





OWL User Manual

TECHNOLOGY ASSURANCE LABS

OWL User Manual

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Wall Mount Radio Installation

- 1) Before installation, first activate the radio in the desired location, to test its signal strength. To do so, begin by holding the radio, making sure not to cover the antenna.
- 2) While holding the radio, place the supplied magnet or stronger magnet on the arrow logo, and hold for two seconds. This activates the radio, which then transmits within 60 seconds.



- 3) To confirm radio activation and ensure the signal strength is good, refer to pages 3-5.
- 4) If the signal strength is good in the desired location, then follow the instructions below, #'s 5-9. If not, try other locations until the radio has a good signal strength.
- 5) When ready, mount the wall bracket upright on the surface.
- 6) Attach the radio to wall bracket, by sliding the radio down into the bracket, until it clicks into place.

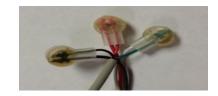




7) Insert the Hall Effect Sensor, into the dial on the propane tank.



8) If necessary, clip the wires from the radio and Hall Effect Sensor together:
(Red-Red) (Black-Black) (Green-Other)



9) Once everything is connected, activate the radio again to confirm that the signal strength is good, and being received.

Pit Radio Installation

1) Before installation, first activate the pit radio in the desired location to test its signal strength. To do so, begin by holding the radio, making sure not to cover the antenna, which is located on the flat top.



2) While holding the pit radio, place the supplied magnet or stronger magnet, on the flat top of the radio, in the location shown in the two pictures, and hold for two seconds. This activates the radio, which then transmits within 60 seconds.



3) To confirm radio activation and ensure the signal strength is good, refer to pages 3-5.

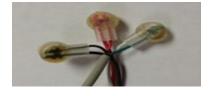


4) If the signal strength is good in the desired location, then follow the instructions below, #'s 5-8.

- 5) Insert the radio down through the hole in the lid. If there isn't already a hole, drill one. The flat top of the radio should be above the lid. Once through, secure with the supplied nut.
- 6) Insert the Hall Effect Sensor, into the dial on the propane tank.



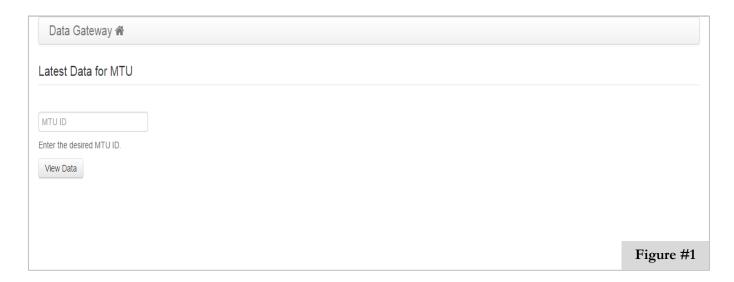
7) If necessary, clip the wires from the radio and Hall Effect Sensor together: (Red-Red) (Black-Black) (Green-Other)



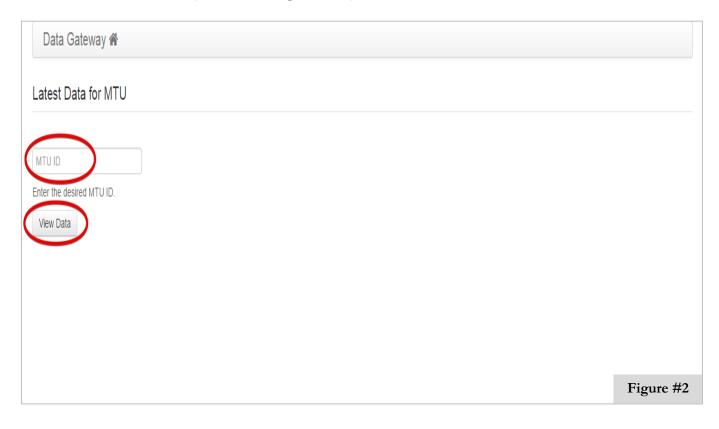
8) Once everything is connected, activate the radio again to confirm that the signal strength is good, and being received.

Confirming Radio Activation

1) To confirm your radio is activated, open your internet browser and go to http://tech.owlsite.net/. (Refer to Figure #1).

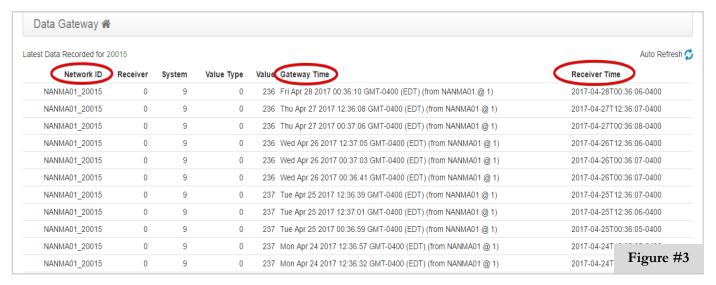


2) The Latest Data page opens. Enter the Radio ID, located on the bottom of the radio, into the box that says MTU ID. Then click View Data. (Refer to Figure #2).

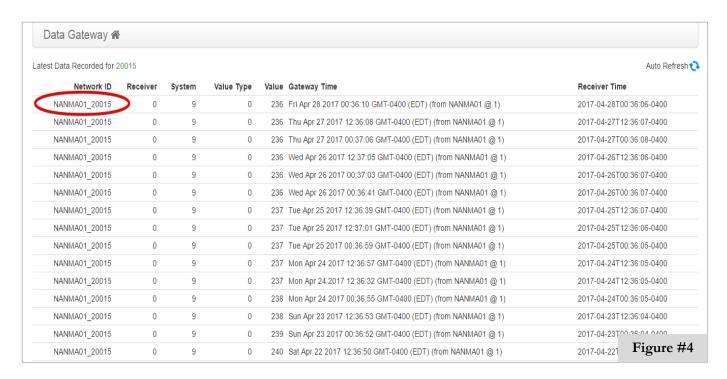


Confirming Radio Activation

3) The Latest Data page shows your Radio ID (Network ID), Gateway Time, and Receiver Time. (Refer to Figure #3).



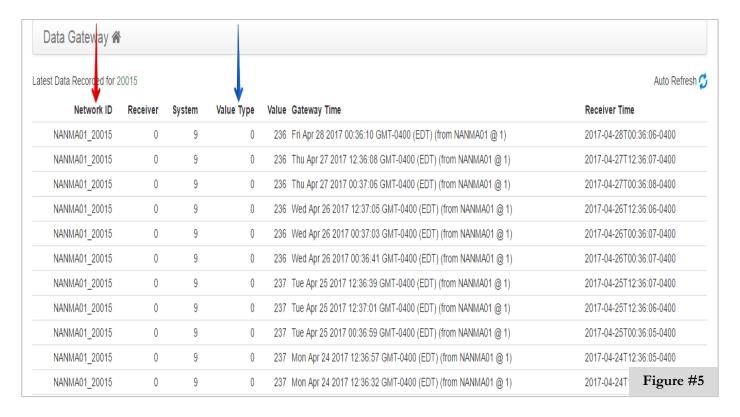
4) Check that the Radio ID has been activated and is visible under the Network ID column. (Refer to Figure #4).



Now that you have confirmed radio activation, you can repeat these steps, for each additional radio you activate.

Understanding Radio Activation

- ➤ When your radio is activated, it will be displayed on the Latest Data page, at http://tech.owlsite.net/
- The Radio ID that you just activated, should be visible under the Network ID column.
- ➤ Value Type column:
 - 0 = Sensor value
 - 1 = RF power reading
 - 6 = Manual activation
 - 7 = Hardware error, return radio for repair
- ➤ The Latest Data Recorded list will continually be refreshed and updated, as the radios send data to the receiver. (Refer to Figure #5).

