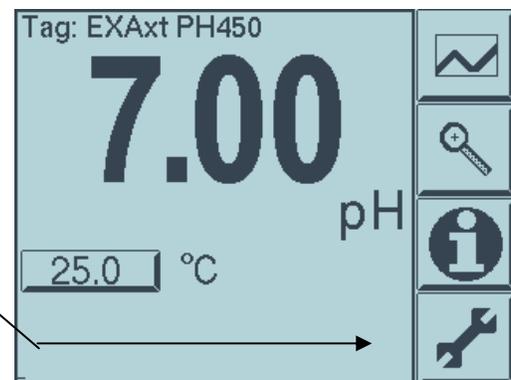


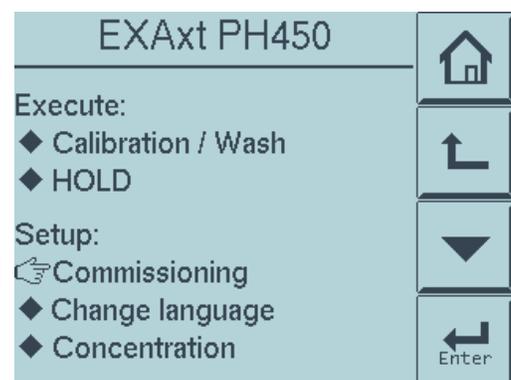
PH450 Analyzers Programming Custom Buffer Tables

EXAxt450, comes with NIST Buffer tables pre-programed into the analyzer. When using the autocalibration mode, the system uses these preprogramed tables for reference. However there is an option for customers to change buffer table data information. There are three sets of NIST buffer tables, pH 4.01, pH 6.98, and pH9.18, by using the free program options, you can choose to change whichever table and however many tables you need to change. This document is intended to assist customers with the steps that need to be taken in order to change the Buffer Tables.

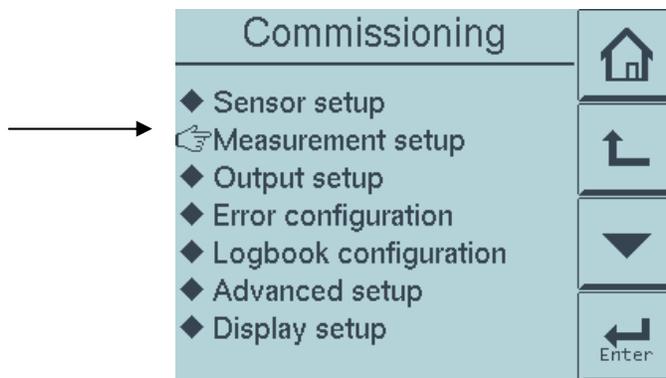
- 1.) Click on the settings icon (wrench)



- 2.) Using either the the  scroll key or by clicking directly on the diamond next to Commissioning, select it.

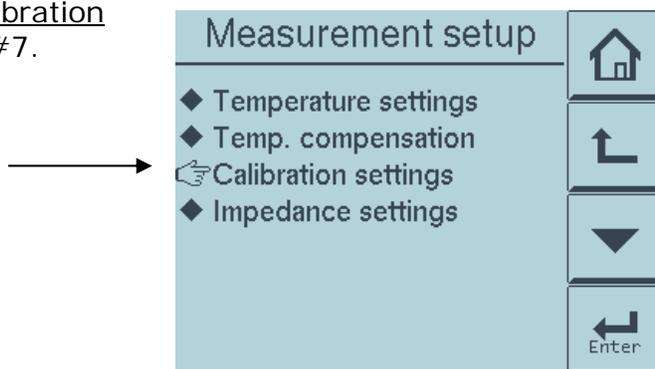


3.) Next, selected the diamond next to Measurement Setup

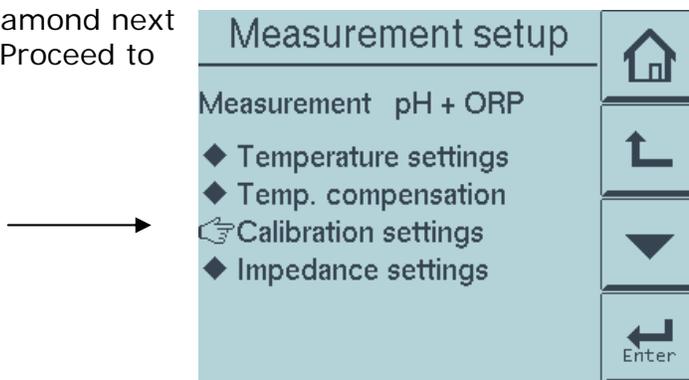


4.) Depending on what your analyzer is set up to measure, the Measurement screen will look differently. If your analyzer is set up to measure pH only, continue to Setp #5. If your analyzer is set up to measure pH + ORP, Proceed to Step #5a. If your analyzer is set up to measure pH + rh, Proceed to Step #5b.

