

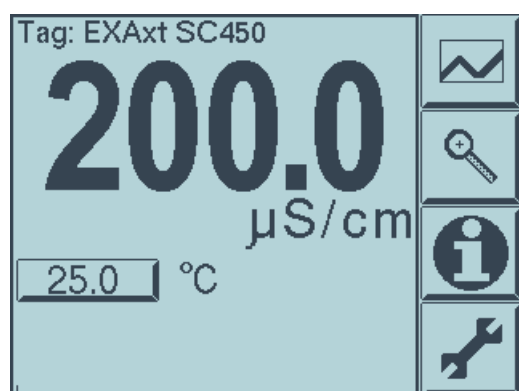
SC450 – Programming Percent Concentration Preprogrammed Curves

There are two methods for programming the SC450 for Percent Concentration measurement. The simplest, is to select one of the “built-in” tables provided in the SC450. However, if none of these meet the application requirements, then the second option of creating your own Table specific to your needs can be used.

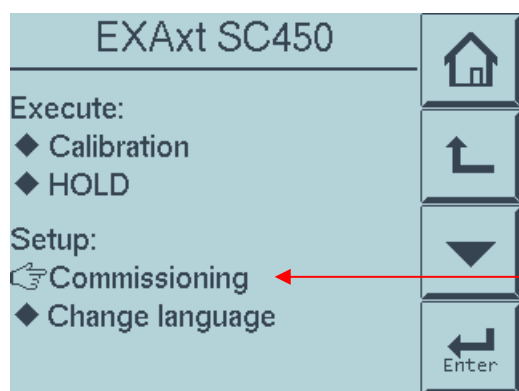
This Tech Note is designed to guide you through the programming steps required for selecting a preprogrammed table. All of the steps you will follow are in your SC450 Instruction Manual, but we have pulled out just those steps that deal with setting up percent concentration using one of the “built-in” tables.

You will be programming the Analyzer 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.

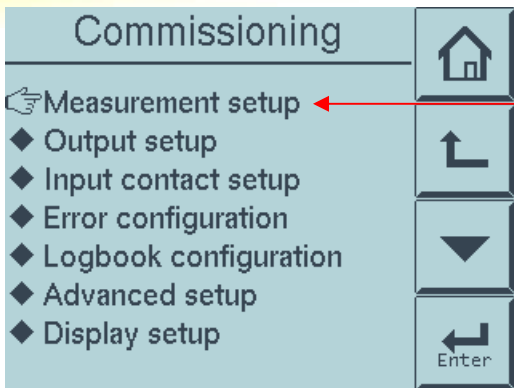
Option One -Programming using Preset Concentration Matrix



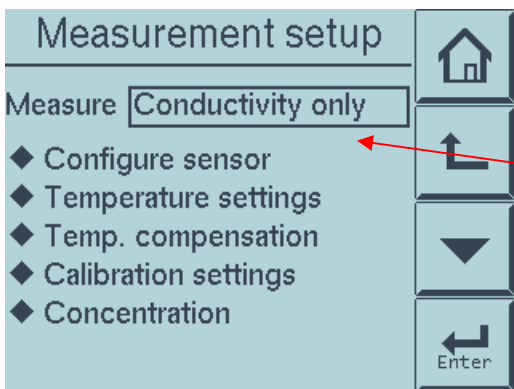
At the opening Screen – Press the WRENCH Key



