

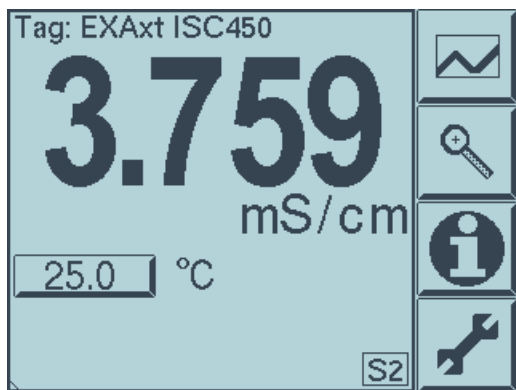
ISC450 – Programming Percent Concentration Preprogrammed Curves

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.

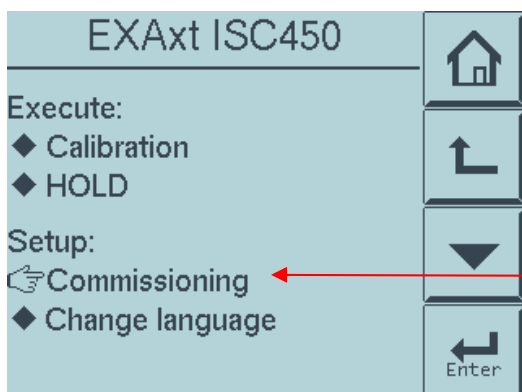
This Tech Note is designed to guide you through the programming steps required for both options. All of the steps you will follow are in your ISC450 Instruction Manual, but we have pulled out just those steps that deal with setting up percent concentration using one of the “built-in” tables.

You will be programming the 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.

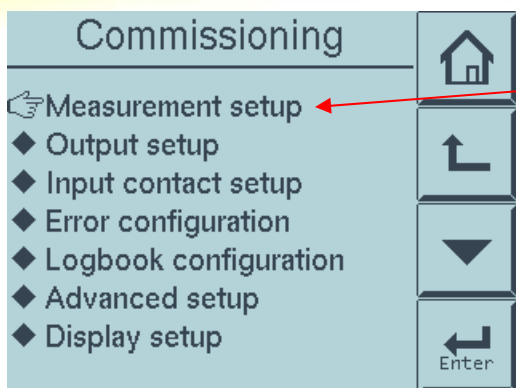
Option One - Programming using Preset Concentration Matrix



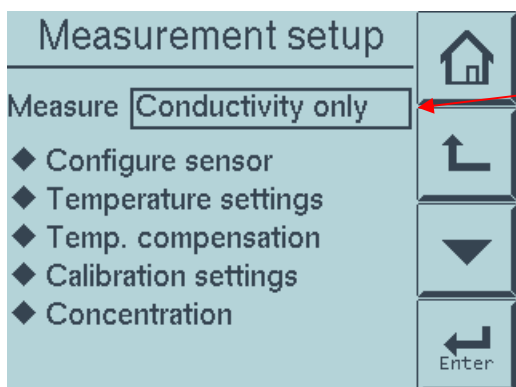
At the opening Screen – Press the **WRENCH** Key



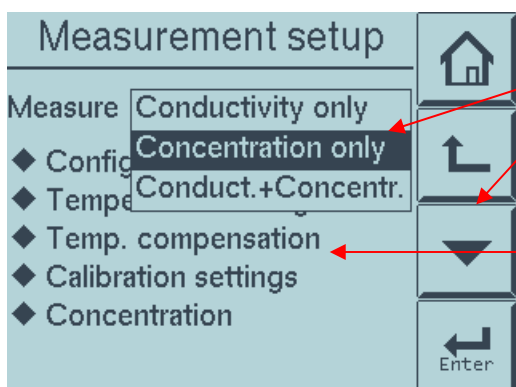
Press the **Commissioning** diamond



Press the **Measurement setup** diamond



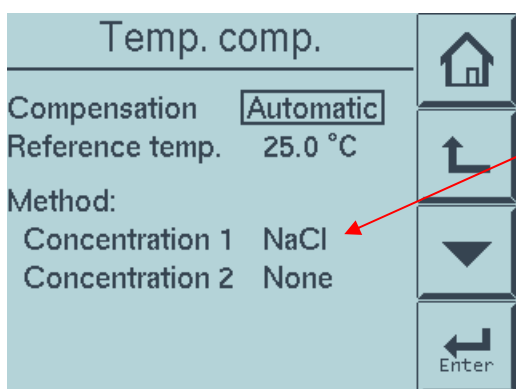
At the Measurement setup screen you will see that **Conductivity only** is displayed. Press the dropdown box to reveal the other options.