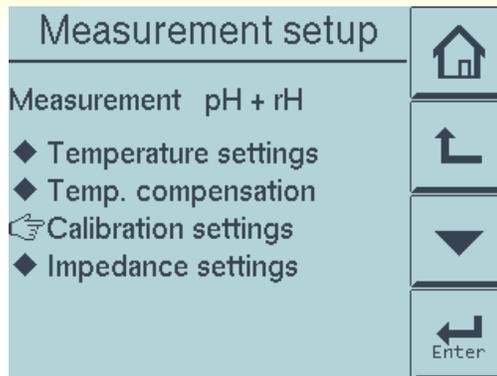
5.) Select the diamond next to Calibration Settings, and Proceed to Step #7.



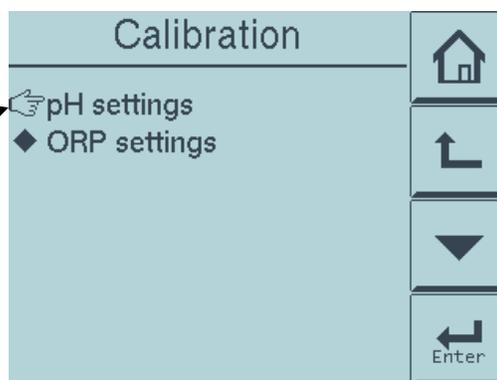
a. pH + ORP, Select the diamond next to Calibration Settings, Proceed to Step #6



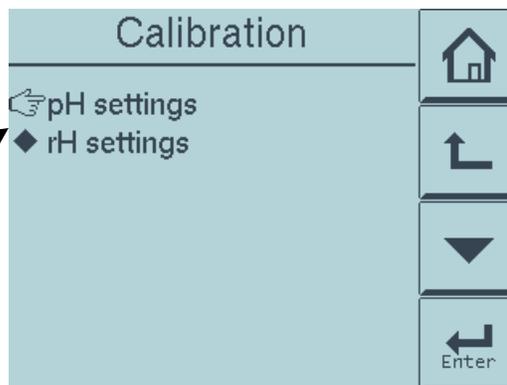
b. pH + rh, Select the diamond next to Calibration Settings, Proceed to Step #6a



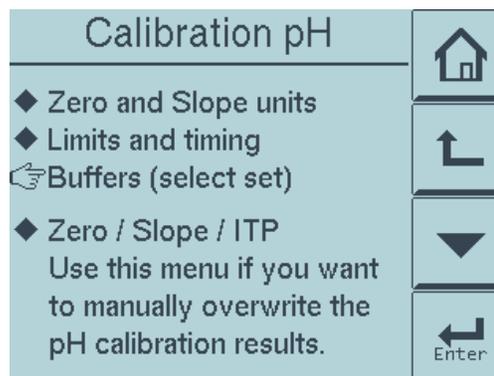
6.) Select the diamond next to pH settings, proceed to Step #7



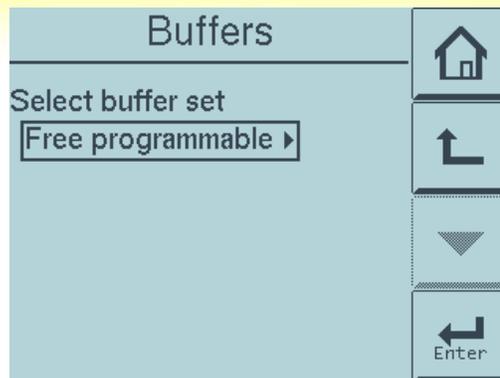
a. Select the diamond next to pH Setting, proceed to Step #7



