

## HOW TO USE A CONDUCTIVITY TRANSMITTER AS A CONCENTRATION TRANSMITTER

### ISC450 – Programming Percent Concentration Preprogrammed Curves

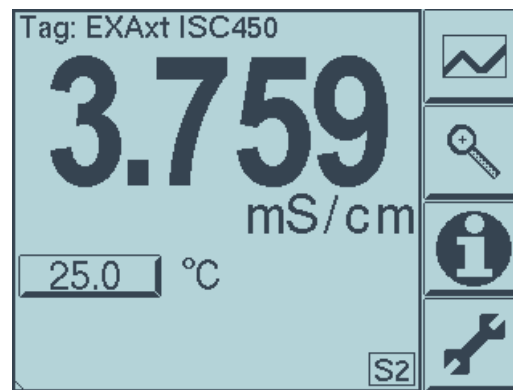
There are two choices for programming the ISC450 for Percent Concentration measurement. The simplest, is to select one of the “built-in” tables already provided in the ISC40. However, if none of these Tables meet the application requirements, then the second option of creating your own Table specific to your needs can be used.

This Application Note is designed to guide you through the programming steps required for both options. All of the steps you will follow are in your ISC450 Instruction Manual, but we have pulled out just those steps that deal with setting up percent concentration using one of the “built-in” tables.

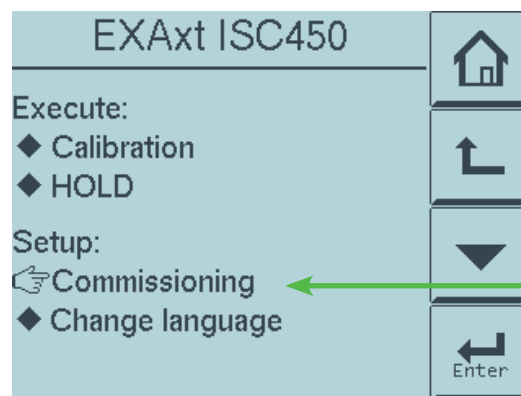
You will be programming the Analyser to display in “Percent Concentration”; Selecting the desired Percent Concentration Matrix; Setting your 4-20 mA output and finally, setting (or turning off your alarm contacts to eliminate any error codes being displayed.



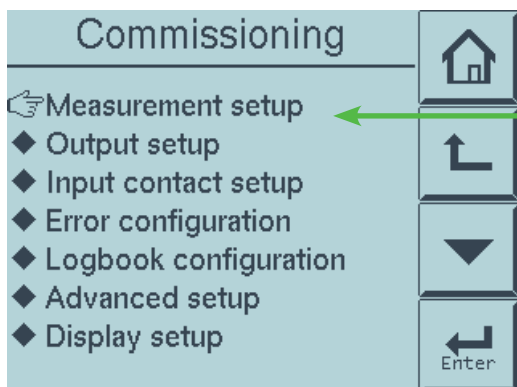
### APPLICATION NOTE



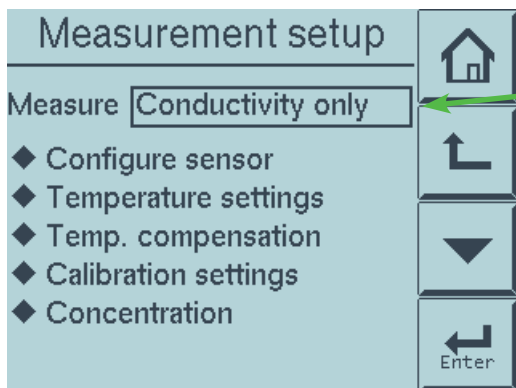
At the opening Screen – Press the **WRENCH** Key



