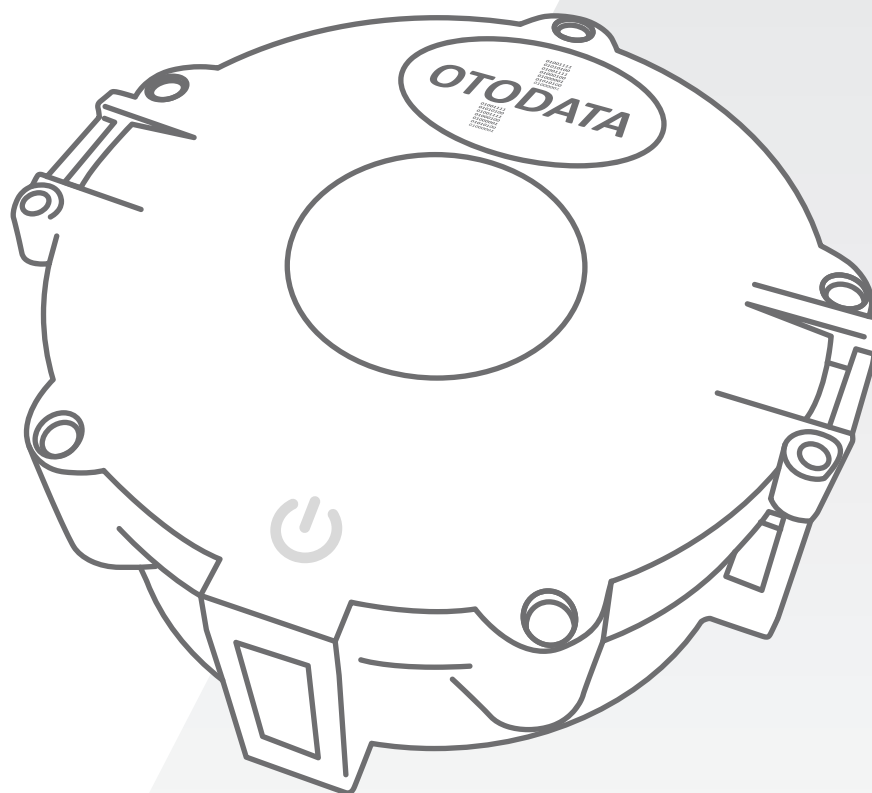


Installation Procedure

Wireless Radar Monitor

Distance Meter
Model: DM2700



Published on: Wednesday, July 29, 2026

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Intended purpose

The purpose of this guide is to provide instructions and information for the safe installation of Otodata's Wireless Radar Monitor (DM2700)

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1 Safety Information

WARNING

The installation of this device is reserved only for properly trained personnel, and must be approved by the safety body having jurisdiction.

WARNING

The plastic enclosure is a potential electrostatic hazard. Clean only with a damp cloth and do not mount in a high velocity, dust-laden atmosphere.

WARNING

Batteries must be changed in a non-hazardous area or when the hazardous atmosphere is known not to be present.

WARNING

The equipment must only be powered by battery packs supplied by Otodata Wireless Network Inc specifically those marked 4-5508 and carry the instruction to use on DM2700.

WARNING

Ordinary locations evaluation was not conducted. The certificate holder is responsible for maintaining an ordinary locations certification in good standing by an NRTL.

2 Before you Begin

What you'll need:

 **A connection to the Internet**

 **The Nee-Vo Tech App installed on your device**



Download it here:
go.otodata.com/NV-Tech-App

Upon downloading the Nee-Vo Tech app, you will be prompted to configure app settings and permissions:

 **Location Tracking:** Select Always Allow or Allow While Using App

 **Bluetooth:** Select Allow. Likewise, ensure Bluetooth is turned ON

 **Camera:** Select Allow

3 About the Device



Information

Radar monitor is fully autonomous. No other device is required for our DM2700 Radar Monitor to connect to the Nee-Vo Portal.

3.1 Identifying your Device

The DM2700 Radar Monitor is available in two versions depending on your region. Use the reference chart below to identify your device.

Otodata SKU	Product Name	Market
DM2700-VSB0	Radar Level Sensor, Cellular and BLE, BELL SIM Equip	North America
DM2700-VSC0	Radar Level Sensor, Cellular and BLE, 1NCE SIM Equip	Europe

3.2 Specifications

Models: DM2700-VSB0 DM2700-VSCO

Applications	Additives, Chemicals, Diesel Fuel, Gasoline/Petroleum, Hydraulic Fluid, Lubricants, Motor Oil, Waste Oil, Water and other hazardous/non-hazardous liquids
---------------------	---

Measurement & Performance Specifications

Radar Range	>3.2 in (8 cm) to < 22 ft (6.75 m)		
Radar Resolution	Up to 2 mm		
Measurement Range	Liquid Type	Mounting Type	Range
	Aqueous	Invasive	0.14–6.75 m (0.46–22.15 ft)
	Hydrocarbon	Invasive	0.1–4 m (0.33–13.12 ft)
	Hydrocarbon	Non-Invasive	0.1–3 m (0.33–9.84 ft)
	Aqueous	Non-Invasive	0.14–2 m (0.46–6.56 ft)

Data Reporting & Interfaces

Reporting	Tank Level (Ullage)
	Default: 1 report every Tuesday and Friday at 3 AM EST with hourly logs
	After install: Daily reports at 3 AM EST with hourly logs
Data Interface	Nee-Vo Tech app (iOS/Android) via Bluetooth
Automated Diagnostics	Echo Quality strength; Connection status; Battery level

Electrical Specifications

Power Source	Replaceable Lithium LiSOCl ₂ battery
Battery Life	Minimum 10 years

Communication Interfaces

Cellular	CAT-M1 as primary, 2G fallback, NB-IoT is 2 nd fallback
Local Connectivity	Bluetooth Low Energy (BLE) for installation and customer local readings
Positioning	GPS/GLONASS

Environmental Specifications

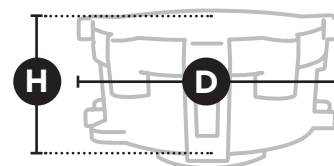
Temperature	Operating: -25°C (-13°F) to 50°C (122°F) Storage: 0°C (32°F) to 30°C (86°F)
Relative Humidity	10 to 100%
Altitude Range	< 6500 ft (< 2 km) above sea level
Environmental Protection	IP68, Outdoors

Certifications

Regulatory	FCC, IC
IECEX	Ex ia IIB T4 Ga (-25°C ≤ Tamb ≤ +50°C); Ex ia IIB T4 Ga (-30 °C ≤ Tamb ≤ +50 °C)
ATEX	II 1 G Ex ia IIB T4 Ga (-25 °C ≤ Tamb ≤ +50 °C); II 1 G Ex ia IIB T4 Ga (-30 °C ≤ Tamb ≤ +50 °C)
North American	Class I, Zone 0, AEx ia IIB T4 Ga Ex ia II B T4 Ga Class I, Division 1: Groups C and D: T4 -25°C ≤ Tamb ≤ +50°C or -30°C ≤ Tamb ≤ +50°

Physical Dimensions

Height	49.4 mm (1.94 inch) (does not incl. threading at base)
Diameter	115 mm (4.53 inch)
Weight	280 g (10 oz)
Housing Material	UV-stabilized PVDF (Kynar) and PP

**Miscellaneous**

Mounting	- Invasive (2 inch BSP) - Non-invasive (adhesive pad for plastic tanks)
----------	--

3.3 Regulatory

Federal Communications Commission (FCC)

This device complies with part 15 of the FCC Rules. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This device is compliant with Industry Canada's RSS standards for license-exempt radio apparatuses.

Authorized use depends on the following two conditions: (1) the device must not create radio interference, and (2) the device user must accept all radio interference, even if this interference could potentially impair its functioning.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

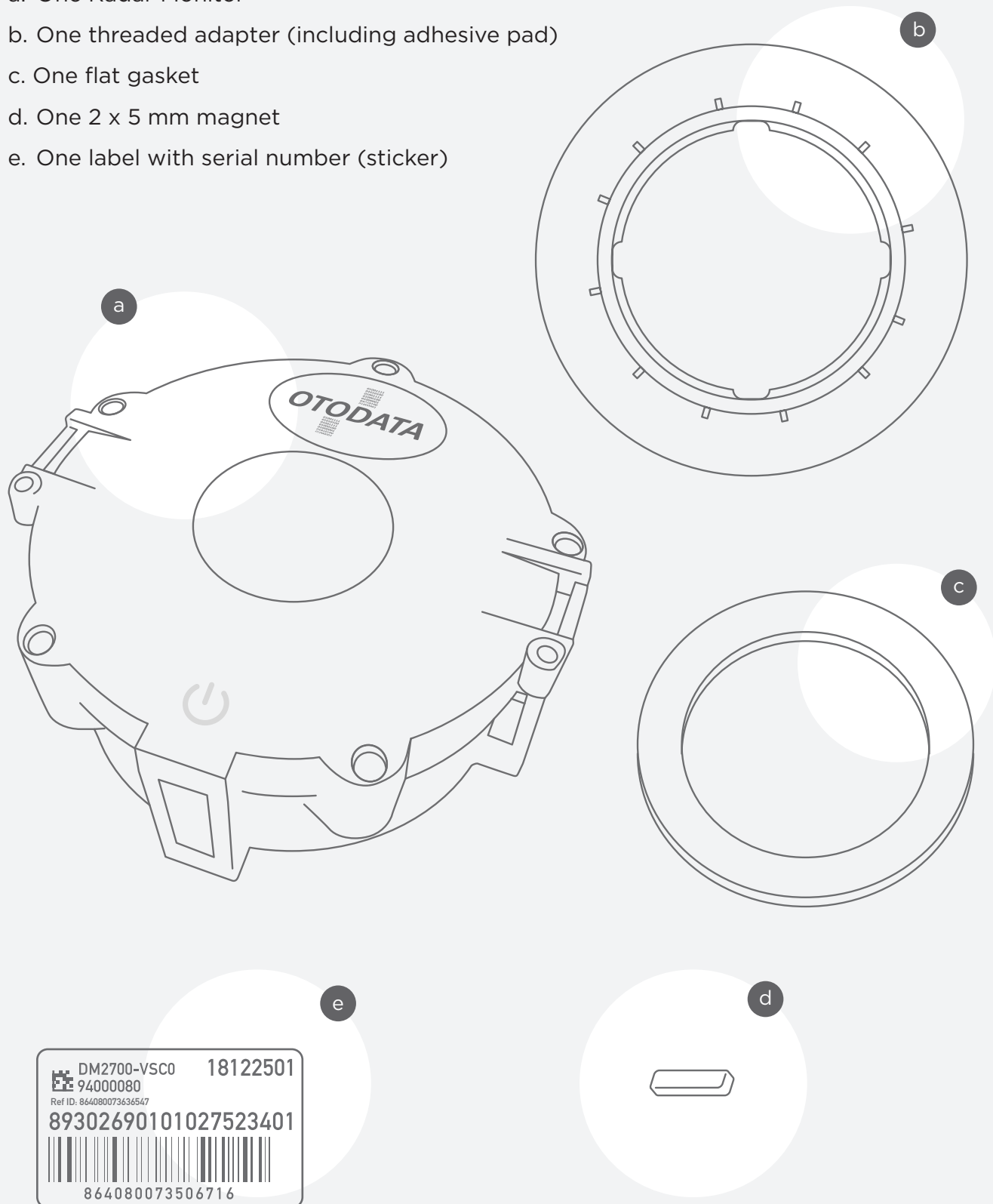
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To comply with FCC RF exposure compliance recommendations, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.