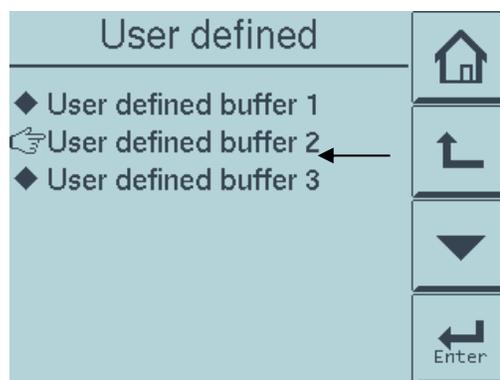
7.) Select the diamond next to Buffers



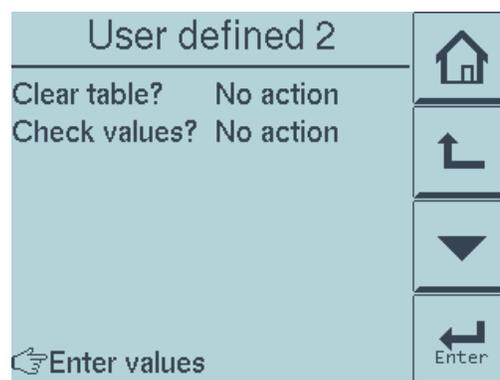
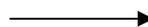
8.) Next, choose the Free Programmable option



9.) Depending on which buffers you will be using in your application, click on the diamond next to the User defined buffer that needs to be changed. User defined Buffer 1, is the buffer table for pH 4.01; user defined Buffer 2, is the the buffer table for pH 6.87; and user defined Buffer3, is the buffer table for pH 9.18. For this example we will choose to change the values within the User Deinfed Buffer 2, pH 6.87, because this is the most commonly chosen table to change values to reflect pH 7.0.



10.) Select the diamond next to Enter Values



11.) Click on each pH value next to the temperature, in order to enter customer pH value for the particular given temperature value. In order to use this feature the customer must have a pH for each given temperature value in 5 degree increments from 0°C-80°C. Click enter when finished, to return to original Buffer Table screen.

Buffer table 2		1/3	
1. * 0 °C	<input type="text" value="6.98 pH"/>		
2. 5 °C	6.95 pH		
3. 10 °C	6.92 pH		
4. 15 °C	6.90 pH		
5. 20 °C	6.88 pH		
6. 25 °C	6.87 pH		
7. 30 °C	6.85 pH		
◆ Next		* = mandatory	

New value: pH

-	7	8	9	
.	4	5	6	
0	1	2	3	
				Enter

New value: pH

-	7	8	9	
.	4	5	6	
0	1	2	3	
				Enter

Buffer table 2		1/3	
1. * 0 °C	<input type="text" value="7.04 pH"/>		
2. 5 °C	6.95 pH		
3. 10 °C	6.92 pH		
4. 15 °C	6.90 pH		
5. 20 °C	6.88 pH		
6. 25 °C	6.87 pH		
7. 30 °C	6.85 pH		
◆ Next		* = mandatory	

12.) Once the pH values for the temperatures 0°C-30°C have been changed, click on the diamond next the the Next to precede to the next page of the table. Note: You do not have to change all of the values, only the ones that are stated mandatory.

Buffer table 2		1/3	
1. *	0 °C	7.04 pH	  
2.	5 °C	7.04 pH	
3.	10 °C	7.03 pH	
4.	15 °C	7.02 pH	
5.	20 °C	7.01 pH	
6.	25 °C	7.00 pH	
7.	30 °C	7.00 pH	
	Next	* = mandatory	Enter



13.) If you choose to fill out the pH values for 35°C-65°C do so in the same manner as described above in step #11. Once the pH values for the temperatures 35°C-65°C that you wish to change have been changed, click on the diamond next the the Next to precede to the next page of the table.

Buffer table 2		2/3	
8.	35 °C	6.84 pH	  
9.	40 °C	6.84 pH	
10.	45 °C	6.83 pH	
11.	50 °C	6.83 pH	
12.	55 °C	6.83 pH	
13.	60 °C	6.84 pH	
14.	65 °C	6.84 pH	
	Next	none mandatory	Enter

