SETTING A CHANNEL DAS240

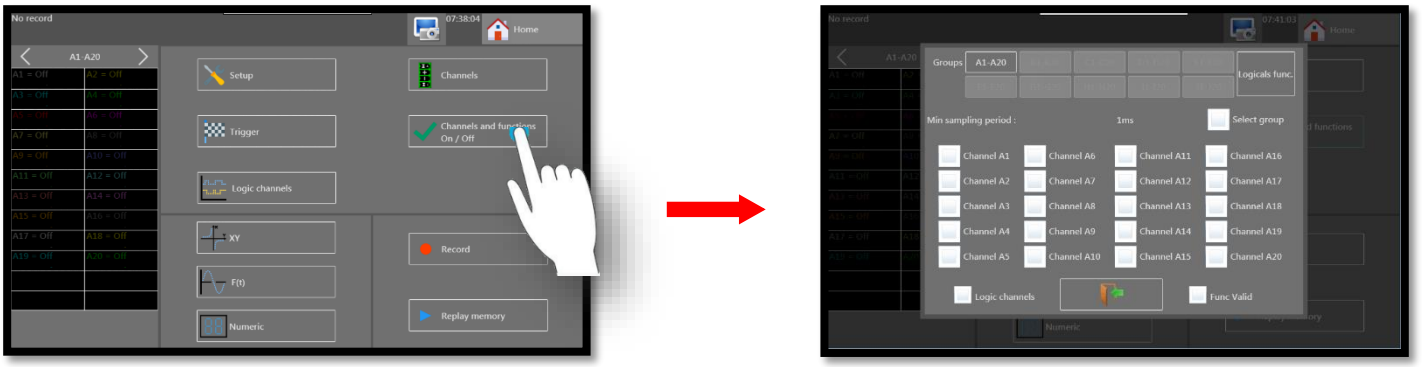
The recorder DAS240, enable to record the following settings: voltage, current, resistance, temperature (with a thermocouple, PT100 or PT1000).

We are going to see how to set an acquisition channel, with three examples:

1) Channel 1 configuration with a single voltage
2) Channel 2configuration with a K type thermocouple to measure an ambient temperature
3) Current configuration with a SHUNT resistor

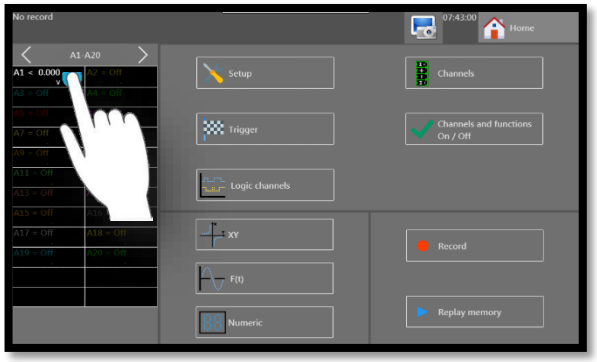
I: Example voltage, setting the channel 1

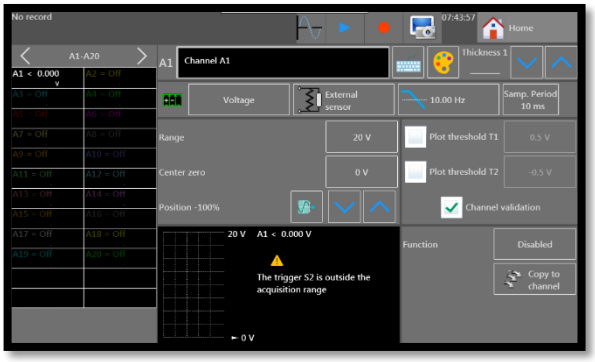
1- Go to the channels validation by pressing the “Channels and functions On / Off” button:



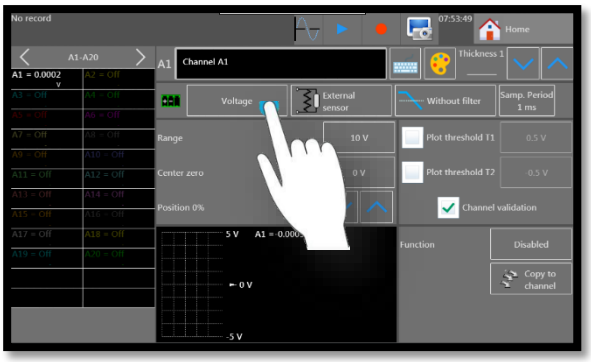
2- Select the channel. Here we choose channel 1:

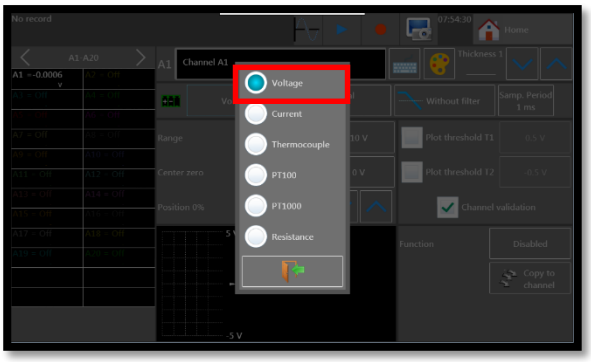
3- Go to the channel setting s by pressing on the channel to be set:



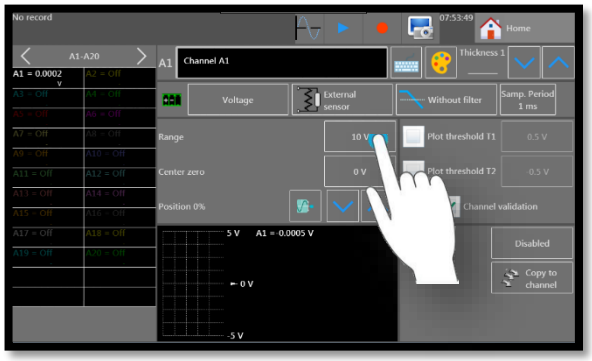


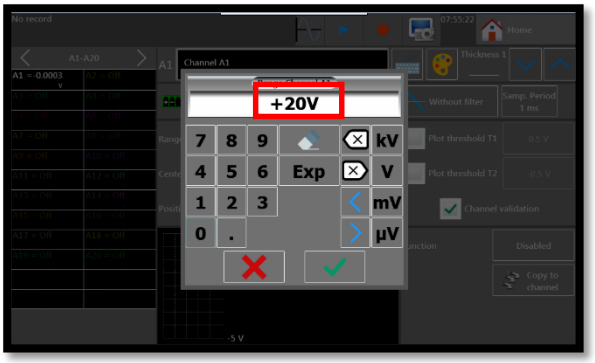
4- Set the type of measurement, here we measure the voltage:





5- Choose an adapted caliber for this voltage, in this example: 20V caliber :





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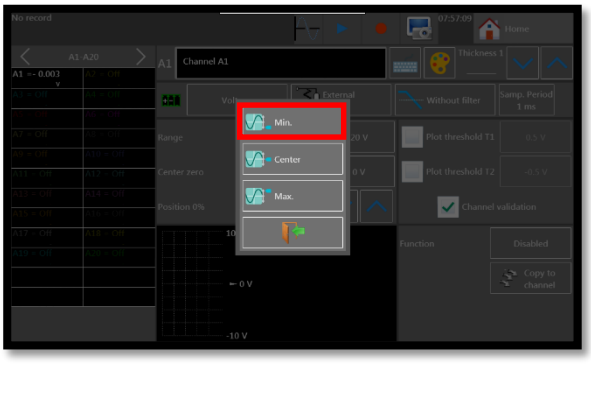
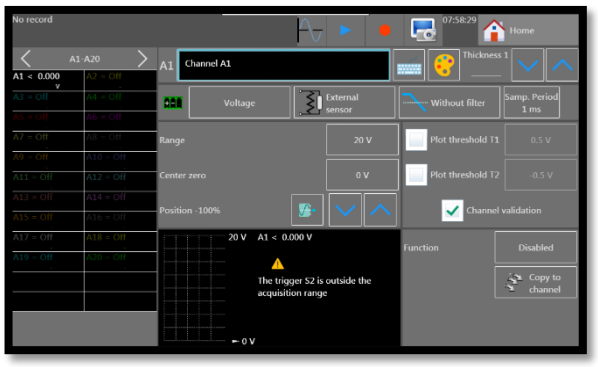
6- Set the zero's position, here we will use the "Min" position because we want to visualize a positive voltage. The range will be 0 to 20V:



7- It's possible to use a filter to remove the glitches, here we will choose 10 Hz:



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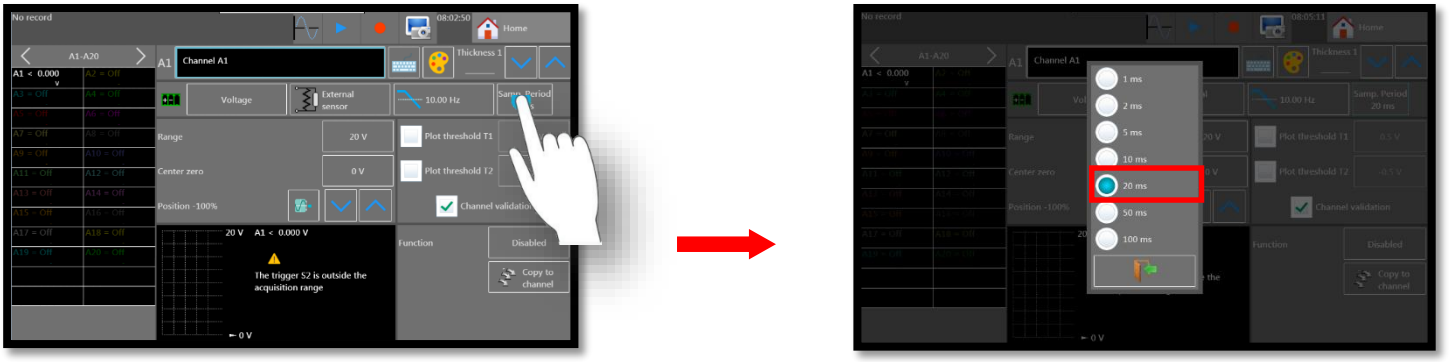
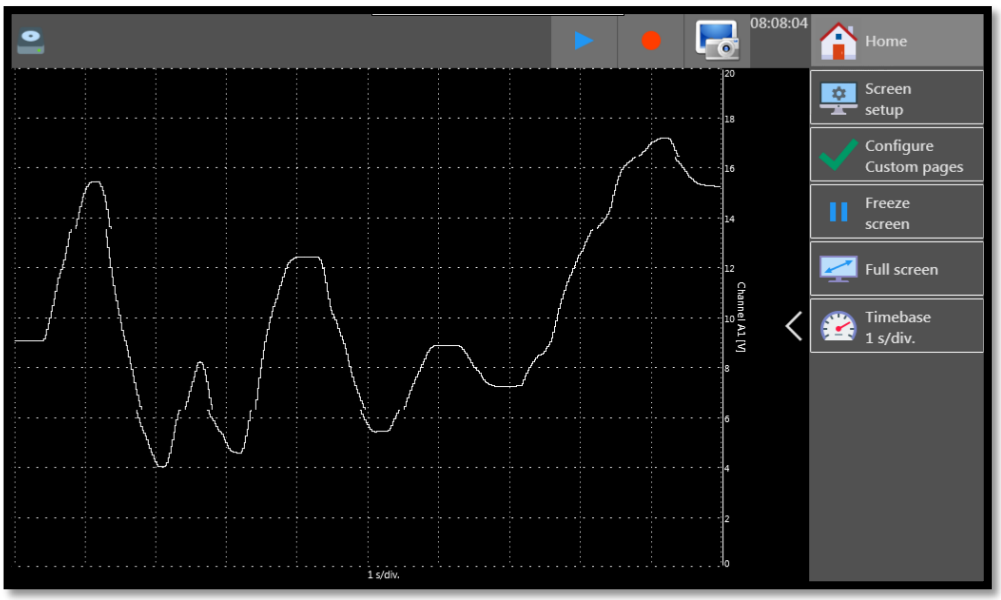
8- Choose the acquisition period, in the example we will use a « 20 ms » sampling period (each channel can have their own sampling period which is different of the sampling frequency of the recorder):