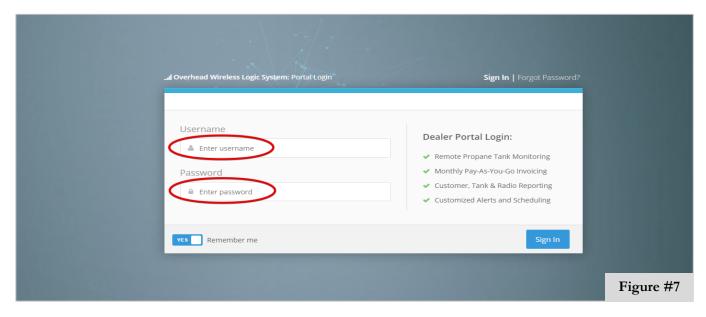


Accessing Your OWL Portal

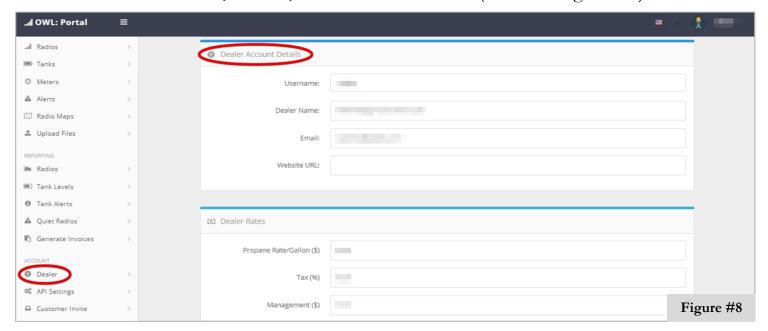
1) To access your OWL Portal, open your internet browser, and type https://portal.owlsite.net/ in the address bar, then click enter. You can also access the portal by going to our website, www.owlsite.net and clicking on dealer login on the top right of the menu. (Refer to Figure #6).



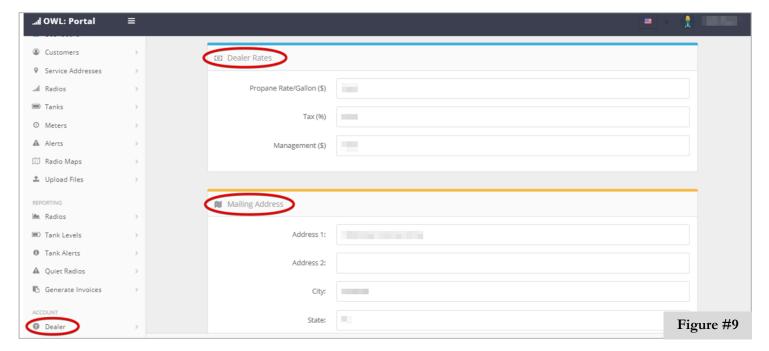
2) The Dealer Portal Login opens. Enter your assigned username and password, and then click Sign In. This opens the dashboard (homepage) of your OWL Portal. (Refer to Figure #7).



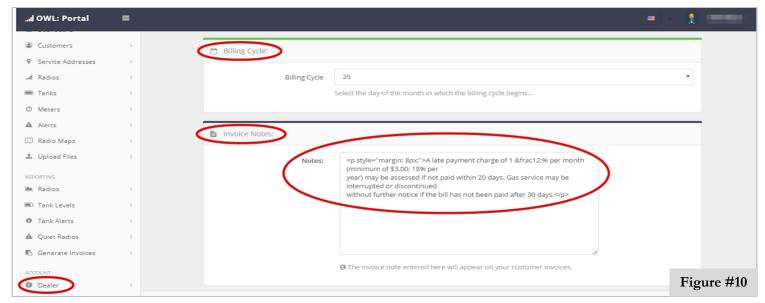
1) Once in your portal, scroll down on the menu until you get to the Account section. Click on Dealer. You will now setup your account profile. Fill in your Dealer Account Details: Username, Dealer Name, Email, and Website URL. (Refer to Figure #8).



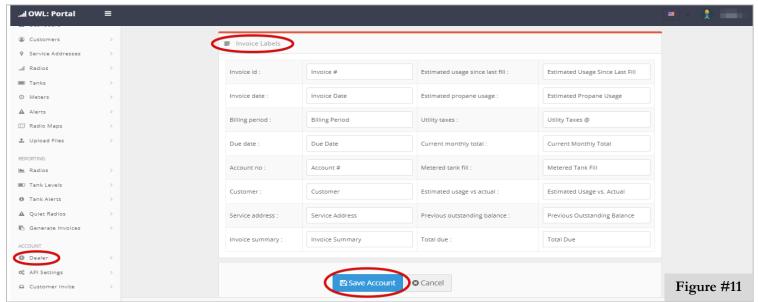
2) Next fill in your Dealer Rates: Propane Rate/Gallon, Tax, and Management. Then fill in your Mailing Address information. (Refer to Figure #9).



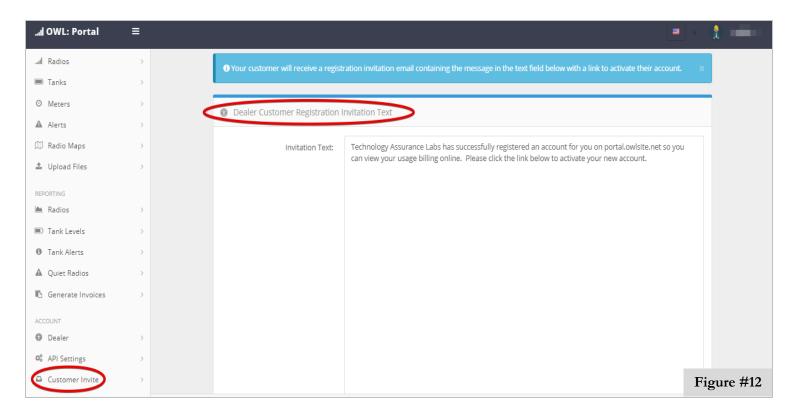
3) Now enter your Billing Cycle, by selecting the day of the month in which your billing cycle begins. Then add any Invoice Notes that you want to appear on your customer's invoices. Refer to the note below as an example of what you might want to include. (Refer to Figure #10).



4) Now it's time do decide what Invoice Labels you want to appear on your customer's invoices. You can edit the text and or choose not to use some of the Invoice Labels by leaving them blank. Once you are done click Save Account at the bottom of the page. (Refer to Figure #11).

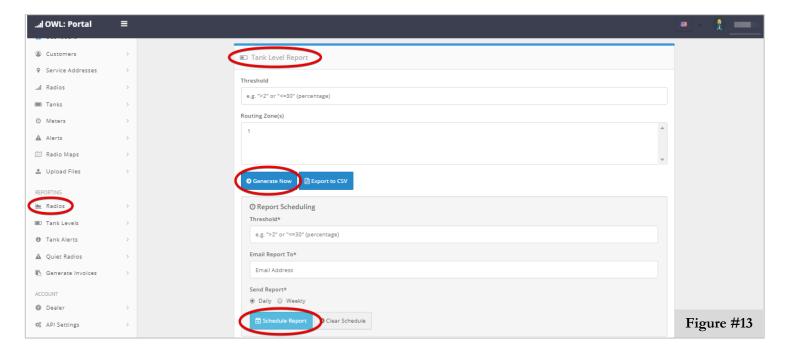


5) Next click on Customer Invite. Here you will edit the Invitation Text you send your customer when they want to activate their own portal. You can replace Technology Assurance Labs with your company name and any other information you want to add to the invitation. Once done click Save Invitation Text at the bottom of the page. (Refer to Figure #12).

