Gobius® C
'C' the Exact Tank Level

Gobius C
User guide for NMEA 2000

Issue 1

The document applies to mobile app version 3.4.3

Minor differencies may apply for later versions

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Overview:

The main purpose of the sensor is to send fluid level information (PGN 12705) on the NMEA 2000 bus

The Gobius C sensor is compliant with the latest NMEA 2000 specification.

The sensor will respond to requests for the following PGNs:

- NMEA 126996 Product Information
- NMEA 126998 Configuration Information

NMEA 2000 compliance for Gobius C:

Parameter title	Value
Manufacturers code (Gobius Sensor Technology AB)	1398
Version number of NMEA Message Database	3.000
NMEA's Product Code for GOBIUS C	12846
Load Equivalency	2 = Less than 100 mA

NMEA 2000 supported Parameter Group Numbers for Gobius C:

Message Name / Functionality	PGN
Address Claim	ISO 060928
Product Information	NMEA 126996
Configuration Information	NMEA 126998
Request / Group Function	NMEA 126208
Command Group Function	NMEA 126208
Acknowledgement Group Function	NMEA 126208
Acknowledgement	ISO 059392
Request	ISO 059904
TX/RX PGN List Group Function	NMEA 126464
Heartbeat PGN	NMEA 126993
Commanded Address	ISO 065240
Transport Protocol, Data Transfer	ISO 60160
Transport Protocol	ISO 60416
Fluid Level	NMEA 127505

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Installation and setup:

STEP 1

- Download and install the Gobius C app
- Install the Gobius C sensor in the NMEA2000 network and turn on the power

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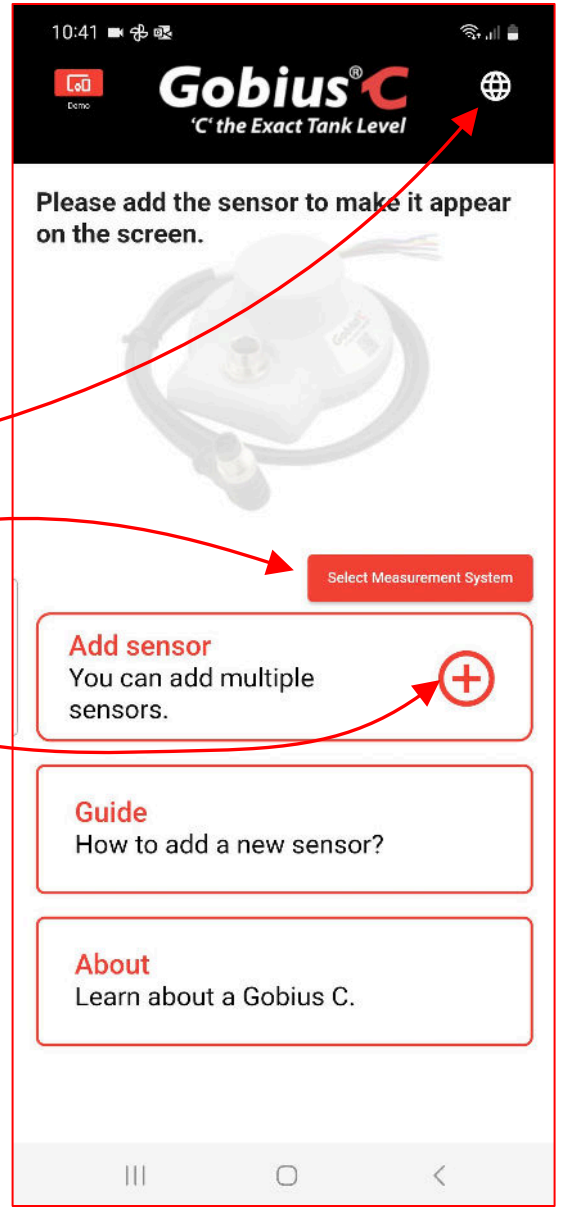
STEP 2:

- Start the app
- Select language using the globe symbol
- Select measurement system
- Search for and add the Gobius C sensor by pushing the plus sign



