

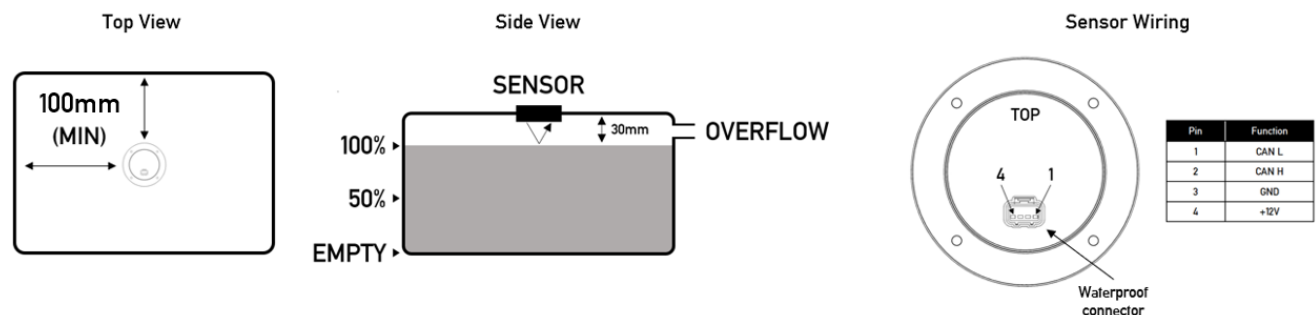
How to setup ultrasonic sensors

Installation & Wiring

Sensors must be fitted to the top of the tank, as near the centre as possible, to avoid reflections from the tank wall and to minimise reading variations when the vehicle is parked on a slope.

Note:- A side mounted overflow should be fitted, to reduce the chance of a sensor sitting underwater after filling, which may affect readings.

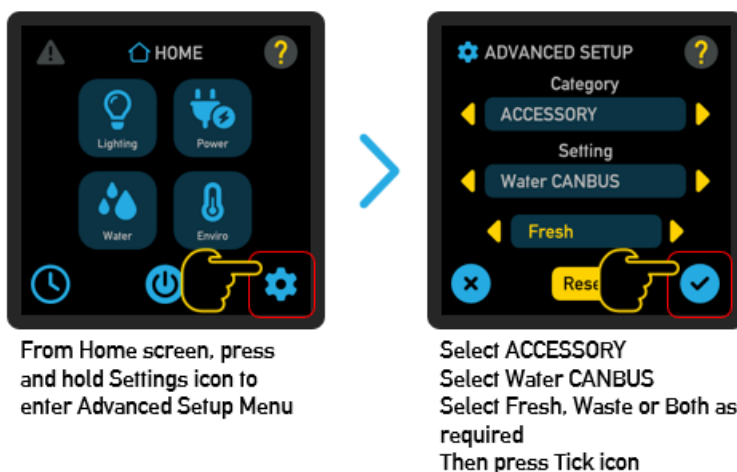
The sensor is not suitable for tanks with sloped or irregular shaped base, as this will cause incorrect readings.



Configuring the sensors

Before the display can communicate with the Sargent Ultrasonic Water Sensors they must first be enabled from the ADVANCED SETUP menu

Ultrasonic Sensor Configuration



In order for the water level to be displayed, the relevant tanks must also be enabled.

If Ultrasonic Sensors have not been configured for a particular tank, then the system assumes a traditional rod or stud type sensor is fitted.

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Water Tank Configuration



Select WATER
Select Tanks Fitted
Select Fresh, Waste or Both as required
Then press Tick icon

First Time Calibration

When 12 volt power is applied to the sensor for the first time, it will automatically start the calibration procedure, to measure the tank depth.

After calibration the sensor will start to send out regular readings of remaining water in the tank

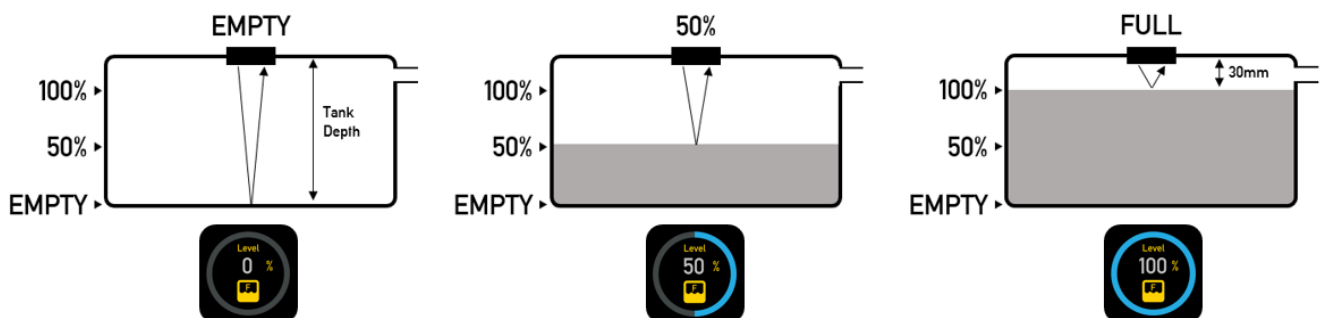
For fresh sensors this is around every 5 seconds

For waste sensors this is around every 10 seconds

Note:- When powering a sensor for the first time, make sure it is fitted to the tank and the tank is empty to ensure correct calibration.

If a sensor needs to be re-calibrated, this can be done from the Advanced Setup menu of the control panel.