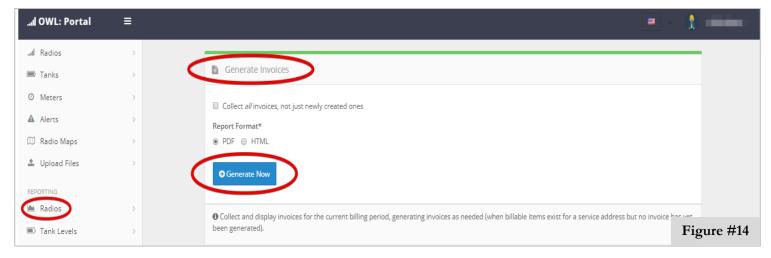


- 6) Next setup your reporting. Scroll up on the menu until you get to the Reporting section. Click on Radios. Fill in the following sections with the information for the reports and alerts you want to receive: Tank Level Report, Quiet Radio Report, Tank Level Alerts, and Alerts. (Refer to Figure #13).
 - If you want to view a report at any given time click Generate Now or you can schedule to receive your reports daily or weekly by clicking Schedule Report.

Make sure to click Save Settings under Tank Level Alerts and Alerts once you have filled in the information.

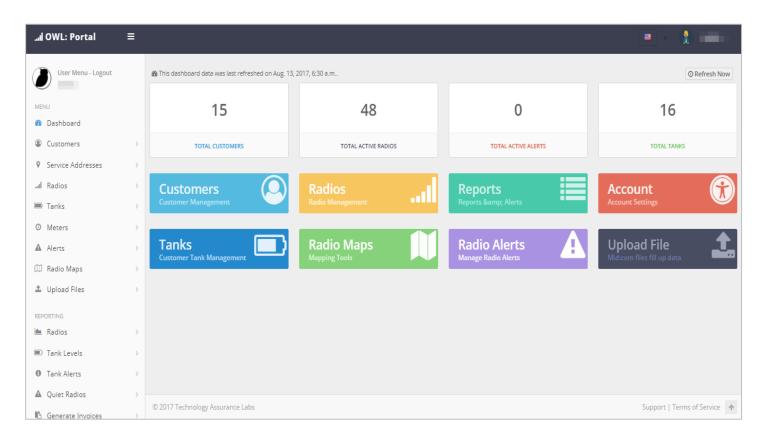


7) Under Generate Invoices you can choose to view your invoices at any time. Check whether you want to collect all invoices or leave blank if you want just the newly created invoices. Select your report format then click Generate Now to view them. (Refer to Figure #14).



8) The inital setup is done and you can now explore your portal.

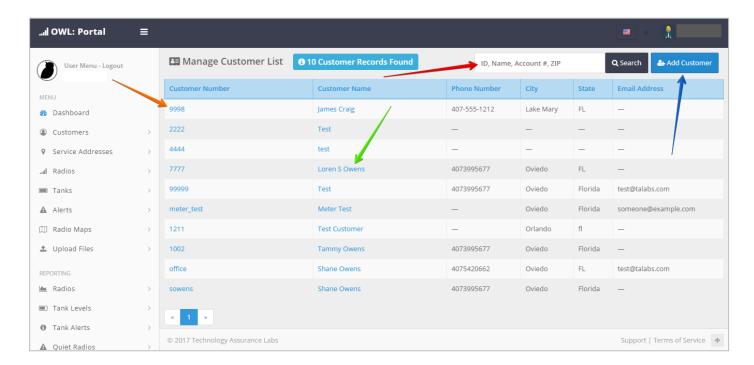
Navigating Your OWL Portal



This is the dashboard of your OWL Portal; from here you have many tools at your disposal:

- Customers: Create and manage customers and contact information.
- Radios: Manage radios and check provisioned status.
- Reports: View and export tank level and fill-up statistics.
- *→* **Accounts:** View and edit your account settings.
- Tanks: Manage and view the fill levels of all your customer's tanks.
- radio Maps: View a map of provisioned tanks and levels.
- rightharpoonup Radio Alerts: Manage and view a list of customer tank alerts.
- □ Upload File: Select a Mid: Com file to upload fill-up data.

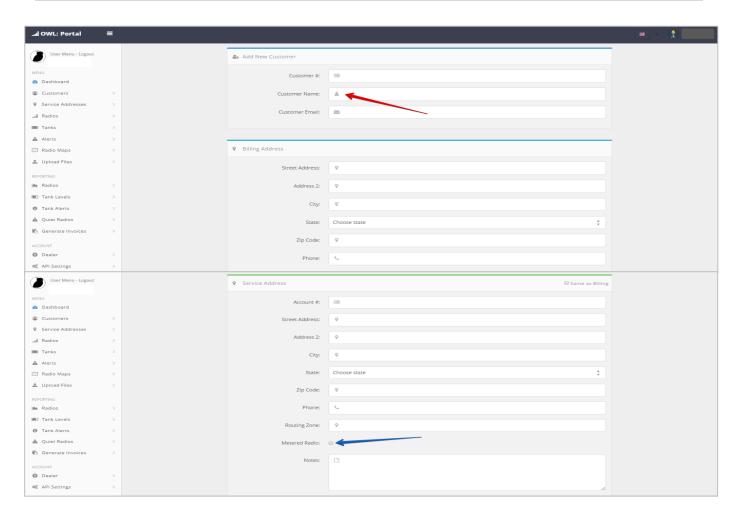
Customers



The Customers section of your OWL Portal, allows you to create and manage customers, and contact information.

- ➤ The search tool enables you to quickly find a specific customer, by entering either their Customer ID, Name, Account #, or Zip.
- The +Add Customers button, allows you to enter new customers into your portal, by creating a Customer Number and Name, along with filling in the Billing and Service Addresses, Tank information, and adding any Notes needed about the account, or for the technician.
- ➤ Clicking on a Customer Number enables you to view and edit the customer's Details, Billing and Service Addresses, Tank, Radio ID, Last Reading, and Last Fill-Up.
- ➤ Clicking on a Customer Name enables you to view and edit the customer's Details, Billing and Service Address, Tank, Radio ID, Last Reading, and Last Fill-Up.

Add Customer



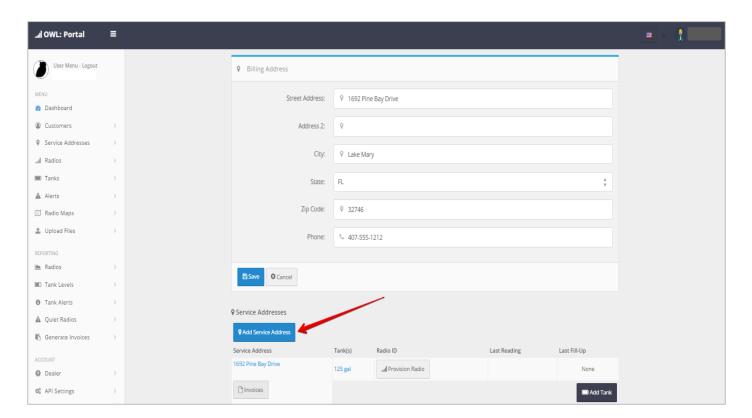
The Add Customer page, allows you to enter new customers into your portal.

To access this page, click on the Add Customer button, on the main page of the Customers section at the top right.

- You can create a Customer Number and Name, then fill in the Billing and Service Addresses, Tank information, and add any Notes needed about the account, tank, or for the technician.
- ➤ If you are using a metered radio, make sure to check the box that says Metered Radio, at the bottom of the Service Address section, above notes.

When done entering information, click Save at the bottom of the page.

Customer Details



The Customer Details page, allows you to view each customer's information.

To access this page, click a Customer Number or Name, listed on the main page of the Customers section.