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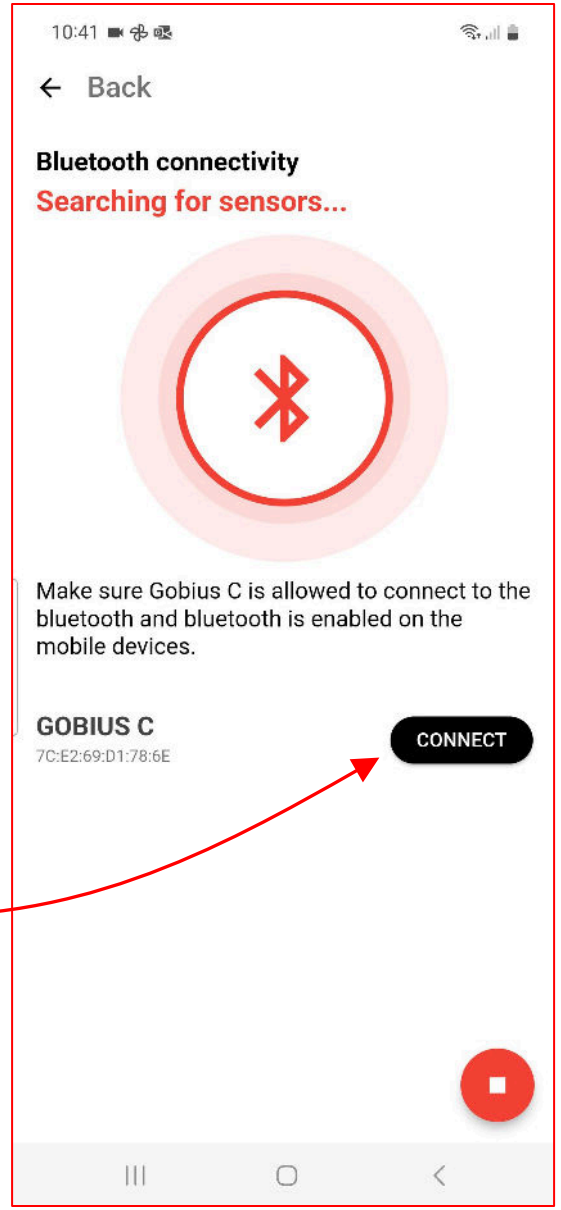
STEP 3:

- The app searches for the sensor
- When found, the CONNECT button is shown.
- Press the CONNECT button



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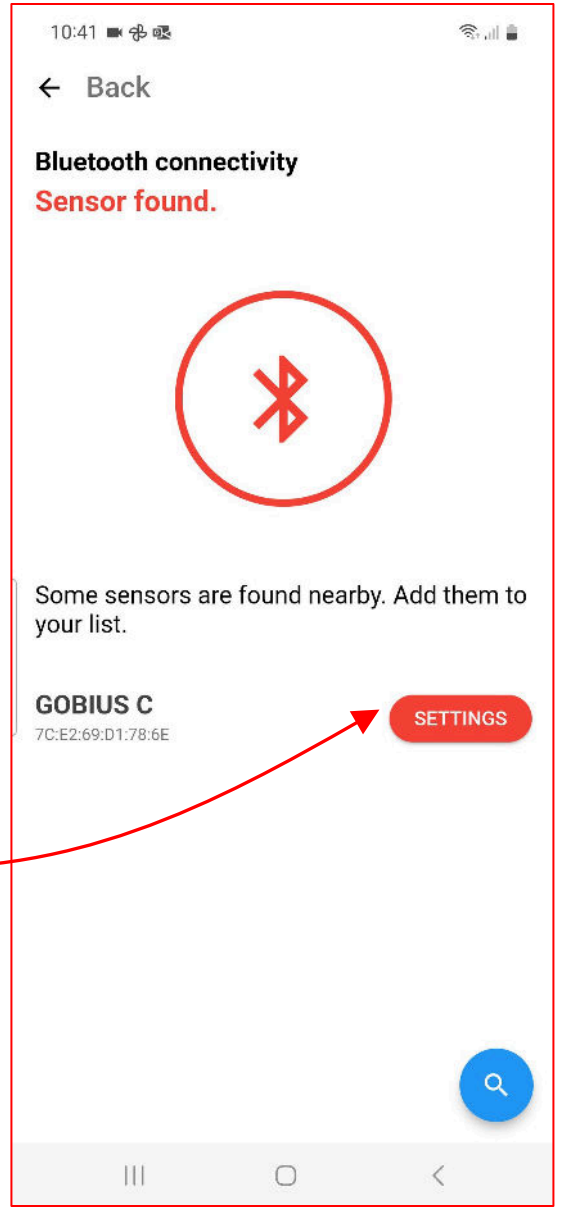
STEP 4:

- The app connects to the sensor and shows the SETTINGS button if successful
- Press the SETTINGS button



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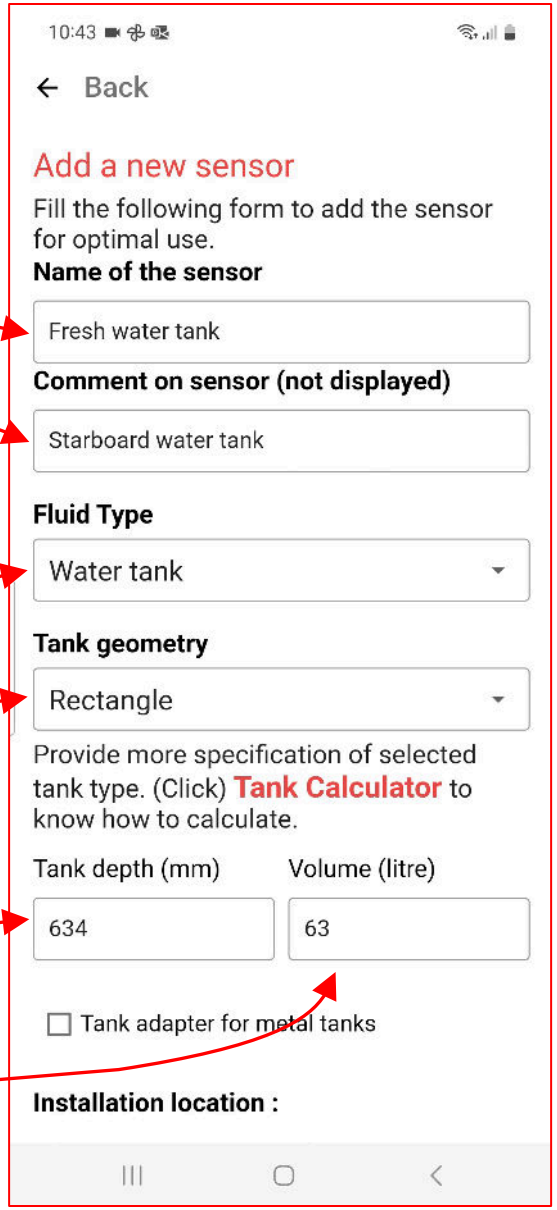
STEP 5:

- Name the sensor/tank if desired.
- Fill in a comment if desired. ***This text will be shown as Installation Description #1 in PGN 126998 on the NMEA2000 bus.***
- Select the fluid type. ***(See below for mapping to NMEA 2000 Fluid Type)***
- Select tank geometry
- Set the tank depth which is the distance from the sensor to the bottom of the tank.
- Set the tank capacity (Volume)