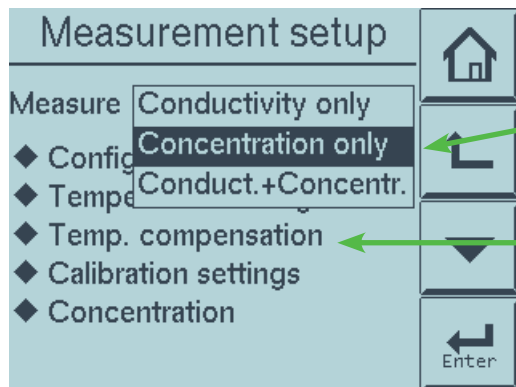
Press the **Commissioning** diamond



Press the **Measurement setup** diamond



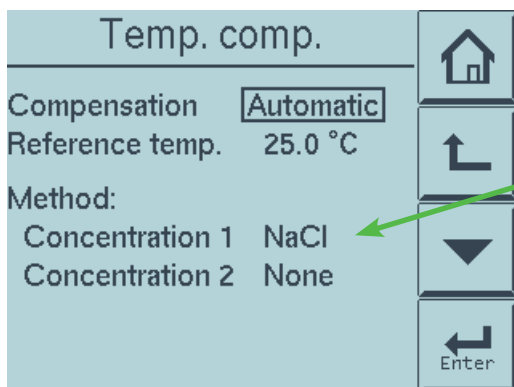
At the Measurement setup screen you will see that **Conductivity only** is displayed. Press the dropdown box to reveal the other options.



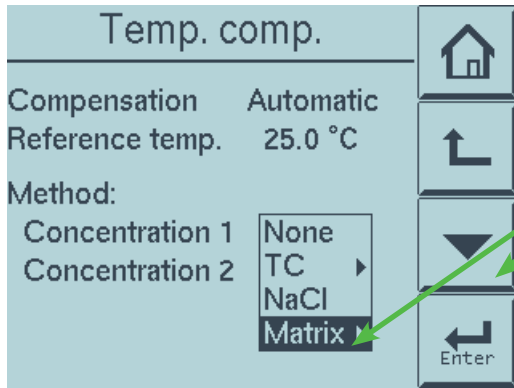
Using the Down Key, select **Concentration only**

Then...

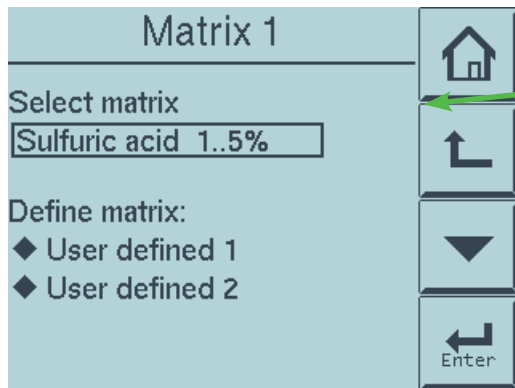
Press the **Temperature compensation** diamond



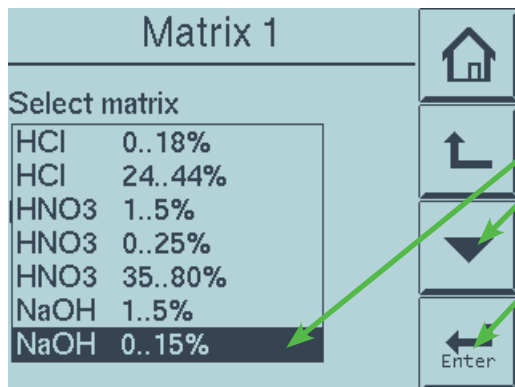
Press **NaCl** (next to Concentration 1) and a drop down menu will appear.



Using the **Down** Key select **Matrix** and then press the **Enter** Key.