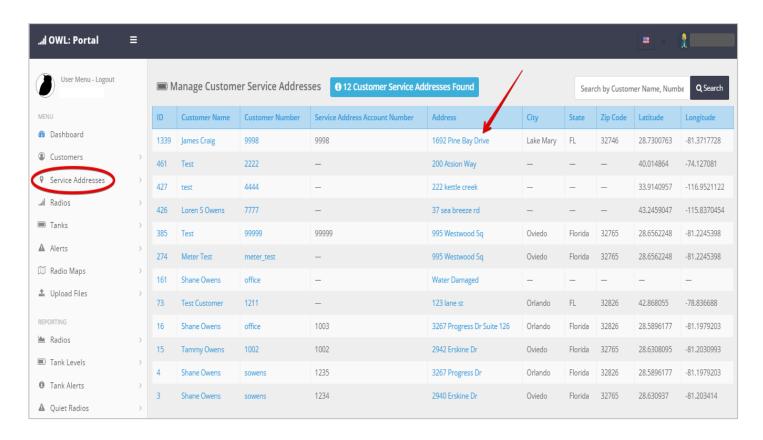
You can view or edit the Customer Details and Billing Address.

If you edit the information make sure to click Save, underneath Billing Address.

➤ You can add another service address to this account by clicking on +Add Service Address.

The customer's Service Address, Tank, Radio ID, Last Reading, and Last Fill-Up are also visible at the bottom of the page.

Service Addresses



The Service Addresses page, allows you to view the details of each customer's service address.

To access this page, click on Service Addresses, listed in the side menu on the left of your portal.

You can view or edit the Service Address information, Notes, Account Balance, and Rates by clicking on the Customers Address.

After clicking on an address, you can also view or add a Tank and Fill-Up, and adjust or view Invoices, by clicking on each tab located to the right of the edit service address tab.

If you edit the information, make sure to click Save at the bottom of the page.

Radios

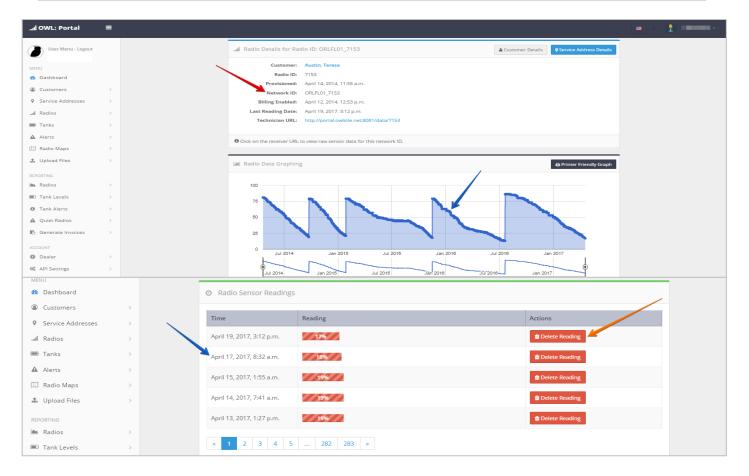


The Radios section of your OWL Portal, allows you to manage radios, and check provisioned status.

Main Page: view a full list of your radios, containing the Radio ID, Customer Number, Service Address, Last Reading, Network ID, Provisioned status, and Customer Name.

- The search tool enables you to quickly find a specific radio, by entering the Radio ID or Customer Number. To view all radios with fill levels above a specified amount, type < followed by the value. For example, if you want to view all fill levels above 30% you would type <30 in the search bar.
- Provisioned Date and Time, Network ID, Billing Enabled Date and Time, Last Reading Date, Receiver URL, and a list of the recorded Readings.
- Clicking on a Customer Number enables you to view the entire customer's information, including Billing and Service Addresses, Tank, Radio ID, Last Reading, and Last Fill-Up.
- Clicking on a Service Address enables you to edit the current Service Address, view or add a Tank and Fill-Up, and adjust or view Invoices.

Radio Details

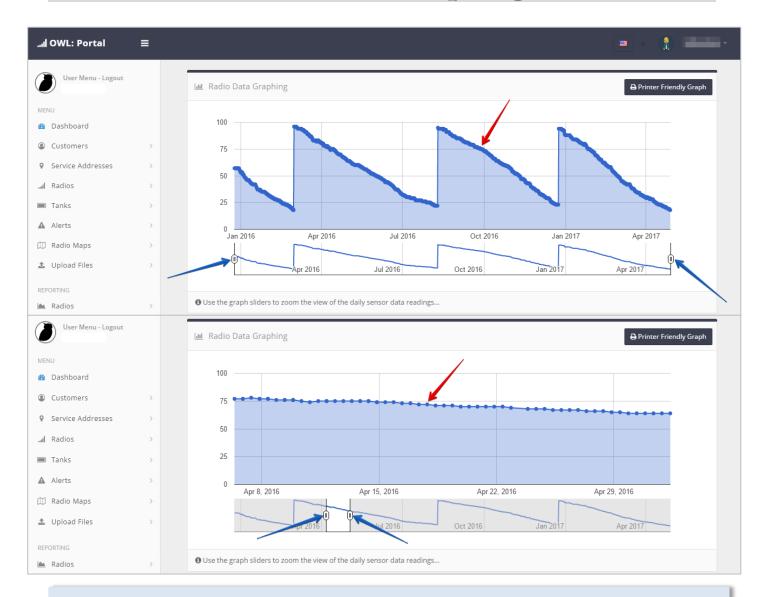


The Radio Details page allows you to view the details of each radio.

To access this page, click on a Radio ID, listed on the main page, of the Radios section.

- ➤ You can view the Radio ID, Provisioned Date, Network ID, Billing Enabled Dare, Last Reading Date, and the Receiver URL, located in the top left corner of the page.
- You can view a graph of the recorded radio readings, followed by a list of all the readings detailing the date, time, and reading (tank level) which is recorded every day, once the radio is activated.
- ➤ If you wish to delete a specific Reading, click the Delete button, to the right of each reading you want to delete.

Radio Data Graphing

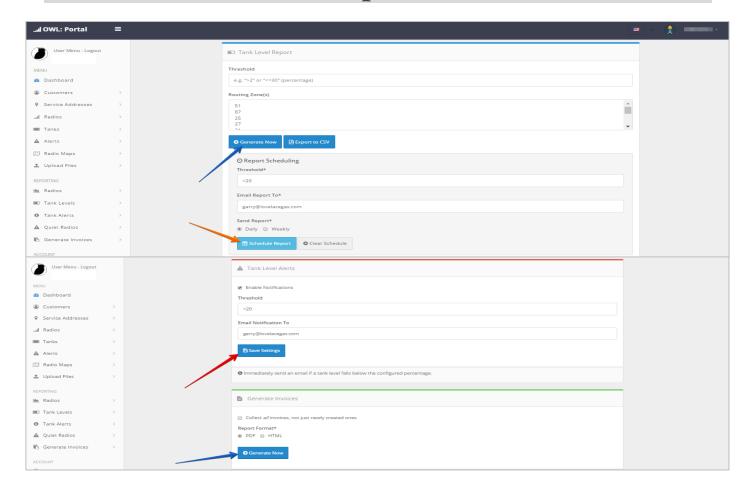


The graphing feature is located on the Radio Details page. To get there go to the Radios section, then click on a Radio ID that you want to view.

The graph displays the Readings of the radio, from date of activation to present date.

- The blue dots on the graph line represent each reading from the radio. By moving your mouse over the circles, you can view the date and reading.
- In order to zoom in on a specific date, move the scroll bars underneath the graph, either left or right, to narrow down the dates.

