

**IMPORTANT – MAKE CHANGES  
TO AVOID DATA LOSS**

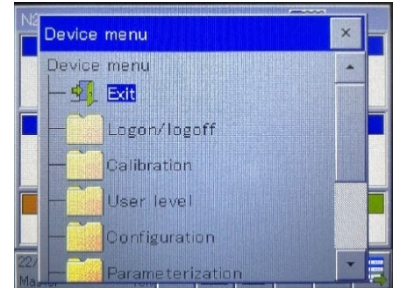
## Changing the Analogue Signal Range

When switching from a normal range sensor to a medium or high range sensor, the signal range must be adjusted. The N<sub>2</sub>O Wastewater Controller has two analog channels with a default range from 0 to 2.0 mg N<sub>2</sub>O-N/L. When using Medium or High range sensor heads, the channels should be rescaled to e.g. 0 to 10.0 mg N<sub>2</sub>O-N/L.

It is a 2-step process where the output range as well as the logging range need to be changed separately.

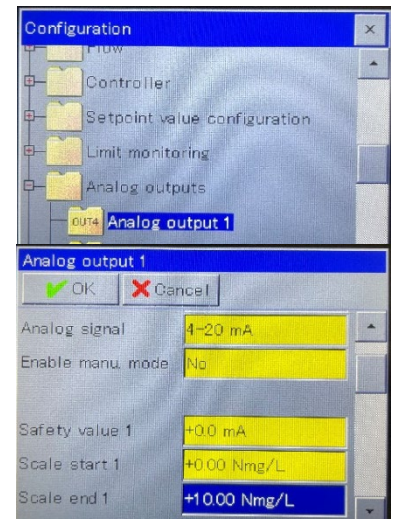
**IMPORTANT:**

- Make sure the same scaling is used in the receiving data handling system.
- If a firmware update is performed, the controller will go back to default settings and this step must be repeated.



### Step-by-step guide to output range rescaling:

1. Enter the menu system in the lower left corner and login as 'MASTER' with pin code '9200'.
2. Locate the submenu called 'Configuration' and enter this.
3. Locate the submenu called 'Analog outputs' and enter this.
4. Find the corresponding Analog output channel 1 or 2 for sensor 1 or sensor 2, respectively.
5. Find the value called 'Scale end 1' and tab the yellow window. An input window will popup.
6. Enter the new max scale range that 20 mA corresponds to 10 mg N<sub>2</sub>O-N/L is used here.
7. Finally, press the 'OK' button and exit the menu.
8. **REMEMBER** to change the scaling in the SCADA system accordingly.



### Step-by-step guide to logging range rescaling:

1. Enter the menu system in the lower left corner and login as 'MASTER' with pin code '9200'.
2. Locate the submenu called 'Configuration' and enter this.
3. Go to Formula 1 (and Formula 2 for sensor 2)
4. CHANGE the 'Display range end' from the default 2.0 to e.g. 10.0
  - a. 'Display range start' can be set to 0, or -1 if negative values should be visible