Press the **Drop Down** box

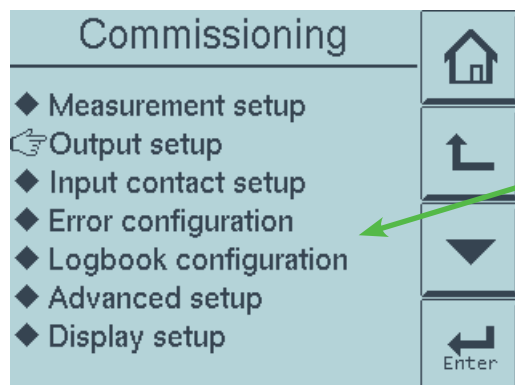


Using the **Down** Key, go to **NaOH 0. . 15%**

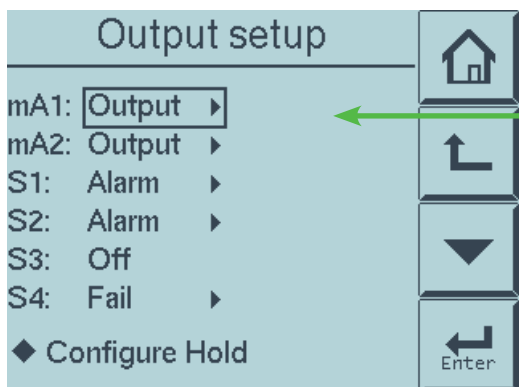
Then... Press **Enter**

You have now selected the "built-in" Conductivity versus Percent Concentration Matrix for 0-15% NaOH.

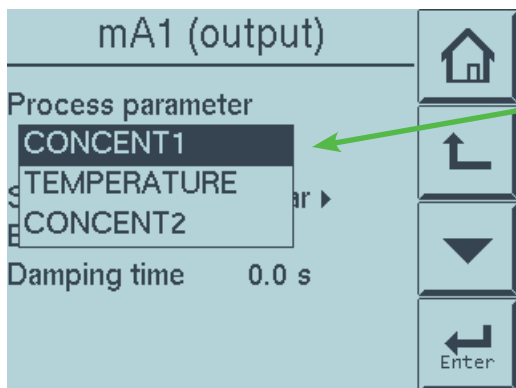
NOW... Press the **RETURN** Key (3 times) until the **Commissioning** screen comes up again.



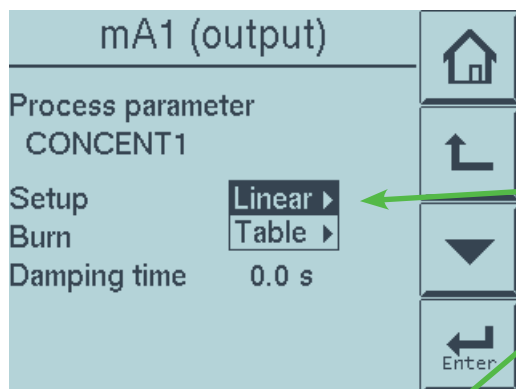
Press the **Output setup** diamond.



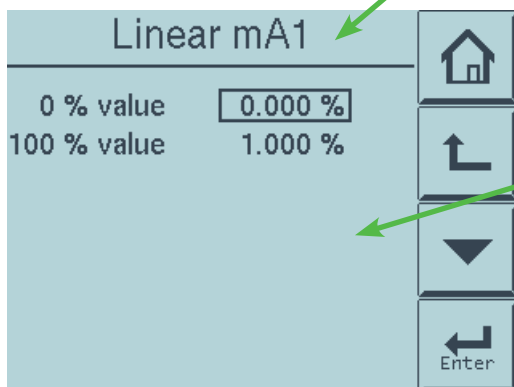
Select **Output** on mA1 and then Press **Enter**



Press Drop Down Menu and select **CONCENT1**

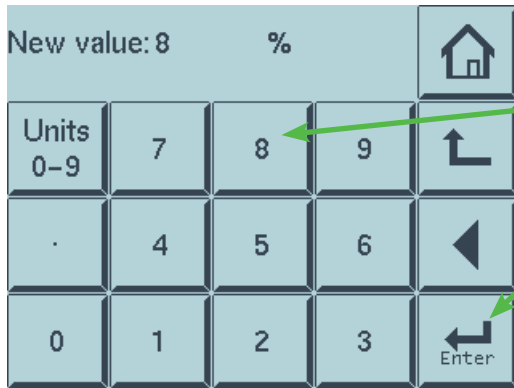


Press **Linear** in Drop Down box so that the **Linear mA1** menu appears.