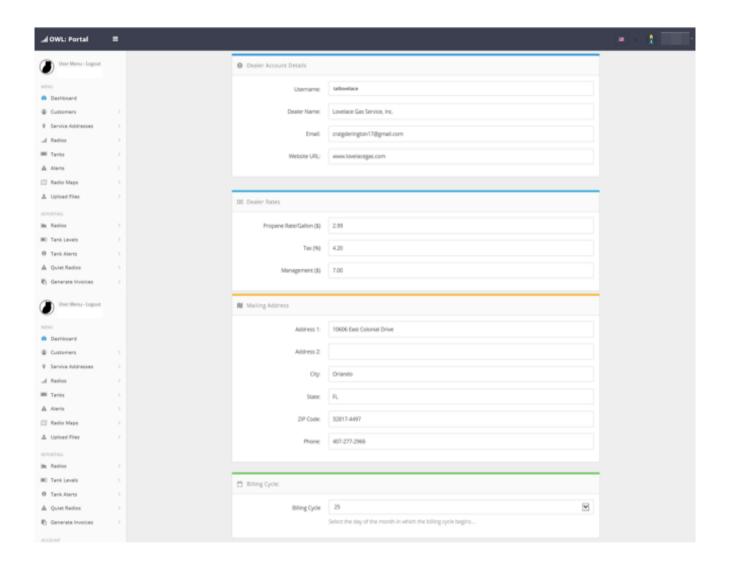
Reports



The Reports section of your OWL Portal, allows you to view and export tank level and fill-up statistics.

- Alerts: send a daily email when the system detects anomalous data: missing fill-up, test data or stuck dial. To setup Alert, enter in the information and requirements, then click "Save Settings."
- Tank Levels, Quiet Radios, and Generate Invoices: generate instantly, by filling in the requirements and clicking "Generate Now," to view a list of customers matching the specific requirements.
- ➤ Tank Levels and Quiet Radios: setup to have reports sent out to a selected email address daily or weekly, by filling in the specific information, and clicking Schedule Report.

Account

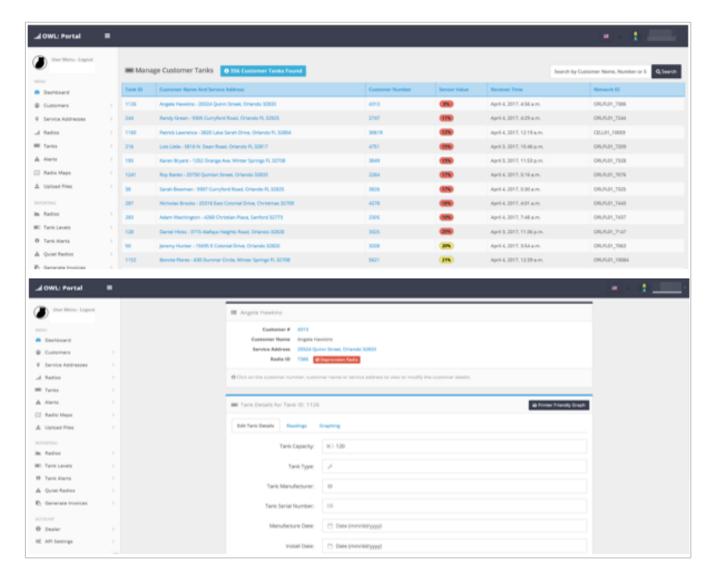


The Account section of your OWL Portal, allows you to view and edit your account settings.

In this section, you can edit your Dealer Account Settings, Dealer Rates, Mailing Address, Billing Cycle, Invoice Notes, and Invoice Labels.

If you make any changes make sure to click save account at the bottom of this page.

Tanks

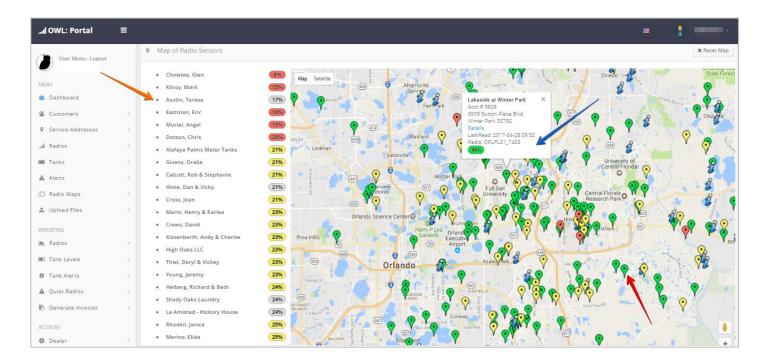


The Tanks section of your OWL Portal, allows you to view your tanks and customer information.

In this section, you can view the Tank ID, Customer Name and Service Address, Customer Number, Sensor Value (Tank Level), Receiver Time, and Network ID.

By clicking on a Tank ID, you will be directed to the Tank Details page where you can edit the details or view the readings and graphs.

Radio Maps

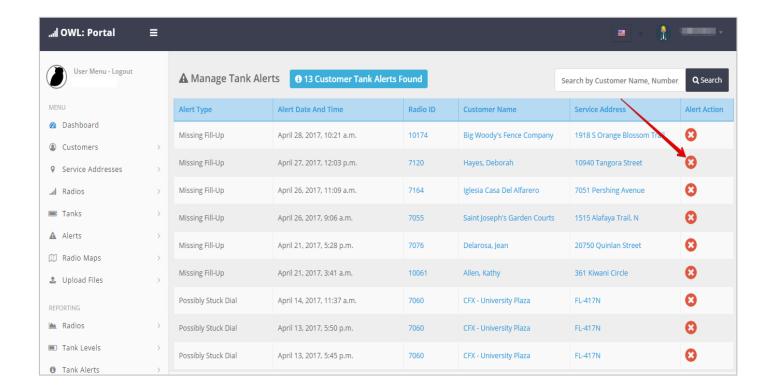


The Mapping section of your OWL Portal, allows you to view a map of provisioned tanks and levels.

Main Page: displays a map, with pins representing all the radio locations. A list of all the radios, containing the customer names and fill level from their last reading, are listed along the left side of the screen.

- ➤ Holding the mouse over each of the different pins on the map will show the customer name.
- ➤ Clicking one of the pins on the map will bring up a box listing the Customers Name, Customer Number, Service Address, a Details button that brings you to the Customers Details, and the Last Reading.
- ➤ Zooming in on a specific location of the map, will show only the customer names located inside that enlarged area. The names will be displayed in the list along the left side of the page.

Radio Alerts

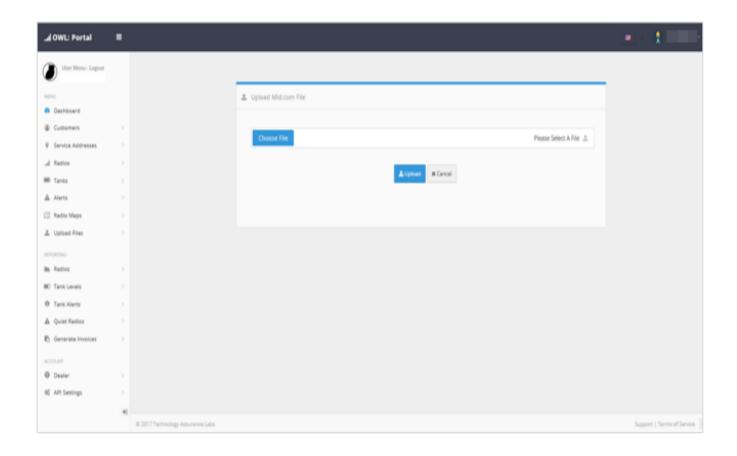


The Radio Alerts section of your OWL Portal, allows you to view any alerts that are reported from your radios.

In this section, you can view the Alert Type, Alert Date and Time, Radio ID, Customer Name, Service Address, and Alert Action.

After viewing the alert if you want to clear it from the list you can click on the x under Alert Action.

Upload File



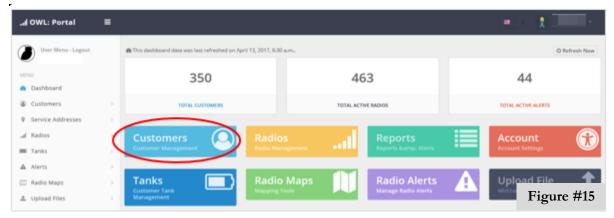
The Upload File section of your OWL Portal, allows you to upload your files with your fill up data.

