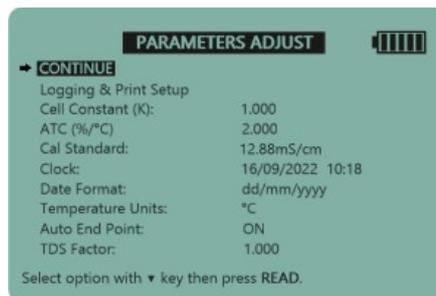
Press the **right arrow** key to enter the Parameters adjust screen.



Scroll down to Cal Standard and press **READ**.



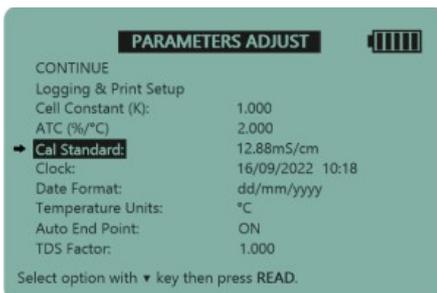
The instrument now selects the 12.88mS/cm Standard.



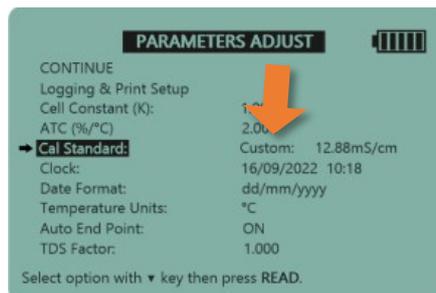
Scroll back up to CONTINUE and press **READ**.



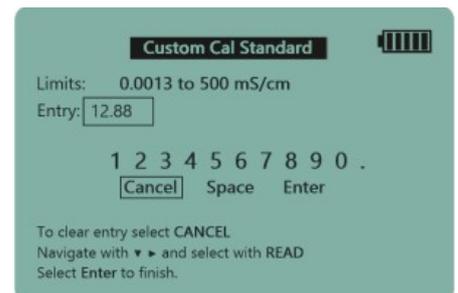
Calibrate as above but using the 12.88mS/cm Standard Solution.



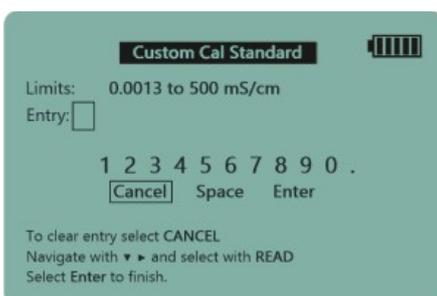
To select a different standard, scroll down to Cal Standard in setup.



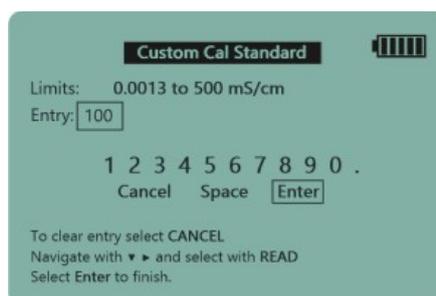
Press **READ** until the 'Custom Standard' option appears.



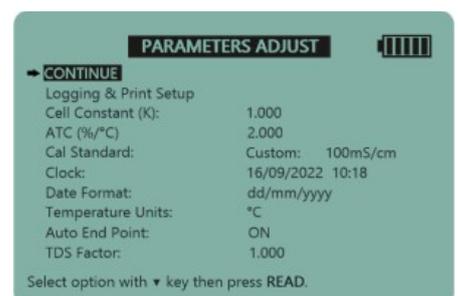
Then press the **right arrow** key to enter the Custom Cal Standard screen.



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



Input the custom value then select **ENTER** and press **READ**.

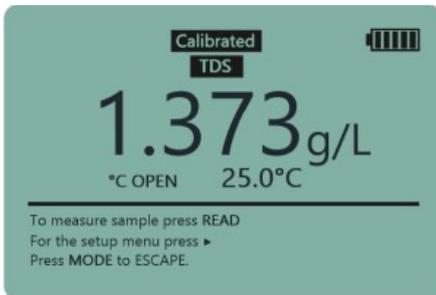


Scroll to CONTINUE and press **READ**. You may now calibrate.