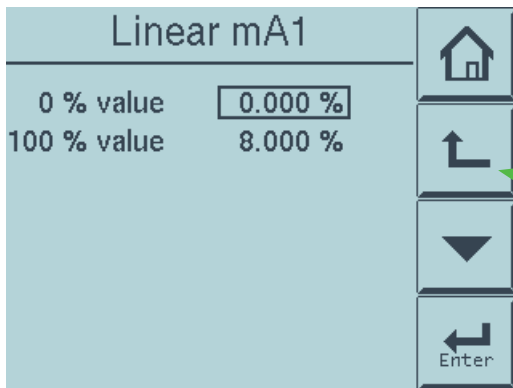


The **0% value** is equivalent to 4 mA and the **100% value** is equivalent to 20 mA. So, if your 4-20 mA range is to be 0-8% NaOH, leave the **0% value** as it is.

Press the **100% value** window to bring up the Key pad.

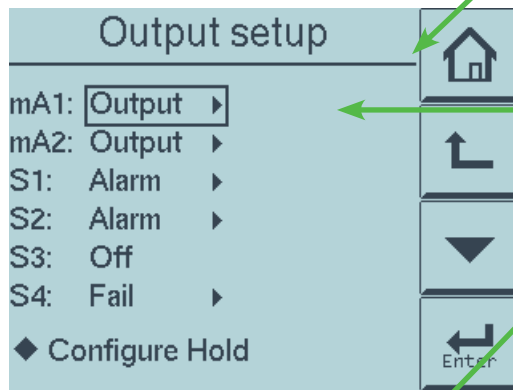


Using the Numeric Pad, enter 8.00 and Press the **Enter** Key.

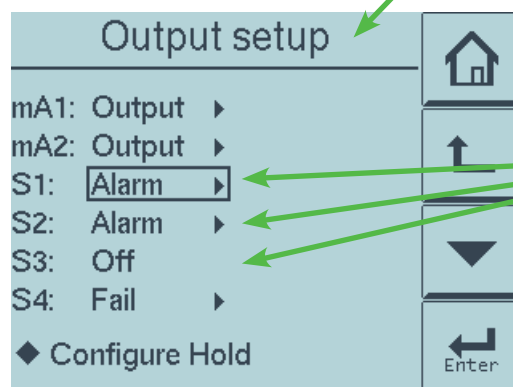


Now the 4-20 mA on I of the Analyser is set for 0-8% percent concentration.

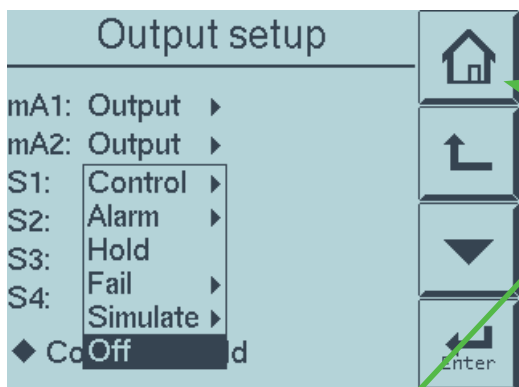
Now. . . Press the **RETURN** Key until the **Commissioning** screen comes up again.



Press the **Output setup** diamond.



Now you can set up your Alarms (**S1**, **S2**, and **S3**) if you desire. If you are **NOT** using them, Press the Drop Down Menu and select **OFF**. This will eliminate any setup errors being displayed on the Main Menu.



When you are finished,  
Press the **Home** Key