Choose the file that you want, then click Upload.

Customer Portal Account

Using this option allows you to give customers access to view their online account and usage.

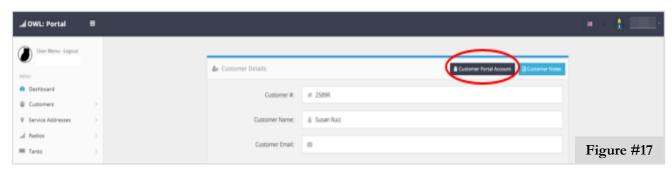
1) From the dashboard of your portal, select Customers. (Refer to Figure #15).



2) Then locate the customer you wish to grant access to, and click on their Customer Number. (Refer to Figure #16).

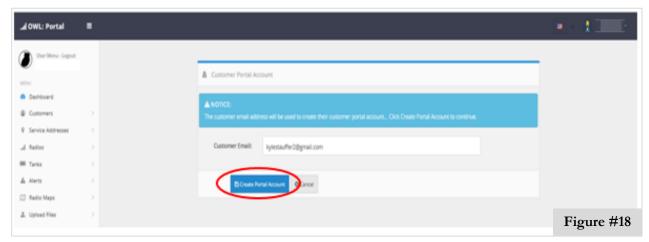


3) On the customer details page, first make sure there is an email filled in for the customer. If not, fill it in and click save at the bottom of the page. Then locate the Customer Portal Account in black, at the top of the page, and click on it. (Refer to Figure #17).

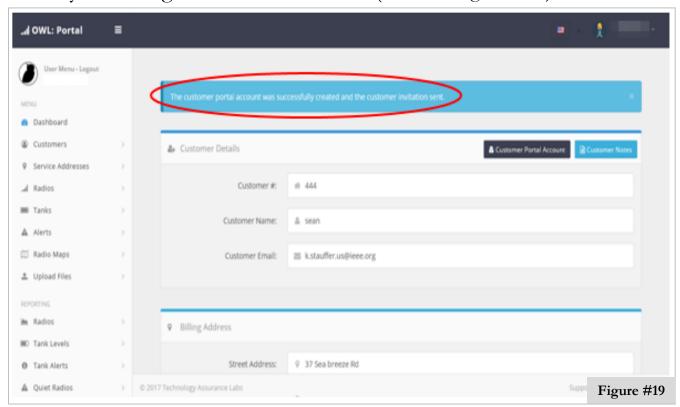


Customer Portal Account

4) Make sure the email is correct, then click Create Portal Account. (Refer to Figure #18).



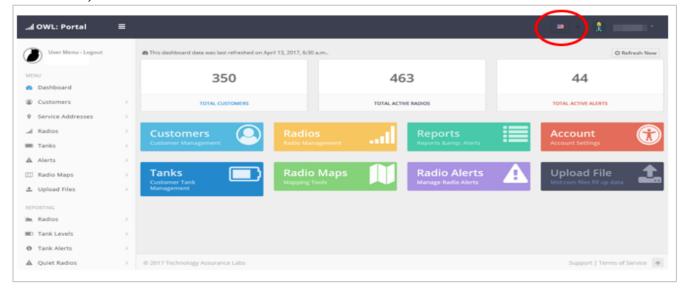
5) A message should appear in blue above your Customer Details, saying the customer portal account was successfully created. Your customer will receive an email detailing that they now have a registered account, and can view their online account and usage, by following the link in the email. (Refer to Figure #19).



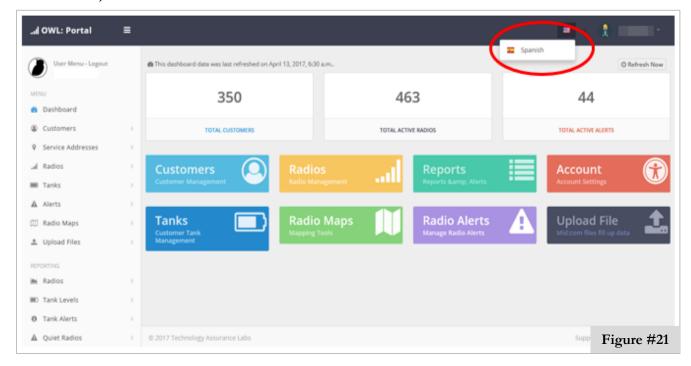
Internationalization

Within the OWL portal you can change the language to suit your needs.

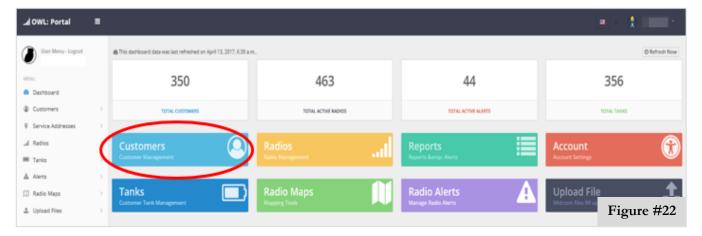
1) From the dashboard of your portal, locate the flag on the top right of your dashboard, next to your username. (Refer to Figure #20).



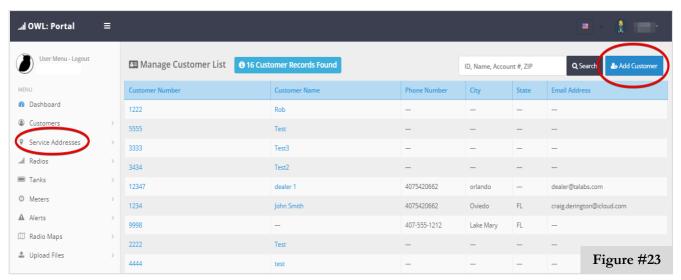
2) Click on the flag, then select your desired language. (Refer to Figure #21).



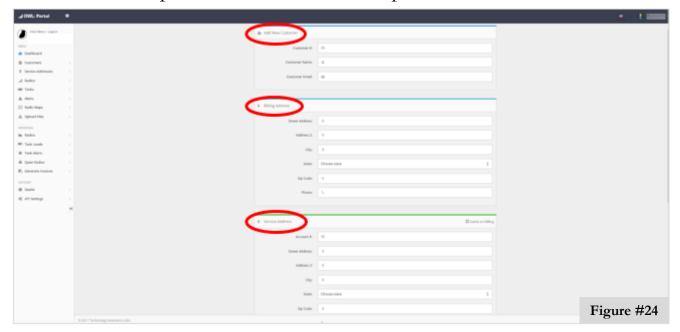
- 1) It's time to provision the radio to the customer. Log into your dealer portal (refer to page 6 if needed.)
- 2) On the dashboard of your portal, locate the Customers section in the upper left side, and click on it. (Refer to Figure #22).



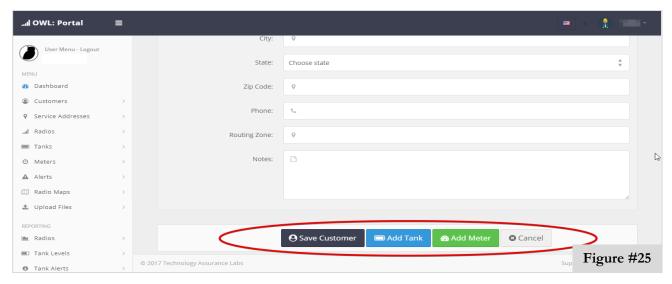
- 3) The Customers page opens. Click +Add Customer in the top right corner of the portal.
 - ➤ If you have already entered customers prior to this, click on Service Addresses, then click the address of the customer you want to provision and click on Add Tank or Add Meter. Continue on following the instructions from # 6 for Tanks and # 7 for Meters. (Refer to Figure #23).



