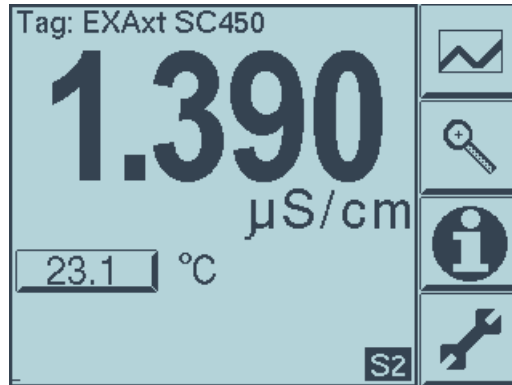# SET UP SC450 TO READ TEMPERATURE COMPENSATED AND TEMPERATURE NON-COMPENSATED CONDUCTIVITY ALONG WITH USP ALARMS
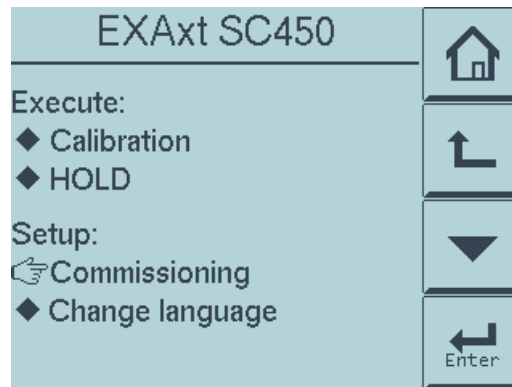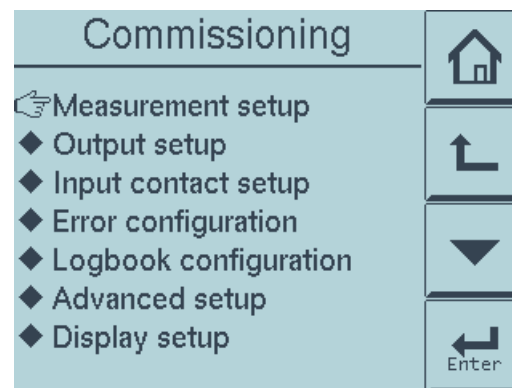
APPLICATION NOTE

Tag: EXAxt SC450
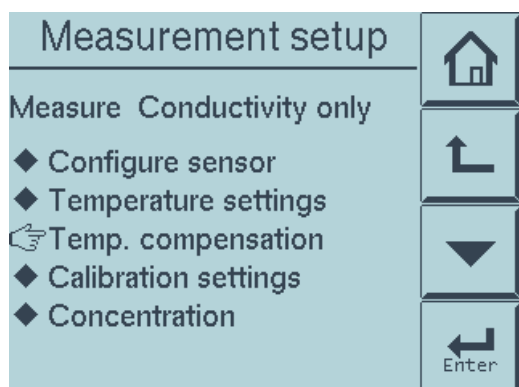
1.390 µS/cm

23.1 °C

S2

Press the wrench

EXAxt SC450

Execute:
◆ Calibration
◆ HOLD

Setup:
☞ Commissioning
◆ Change language

Press commissioning

Commissioning

☞ Measurement setup
◆ Output setup
◆ Input contact setup
◆ Error configuration
◆ Logbook configuration
◆ Advanced setup
◆ Display setup

Press measurement setup

Measurement setup

Measure Conductivity only
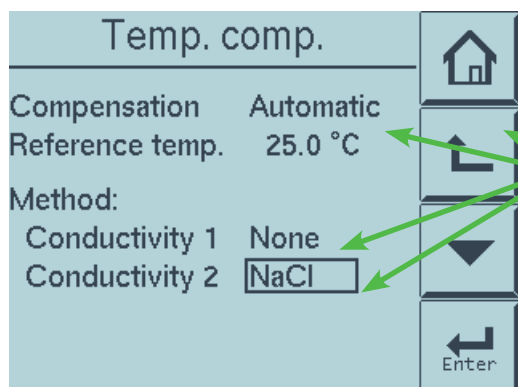
◆ Configure sensor
◆ Temperature settings
☞ Temp. compensation
◆ Calibration settings
◆ Concentration