3.4 Box Contents

Your Radar Monitor kit will contain the following items:

- a. One Radar Monitor
- b. One threaded adapter (including adhesive pad)
- c. One flat gasket
- d. One 2 x 5 mm magnet
- e. One label with serial number (sticker)



4 Pre-install Considerations

It is important the basic composition of the liquid is known when installing and commissioning the device. This is because the strength of the radar echo is related to the type of liquid that is being measured.

Different liquid compositions have a varying ability to reflect radar signals back to the sensors.

Liquid	Mounting	Range
Aqueous	Invasive	0.14–6.75 m (0.46–22.15 ft)
Hydrocarbon	Invasive	0.1–4 m (0.33–13.12 ft)
Aqueous	Non-Invasive	0.14–2 m (0.46–6.56 ft)
Hydrocarbon	Non-Invasive	0.1–3 m (0.33–9.84 ft)

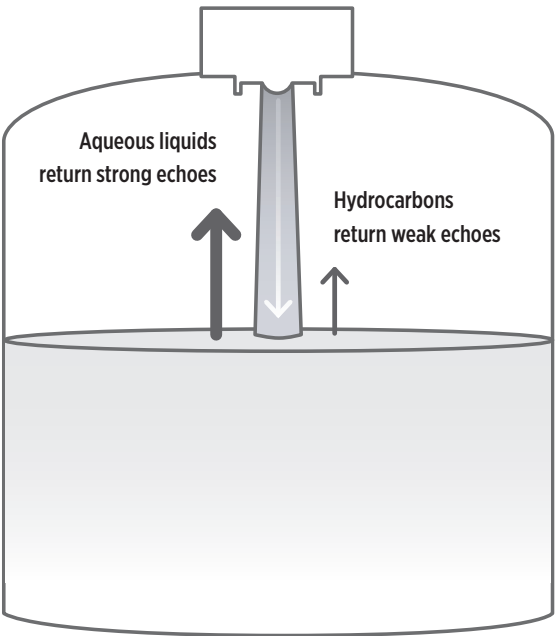
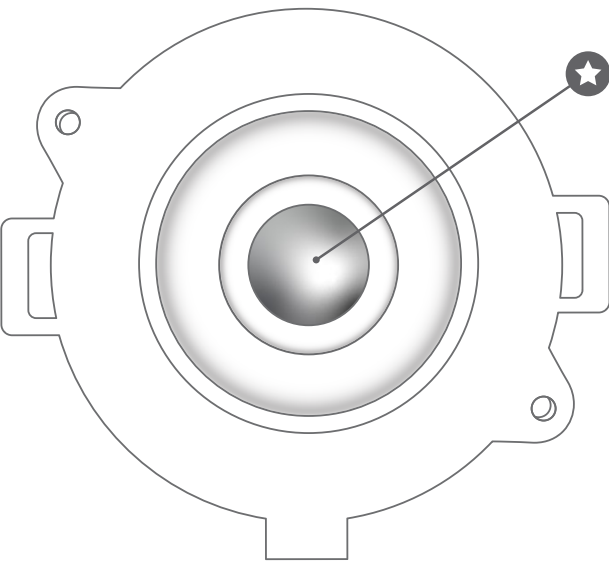
The echo signal strength can vary due to external factors such as condensation or whether the sensor installation is non-invasive (with the signal passing through the tank wall) or invasive. As such, it is important the sensor is installed as flat as possible.

Caution

The tank should be vented to avoid build-up of condensation on the exposed part of the DM2700 enclosure (lens ★) inside the tank.

Heavy condensation will interfere with the radar’s echo signal and significantly reduce the radar’s range. As a result, tank level readings can become unreliable.

For tanks over 2 meters in height, it is strongly recommended to use an invasive mounting method.



4.1 Tank Shape and Construction

How Tank Shape and Construction Impact Radar Performance

The tank's shape and construction material can negatively impact the radar's accuracy.

Below is a list of factors to consider prior to installation.

a. Metal tanks

Metal tanks can cause very strong signal echoes, specifically when “boxed in” (especially in the near zone).

Likewise, metal tank's with a domed top can cause unusual geometrical echo effects (particularly in the near zone).

b. In-tank obstructions

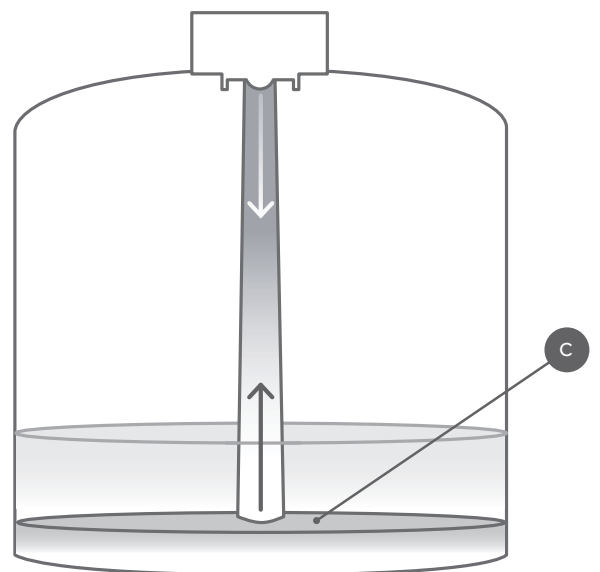
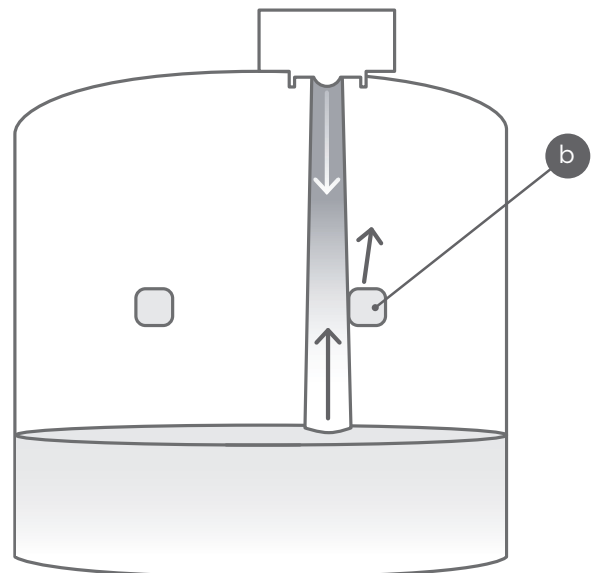
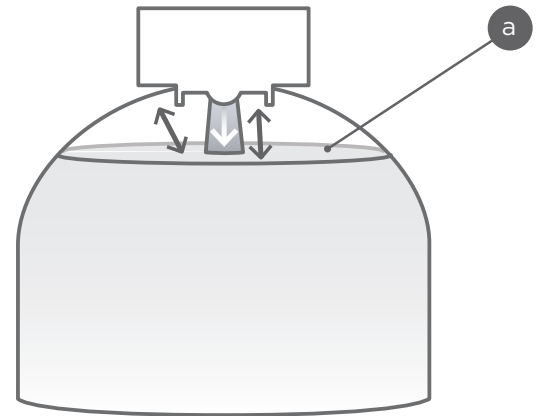
In-tank obstructions such as reinforcement bars can interfere with the Radar's signal and cause erroneous readings.

The Radar Monitor requires unobstructed access to the liquid's surface.

c. Water at bottom of tank

Liquids with a low dielectric constant like Kerosene allow the radar signal to pass through and reflect off the water below.

The water-level below the product should be taken into consideration when inputting the tank height and setting level reading alarms.



4.2 Blind Zone

The Blind Zone is the area directly below the DM2700 sensor that the radar cannot detect (Distance D in the illustration).

It represents the minimum level the sensor can report. Any liquid level within this zone displays as the highest readable level.

How Liquid Type Impacts the Blind Zone:

Liquid Type Blind Zone (D)

Aqueous 14 cm (5.5 in)

Hydrocarbons 10 cm (3.9 in)

Eliminating the Blind Zone

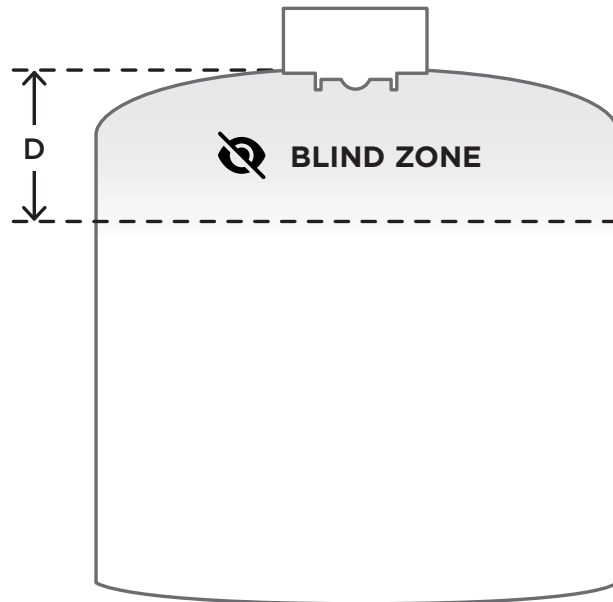
Raise the DM2700 on a standoff pipe to move the blind zone outside the tank. This lets the sensor measure the full product level. This is only useful when the tank is filled near the top.

