

PULSE HUB

STEP-BY-STEP INSTALLATION INSTRUCTIONS



PULSE HUB

STEP-BY-STEP INSTALLATION



STEP 1:

Included with the HUB is a form titled “Pulse Hub Network Setup.” Find this form. (Notice the back of the form includes information useful to your IT department.)

STEP 2:

The first field on the form is “HUB MAC Address,” which is labeled on the side of the HUB. There are two MAC addresses, one for Ethernet and one for Wi-Fi.

Graco recommends connecting the HUB via Ethernet, so write the “ETH MAC” address on the Network Setup form.

STEP 3:

The next section states “TO BE FILLED OUT BY END USER.” This information is obtained from the IT department of the installation site.

Ask your IT department if they can “bind” an IP address to the MAC address of the HUB.

- If yes, then ask them to do so.
- If yes, also ask them to assign a DNS name to the HUB as well.
- If no, then it will be necessary to use a Static IP address for the HUB.

Pulse® Hub Network Setup

The HUB is a networked device that is part of the Graco Pulse fluid management system. The device will operate on your LAN and generate a webpage for end-users to interact with Pulse. As other devices, like PCs on your network, need to be able to reliably find and display this hosted page, the HUB should be given a non-changing IP address. If the option exists, adding the device to your local DNS would also make it more intuitive to find the Pulse system webpage through a browser. The form below assists with setup of Pulse by allowing you to specify how you would like to set up the HUB on your LAN:

TO BE FILLED OUT BY INSTALLER	
HUB MAC Address	<input type="text"/>

TO BE FILLED OUT BY END USER	
SELECT ONE BELOW	
<input type="checkbox"/> DHCP with reserved IP IP address <input type="text"/>	<input type="checkbox"/> Static IP assignment Netmask <input type="text"/> IP address <input type="text"/> Gateway <input type="text"/> DNS <input type="text"/>

HIGHLY RECOMMENDED
If you intend on configuring local DNS to assist with finding the Pulse web page, please fill out the following: <input type="checkbox"/> Local DNC url <input type="text"/>

Pulse® Hub Email Setup

Pulse Software utilizes emails for system notifications and automated reporting. To enable this function an outgoing, smtp mail server must be set up in the software for sending emails.

TO BE FILLED OUT BY END USER	
Outgoing (SMTP) Mail Server SMTP Server <input type="text"/> SMTP Port <input type="text"/>	Mail Server Authentication <input type="checkbox"/> TLS (typically port 587) <input type="checkbox"/> SSL (typically port 465) <input type="checkbox"/> Authentication Username <input type="text"/> Password <input type="text"/>

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STEP 4:

Ask your IT department to assign a domain name to the HUB.

Graco **highly recommends** giving the HUB a domain name. Without a name, all users of the Pulse software will need to remember the numerical IP address to access the HUB.

STEP 5:

To enable email notifications from the HUB, your IT department must also provide the information for the fields at the bottom of the form.

- The SMTP Server address is unique to every site.
- The SMTP Port is normally 25, but your IT department might use a different port number.

Once this form is completed, you're ready to install the HUB onto the local network.

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STEP 6:

Mount the hub securely to a wall or other location selected by the end user. It should be mounted near the location used to refill roll-around dispense pumps.

STEP 7:

Connect the Remote Antenna (RA) to the hub using the USB cable provided.