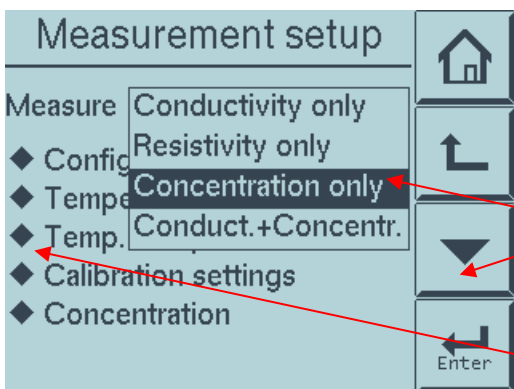
Press the Commissioning diamond



Press the **Measurement setup** diamond

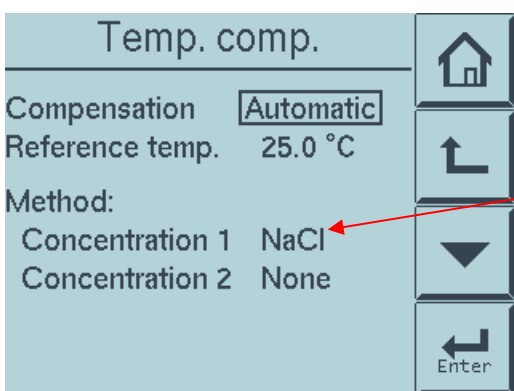


At the Measurement setup screen you will see that **Conductivity only** is displayed. Press the dropdown box to reveal the other options.

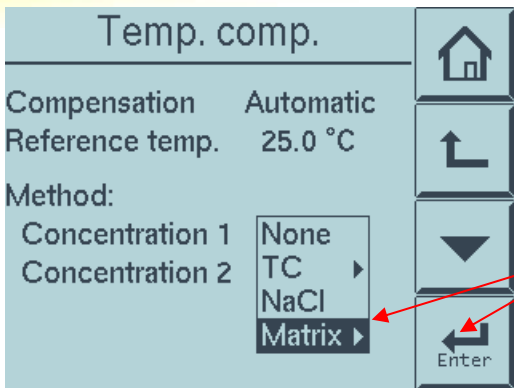


Using the Down Key, select **Concentration only**

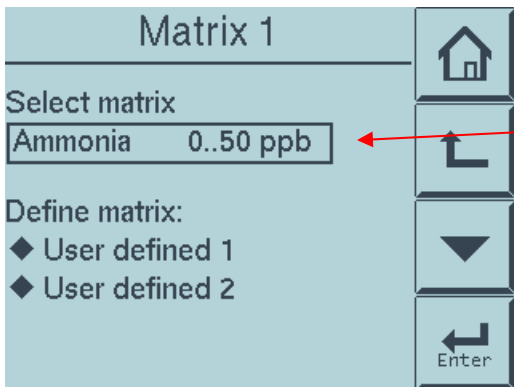
THEN . . . Press the **Temp. compensation** diamond



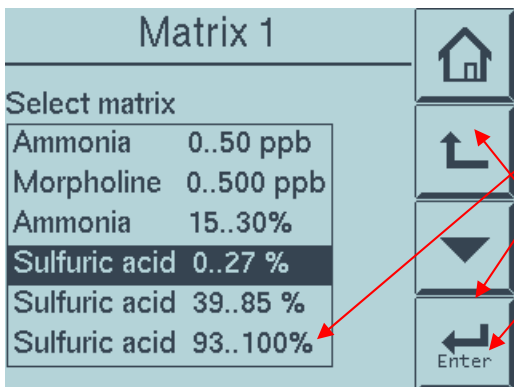
Press **NaCl** (next to Concentration 1) and a drop down menu will appear.



