

HARDWARE INSTALLATION GUIDE

TecSonic
Ex. Proof Tank Level



Part No: TecSonic Exp Upgrade

Installation / user guide of the LTE Pressure Logger sensor

This document provides guidance of the physical installation of the pressure probe attached to the LTE Pressure sensor Logger unit and how to calculate the liquid height in an installation.



The pressure sensor should be inserted into the tank and hung vertically as per the graphic below. It is designed so that the sensor entry point can be watertight sealed by the installer.

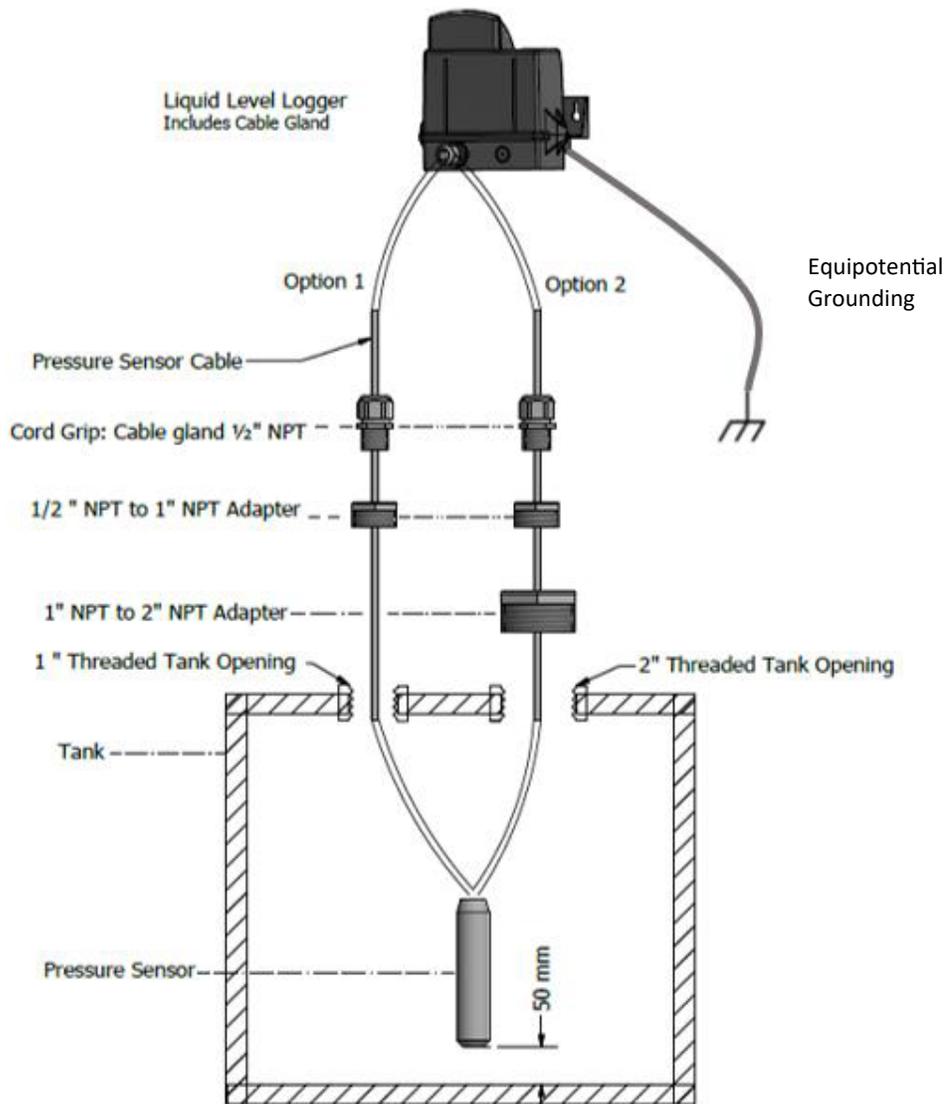
The standard cable is 10m/32.8 ft in length and the desired logger mounting position should be considered from this perspective in tanks that are close to 10m /32.8 ft in height. There may be insufficient cable length to install the logger if the tank height is very close to the cable length.