Enter

Press Temp. Compensation

Temp. comp.
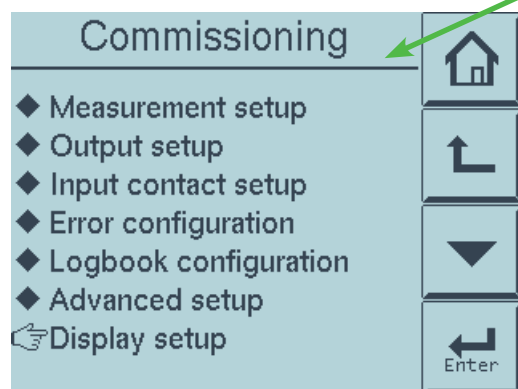
Compensation	Automatic
Reference temp.	25.0 °C

Method:
Conductivity 1   None
Conductivity 2   NaCl

Enter

Leave Compensation on Automatic,
Change Conductivity 1 to NONE and
Conductivity 2 to NaCl

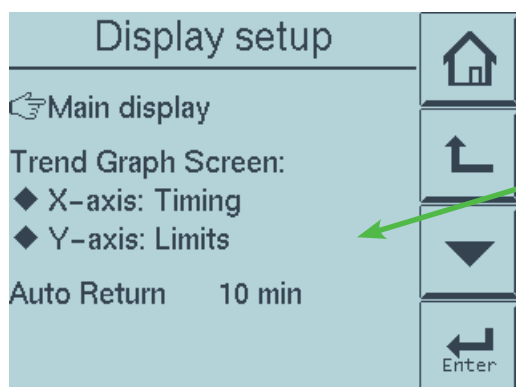Then... Hit the return key twice to
return to the Commissioning Screen

Commissioning

◆ Measurement setup
◆ Output setup
◆ Input contact setup
◆ Error configuration
◆ Logbook configuration
◆ Advanced setup
☞ Display setup

Enter

Press the Display

Display setup

☞ Main display

Trend Graph Screen:
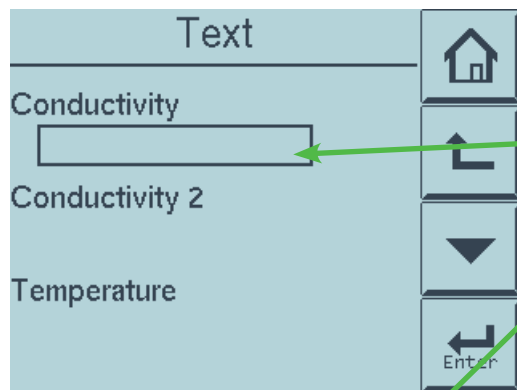◆ X-axis: Timing
◆ Y-axis: Limits

Auto Return   10 min

Enter

Press the Main Display

Main display

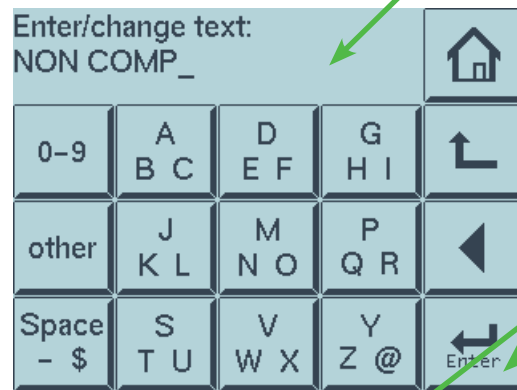Conductivity unit   Auto

1st line   Conductivity

2nd line   Temperature

3rd line   Conductivity2
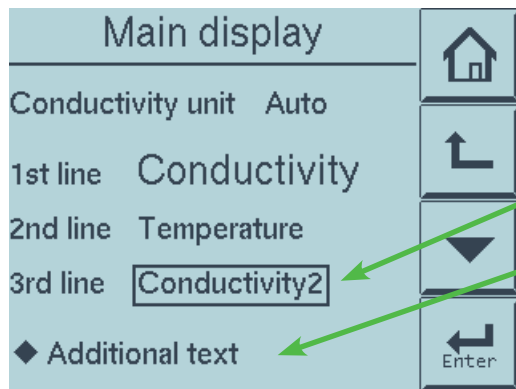
◆ Additional text

