NMEA 2000 Tank Instancing

- NMEA2000 Devices need to have an Instance number set, to be able to identify the NMEA sensor that the data is coming from, this is most import if you have more than one of the same type of sensor fitted on the same NMEA 2000 bus. If you only have one sensor, the start instance should always start at 0. If you have more than one you would need to setup the instance to be identified on the NMEA 2000 bus correctly, for example if you have 2x NMEA 2000 Fuel Level sensors they would both output the same fluid PGN 127505 as Fuel and to tell them apart you would set the instancing on the tank sensor. The Port one should be set to 0 and the Starboard would be set to 1. If you had a third it would be set to 2 and so on…..

- Raymarine follow these rules and for example fuel tanks we can support up to 5 tanks on our Dashboard data page and will look for instances from 0-4. If you have a tank sensor set to instance 5 or higher our MFD will not see it. To correct this you will need to set the instance value correctly on each sensor, you should look at the manufacturer's instructions that came with the device on how to set this up, some may have dials or dip switches other many need a laptop and some software/hardware to configure this.
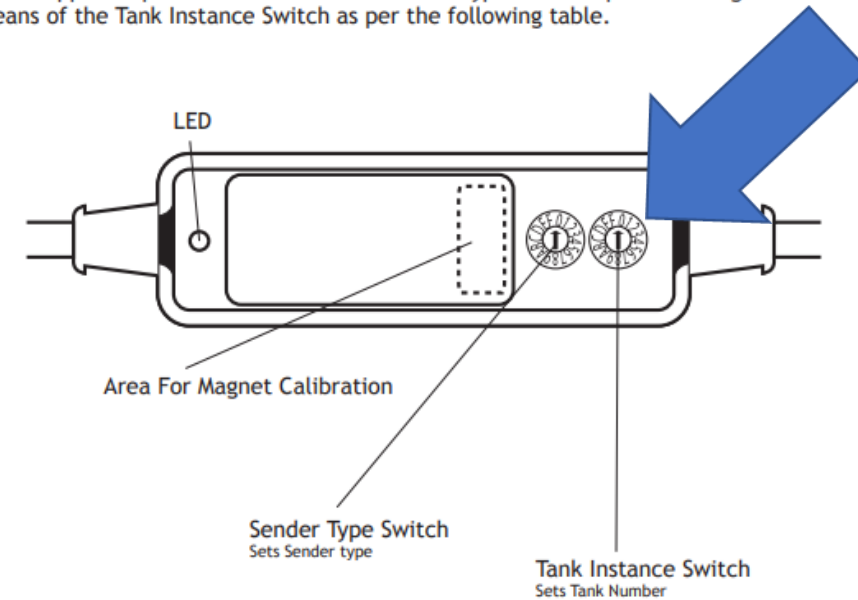
Example of Offshore setup requires a dial to be rotated to adjust

TANK NUMBER

The NMEA2000® network protocol supports up to 16 tanks of each contents type. The adaptor is configured to identify the tank number by means of the Tank Instance Switch as per the following table.

Tank Instance	Switch Position
1	0
2	1
3	2
4	3
5	4
6	5
7	6
8	7
9	8
10	9
11	A
12	B
13	C
14	D
15	E
16	F

LED

Area For Magnet Calibration

Sender Type Switch
Sets Sender type

Tank Instance Switch
Sets Tank Number

Maretron
Vessel Monitoring & Control Systems

Example of Maretron setup requires Software and hardware to adjust

TLA100 tank level adapter

3.1 Configuring Tank Type

As shipped from the factory, the TLA100 transmits the tank type as "Fuel. You can reconfigure the TLA100 for any of these tank types:

1. Fuel
2. Fresh Water
3. Waste Water
4. Live Well
5. Oil
6. Black Water

3.2 Configuring Tank Number

As shipped from the factory, the TLA100 transmits the Tank Number as "0". The TLA100 supports up to sixteen tanks (0 through 15) for a given type of tank, which means you can monitor up to 16 separate fuel tanks or 16 separate fresh water tanks. The TLA100 is configured or programmed by choosing a TLA100 tank number using a display product such as the Maretron DSM200, DSM250, or Maretron's N2KAnalyzer software. Refer to the user's manual of the display or software for configuring the TLA100 as the manual provides detailed instruction on configuration procedures.