Standoff Pipe Requirements

Maximum length: 25 cm (10 in). Longer pipes confine the radar beam and create a false echo at the pipe end, which can be misread as the liquid level.

Material: Metal, with a smooth interior. Corrugations, lips, or ridges can cause false echoes.

Pipe dimensions: The top end of the pipe must match the Radar monitor threading: 2-inch BSP. If the tank opening is a different size, fit the bottom end with a reducer or adapter to match it.



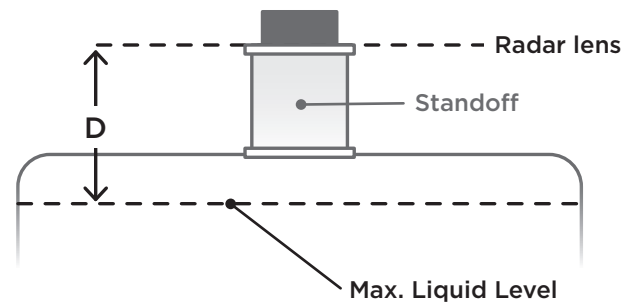
Understand Your Offset

Sensor Offset is the distance between the radar lens and the Maximum Liquid Level, entered as a software value during setup. It's positive when the radar sits above the tank top (on a standoff pipe), zero when flush with the tank top, and negative when the radar sits below the tank top (recessed mount). This distance is limited by the radar's maximum range.

Positive Sensor Offset

A positive Sensor Offset is needed when a Standoff Pipe is installed. A standoff pipe (or "riser") is a physical metal pipe that raises the radar above the tank, pushing the blind zone outside the tank. Use one when the tank fills near the top, or is too short for the blind zone to fit.

In short: the standoff is the hardware installed on the tank; the Sensor Offset is the distance it raises the radar above the Max. Liquid Level. Enter this distance as a positive value, in inches or centimeters (distance D in the illustration).



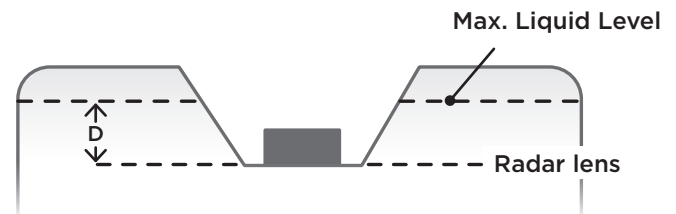
Information

If you install a standoff pipe, you must enter its length as the Sensor Offset during setup.

Negative Sensor Offset

A negative Sensor Offset is needed when the tank has a recessed mount, placing the radar lens below the tank top.

Simply enter the distance from the Max. Liquid Level down to the lens as a negative offset value, in inches or centimeters (distance D in the illustration).



Information

Before installation, ensure that the sum of the Tank Height and Sensor Offset is at least 50 cm (20 in), the minimum supported value.

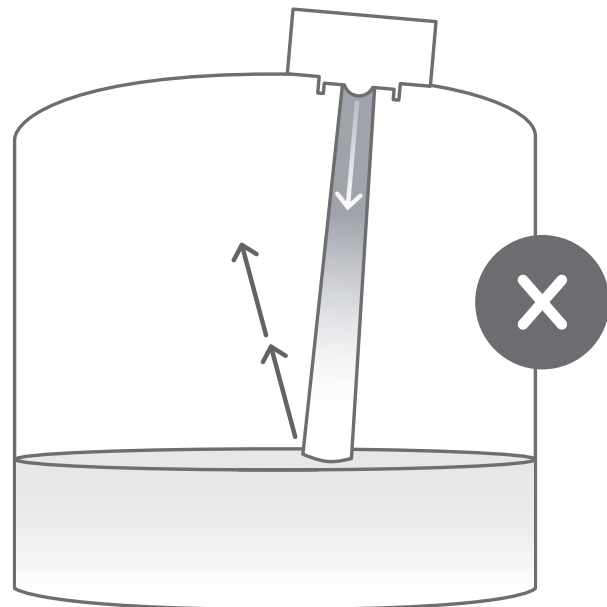
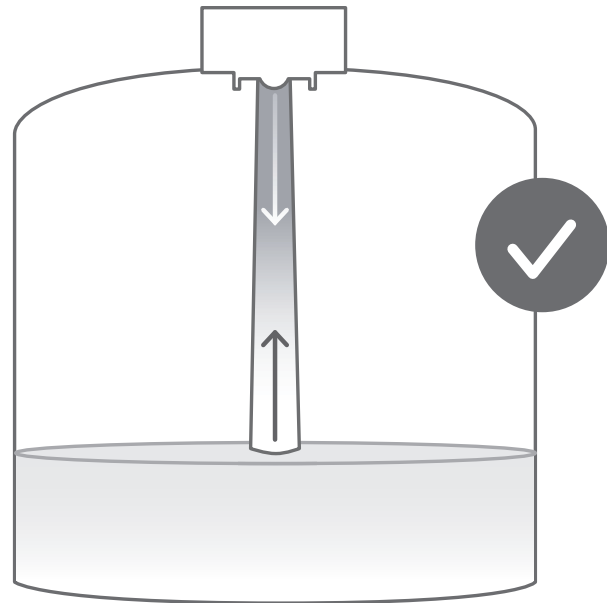
4.3 Sensor Alignment

The Radar Monitor transmits a narrow “beam” of RF energy directly downward toward the surface of the liquid. The beam is then reflected back toward the radar sensor as an *echo*.

The *time of flight* (time it takes for the echo to reach the radar) is measured to determine the *ullage*.

In order to maximize the accuracy of level readings and minimize any potential erroneous readings:

- Ensure the sensor is seated horizontally above the surface of the liquid,
- Is located in a central location within the tank,
- The beam can pass straight down, unobstructed by in-tank elements such as reinforcing bars.



5 Installation Instructions

5.1 Preparation

5.1.1 Record the Radar Monitor's Serial Number

Ensure you take note of the Radar's serial number (S/N). This will be needed later when searching for the device on the Monitored Assets page in the Nee-Vo Portal, and is also needed for the Tech App.

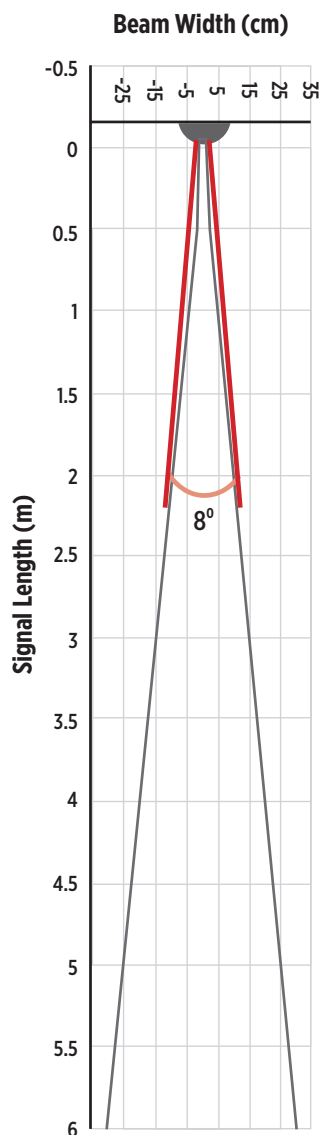


5.1.2 Evaluate what Installation Method is Most Suitable

Before installing the Radar Monitor, refer to the Signal Diversion Chart below to calculate whether there is enough unobstructed space in-tank for the Radar's beam.

This verification is especially necessary if the chosen port hole is close to the tank's wall as it could result in inaccurate readings should the Radar beam hit the interior wall or any other obstruction in-tank.

In the event that the only port hole available is not suitable, it may be necessary to create a new port hole.



Tank Height		Distance from Wall	
Metric (m)	US (in)	Metric (cm)	US (in)
0.5	19	4.7	1.8
0.75	29	5.7	2.3
1	39	6.8	2.7
1.25	49	7.9	3.1
1.5	59	9.0	3.5
1.75	69	10.1	4.0
2	79	11.2	4.4
2.25	89	12.2	4.8
2.5	99	13.3	5.2
2.75	109	14.4	5.7
3	119	15.5	6.1

5.2 Physical Install

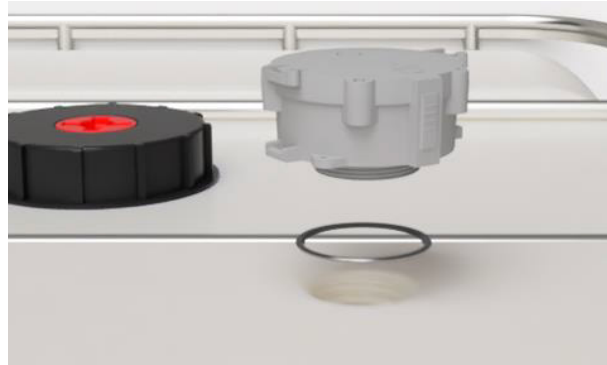
5.2.1 Install the Radar Monitor on Tank

Caution

Do not mount the Radar Monitor where water can pool on the tank's surface.

A—Invasive Installation ►

Tanks with a 2-inch threaded opening can accommodate direct installation of the Radar Monitor. Using the small sealing gasket, mount the Radar Monitor directly over the opening. No threaded adapter is required.