Set the 3rd line to Conductivity 2

Then I would select the Additional TEXT

Text

Conductivity

Conductivity 2

Temperature

I would add NON COMP to the Conductivity up selected the box under the words

Enter/change text:
NON COMP_

0-9	A B C	D E F	G H I	
other	J K L	M N O	P Q R	◀
Space – $	S T U	V W X	Y Z @	Enter

Now Hit the Enter Key to go back one screen

Text

Conductivity
   NON COMP

Conductivity 2

Temperature
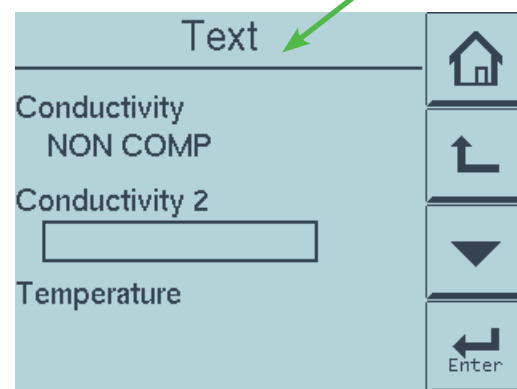
Now select the box under Conductivity 2 and add COMPENSATED and hit the enter key to Return to the TEXT screen

Text

Conductivity
  NON COMP

Conductivity 2
  COMPENSATED

Temperature

Enter

Now Hit the House

Tag: EXAxt SC450

1.333 µS/cm

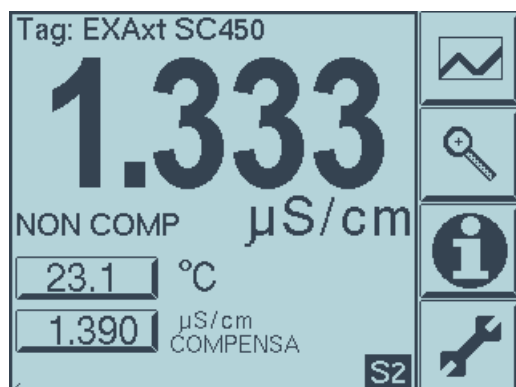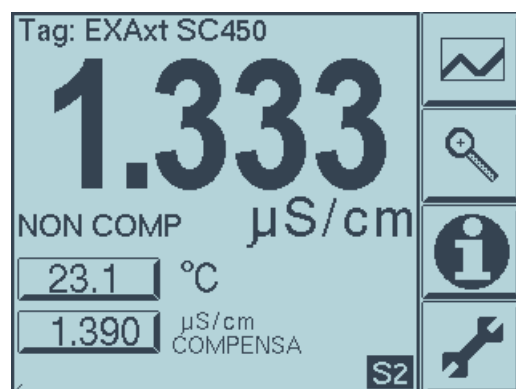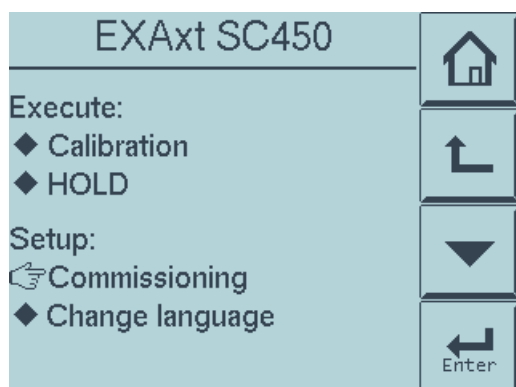NON COMP

23.1 °C

1.390 µS/cm COMPENSA

S2
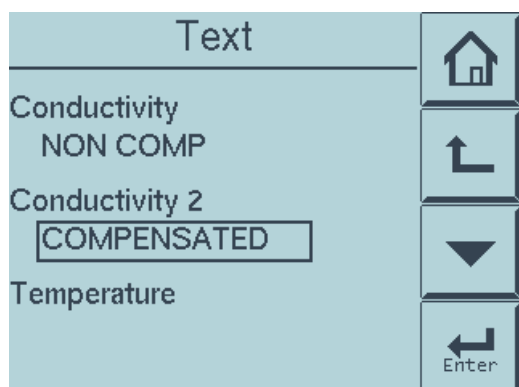
So now because of the way we set up the Methods on the TEMP. Comp screen the Main Line on the home screen shows them non-compensated conductivity value and the third line shows them their compensated conductivity reading.