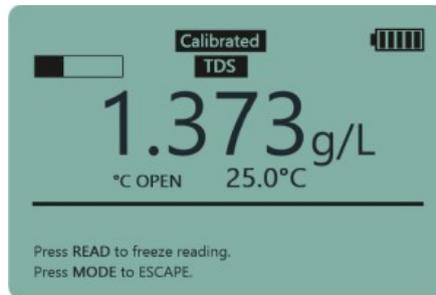
TOTAL DISSOLVED SOLIDS (TDS) MODE:

The **QP481** comes with a Total Dissolved Solids mode and allows for you to measure in g/L and Kg/L.

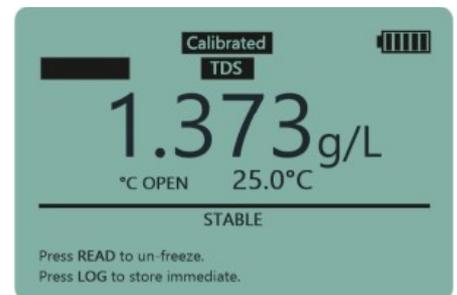
To use TDS mode you must first calibrate in Conductivity mode.



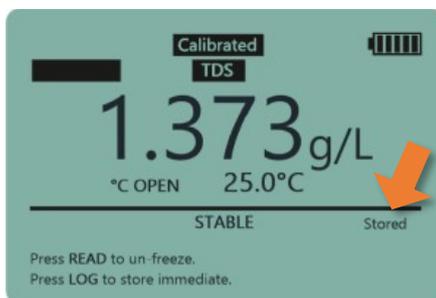
Switch on the meter and press **MODE** until you are in TDS Mode.



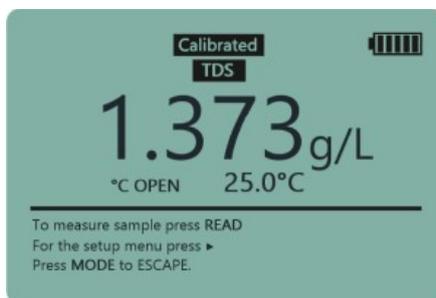
Place the Conductivity Probe in the sample and press **READ**.



The auto end-point will freeze the display when it is stable.

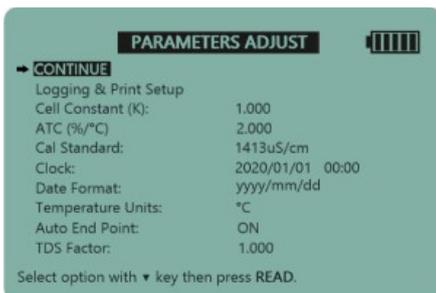


To store the reading, press **LOG**. (You can do this in any mode).

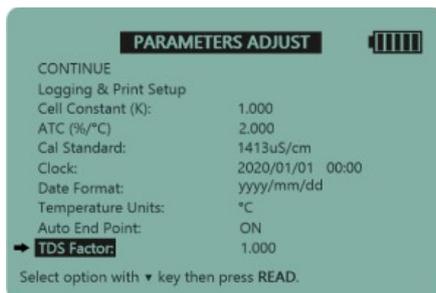


To return to TDS Mode press **READ** to un-freeze.

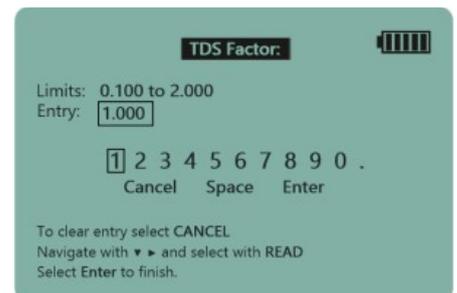
USING A DIFFERENT TDS FACTOR:



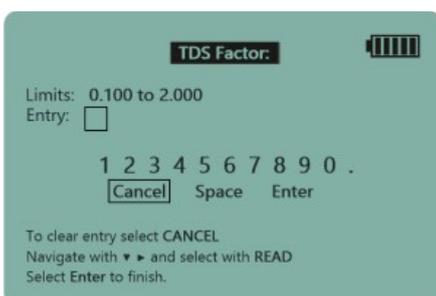
Press the **right arrow key** to enter the Parameters Adjust screen.



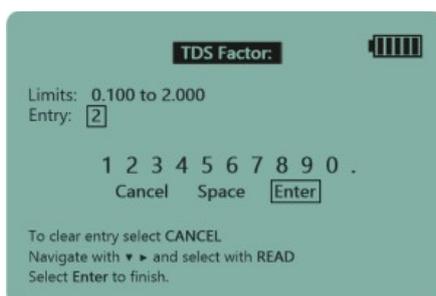
Scroll down to 'TDS Factor' and press **READ** to modify.