Scroll down

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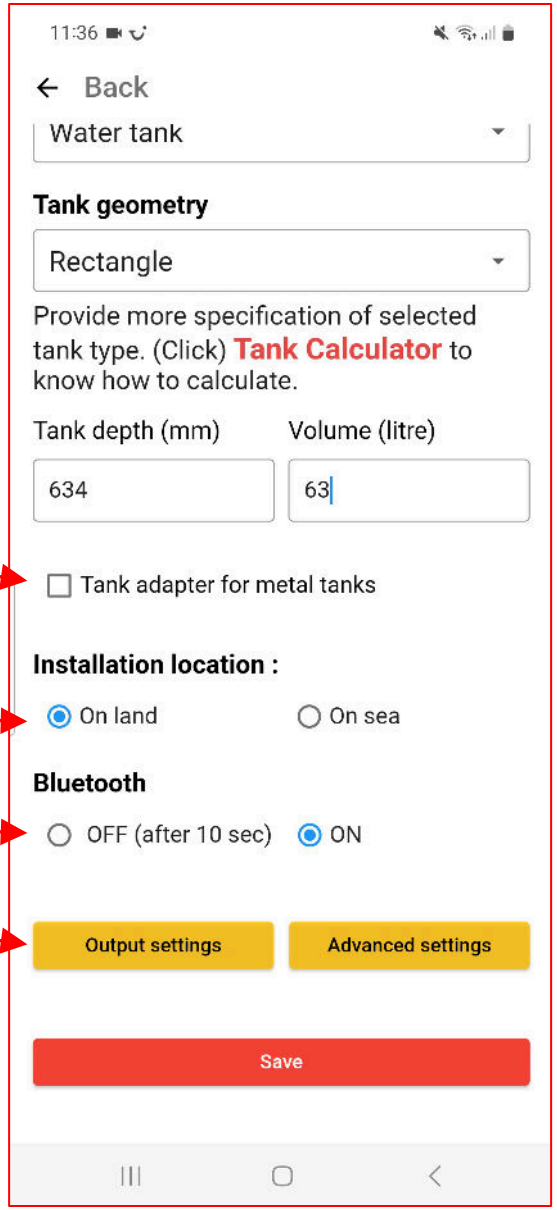
STEP 6:

- Select if an adapter for metal tanks is used. The sensor will then compensate for the thickness of the adapter
- Select "Installation Location = On sea" if the measurements shall be averaged (smoothed).
- Leave "Bluetooth Off" in the "On" state
- Press "Output settings"



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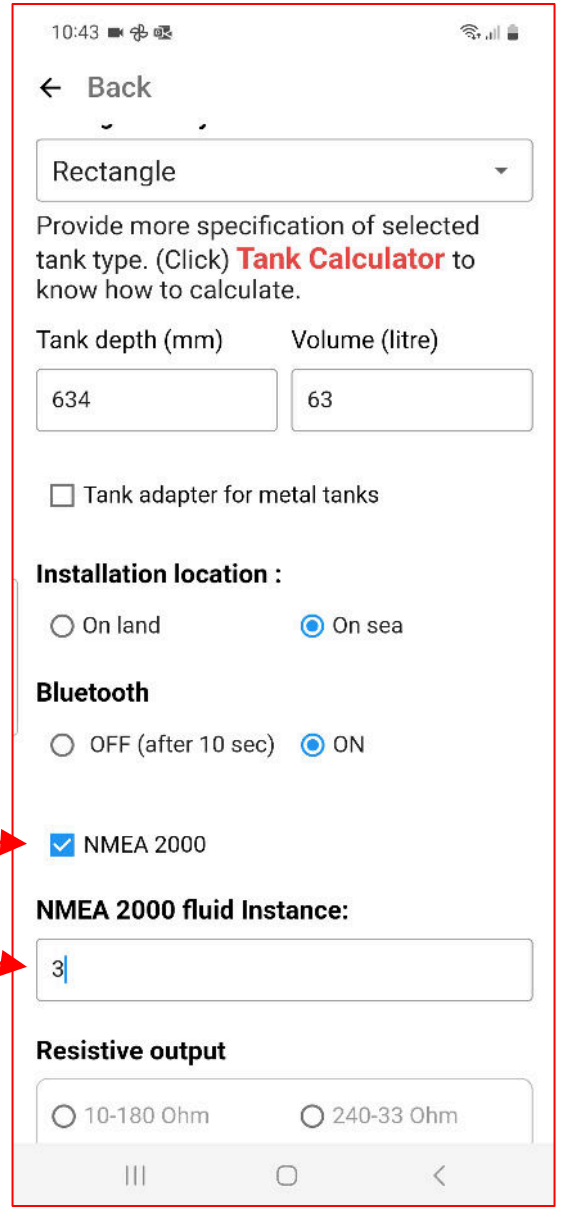
STEP 7:

- ***Select NMEA 2000***
- ***Set the NMEA 2000 Fluid Instance if you have more than one tank sensor in the network.***
  Valid values are 0 to 15.
  (check that this value is not used by another device).