Tag: EXAxt SC450

1.333 µS/cm
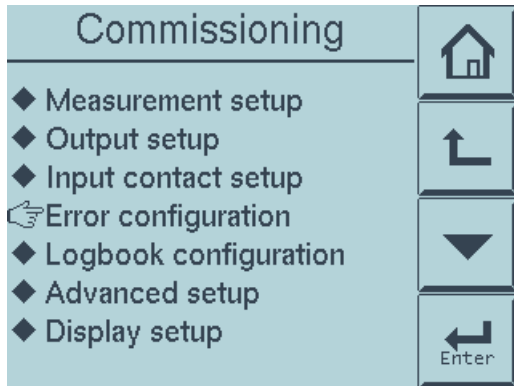
NON COMP

23.1 °C

1.390 µS/cm COMPENSA

S2

Now below are the setups to set up the USP option if they need it, leaving the Conductivity 1 and Conductivity 2 the way I have them set up above with Conductivity 1 set to NONE
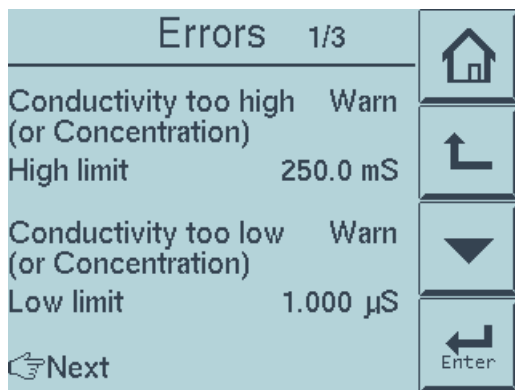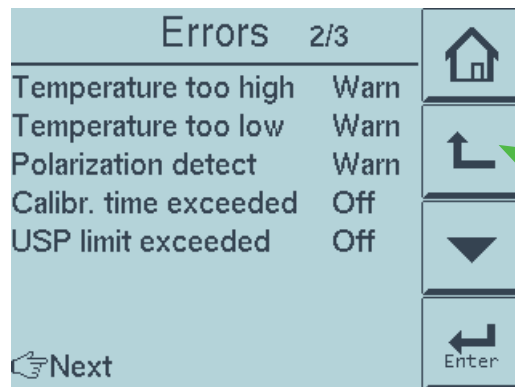
Press the wrench

EXAxt SC450

Execute:
◆ Calibration
◆ HOLD

Setup:
☞ Commissioning
◆ Change language

Enter

Press Commissioning

Commissioning

⬥ Measurement setup
⬥ Output setup
⬥ Input contact setup
☞ Error configuration
⬥ Logbook configuration
⬥ Advanced setup
⬥ Display setup

Press Error Configuration

Errors   1/3

Conductivity too high   Warn
(or Concentration)
High limit   250.0 mS

Conductivity too low   Warn
(or Concentration)
Low limit   1.000 µS

☞ Next

Press Next

Errors   2/3

Temperature too high   Warn
Temperature too low   Warn
Polarization detect   Warn
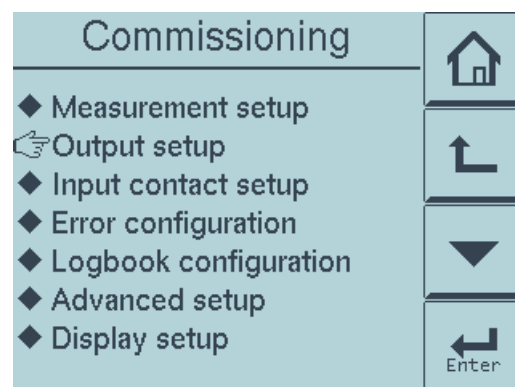Calibr. time exceeded   Off
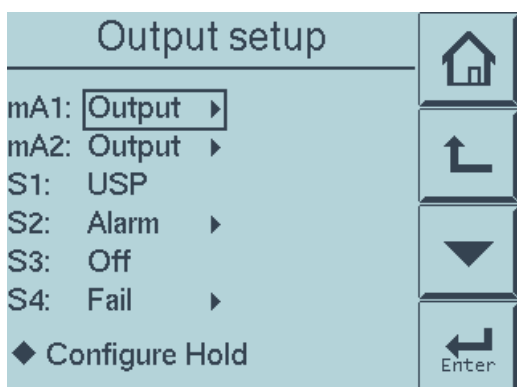USP limit exceeded   Off