The pressure sensor cable on the logger is pre-fitted with a cord grip cable gland and a 1" NPT adapter. It's designed to be directly installed on 1" NPT threaded tank openings.

For 2" NPT openings, an additional 1" to 2" NPT adapter can be provided. This will fit over the pressure probe and can be fitted to the 1" adapter. Both options are shown in the figure below.

The pressure sensor measures relative pressure and has an internal venting tube mounted inside the Liquid level logger. In order to equalise the internal and external atmospheric pressure, a pressure vent plug is added to the logger¹. See note² for more details on the 1" to 2" NPT adapter. To ensure that there is no build-up of static charge on the pressure probe metal surface, a connection to a convenient equipotential ground point is recommended⁷.



The bottom of the pressure sensor should be mounted at least 50mm clear of the tank bottom to avoid sludge, sediment or other contaminants. This sediment can impede the proper performance of the pressure sensor over time. The 50mm offset can be included as a fixed offset in the tank liquid level calculations if required.

The cord grip cable gland will hold the cable in position². The protective cover³ is recommended to be removed if used in diesel or lubricants that can become very viscous at low temperatures. Dimensions of the pressure sensor are provided⁴ in the Notes.

Notes^{5,6} provide a YouTube installation video link and other installation recommendations.

NOTES:

- 1) Vent Plug. Ensure that it does not get blocked up as this will cause a measurement error.



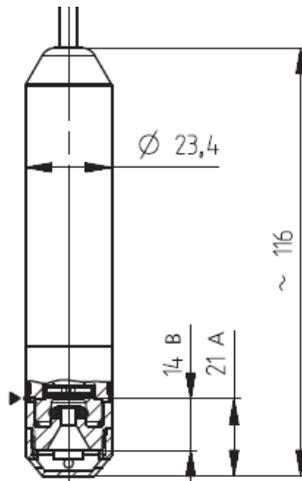
- 2) Cord grip cable gland. Please tighten to approximately 1.8Nm. PTFE tape can be used to help water seal the NPT adapters. The 1" to 2" NPT adapter can be ordered from Tekelek P/N: 8-5923. Other types such as 1.5" are also available on request.



- 3) Protective cover (screws on / off). This protects the sensor and should only be removed prior to installation in certain types of liquids as advised above.



- 4) Dimensions of the Pressure sensor head.



- 5) The pressure sensor cable should be unrolled and straightened out prior to insertion into the tank. The use of a still well in the tank is recommended in cases where there is significant liquid movement.
- 6) On the Tekelek YouTube channel: There is a video showing a typical installation of the TEK 898 Pressure Sensor.

<https://www.youtube.com/watch?v=2CqcArKnPFw>



- 7) The pressure probe electronic ground is referenced to the metal casing of the probe. Equipotential grounding is recommended for battery powered floating systems. An earth connection should be made from the logger unit 0V reference to an equipotential bonding point (body of the metal tank or other suitable earth point) being monitored by the pressure probe. An M4 stud is provided for this purpose; with a M4 nut and washer provided to facilitate the connection.



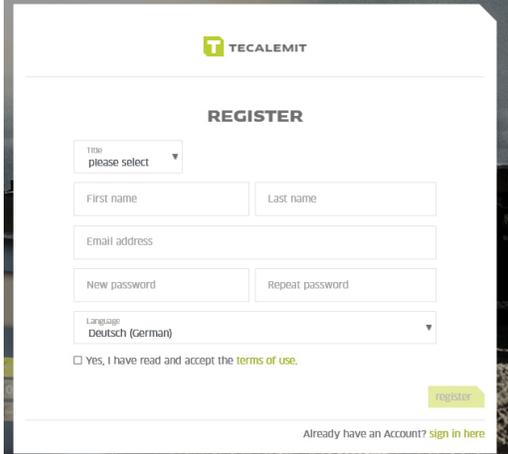
Creating an account

1. Begin by visiting our site mytecalemmit.com from any device that has access to the internet. (We recommend initial setup be completed on a desktop computer)