Caution

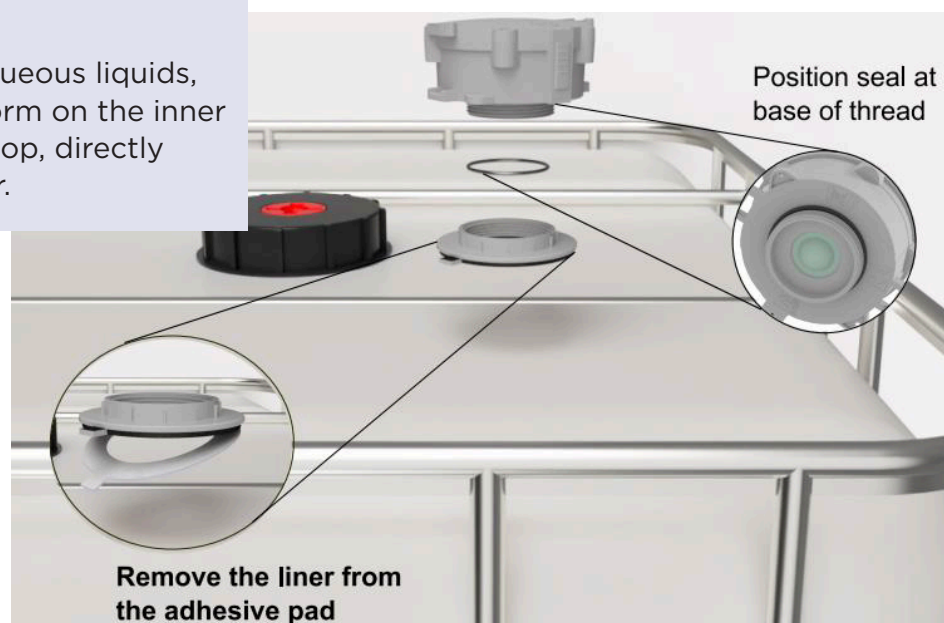
If you are drilling a hole into a filled tank, ensure the debris does not contaminate the fluid in the tank.

B—Non-Invasive Installation ▼

Only plastic tanks without a 2-inch threaded opening can use the included threaded adapter. Attach the adapter to the top of the tank, then screw in the Radar Monitor. No pre-drilled holes are required.

Notice

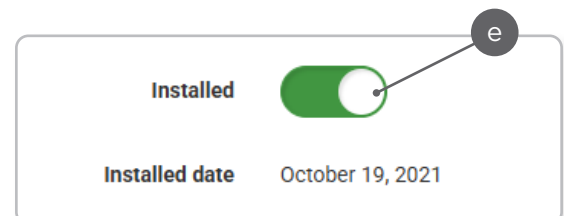
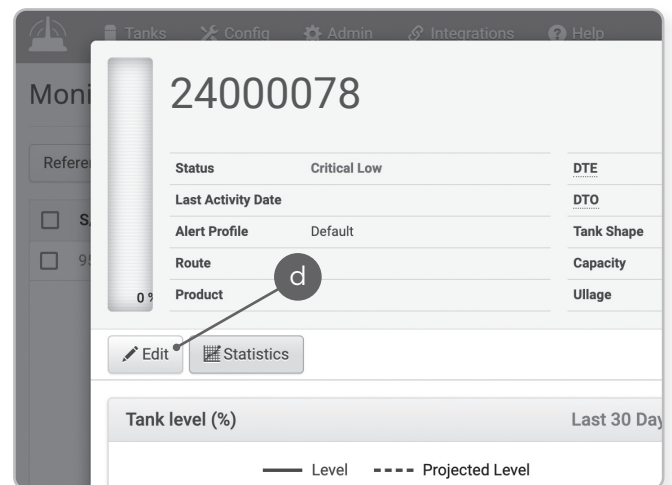
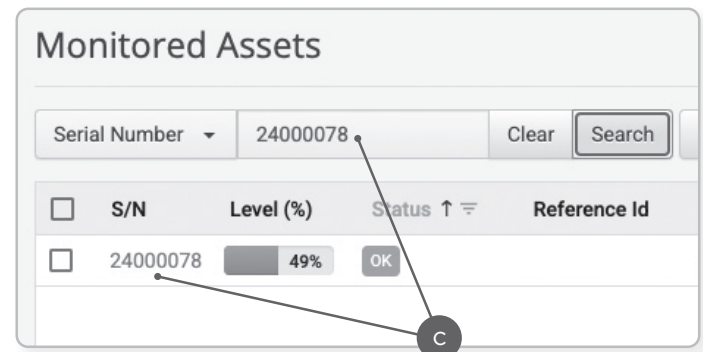
When measuring aqueous liquids, condensation can form on the inner surface of the tank top, directly beneath the monitor.



5.2.2 Finalize Installation in the Nee-Vo Portal

To ensure the Radar Monitor is installed, follow these validation steps using the Nee-Vo portal:

- Log in to the Nee-Vo portal (neevo.otodata.ca/#/signin).
- In the Nee-Vo Portal, select Tanks in the main menu, then Monitored Assets.
- Enter the Radar Monitor's serial number (S/N) into the searchbar located in the upper left corner of your screen, and click Search. Click on the serial number from the search results.
- Click on Edit.
- Ensure that the Installed switch is toggled ON.



Notice

By toggling ON the *Installed* switch, the transmission schedule will increase in frequency from the default setting of *twice weekly* to one report daily (daily report will contain hourly logs).¹

Additionally, when an alert profile is active, you will also receive transmissions based on thresholds you configure.

¹ The very first report will only be available at the next scheduled transmission. By default, transmissions are sent every Tuesday and Friday at 3AM.

5.3 Activation (Nee-Vo Tech App)



Notice

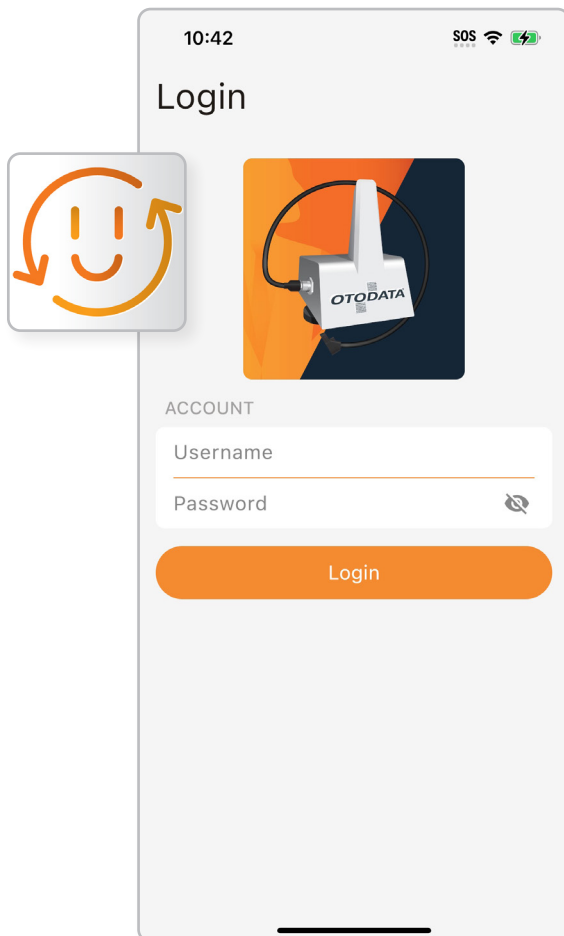
Before proceeding, ensure all steps in "Before you begin" on page 3 are complete.

5.3.1 Log in to the Nee-Vo Tech App

Launch the app and log in.

Information

If this is your first time using the Nee-Vo Tech App, input the same Username and Password you use to log in to the Nee-Vo Portal, then select Login.

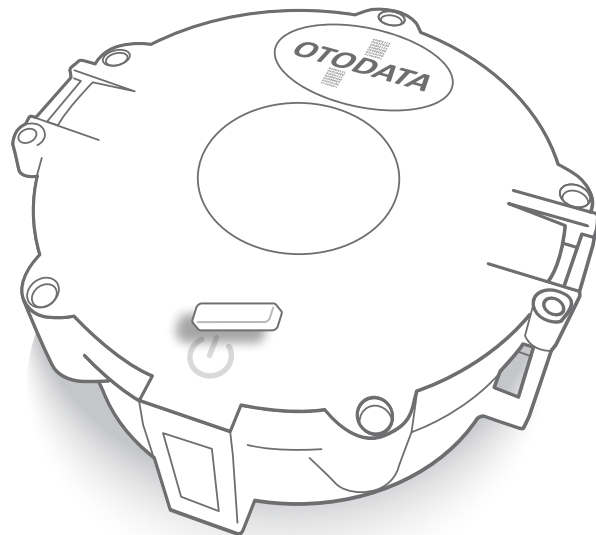


5.3.2 Wake Up the Device

Place a magnet on the hotspot for 2 seconds, or until the device emits a loud double beep every second, indicating BLE broadcast mode.

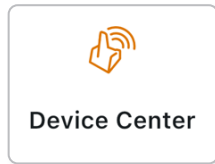
Notice

Remove the magnet immediately after the beeps begin. Leaving it in place will trigger a cellular report.