You are now in the TDS Factor screen.



Select **CANCEL** and press **READ** to remove the current entry.



Input the custom value then select **ENTER** and press **READ**.



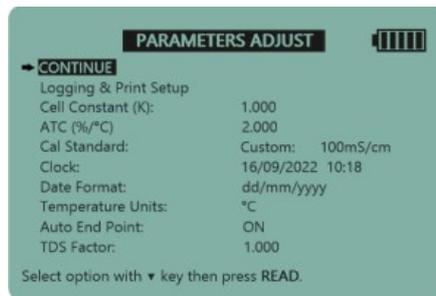
Press **READ** to return to TDS mode.

USING CONDUCTIVITY CELLS WITH DIFFERENT CELL CONSTANTS (K-Values):

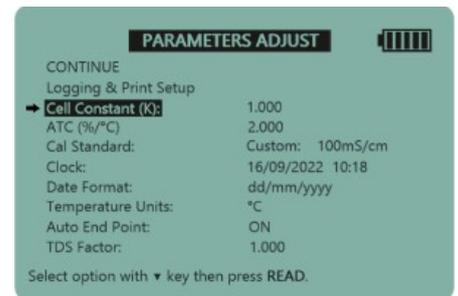
The instrument default is set at K=1. The actual cell constant is calculated during calibration however some applications require the input of a cell constant as the calibration. The most common cell constants for specialist applications are K=0.1 and K=10. To set a cell constant:



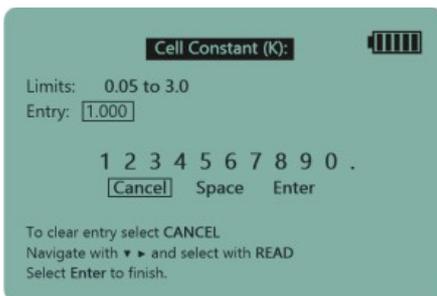
Press **MODE** until you are in Conductivity Mode.



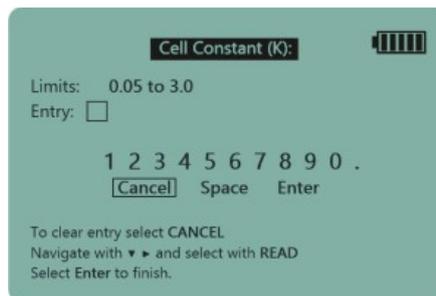
Press the **right arrow** key to enter the Parameters adjust screen.



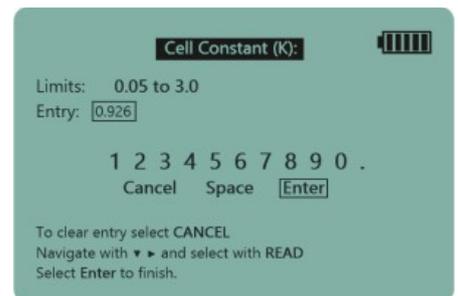
Scroll down to Cell Constant and press **READ**.



You are now in the Cell Constant Screen.



Select **CANCEL** and press **READ** to clear the current entry.



Input the custom Cell Constant. Select **ENTER** and press **READ**.

You have now entered the custom Cell Constant. Select **CONTINUE** and press **READ** to return to Conductivity Mode. You may now carry out a calibration or take on sample readings.

For instructions on how to use the Data Kit, please read the DK400 manual which can be found in the document files for Data Kit for Series 4 Portable Meters (DK400).

Related Products:



K=1 Glass Conductivity Cell (E8071)



1413uS/cm Conductivity Calibration Solution Standard (A3052)



Data Kit For Series 4 Instruments (DK400)

Related Products cont.:



Rubber Boot/Stand for Series 4 Instruments (RB400)



Glass Conductivity Flow Cell (A5005)



Polymer Conductivity Cell (A5019)



QP481 Kit (QP481-Kit)



Polymer Conductivity Flow Cell with ATC (A6000 ATC)



Flexible Electrode Holder/Stand (E8060)



Small Carry Case for Series 4 Instruments (E8401)



12.88mS/cm Conductivity Standard—500ml (A3056)



1413uS/cm Conductivity Standard—500ml (A3053)



Epoxy Conductivity Dip Cell K=1 Mini DIN Connector (E5010)



Portable Combined pH & Conductivity Meter (QP458)



Large Carry Case for Series 4 Instruments (E8402)



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