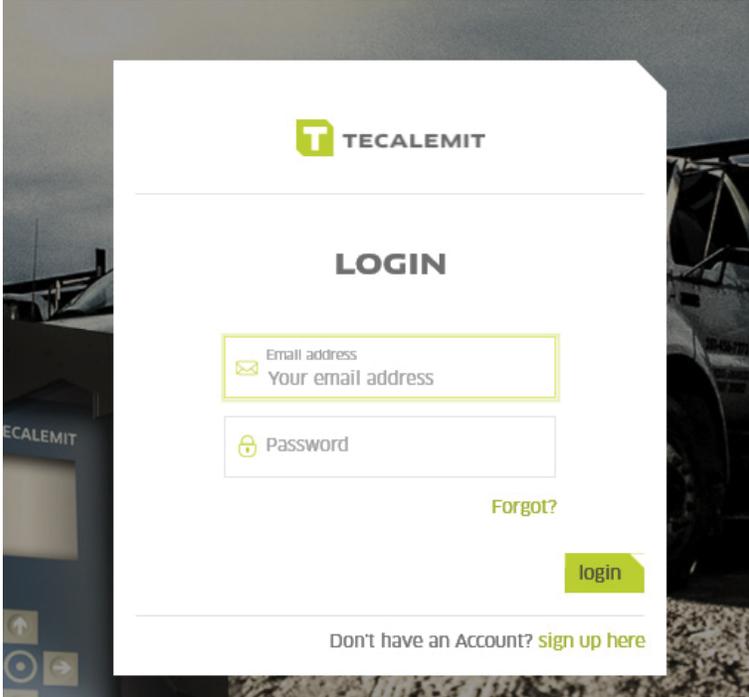
2. You will be greeted with the login page (as shown on the right).

3. Click the button at the bottom of the screen that reads “Don’t Have an Account? Sign in Here”

4. You will then be routed to the registration page. Here you will fill in the information for your new account. (as shown below)



The screenshot shows the TECALEMIT REGISTER page. At the top is the TECALEMIT logo. Below it is the heading "REGISTER". The form includes a "Title" dropdown menu with "please select" as the current selection. There are input fields for "First name" and "Last name". Below these is an "Email address" field. There are two input fields for "New password" and "Repeat password". A "Language" dropdown menu is set to "Deutsch (German)". At the bottom left, there is a checkbox labeled "Yes, I have read and accept the [terms of use](#)". A green "register" button is located at the bottom right. At the very bottom, there is a link: "Already have an Account? [sign in here](#)".



The screenshot shows the TECALEMIT LOGIN page. At the top is the TECALEMIT logo. Below it is the heading "LOGIN". There are two input fields: "Email address" with a placeholder "Your email address" and "Password". A "Forgot?" link is positioned below the password field. A green "login" button is at the bottom right. At the bottom center, there is a link: "Don't have an Account? [sign up here](#)".

5. Once registered, an activation email will be sent to the email provided.

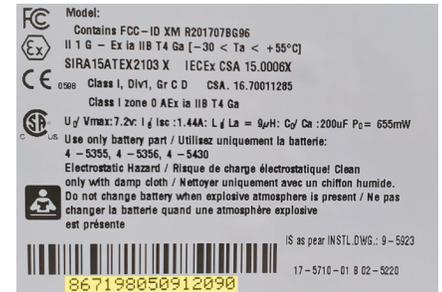
6. Click the link provided in the email, this will direct you back to the login page and give you a confirmation message letting you know that your account was successfully activated.