5.3.3 Pair the Radar Monitor

1. From the Home page, tap Device Center.

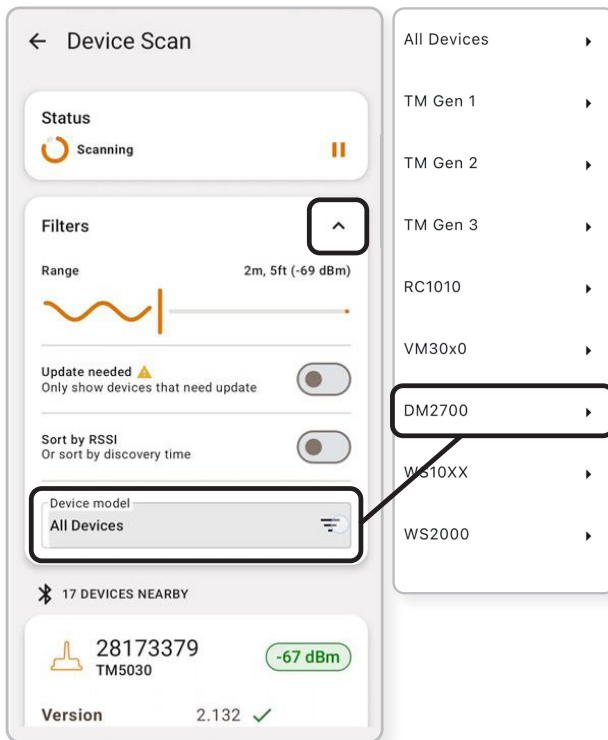


2. Then, Scan for Nearby Bluetooth Devices¹ to scan the area and get a list of nearby BLE-enabled devices.

Scan for Nearby Bluetooth Devices ▸

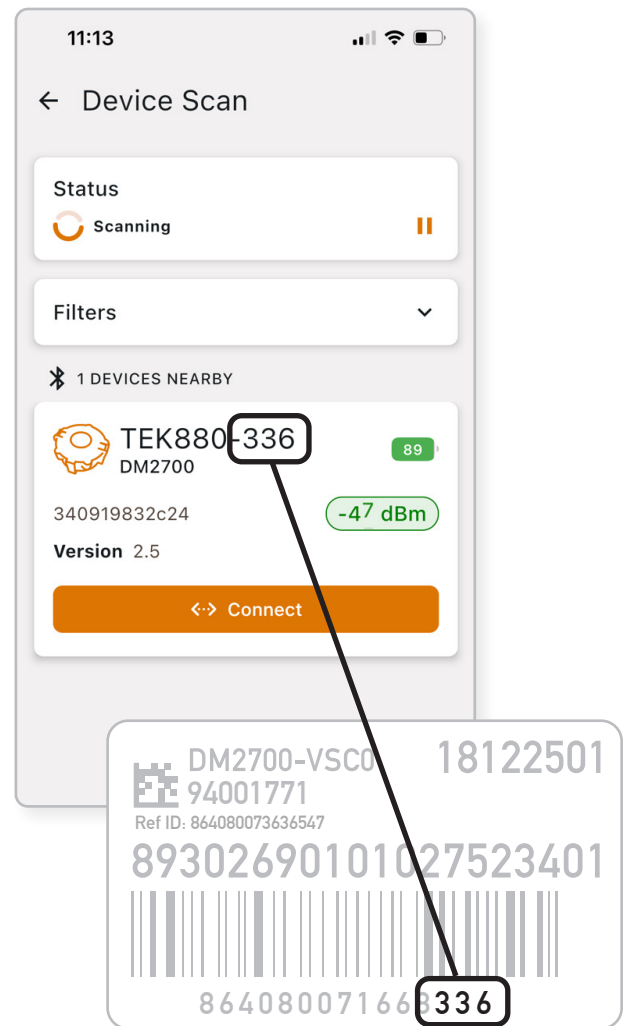
By default, the scan returns every supported device in range.

Filter Results: Open the Filters section. Then, tap the Device Model field and select DM2700 from the list.



3. **Validate:** Finally, verify you are connecting to the right Radar Monitor by confirming that the *last 3 digits* of the in-app device name matches the last 3 digits of the barcode printed on the label affixed to the device.

Once confirmed, tap Connect.



¹ Scan for *Nearby Bluetooth Devices* is the only option currently supported.

5.3.4 Update Configuration

Once connected, the Device Checkup screen will display your Radar’s status and configuration settings.

Information is divided as such:

- 1 Device Information: Displays the device’s Otodata serial number, firmware version, and activation status.
- 2 Connection Status: Confirms if the device is connected to the Nee-Vo Tech App.
- 3 Current Values: Displays live readings from the device including Ullage, Level, RRC, and Alignment.²
- 4 Configuration: Displays the current device settings including Installation Method, Product, Tank Height, and Tank Material.²

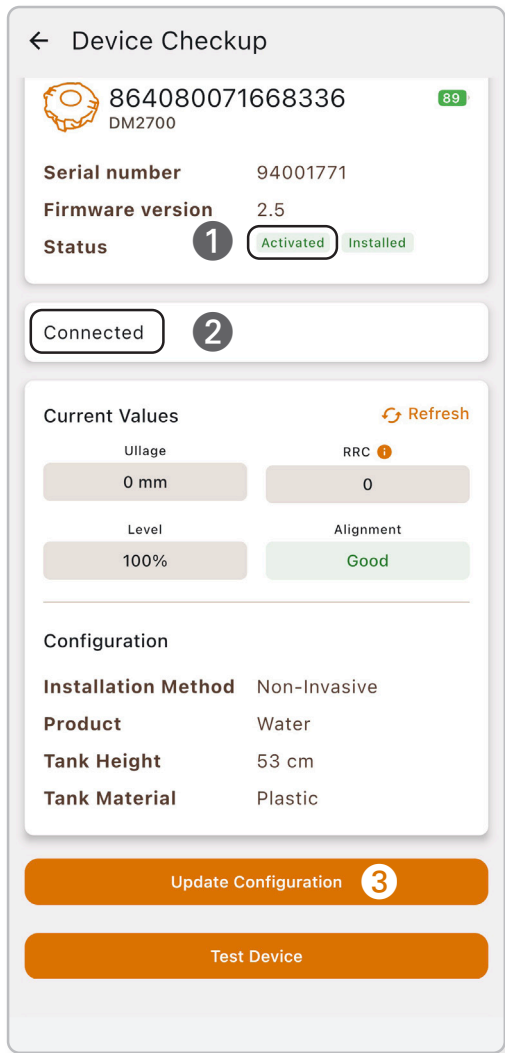
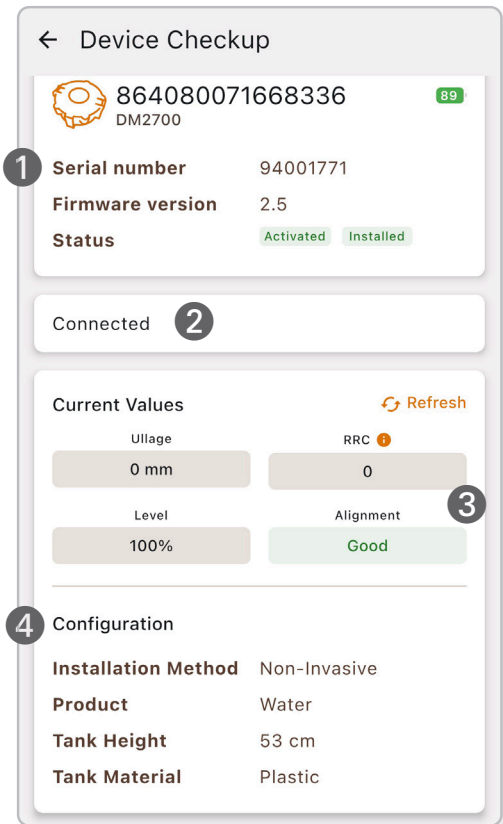
A—Proceed with configuration

- 1. Confirm the Status is *Activated*.
- 2. Confirm the Status is *Connected*.

Notice

If pairing fails: verify the Blue-tooth connection and repeat the pairing process before continuing.

- 3. Tap Update Configuration to proceed with installation.³



2 Pre-installation: values reflect factory defaults and not real tank data.

3 It is unnecessary to select Test Device during configuration.

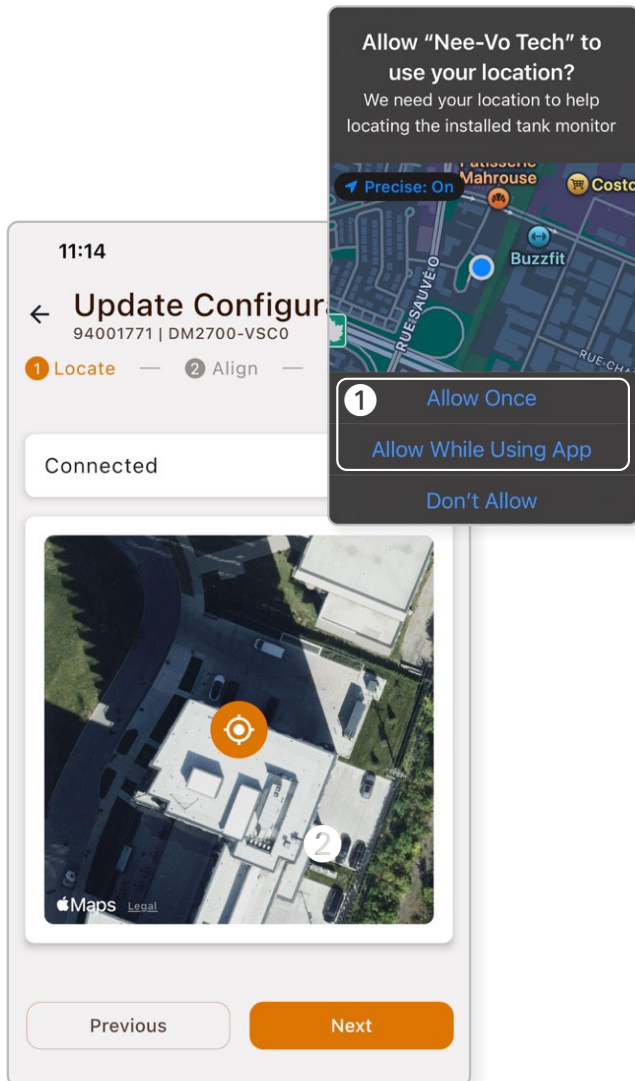
B—Locate the tank on a map

1. The Tech App requires Location Data to pinpoint the tank's location on a map.

To grant it permission, tap Allow Once or Allow While Using App when prompted.

2. The Locate screen will now display a satellite map where your current position is marked by an orange pin.

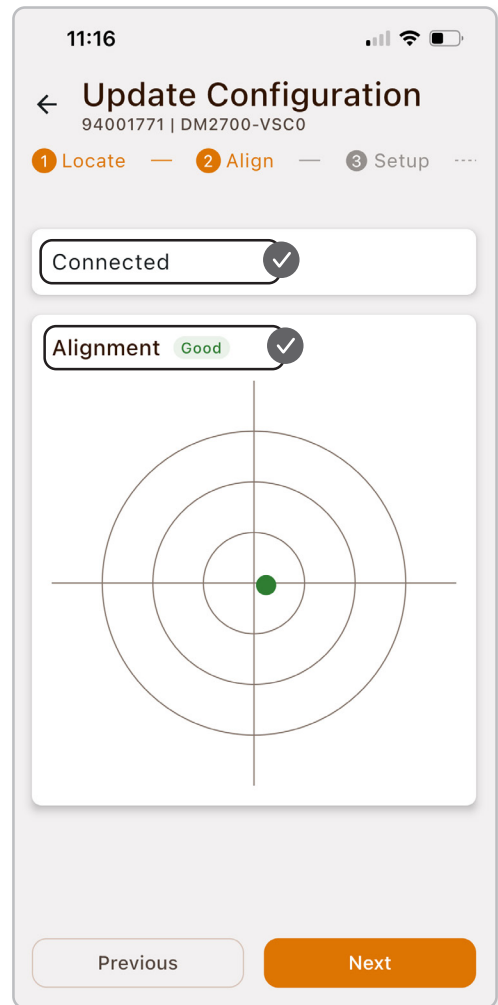
If required, tap and drag the pin to reposition. Otherwise, tap Next to proceed.