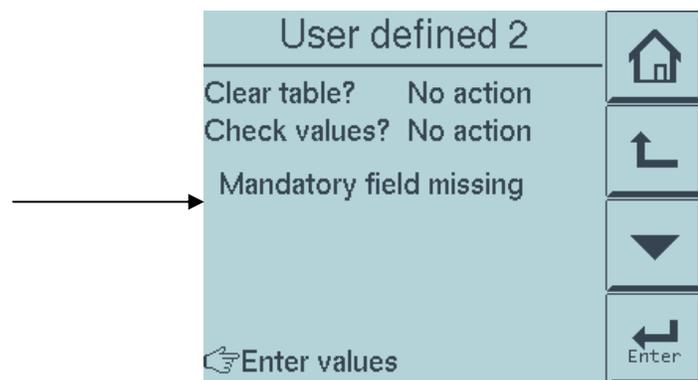
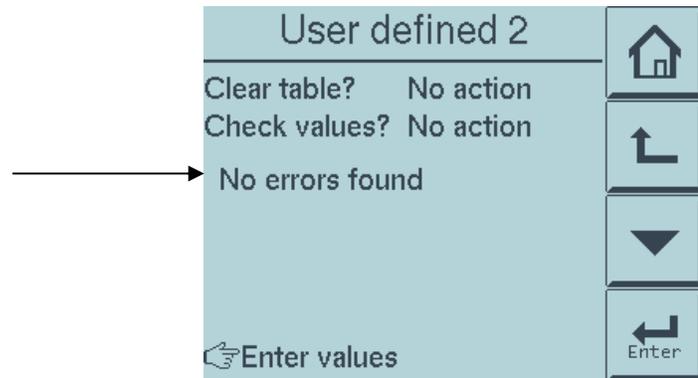
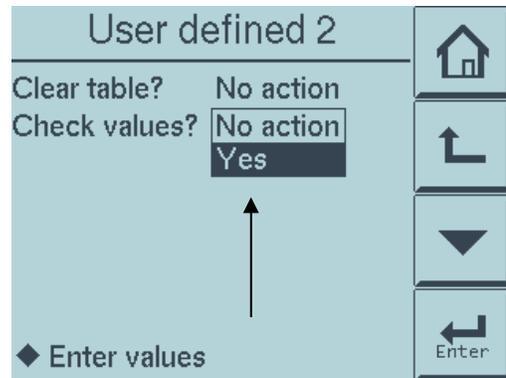


14.) If you choose to fill out the pH values for 70°C-80°C do so in the same manner as described above in step #11. Once the pH values for the temperatures 70°C-80°C that you wish to change have been changed, click on the diamond next the the Finish to return to the original User defined 2 Buffer screen.

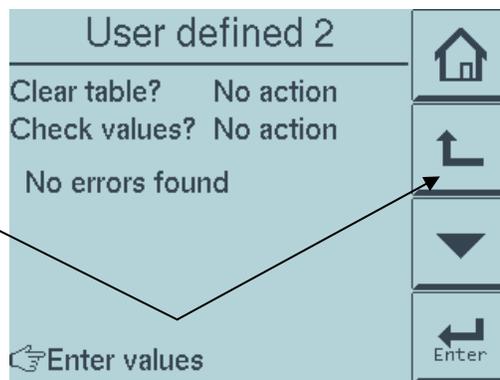
Buffer table 2		3/3	
15.	70 °C	6.85 pH	  
16.	75 °C	6.85 pH	
17. *	80 °C	6.86 pH	
	Finish	* = mandatory	



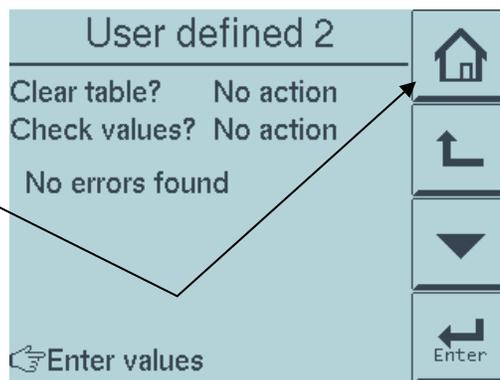
15.) Next select **YES** under Check Values on the original User Defined 2 Buffer screen. This check is only looking to make sure that the mandatory values are completed. If NO Errors are found the screen should reveal results. However, if a mandatory field was missed the screen would show the error. With that being said, pay extra attention to make sure that all values entered are entered in correctly. Since this is a free programable option, the system will take any data that is entered.