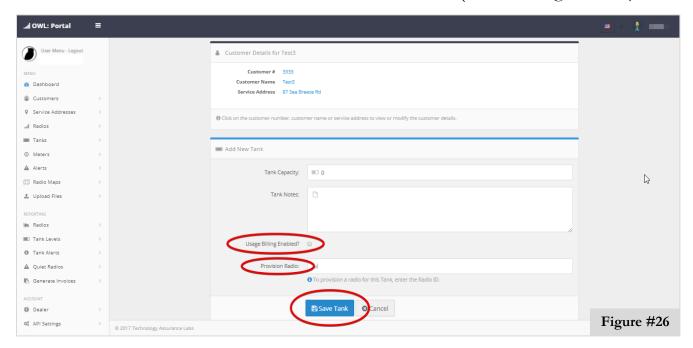
- 4) Complete the information for the customer, adding any notes about the account, or for the technician. (Refer to Figure #24).
 - ➤ IMPORTANT: Be sure to enter a Customer Number and Service Address. Both of these are important because they allow provisioned radios to be paired with their accounts.



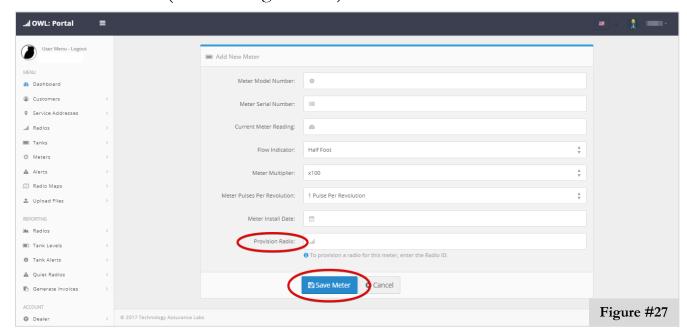
5) If ready to provision, then select either Add Tank or Add Meter. If not, click Save Customer and you can provision at a later date by referring to the bullet under instruction # 3. (Refer to Figure #25).



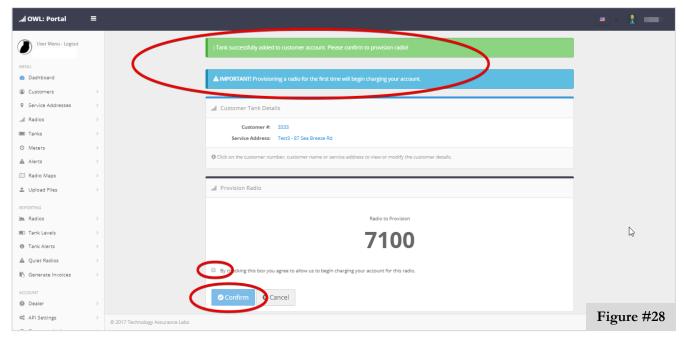
6) If using a tank, enter the capacity or any notes about the tank. If the customer will be using our Pay As You Go option, click the box next to Usage Billing Enabled. Enter the Radio ID in the Provision Radio box then click Save Tank. (Refer to Figure #26).



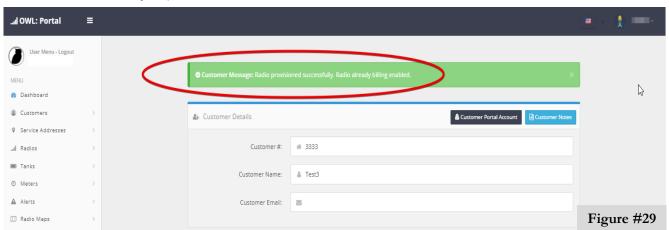
7) If using a meter enter the information such as model #, serial #, etc. Enter the Radio ID in the Provision Radio box then click Save Meter. (Refer to Figure #27).



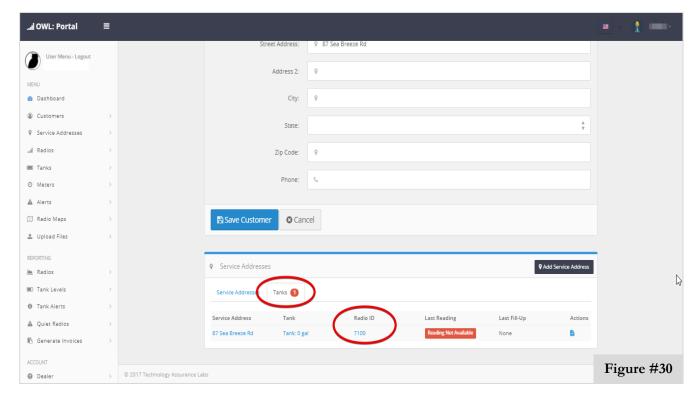
- A confirmation page opens listing the Customer Number, Service Address, and the Radio ID that you are about to provision. At the top, it should say Tank or Meter successfully added to customer account. To complete the provisioning, check the box that confirms agreement to begin charging your account for this radio. Click Confirm. (Refer to Figure #28).
 - To correct a mistake, click on the customer number, name, or service address to view or modify the customer details.



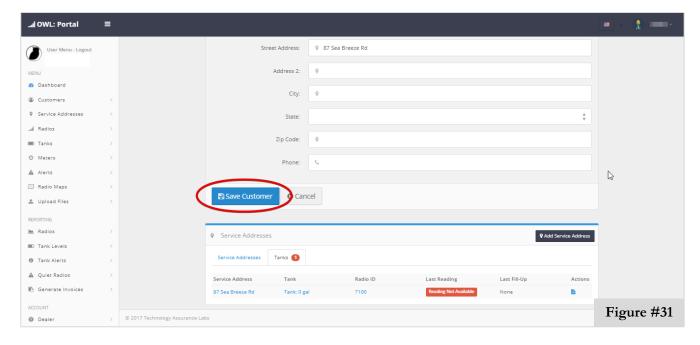
9) After you click confirm, the Customer Details page will open, and at the top you should see Customer Message: Radio Provisioned Successfully. (Refer to Figure #29).



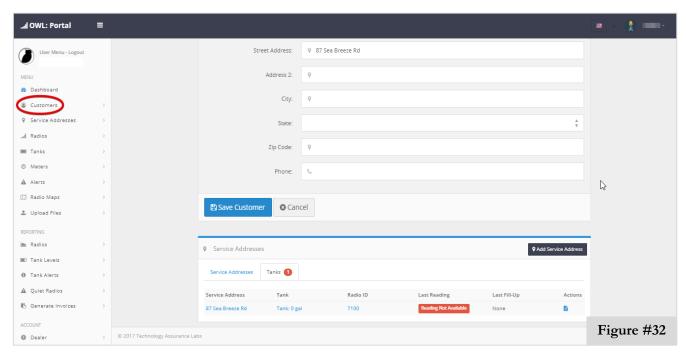
10) At the bottom of the Customer Details page you can see the newly provisioned radio by clicking on Tanks. The radio will be located under the Radio ID. (Refer to Figure #30).



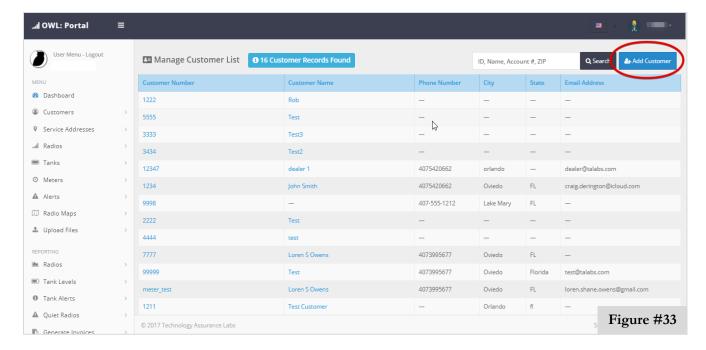
11) If you are satisfied that the information is correct, click Save Customer. (Refer to Figure #31).