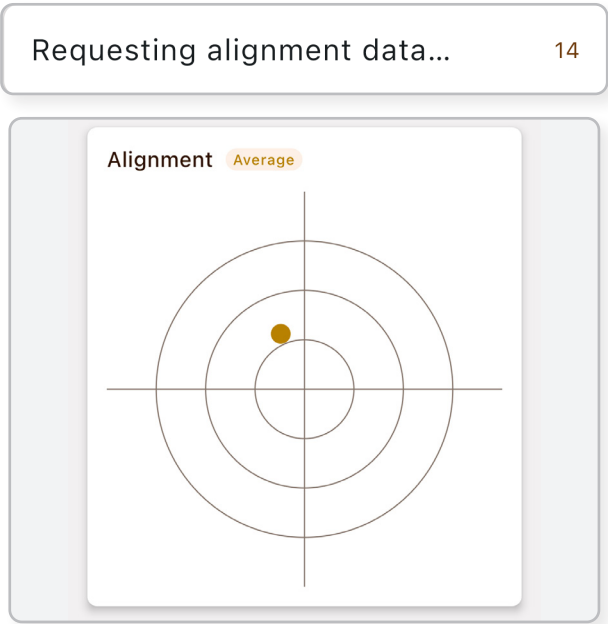
C—Alignment

The Align screen shows the Radar Monitor's alignment quality. The dot on the target indicates the current position and rating: Good, Average, or Poor.

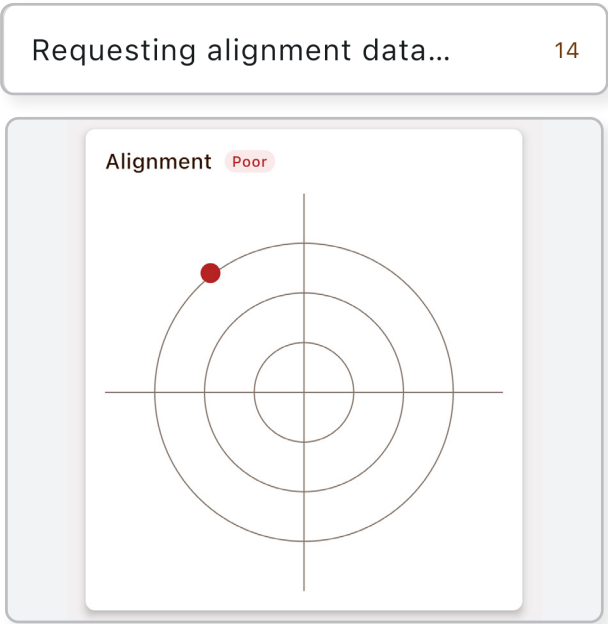
Good: Green dot near center point. The Radar is optimally aligned. Tap Next to proceed.



Average: Orange dot in middle ring. The Radar position is less than optimal, but still acceptable. Can have a minor impact on accuracy. Reposition. If unable, tap Next to proceed.



Poor: Red dot in outer ring. Unable to proceed. Reposition to attain a rating of at least Average. Then, tap Next to proceed.



D—Setup

The Setup screens requires you to fill in the following information:

Region: Your region, North America or Europe.

Liquid Type: Product in tank, Oil (hydrocarbons) or Water (aqueous liquids).

Tank Type: Tank material, Plastic or Metal.

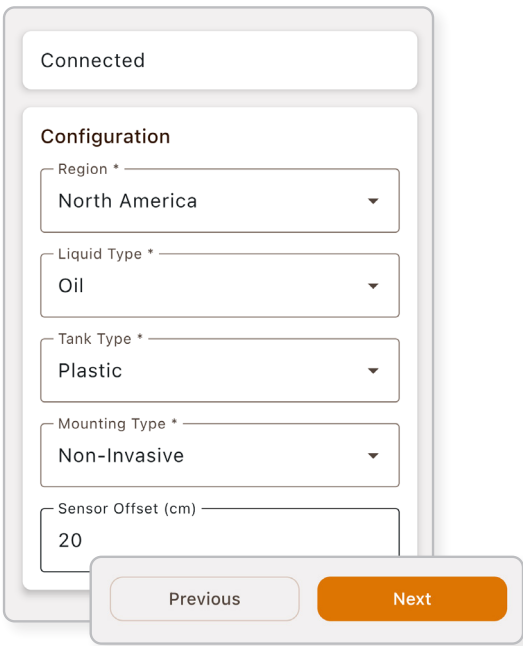
Mounting Type: Install method, Invasive or Non-Invasive.

Sensor Offset: The distance between the Radar and the top of the tank in centimeters.

Notice

Verify values before continuing. Erroneous entries will result in inaccurate level readings.

Once you've confirmed all information is accurate, tap Next to proceed.



E—Dimensions

- 1. From the Form Factor dropdown menu, select the tank shape that best reflects your tank.
- 2. Then, enter the following measurements in centimeters: Tank Height, Tank Width, and Tank Length.

Notice

Verify the tank shape and dimensions are accurate before continuing. Erroneous entries will result in inaccurate level readings.

- 3. Once done, tap Next to proceed.

11:18

← Update Configuration
94001771 | DM2700-VSC0

3 Setup — 4 Dimensions — 5 Review

Connected

Configuration

Form Factor *
Horizontal Cylinder

Tank Height (cm) *
127

Tank Width (cm) *
127

Tank Length (cm) *
182

Form Factor *

- Horizontal Cylinder
- Vertical Cylinder
- Rectangle
- Horizontal Oval
- Vertical Oval
- Horizontal Capsule

Previous Next

F—Review

Carefully verify all settings including Location, Alignment, Tank Setup (Liquid Type, Tank Type, Mounting Type, Radar Offset), and Tank Dimensions (Height, Width, Length, Form Factor) before proceeding.

If updates are required, tap Previous to return to the previous screens.

Once done, tap Confirm to apply the configuration to the Radar Monitor.

Information

If the configuration process exceeds the 5-minute timeout, pairing may be lost. Repeat the pairing process to proceed (see "5.3.3 Pair the Radar Monitor" on page 17).

3 Setup — 4 Dimensions — 5 Review

Disconnected Reconnect

Alignment Good

Tank Setup

- Liquid Type: Oil
- Tank Type: Plastic
- Mounting Type: Non-Invasive
- Radar Offset: 20

Tank Dimensions

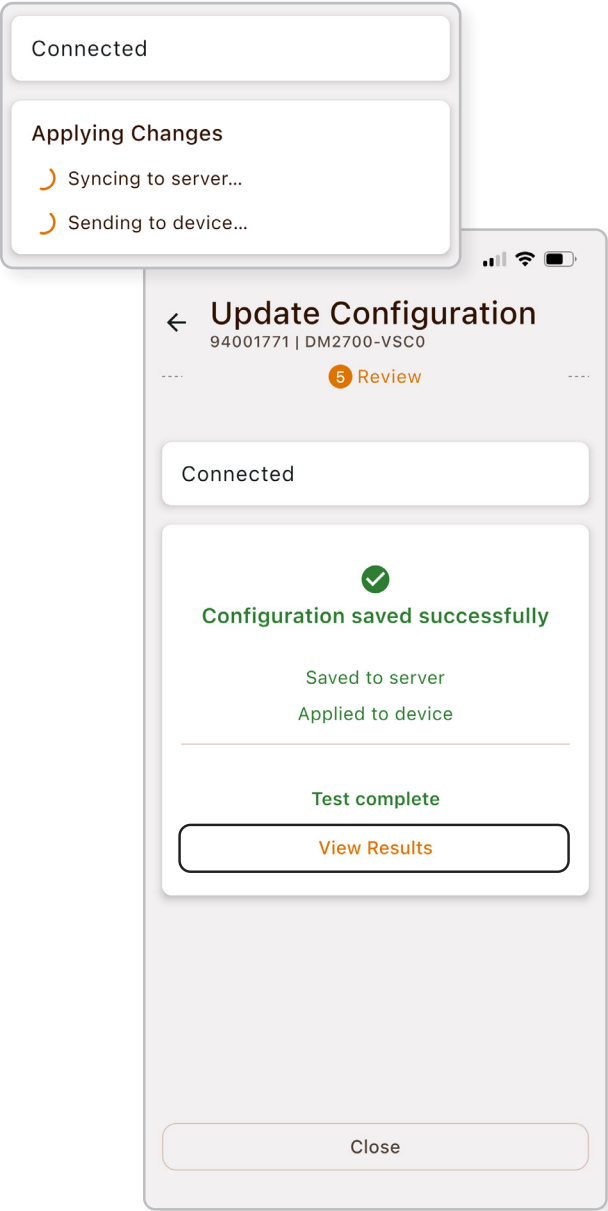
- Tank Height: 127 cm
- Tank Width: 127 cm
- Tank Length: 182 cm
- Form Factor: Horizontal Cylinder

Previous Confirm

5.3.5 Applying Changes

Synchronization between the Radar and the server may take up to 1 minute to complete.

Once done, tap View Results to review the connection details.



5.3.6 Test Device Connectivity

Confirm all tests were successful.

Status: Confirms the device is registered on the network.

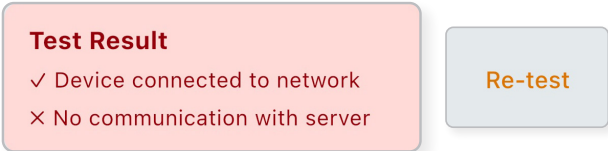
Network: Network type your device is connected to.

Mode: Displays the connection method.

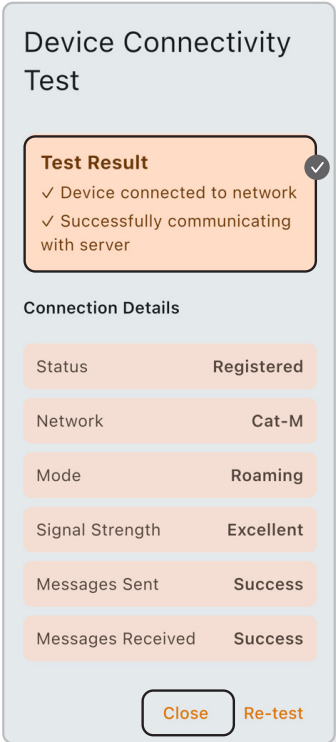
Signal Strength: Indicates the quality of the cellular signal.