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.

Temp. comp.

Compensation Automatic
Reference temp. 25.0 °C

Method:
Concentration 1
Concentration 2

None
TC
NaCl
Matrix

Enter

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

Matrix 1

Select matrix
Sulfuric acid 1..5%

Define matrix:
◆ User defined 1
◆ User defined 2

Enter

Press the **Drop Down** box

Matrix 1

Select matrix

HCl	0..18%
HCl	24..44%
HNO3	1..5%
HNO3	0..25%
HNO3	35..80%
NaOH	1..5%
NaOH	0..15%

Enter

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.

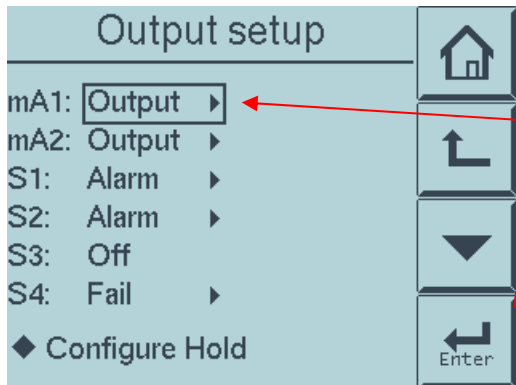
NOW . . . Press the **RETURN Key** (3 times) until the **Commissioning** screen comes up again.

Commissioning

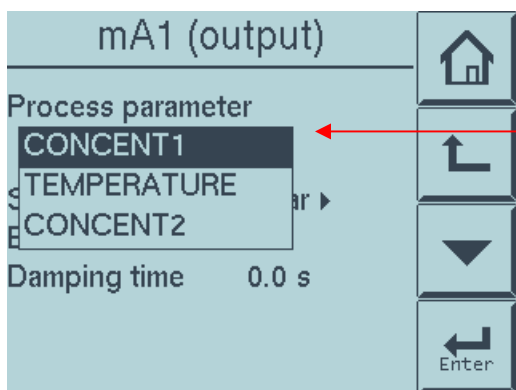
- ◆ Measurement setup
- ◆ **Output setup**
- ◆ Input contact setup
- ◆ Error configuration
- ◆ Logbook configuration
- ◆ Advanced setup
- ◆ Display setup

Enter

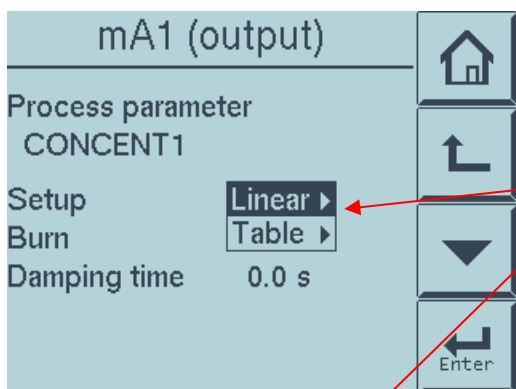
Press the **Output setup** diamond.



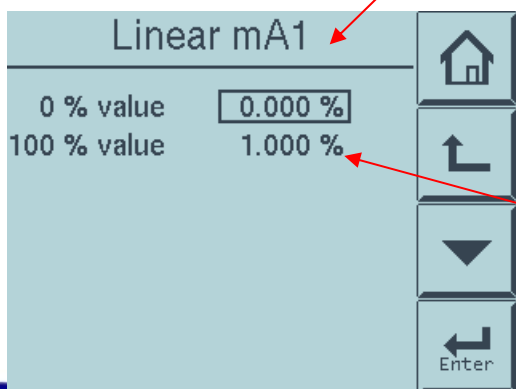
Select **Output** on mA1 and then Press **Enter**



Press Drop Down Menu and select **CONCENT1**

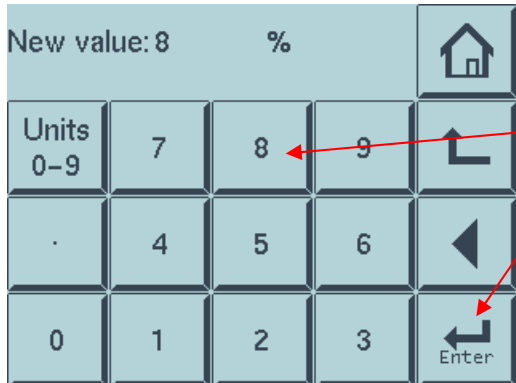


Press **Linear** in Drop Down box so that the **Linear mA1** menu appears.