7. Proceed to login using the email and password you created.

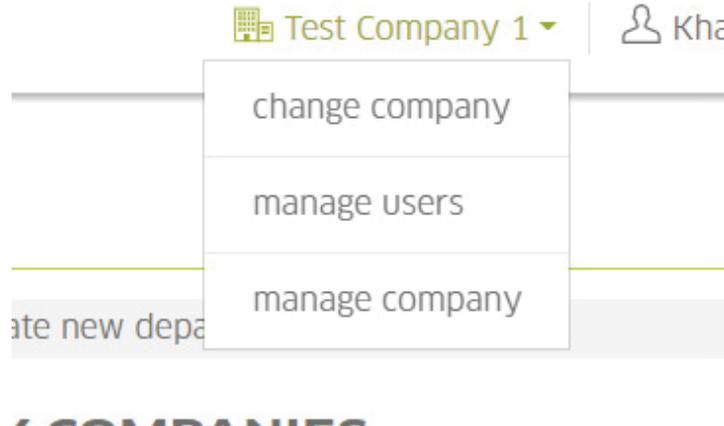
After account set-up or Existing Accounts

1. Call Tecalemit at 281-446-7300, option 8, to activate your New Tecsonic Device on your existing account (This will add the fill level measuring device feature to enable you to see your tank levels on your account)

2. You will be asked to provide the IMEI number listed on your device or box and the customer id (see image to the right)



3. To find your customer id click on your company name at the top right of your screen and then choose manage company:



4. You will see your customer id listed below:

TEST COMPANY 1	
Customer ID	9212764071
Address	111 Test St 77004 Houston United States
Created on	07/12/2019 04:14 am
Roles	Manager
Timezone	America/Chicago
Description	Test Company

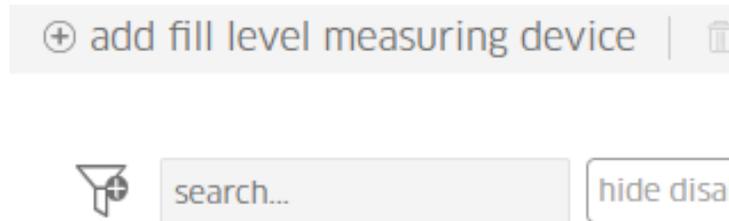
5. Once this is completed you will now see the Fill Level Measuring device option under the Inventory Data tab.

6. Click on Fill Level Measuring Devices

7. Click Add fill level measuring device at the top left of the screen

After account set-up or Existing Accounts

8.



9. Name your device in the Caption Field

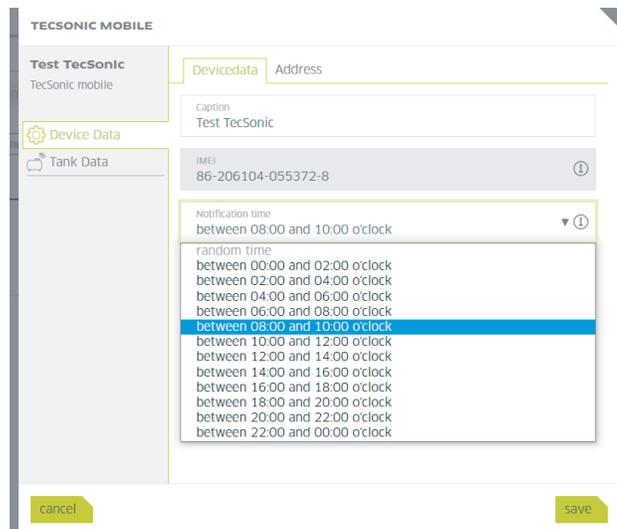
10. Use the drop down menu to choose “TecSonic Mobile”