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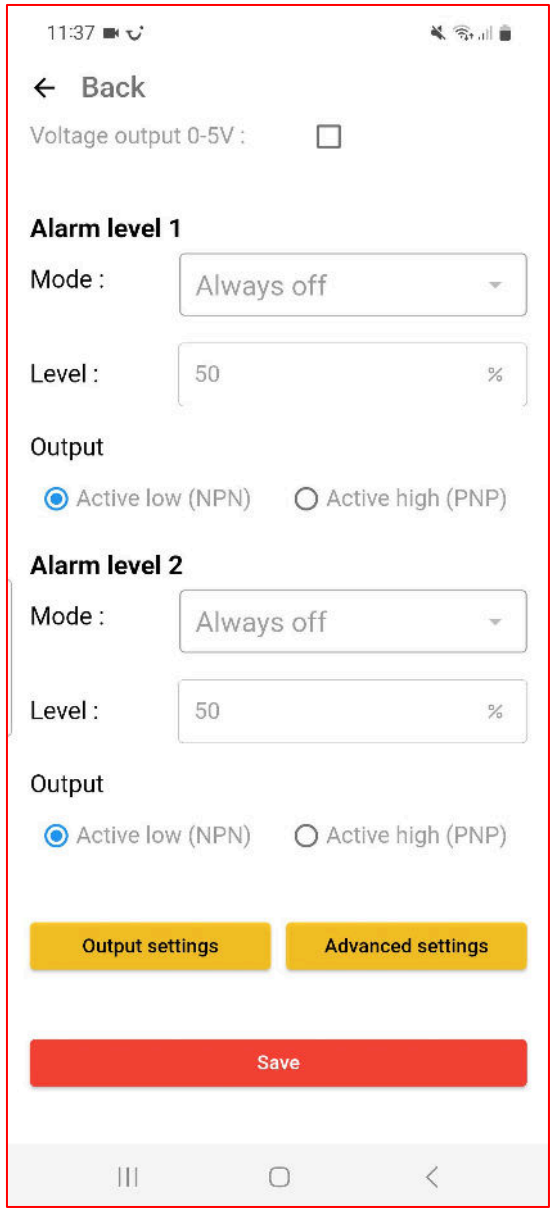
STEP 8:

- Scroll down and press the ”Save” button



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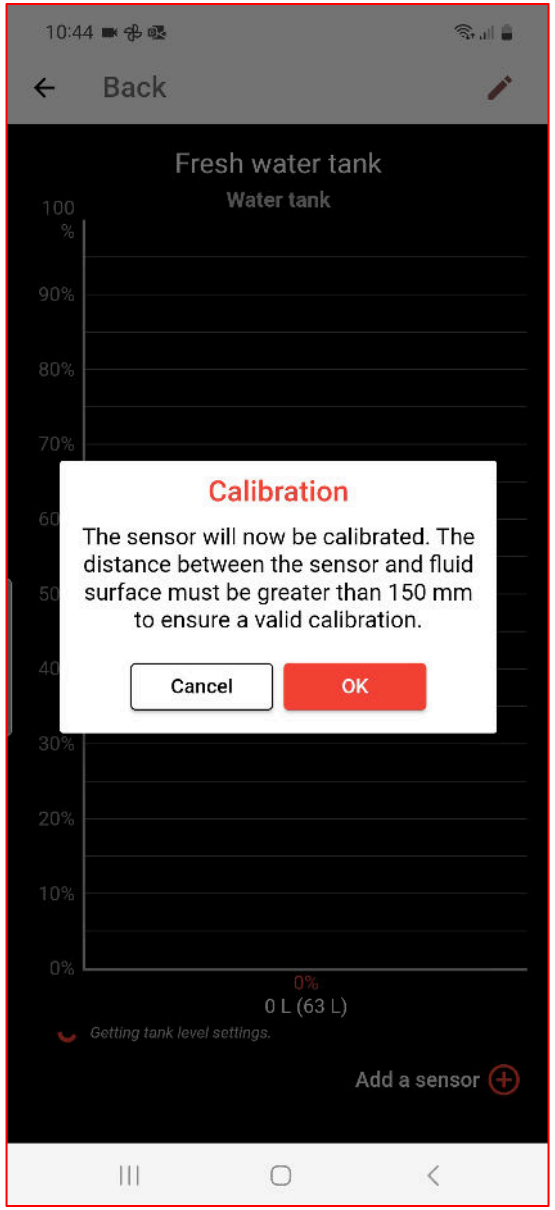
STEP 9:

- The sensor will now be calibrated
- The purpose of the calibration is to suppress extraneous radar reflections in the vicinity of the sensor
- Press the OK button to start the calibration



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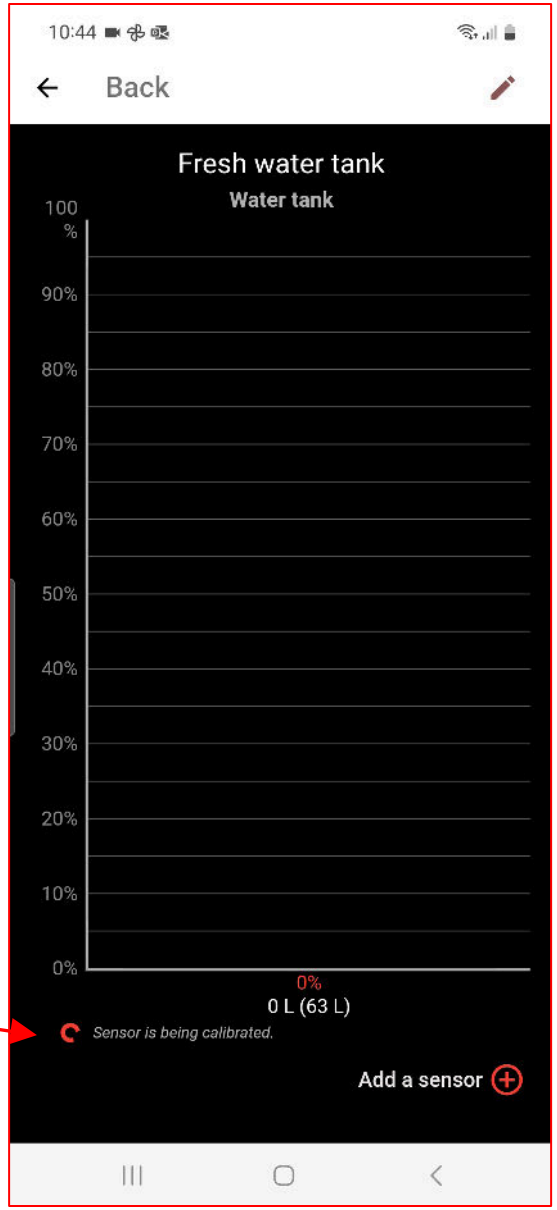
STEP 10:

- The sensor is now performing the calibration



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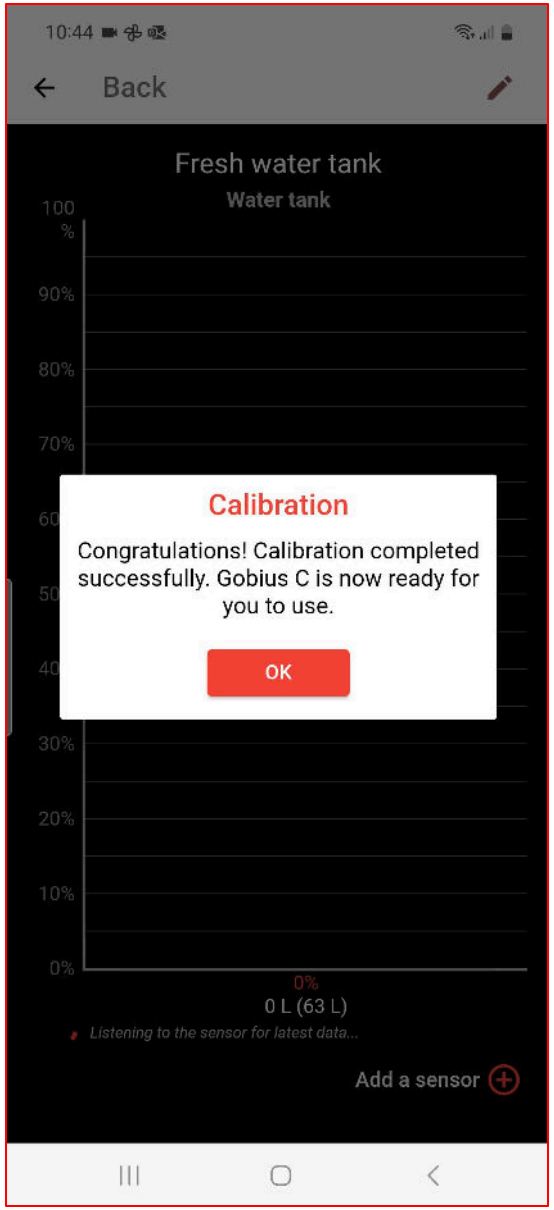
Step 9