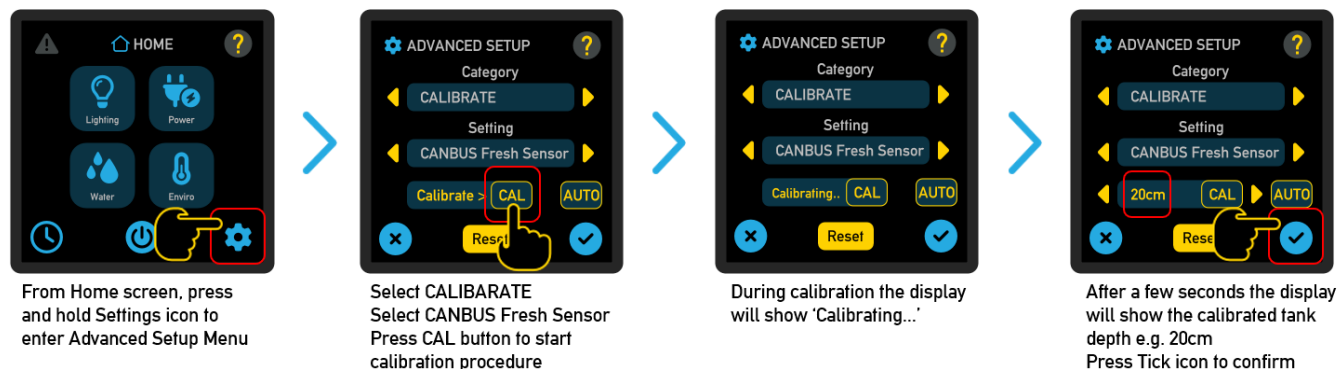
After calibration the 100% full level will be set at 30mm below the calibrated tank depth, as the sensor cannot measure fluid levels closer than 30mm to the sensor face.



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Re-Calibration (Automatic method)

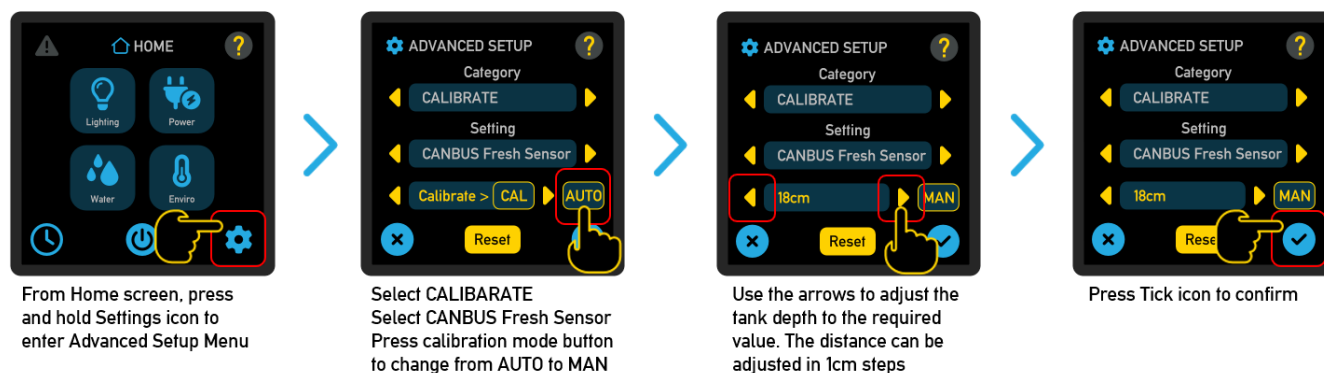
If a sensor needs to be re-calibrated for any reason, this can be done from the ADVANCED SETUP menu



Note:- Before starting, make sure the tank is empty to ensure correct calibration. Also ensure the calibration mode is set to AUTO

Re-Calibration (Manual method)

For some tanks it may be preferable to enter a tank depth manually, rather than use the automatic calibration mode.



Note:- Before starting, make sure the tank is empty to ensure correct calibration. Also ensure the calibration mode is set to MAN

Information Displays

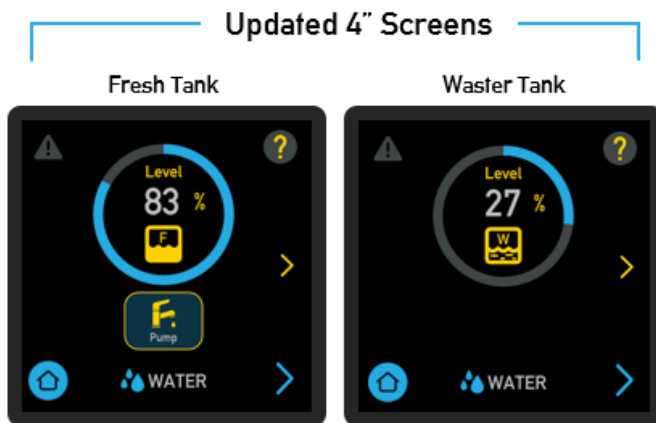
Once the water sensors have been configured, data from each enabled sensor will be available from the WATER menu.

Levels from ultrasonic sensors can increase in 1% steps unlike rod or stud sensors which increase in 25% steps

Screens for EC940 - 4" Display

For the EC940 display, fresh and waste water levels will be shown on two separate screens, press the '>' button to access the second screen

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Screen for EC970 - 7" Display

For the EC970 display, both fresh and waste water levels will be shown on one screen