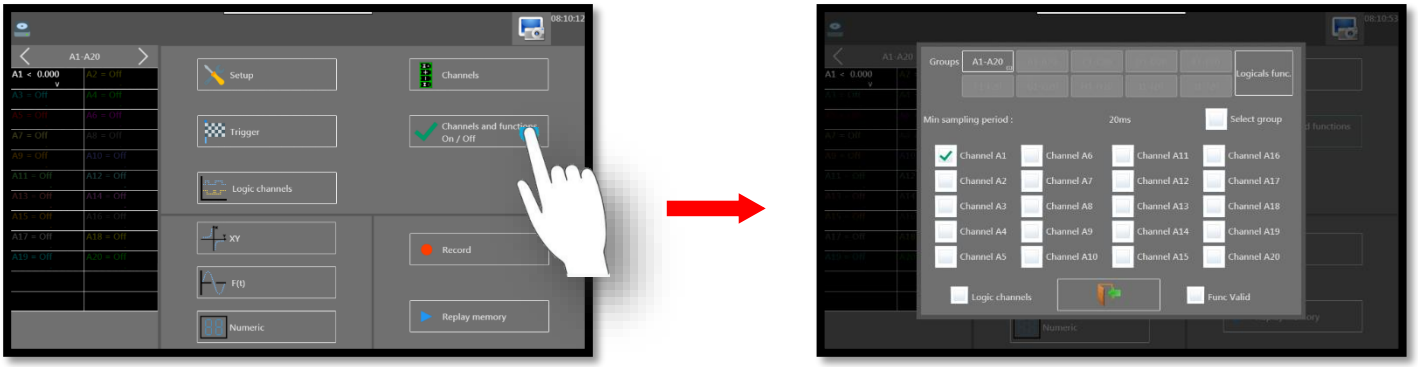


9- The configuration of the first channel is completed and we can visualized the signal:



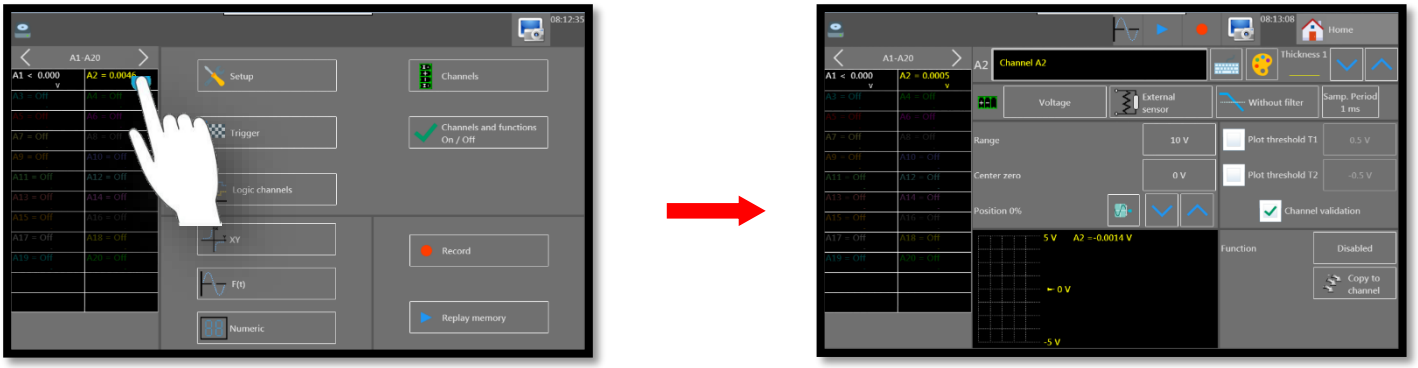
II: Example K type thermocouple, set the channel 2

1- Go to the channels validation by pressing the “Channels and functions On / Off” button:



2- Select the channel. Here, the channel 2:

3- Go to the settings of the channel by pressing the channel to be set:



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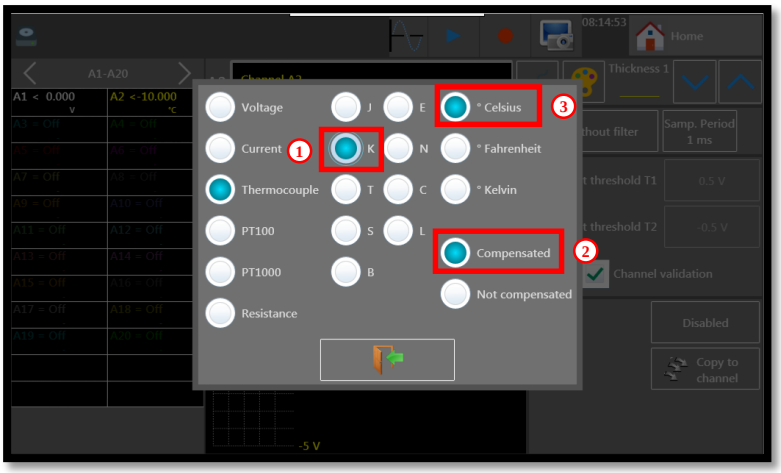
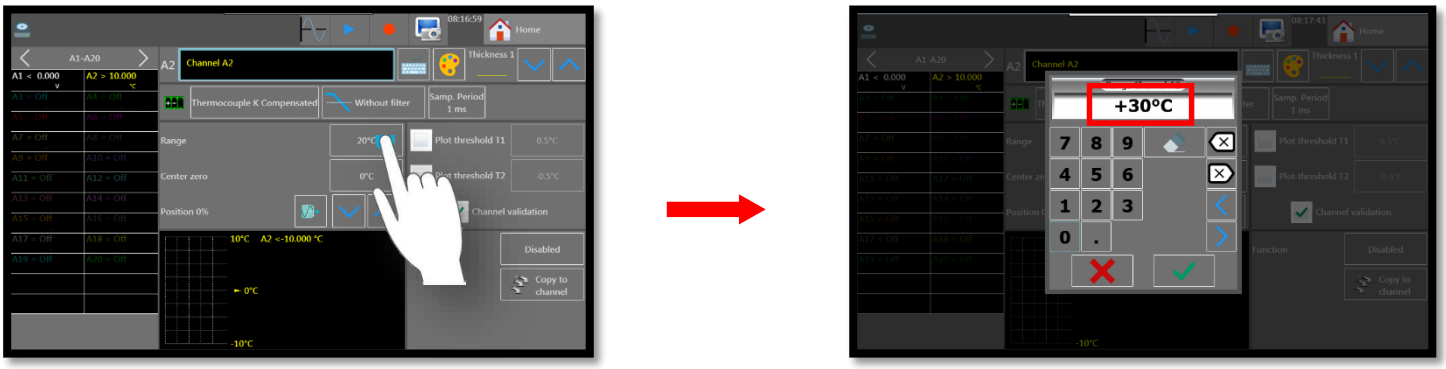
4- Choose the type of measurement, here we measure the temperature with a thermocouple:

5- Setting the type measurement:



1. Choose the thermocouple type, here we will use a K type thermocouple
2. Select the compensation
3. Choose the unit, here we will take the Celsius degree (°)

6- Choose an adapted caliber, in this example we will use a 30°C caliber:



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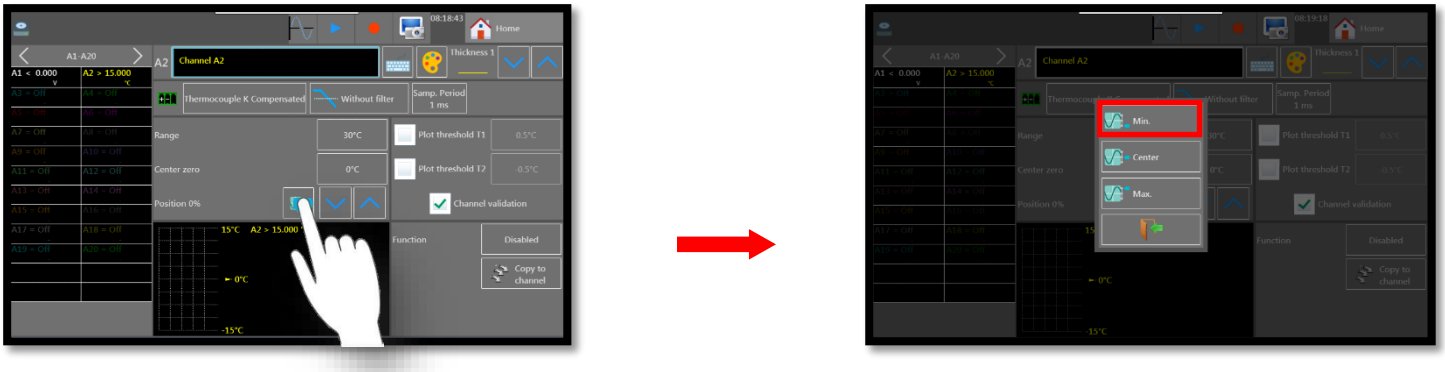
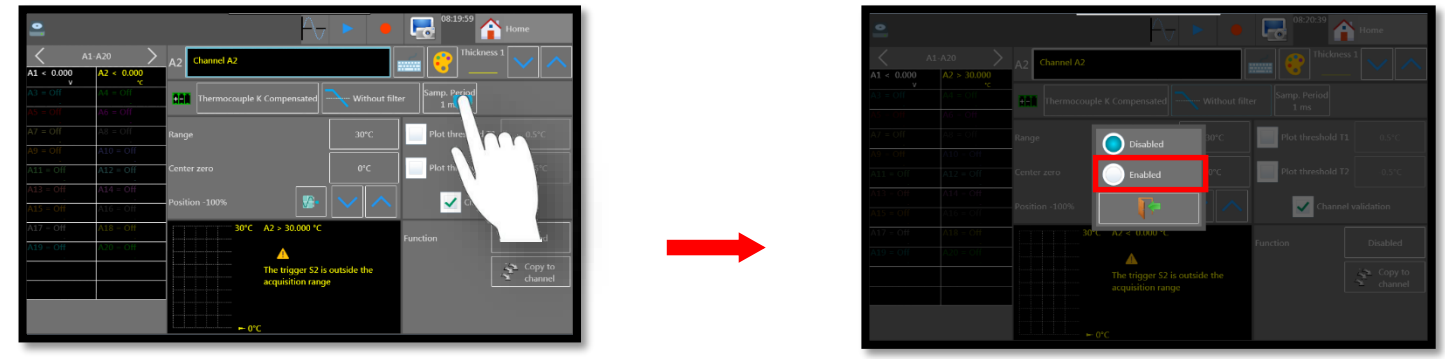
7- Set the zero's position, here we will use the "Min" position because we want to visualize the ambient temperature. The range will be 0 to 30°C:



8- It's possible to use a filter to remove the glitches, here we will choose 10 Hz:



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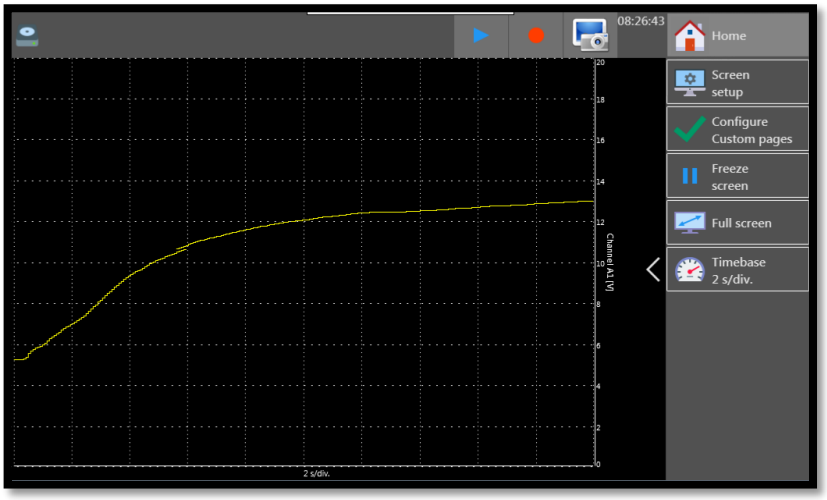
9- Choose the acquisition period, in our example we will use a « 20 ms » sampling period, each channel can have their own sampling period which is different of the sampling frequency of the recorder:

10- The configuration of the second channel is completed and we can visualized the signal:



III: Example current, setting the channel 3

1- Go to the channels validation by pressing the “Channels and functions On / Off” button:

2- Select the channel. Here, the channel 3:

3- Go to the channel settings by pressing the channel to be set:

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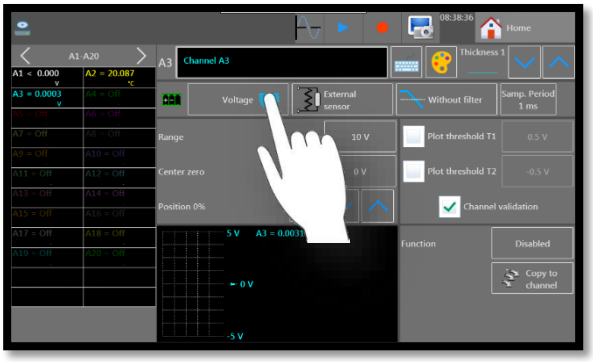
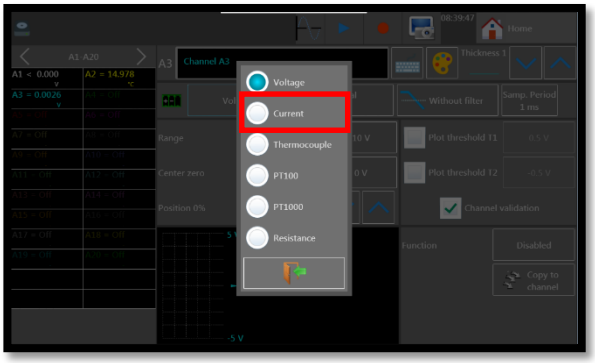
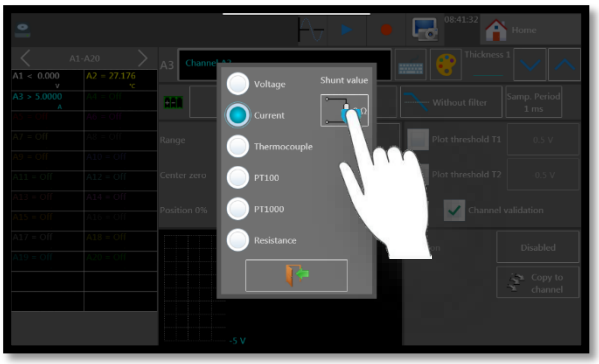
4- Choose the measurement type, here we measure a current measurement:

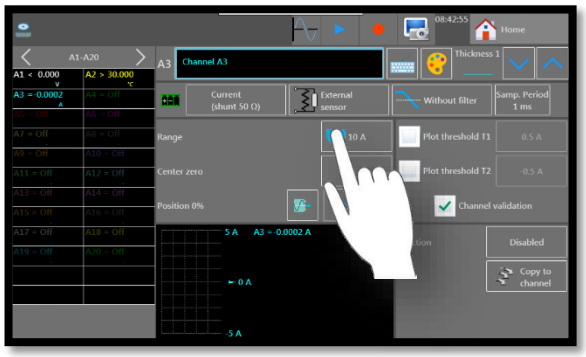




5- To measure the current we will use a SHUNT resistor. Choose its value, here we will take a 50 Ω resistor:



6- Choose an adapted caliber, here: 1A caliber:



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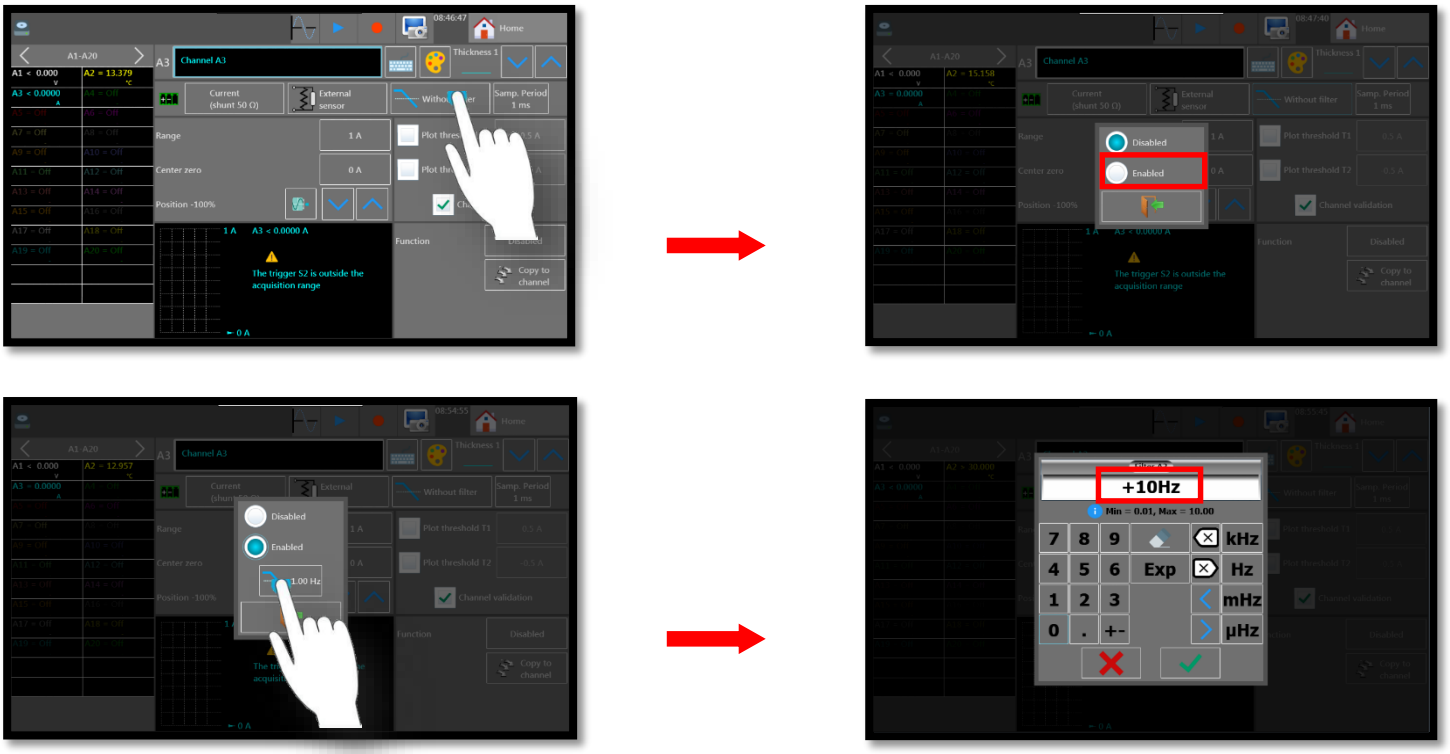
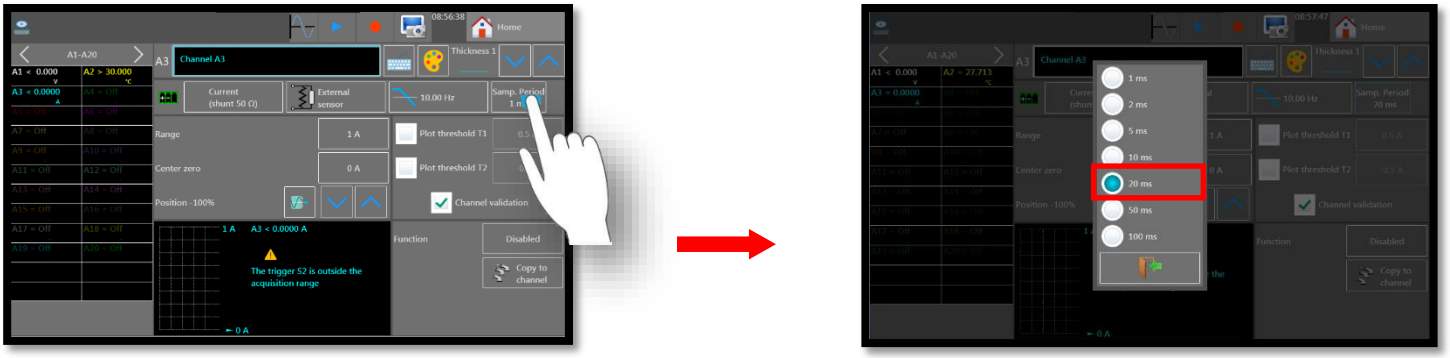
7- Set the zero's position, here we will use the "Min" position because we want to visualize a positive current. The range will from 0 to 1A:

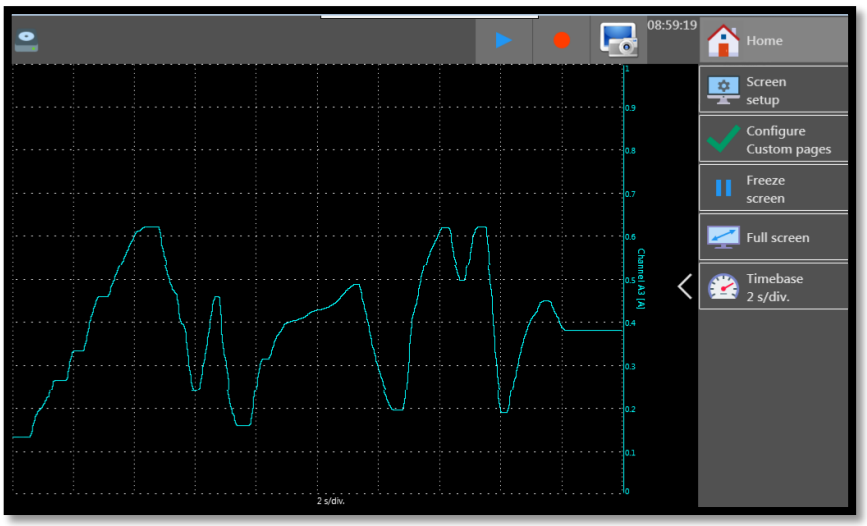
8- It is possible to use a filter to remove the glitches, here we will choose 10 Hz:



9- Choose the acquisition period, in the example we will use a « 20 ms » sampling period, each channel can have their own sampling period which is different of the sampling frequency of the recorder:



10- The configuration of the second channel is completed and we can visualized the signal:



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