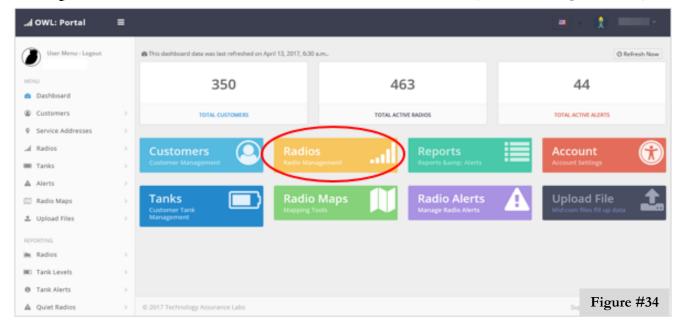
12) To enter another new customer account, click Customers on the left side of your portal. (Refer to Figure#32).



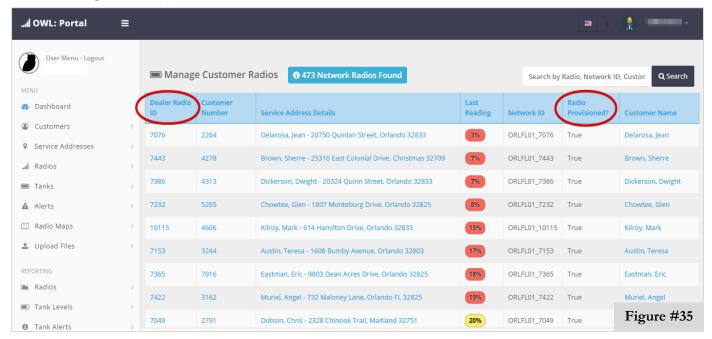
13) Next click +Add Customers and repeat instruction #'s 4-11. To provision existing customer accounts, refer back to the bullet under instruction # 3. (Refer to Figure #33).



14) If you want to review the radios that you have already provisioned, click Radios on the dashboard. (Refer to Figure #34).



15) On the Radios page, you can view the Radio ID's and their provisioned status, along with the Customer Details. (Refer to Figure #35).



Now that you have completed provisioning the radios, you are ready to begin using **OWL**, and discovering its many capabilities.

Device and Service:

How often does the radio transmit tank level data?

Twice a day is standard, but it can be programmed to transmit more often which voids the battery warranty.

What makes your radio better than the competition (Wesroc, Centeron, Enertrac, Tanklink, etc.)?

- Best battery warranty in the business.
- ➤ 2 transmissions per day (always have current data when speaking to customers about their account).
- Pay-as-you-Go and data fees are included in the monthly monitoring cost and not add on fees or features.
- ➤ Open RESTful API architecture to allow for back office integration included.

Does the portal provide route planning/optimization?

Currently no, we have route filters in place which allow you assign accounts to routes and then run reports on tanks filtered by routes. This would allow you to provide a driving with all tanks on his route below 20% for example.

Are your tank radios "Intrinsically Safe" or "UL Certified"?

No, the sensor attachment is certified intrinsically safe and we are working on completing this testing of the radio but until then, the radio should be mounted at least 6ft from the tank if possible.

Device and Service:

What is the cost of the radio and are there discounts for larger purchases?

We have many radio options and discount levels based on your needs. Discounts are given for larger orders and are something that is handled on a case by case basis depending on the long-term value of the customer. We will need to be involved in discounting negotiations if they get above 250 or so radios, but until then sales personnel should advise the customer they will get back to them with a price point after determining how many radios the customer desires. Please contact us to discuss your options.

Will the radio alert me when a tank gets critically low?

Alerts can be setup in the portal to trigger on any number of criteria. Immediate alerts for a tank passing a threshold, daily alerts for all tanks below a set point, etc. are available. Refer to the manual for how to set these up.

Can I provide a login to my customer to allow them to view their tanks?

Yes, to setup the login go to the Customer Details in the portal for that customer and click the Customer Portal button near the top. Customers must be assigned a service address and have an email. They will be sent a welcome message with instructions on how to activate their account.

Can the customer welcome message be customized?

Yes, under the Account section of the Dealer Portal you can edit the Invoice and Welcome messaging used for your notifications.

Device and Service:

What file types do you support for uploads?

Currently we support Mid-Com file types for direct upload, but the RESTful API interface is able to support the exchange of any system information through standard API calls.

What other radios type or applications do you have?

- We have 2 different types of systems (Cellular or Fixed Wireless).
- Fixed Wireless is for dedicated system builds and requires a lot of pre-engineering and planning. We will need to be involved but it allows a dealer to own his entire system and not have to rely on cellular or satellite. Similar to if he installed a 2-way radio system for his trucks.
- ➤ In both radios types, we support tank radios and meter radios. Meter radios require a pulse output on the meter they are connected to or they can be retrofitted with them (cost varies by meter type).
- The pit radio is only available as a fixed wireless device currently.

Can you monitor diesel tanks or heating oil tanks?

Yes, as long as they are equipped with a dial type gauge. Other level option may be developed given sufficient Qty.

Do you offer trials for your system?

Yes, we currently offer a 60-day free trial (Must sign agreement prior to being accepted).

Device and Service:

Can I query the radio for an immediate read (2-Way communication)?

Currently only the Fixed wireless system offers a 2-way option.

Is there an additional fee if I need a radio to transmit more frequently?

Yes, if the radio transmits more than 6 times per day an additional fee of \$1 per month will be assessed for that radio to allow for it to exceed its data cap.

Do I have to buy blocks of cellular data for the radios?

No, the data fees are included in the monthly monitoring costs.

Can I use my own sim cards for the radios?

Generally, no, but special consideration may be made under extraordinary circumstances. Our carrier agreement allows us to operate in 118 countries currently.

Portal Usage and Functions:

When activating the radio, can I use a different magnet than the one supplied?

Yes. As long as the magnet is the same strength (10 lbs.) or larger.

Portal Usage and Functions:

When confirming radio activation, why isn't my radio visible in the MTU ID column?

If the radio isn't visible, repeat holding the magnet on the specified area for 10 seconds. If the problem persists, try moving the radio to a different location to test.

Do I need to continually check the radio values in the Latest Data Received page, after activation?

No. As long as the radio is visible you don't need to continually check, unless a problem persists.

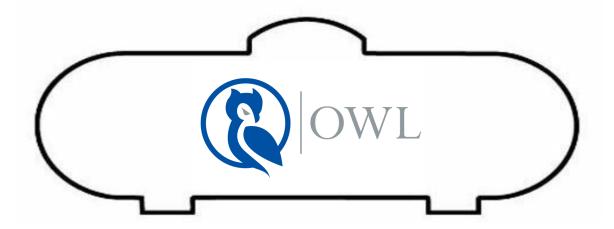
Can I enter new customers into the portal before activating the radio?

Yes. Once the radio is activated, click on Service Addresses, then click the address of the customer you want to provision and click on Add Tank or Add Meter. Continue on following the instructions from # 6 for Tanks and # 7 for Meters, in Provisioning Your Radios.

If I make a mistake entering customer information in the portal, can I change it?

You can always edit the customer information by clicking on the Customer ID, Radio ID, or Service Address, then changing the information. Make sure to click Save, before exiting.

Safety Note



SAFETY NOTE:

Your wall-mounted OWL radio transmitter is easy to install and activate. However, you should be aware that your wall-mounted OWL radio is not yet certified under Underwriters Laboratories (UL) Standard 913 as "Intrinsically Safe". This means that it is not designed to prevent it from becoming an ignition source for any flammable vapors that reach its components.

<u>DO NOT</u> install this OWL radio transmitter in a location that is within 5 feet of flammable gas source. The transmitter MUST be installed a MINIMUM of 5 feet or more from gas source. Failure to comply with this installation instruction could result in an explosion and fire, causing serious personal injury, death or property damage.





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