STEP 11:

- Calibration is completed.
- Press the OK button



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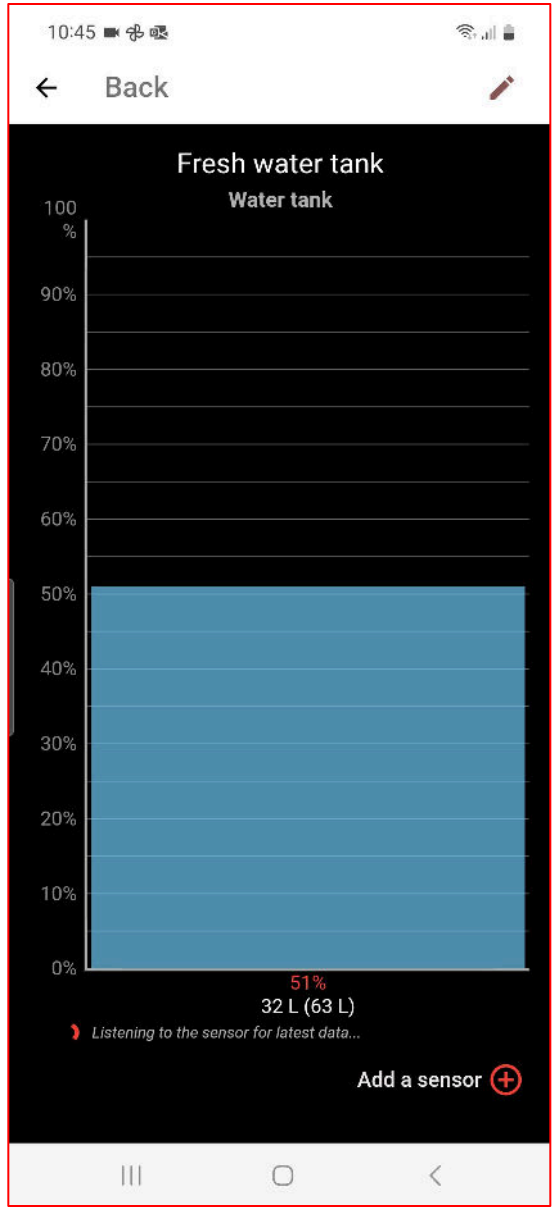
STEP 12:

- The fluid level is shown
- ***Installation is complete***



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Fluid Type mapping:

The table to the right shows the mapping from app Fluid Type to NMEA 2000 Fluid Type

Note that it is important that the correct fluid type is used, otherwise may the tank level not be displayed on the chartplotter or similar device

App Fluid Type	PGN 127505 fluid type number
"Water Tank"	1
"Fuel Tank"	0
"Gas/Petrol Tank"	6
"Grey Water Tank"	2
"Black Water Tank"	5
"Oil Tank"	4
"Other Fluid (Oil based)"	4
"Other Fluid (Water based)"	1