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



Press the **Drop Down** box

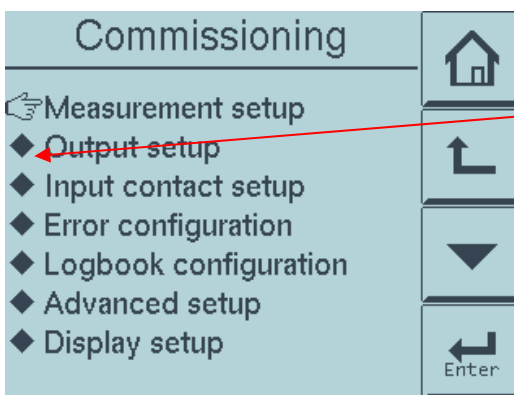


Using the **Down** Key, go to **Sulfuric acid (H₂SO₄) 0..27%**

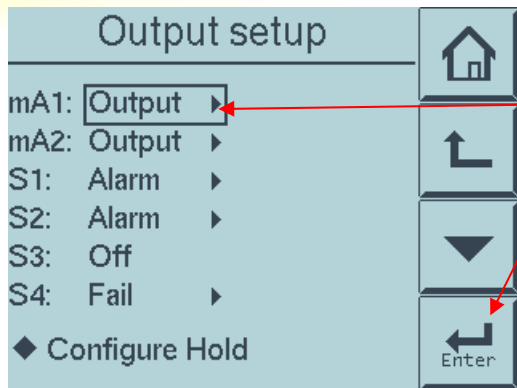
THEN . . . Press **Enter**

You have now selected the "built-in" Conductivity versus Percent Concentration Matrix for 0-27% H₂SO₄.

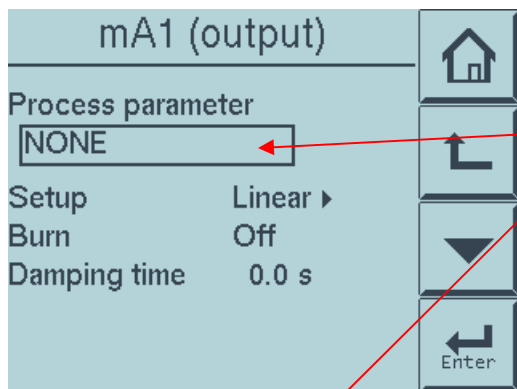
NOW . . . Press the **RETURN** Key (3 times) ntil the **Commissioning** screen comes up again.



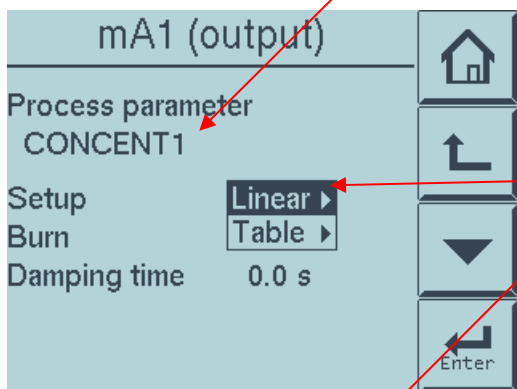
Press the **Output setup** diamond



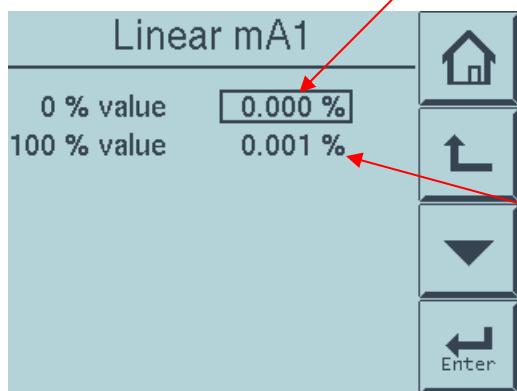
Select **Output** on mA1 and then Press **Enter**



Press Drop Down Menu and select **CONCENT1**

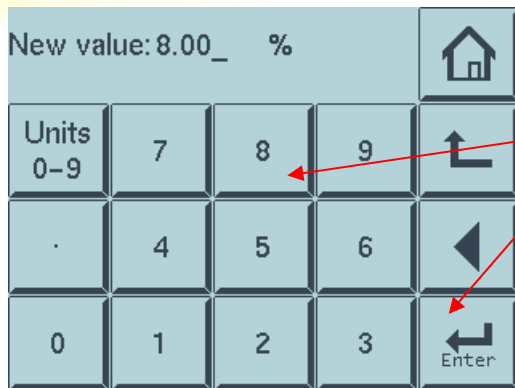


Press **Linear** in Drop Down box so that the **Linear mA1** menu appears.