Messages Sent and Messages Received: Confirms two-way communication between the Radar and the server.

If the test fails, tap Re-test to run the connectivity test again.



If all test results were successful, the installation is complete. Tap Close to finish.



5.4 Configuration (Nee-Vo Portal)



Notice

Before proceeding, ensure you've have the following data:

1. The outer dimensions of tank (width and depth).

Single-walled: measured from wall-to-wall.

Double-walled or manifolded: measured from the welding line to the tank's wall.

2. The tank's height: measured by dip stick for maximum accuracy.

5.4.1 Create a Tank Format

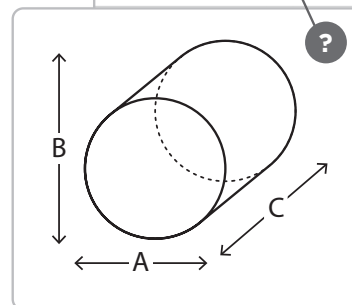
- a. On the tank's *Details* page, click the Create button to the right of the *Tank Format* dropdown list, or click Config from the main menu, then Tank Formats.
- b. Then, click the Create a tank format button to the upper right of the screen.
- c. Input all necessary information including its *Construction Material*, the *Tank Shape*, and its exact dimensions.
- d. Once done, click Save.

Information

Once saved, certain fields, such as Product and Construction Material, cannot be edited. If any locked field is incorrect, create a new Tank Format.

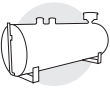
Information

Selecting a Product limits this tank shape to tanks associated with that product. For example, if you select Propane, the tank shape will only be available for propane tanks. Leave this field blank to make the tank shape available for all tanks.



Available Tank Shapes

When creating a custom Tank Format, you can use the following Tank Shape templates as a starting point.



Horizontal Cylinder
Width and Height are usually equal.



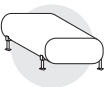
Vertical Cylinder
Width and Length are usually equal.



Rectangle
Cube, rectangular vertical, or rectangular horizontal tanks belong in this category.

Notice

Miscategorizing Rectangular tanks as Horizontal Cylinders will reduce data accuracy.



Horizontal Oval
Height: shortest measurement.
Width: can be longest.



Vertical Oval
Width: shortest measurement.
Height: can be longest.



Horizontal Capsule
Dimension A: Diameter of the capsule, Dimension B: Radius of end cap, Dimension C: Total length end-to-end of capsule.



Custom
Useful for irregular tank shapes.

How to Create a Custom Tank Shape

For irregular shaped tanks, you can create a custom shape.

- a. From Tank Shapes, select the question mark icon (?) from the list.
- b. Under Strapping Chart, click the plus button above the table to create a new row and input the tank's Height and Volume (capacity) for each distinct section of the tank. Example: Top section 1, bottom section 2.
- c. Once done, click Save.

Add Tank Format

Name

[Custom] L shape: top 40in x 30g / bottom 80in x 60g

Manufacturer

Otodata

Model

TK968520H5000

Product ?

Construction material ?

Plastic

Tank Shape

Irregular

Horizontal Oval

Vertical Oval

Horizontal Capsule

?

Custom

Strapping Chart

+

↑ Height	Volume
0 in	0 gal
40 in	60 gal
80 in	90 gal

Save

2

1

80 in

40 in

0 in

5.4.2 Tank Setup and Configuration

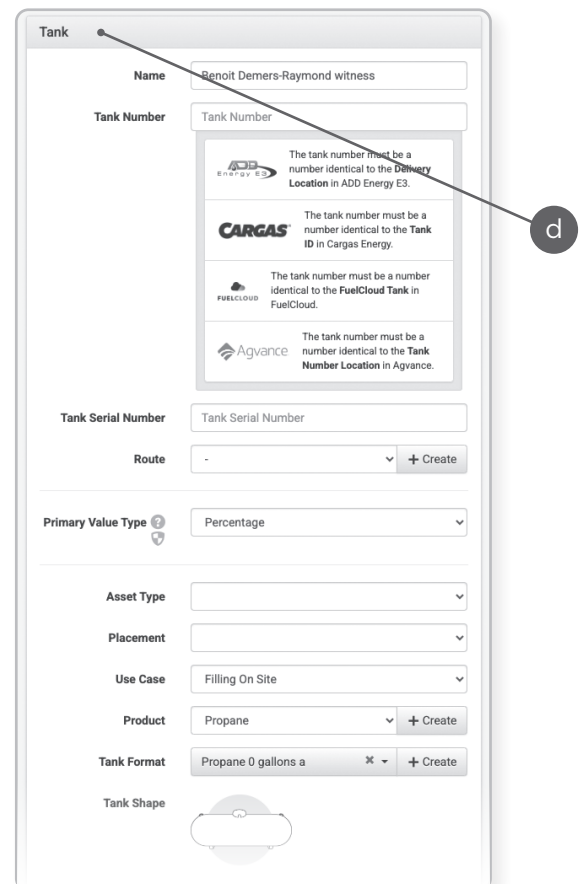
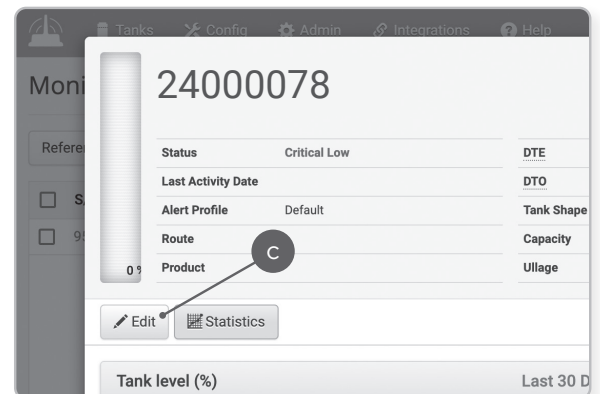
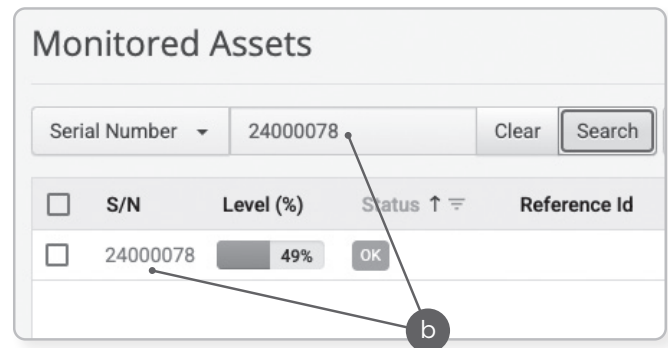
- In the Nee-Vo Portal, select Tanks in the main menu, then Monitored Assets.
- Enter the Radar Monitor's serial number (S/N) into the searchbar located in the upper left corner of your screen, and click Search.

Once found, select the device from the list by clicking its serial number (S/N). This will open the *Details* page.

- Click the Edit button.
- Scroll down to the *Tank* section and carefully input all necessary information such as the tank's serial number, the tank's format, the product in-tank, its location, and more.

Information

If you cannot find an accurate option in the *Tank Format* dropdown list, you will need to create a custom tank shape. See following step.



5.4.3 Validate Installation

a. Log into your Nee-Vo Portal account and navigate to Tanks > Monitored Assets.

b. On the *Monitored Assets* page, click the Actions button in the upper right of your screen. Then Set Predefined View.

Select Level Sensor (default) from list, then click Confirm.

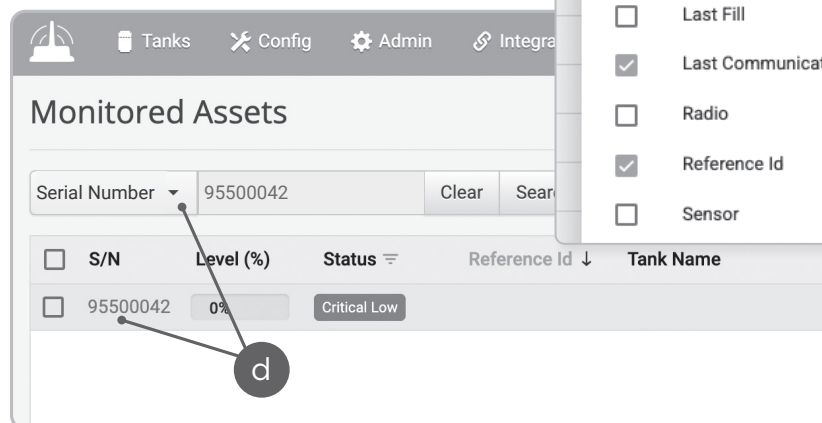
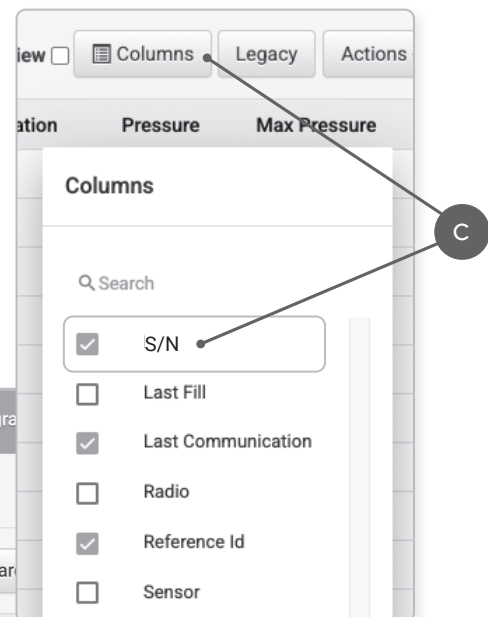
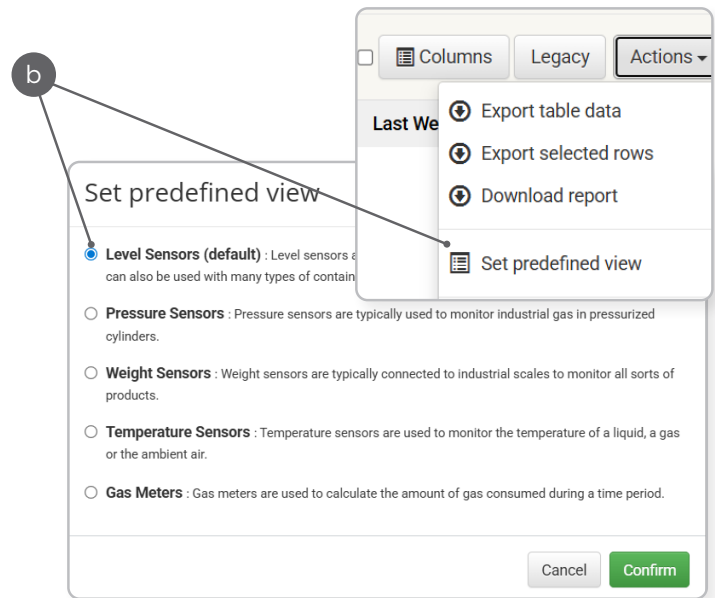
c. On the *Monitored Assets* page, click the Columns button in the upper right of your screen, and select S/N (Otodata's serial number) from the dropdown menu.

d. Search for the Radar Monitor via it's Otodata Serial Number.

i. Ensure the *Serial Number* is selected from the dropdown menu to the left of the search bar.

ii. Then input the device's unique 8-digit serial number into the search bar and click Search.