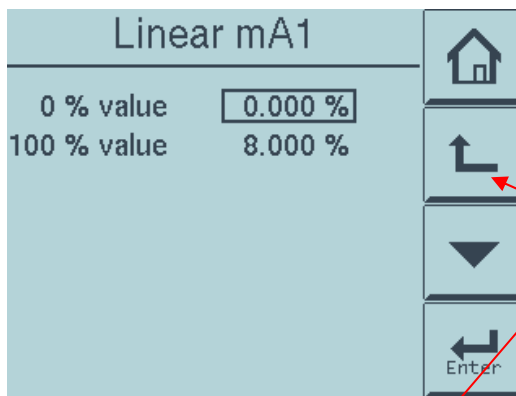


The **0% value** is equivalent to 4 mA and the **100% value** is equivalent to 20 mA. So, if your 4 – 20 mA range is to be 0-8% NaOH, leave the **0% value** as it is.

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

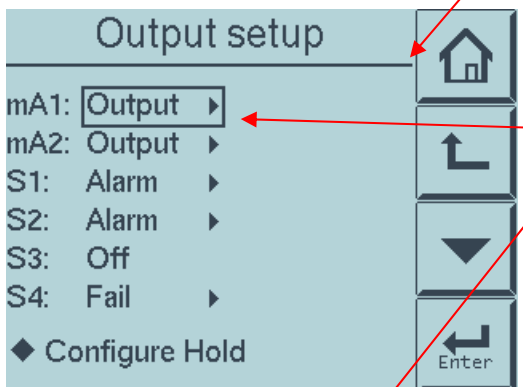


Using the Numeric Pad, enter 8.00 and Press the **Enter** Key.

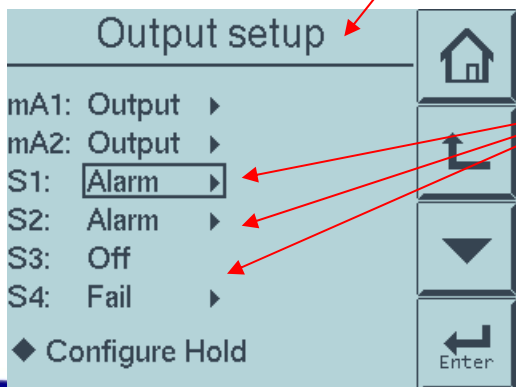


Now the 4-20 mA on mA1 of the Analyzer is set for 0-8% percent concentration.

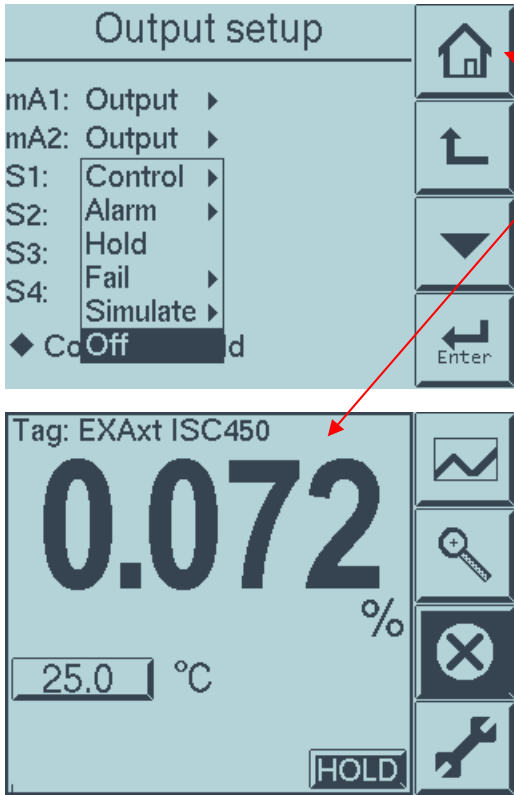
NOW . . . Press the **RETURN** Key until the **Commissioning** screen comes up again.



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.