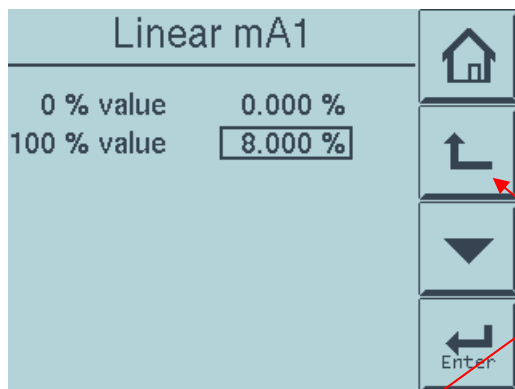


The **0% value** is equivalent to 4 mA and the **100% value** is equivalent to 20 mA. So, if your 4 – 20 mA range is to be 0-8% Sulfuric Acid, leave the **0% value** as it is.

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

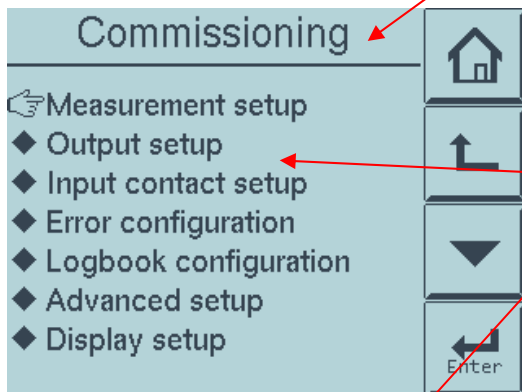


Using the Numeric Pad, enter 8.00 and Press the **Enter** Key

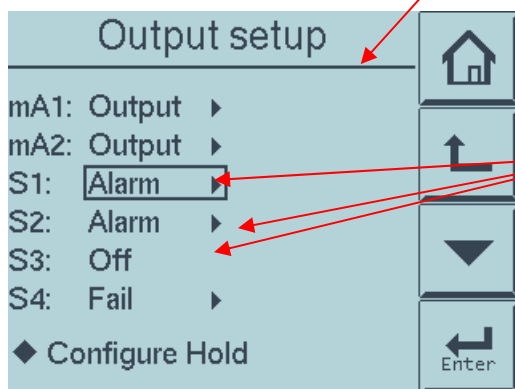


Now the 4-20 mA on mA1 of the Analyzer is set for 0-8% percent concentration

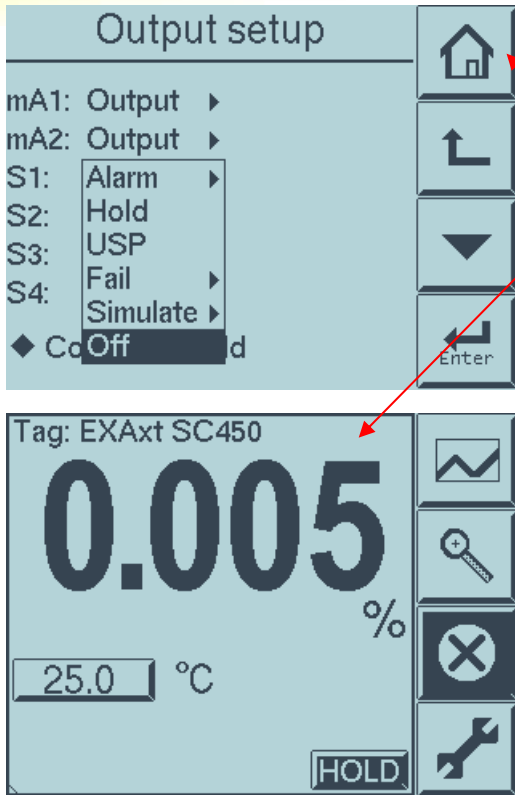
NOW . . . Press the **RETURN** Key until the **Commissioning** screen comes up again



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.