11. Then click next

12. Fill in your IMEI number located on your device (See highlighted number)



13. Select the time you would like your device to connect daily from the drop-down menu



After account set-up or Existing Accounts

14. Choose standard from the tecsonic dropdown manual

15. Click on the Tank Data tab to the left



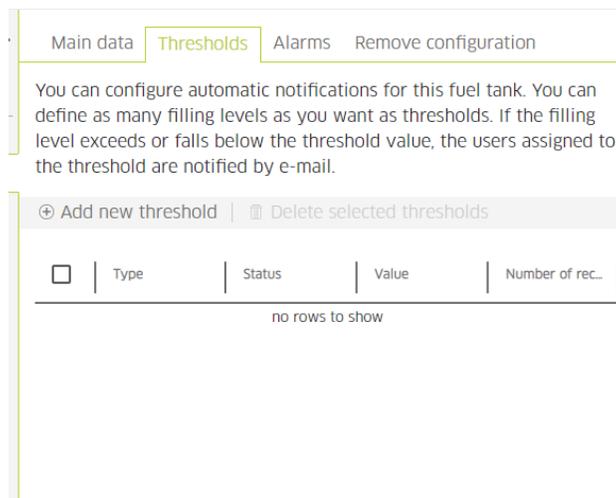
16. Click configure

17. Enter in the information required about your tank

Thresholds and Alarms

THRESHOLDS

1. Thresholds enables a user or contact to receive an email when a maximum or minimum volume is met (you can setup multiple thresholds) to setup thresholds:



2. Click on the thresholds tab at the at the top of the screen

3. Choose either the maximum or minimum option.

4. Choose the threshold color

5. Add in any additional text you would like to receive in the email that will be sent if the threshold is met

6. Make sure the status is set to enabled

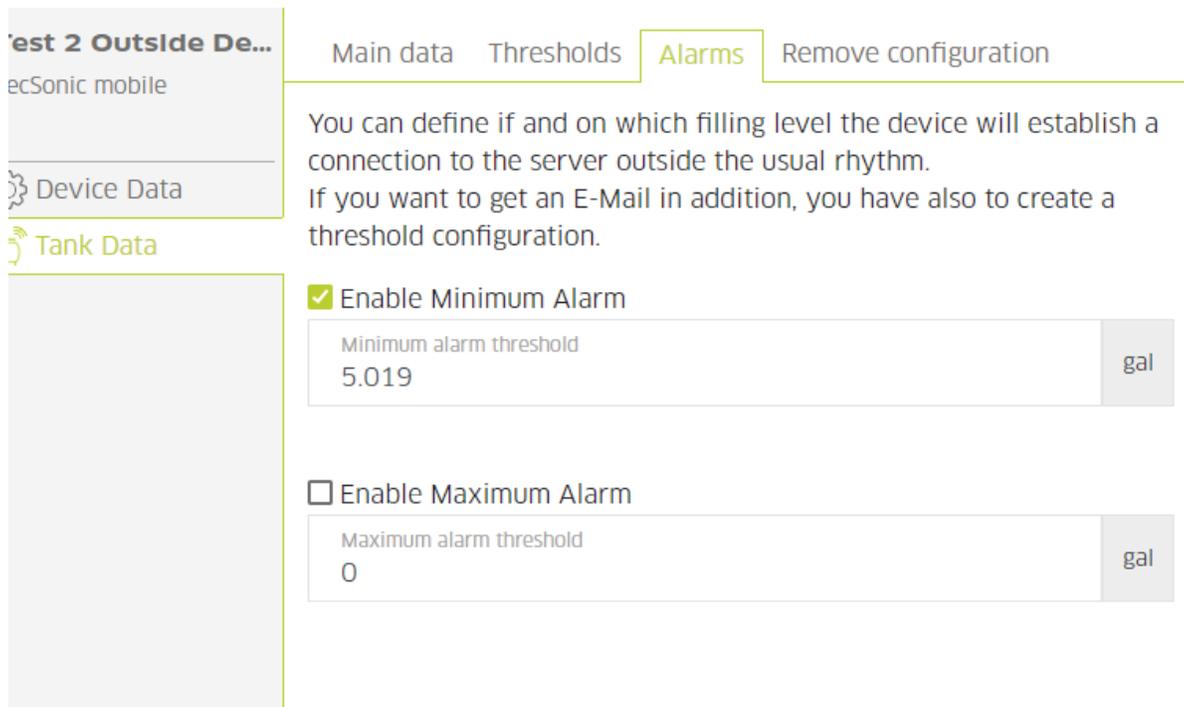
7. Choose recipient's of the email

8. Then click apply.

Thresholds and Alarms

ALARMS

1. Alarms prompt the device to connect outside of normal connection operations to update tank information when a minimum or maximum has been reached in the tank. This feature will not provide an email unless it has also been setup in the thresholds tab. This setting is to update the cloud immediately if your tank has been overfilled or is low. To setup alarms:
2. Click alarms at the top of the screen and check one or both of the options and set the number of gallons for either your minimum, maximum or both.