☞ Next

Change USP Limit Exceeded to WARN by pressing on the words next to the line and using the up and down arrows.

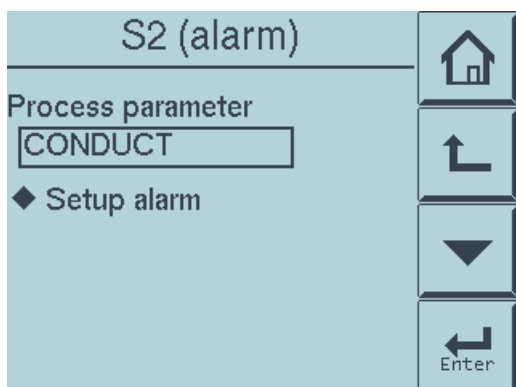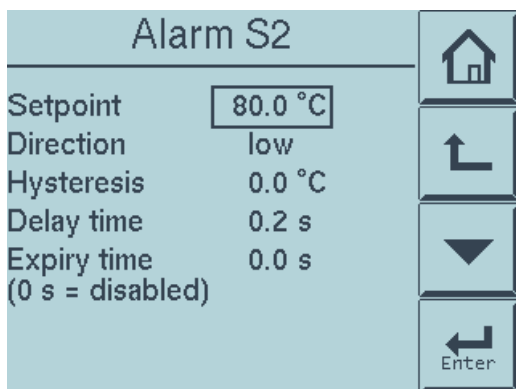Now... press the return arrow twice to return to the commissioning screen

Commissioning

⬥ Measurement setup
☞ Output setup
⬥ Input contact setup
⬥ Error configuration
⬥ Logbook configuration
⬥ Advanced setup
⬥ Display setup

Press the Output Setup

Output setup

mA1: Output ▶
mA2: Output ▶
S1:　USP
S2:　Alarm ▶
S3:　Off
S4:　Fail ▶

◆ Configure Hold

Set S1 to USP by using the drop down box next to the line

S2 (alarm)

Process parameter
CONDUCT

◆ Setup alarm

Set S2 to Alarm, and this screen will pop up. Change the process parameter to temperature, and select Setup alarm.

Alarm S2

Setpoint	80.0 °C
Direction	low
Hysteresis	0.0 °C
Delay time	0.2 s
Expiry time	0.0 s
(0 s = disabled)	

Set up the alarm parameter to the following: Setpoint 80C, Direction Low, Delay Time 0.2s, Expiry Time o (disabled)

Tag: EXAxt SC450

1.333 µS/cm

NON COMP
23.1　°C
1.390　µS/cm COMPENSA
S2
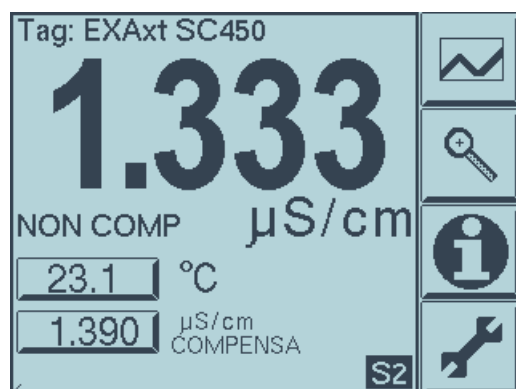
Then... Select the House to return to the main display. The unit is now set for USP alarms as well as Compensated and non Compensated Conductivity readings.