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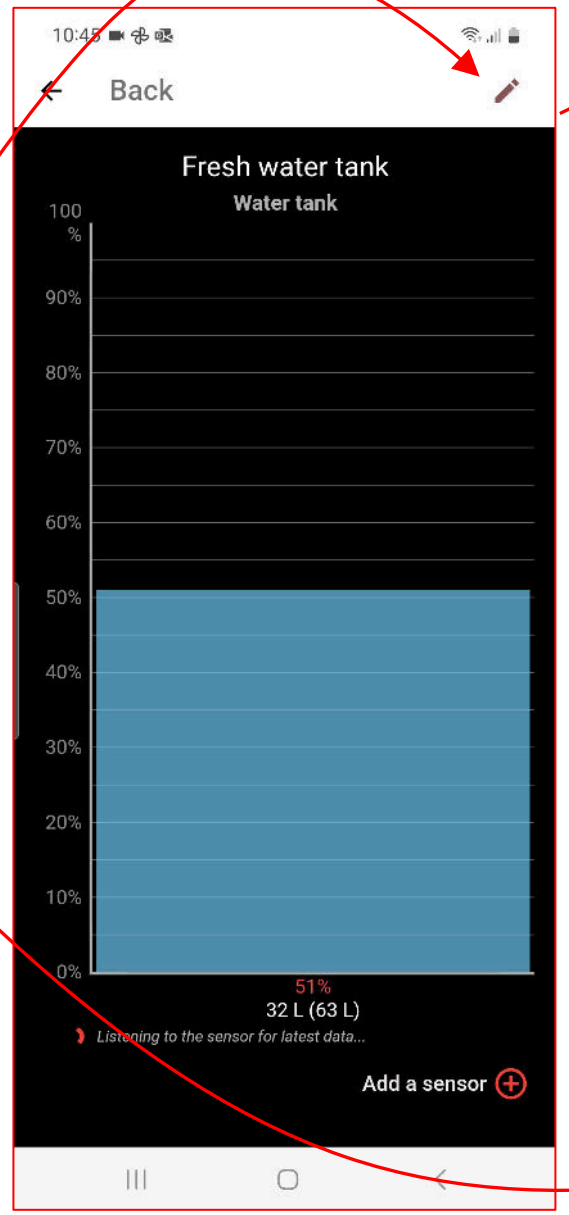
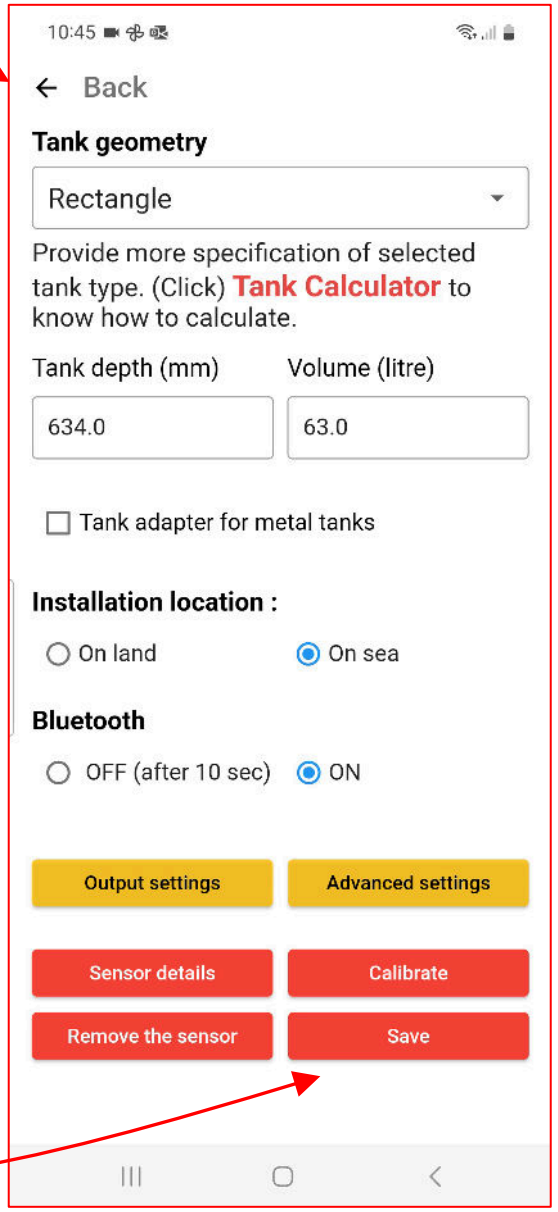
How to change the tank settings:

- The settings for the tank can be changed anytime by clicking on the pen icon
- Do not forget to save the changes





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How to display detailed sensor information:

- Detailed sensor information can be shown by pressing the ”Sensor details” button

- The most important parameters are:
  - Sensor state
  - Measuring (1=Yes, 0=No)
  - Sensor inclination
  - Distance from sensor to fluid surface