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ecSonic mobile

Main data Thresholds **Alarms** Remove configuration

You can define if and on which filling level the device will establish a connection to the server outside the usual rhythm.
If you want to get an E-Mail in addition, you have also to create a threshold configuration.

Enable Minimum Alarm

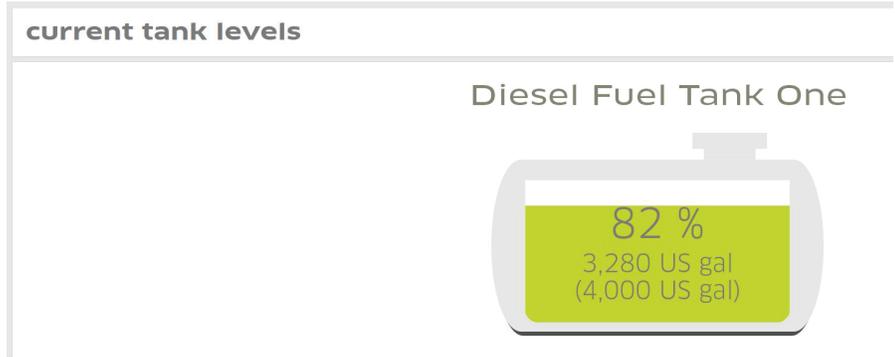
Minimum alarm threshold
5.019 gal

Enable Maximum Alarm

Maximum alarm threshold
0 gal

3. Click save
4. Take your TecSonic Device and the magnet provided to you and attach the fill level device to the tank
5. Hold the magnet in front of the device for 5 seconds.
6. Your current tank level will now update and will update every 24 hours unless an alarm has been set. If an alarm has been set the device will connect to update tank levels.

Custom Reporting



Choose Your Fields:

We're putting the control in your hands. Create custom reports that show only what you want to see.

- Choose a custom range date
- Filter by fuel stations, fuel tanks, or products
- Retrieve levels from your device directly from chart management
- Export to a spreadsheet at the click of a button
- Create reports by selecting one of following:
 1. Fill level profile
 2. Current Fill level
 3. Combined Fill level
 4. Range Estimation

Refuelings of the last three months						
Date	Value	Product	Vehicle	Mileage/operating hours	Driver	Delivery point
07/22/2020 9:44 AM	50.0 US gal	Diesel	-	-	-	external fueling
07/22/2020 9:37 AM	50.0 US gal	DEF	115	-	Driver Test 1	external fueling
07/21/2020 9:33 AM	300.0 US gal	DEF	2019 Ford F150	-	Buzz Aldrin	external fueling
07/22/2020 9:44 AM	50.0 US gal	Diesel	-	-	-	external fueling
07/22/2020 9:37 AM	50.0 US gal	DEF	115	-	Driver Test 1	external fueling
07/21/2020 9:33 AM	300.0 US gal	DEF	2019 Ford F150	-	Buzz Aldrin	external fueling
07/22/2020 9:44 AM	50.0 US gal	Diesel	-	-	-	external fueling
07/22/2020 9:37 AM	50.0 US gal	DEF	115	-	Driver Test 1	external fueling
07/21/2020 9:33 AM	300.0 US gal	DEF	2019 Ford F150	-	Buzz Aldrin	external fueling
07/22/2020 9:44 AM	50.0 US gal	Diesel	-	-	-	external fueling
07/22/2020 9:37 AM	50.0 US gal	DEF	115	-	Driver Test 1	external fueling
07/21/2020 9:33 AM	300.0 US gal	DEF	2019 Ford F150	-	Buzz Aldrin	external fueling
Total (3 datasets)		400.0 US gal	-	-	-	-

Fuel tanks

2195587 (1), Level Office, Diesel

Level Diesel, Portable diesel 1000 gallon u., Level Diesel

3, DEF

Tank, Diesel

50%

60%