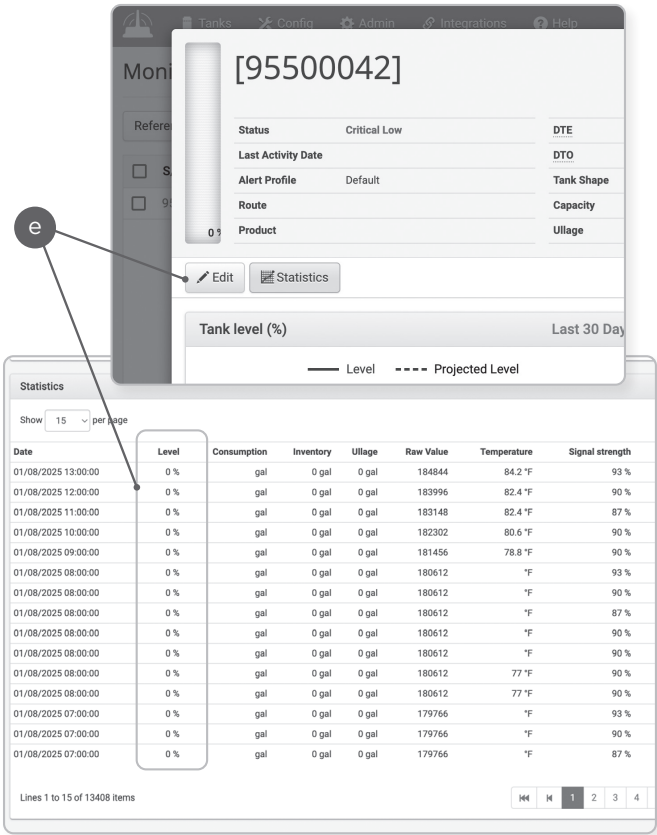
iii. Once found, select the device from the list by clicking its serial number. This will open the *Details* page.



- e. Review tank's Statistics.
 - i. On the *Details* page, click the Statistics button.
 - ii. Scroll down to the Statistics table to see a log of all received readings.

Information

A successful installation will produce decreasing Level (%) readings and a sharp increase when filled.



5.4.4 Alert Profile Creation

A—About Alert Profiles

The DM2700 triggers alerts at three predefined thresholds: High, Low, and Critical Low which can be adjusted to suit your tank.

Notice

You must always create a custom Alert Profile for Radar Monitors.

Critical High Threshold

Indicates that the level exceeds the configured Critical High threshold.

► See High Threshold below for high-level alerts.

Must always be configured:

- + Higher than the High Threshold

High Threshold

Triggers a high-level alert when the level exceeds the configured High threshold.

Must always be configured:

- /= Lower or equal to the *Maximum Reportable Level*
- Lower than the Critical High threshold
- + Higher than the Low threshold

Example: If the Maximum Reportable Level is 80%, the High threshold can be set to 80% or lower (as long as it remains above the low Threshold).

Find the Maximum Reportable Level

Determine the maximum acceptable limit for the High Threshold (%). (Any alert set above this limit will never trigger since the reported level cannot exceed it.)

Maximum Reportable Level formula:

$$(\text{Tank Height} - 20 \text{ cm} + \text{Sensor Offset (max. 20 cm)} \div \text{Tank Height}) \times 100 = \text{Max. Reportable Level (\%)}$$

Example assuming Tank Height is 100 cm and Offset is 0 cm:

$$((100 - 20 + 0) \div 100) \times 100 = 80\%$$

Notice

Use consistent units throughout.
 Ex.: If the tank height is measured in inches, convert centimeter values accordingly (e.g., 20 cm = 8 in).

Create an Alert Profile

Name

Measurement Type

Percentage ▾

Level Alerts

Critical High Threshold

90 %

High Threshold

80 %

Low Threshold

25 %

Critical Low Threshold

15 %

Empty Threshold

0 %

Low Threshold

Triggers an alert when the level drops below the configured Low threshold.

Must always be configured:

- Lower than the High threshold
- + Higher than the Critical Low threshold

Critical Low Threshold

Triggers an alert when the level drops below the configured Critical Low threshold.

Must always be configured:

- Lower than the Low threshold

Empty Threshold

Indicates that there is no product left in the tank.

Must always be configured:

- Lower than the Critical Low threshold

Create an Alert Profile

Name

Radar Monitor (2026585)

Measurement Type

Percentage

Level Alerts

Critical High Threshold

90

%

High Threshold

80

%

Low Threshold

25

%

Critical Low Threshold

15

%

Empty Threshold

0

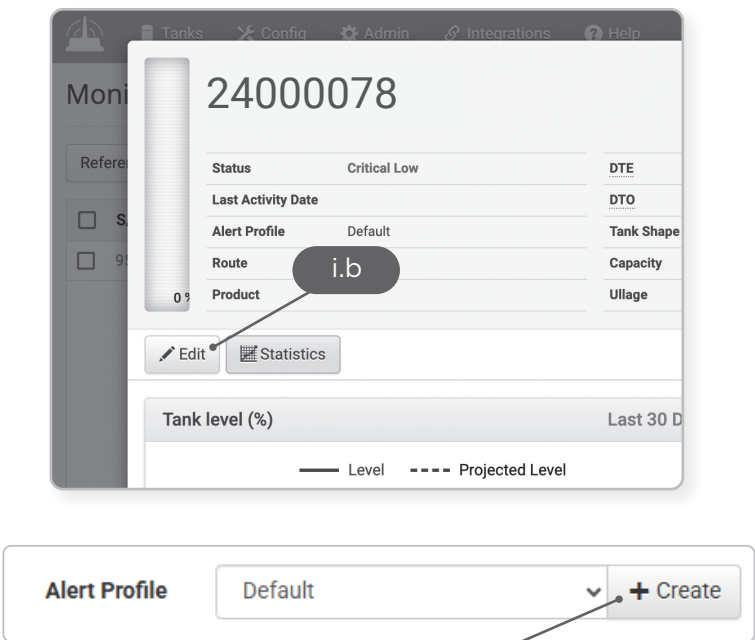
%

B—Create and Assign an Alert Profile

i. From the Details Page

- a. Go to the *Details* page for your Radar Monitor.¹
- b. Click on Edit.
- c. In the *Monitor* section, scroll down to *Alert Profile* and click + Create to the right of the dropdown menu to set up a new *Alert Profile*.
- d. Configure your alerts and click Save.²

Your Alert Profile will be automatically assigned to your Radar Monitor.



ii. From the Alert Profiles Page

- a. Click on Config in the main menu, then select Alert Profiles.
- b. Then click the + Add a Profile button in the top right corner of the screen.
- c. Configure your alerts and click Save.
Your Alert Profile will now be listed on the *Alert Profiles* page where it can be assigned to a tank or sensor.
- d. Go to the *Details* page for your Radar Monitor.¹
- e. In the *Monitor* section, scroll down to *Alert Profile* and select your new Alert Profile from the list.
- f. Finally, scroll down and click Save to apply your changes.

A screenshot of the 'Create an Alert Profile' form. The 'Name' field is 'Radar Monitor (2026585)'. The 'Measurement Type' is 'Percentage'. Under 'Level Alerts', there are five thresholds: 'Critical High Threshold' (100%), 'High Threshold' (80%), 'Low Threshold' (25%), 'Critical Low Threshold' (15%), and 'Empty Threshold' (0%). A callout bubble labeled 'i.c' points to the '+ Create' button from the previous image.

¹ See "5.4.2 Tank Setup and Configuration", steps a—b, page 25.
² Your Alert Profile will also be listed on the Alert Profiles page where it can be edited, and assigned to any tank or sensor.

5.4.5 Sensor Status Legend

On the Monitored Assets page, there is a Status column that shows the current condition of each monitor. This status helps quickly identify whether the Radar Monitor is communicating properly, if there are any active alerts, or if an intervention is needed.

Reference the legend below to help troubleshoot issues.

Status	Definition
Not Installed	Not installed, or no tank is associated to the device.
Critical High	Reading is above the Critical High threshold.
High	Reading is above the High threshold
Low	Reading is below the Low threshold.
Critical Low	Reading is below the Critical Low threshold.
Empty	Reading is below the Empty threshold.
Rapid Draw	Reading dropped by at least the Rapid Draw threshold within the configured timeframe.
Fill detection	Fill Detection or Collection Detection. Product-transfer event. For Delivery, significant increase means likely fill. For Collection, significant decrease means likely collection.
Inactivity Detection	No fills or consumption detected for an extended period of time. (Inactivity Detection feature must be enabled for this alert to be triggered.)
Comm Trouble	Communication trouble detected.
Waiting for Reading	Device is active but first received not yet received. Device may have just been installed.
OK	Reading is within normal range.

Members can watch
step-by-step installation
videos and shop online



Sign up free today

otodatatankmonitors.com/membership

Members can purchase monitors and accessories like gauges, leads, mounting equipment and more via our online store.

IMPORTANT

Please take a moment to carefully read the installation instructions included with your monitors, and ensure you understand and respect local regulations.

ABOVE-GROUND TANKS

**Do not install monitors
under lids.**

UNDERGROUND TANKS

**Plastic lid suggested.
Metal lids will obstruct
signal.**

Reading installation instructions will ensure maximum monitoring performance on all your tanks and installations.