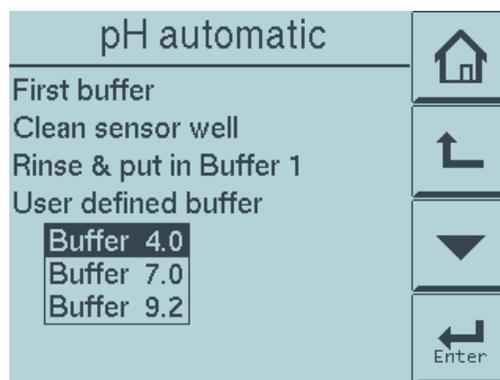
16.) If you want to change another buffer table, click the Back Arrow to return to the User Defined Screen and follow steps 9-15.



Otherwise click on the home icon (the house), to remain to the main page.

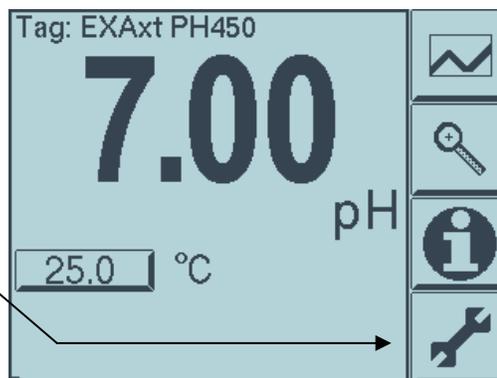


17.) Now when you choose to automatic calibrate the unit will be using user defined pH Buffer.

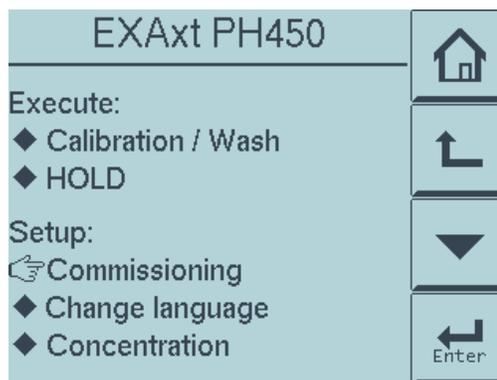


Appendix: If at any point you would like to reset your analyzer back to factory default buffer tables, you can do so by following the steps below.

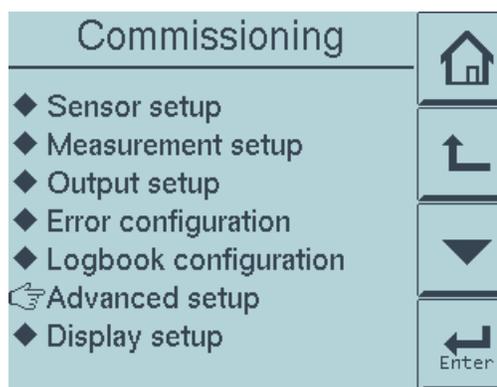
1.) Click on the settings icon (wrench)



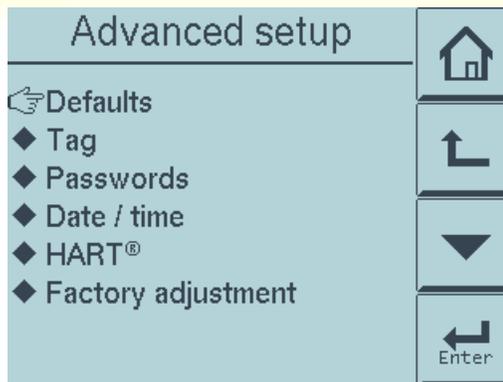
2.) Using either the the  scroll key or by clicking directly on the diamond next to Commissioning, select it.



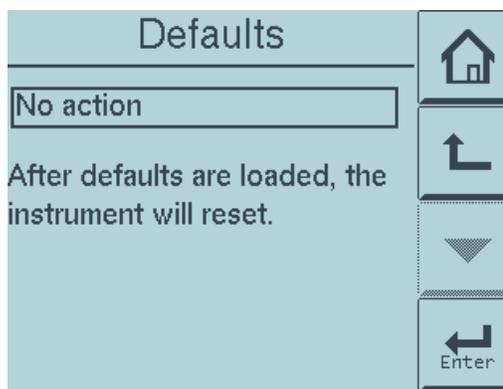
3.) Select Advanced Set up



4.) Select the diamond next to Defaults



5.) Choose to Load Factory Default Settings.



6.) Once the system has been restored the unit will automatically go back to the main home page.