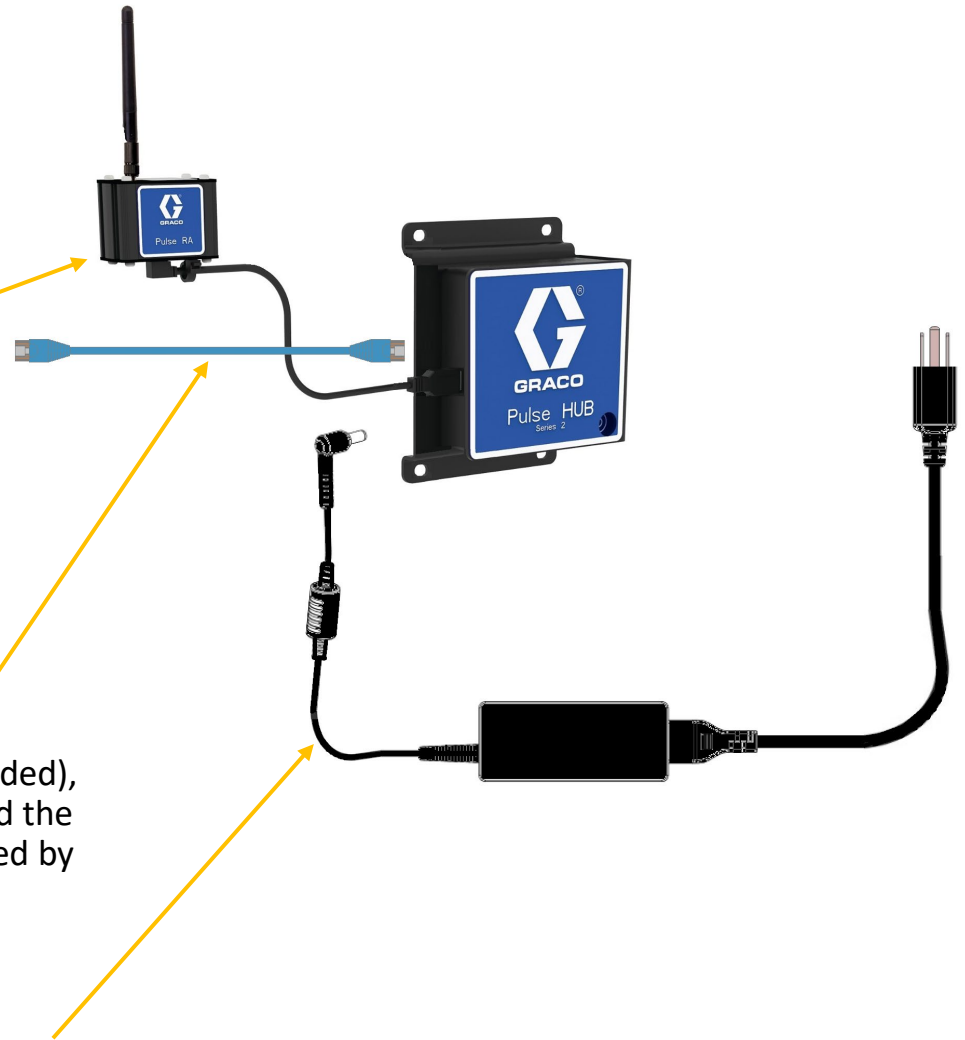
- If your IT department provided a Static IP address, skip to step 13 now.

STEP 8:

To connect to your local network by DHCP (recommended), connect one end of the Ethernet cable to the HUB, and the other end to the Ethernet port in your network selected by your IT department.

STEP 9:

Connect the power cable to the HUB and plug it in to a power receptacle.



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STEP 10:

The HUB may require up to 10 minutes to start up before you can access it. Please wait 10 minutes, then proceed to step 11.

STEP 11:

Open a web browser. In the Navigation box, type the Reserved IP Address that your IT department wrote on the Pulse Hub Network Setup form, then press Enter.

Common examples of web browsers include

- Chrome
- Edge
- Safari
- Firefox

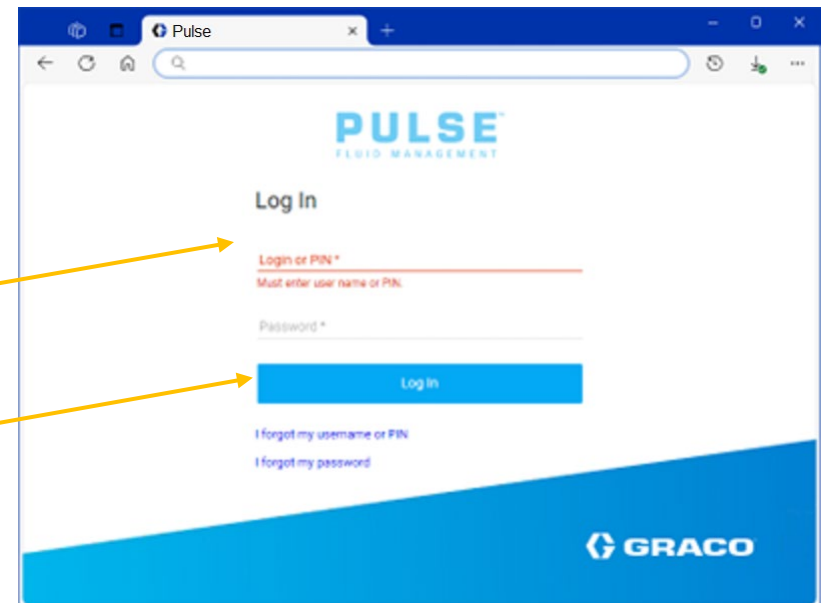
STEP 12:

If the IP address has been entered correctly, the Pulse Log In screen will show on your device.

- For the Login, type “admin”
- The password is “pulse”

After the Login and password are entered, click the “Log In” button to continue.

When using DHCP, the installation is this simple, so you can now skip to step 30.



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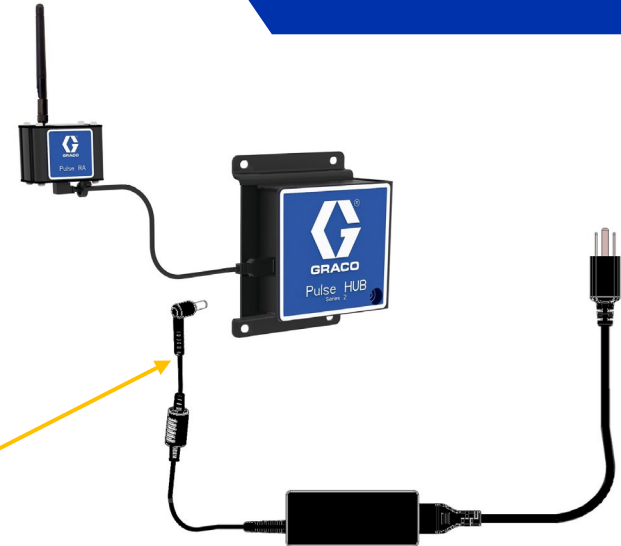
To use a **Static IP** address on the HUB, you must first connect to the HUB via its Wi-Fi hotspot.

STEP 13:

Check the HUB for an Ethernet cable. If an Ethernet cable is connected to the HUB, disconnect the cable from the HUB before proceeding.

STEP 14:

Connect the power cable to the HUB and plug it in to a power receptacle.



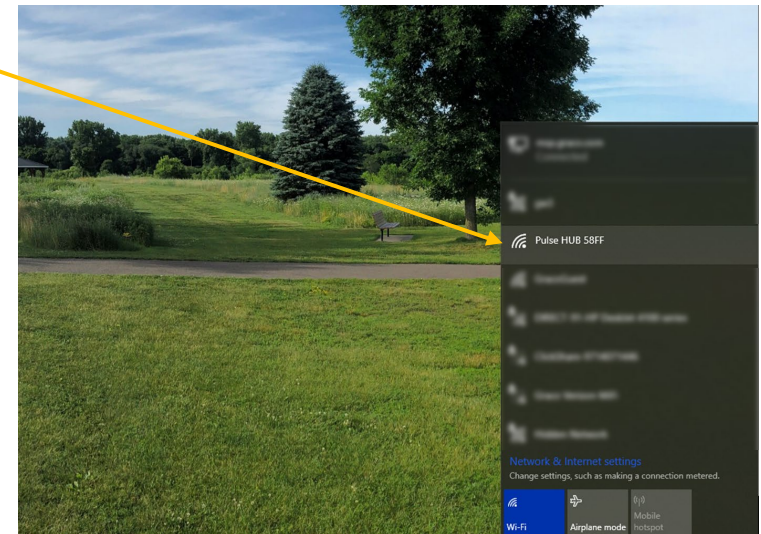
STEP 15:

Use your computer to connect to the HUB via Wi-Fi. It will be listed as an available network named “Pulse Hub” followed by some numbers and letters.

- You must connect within 5 minutes of powering the HUB
- If you miss this 5-minute window, simply unplug the HUB and start over with Step 13.

STEP 16:

The HUB may require up to 10 minutes to start up before you can access it. Please wait 10 minutes, then proceed to step 17.



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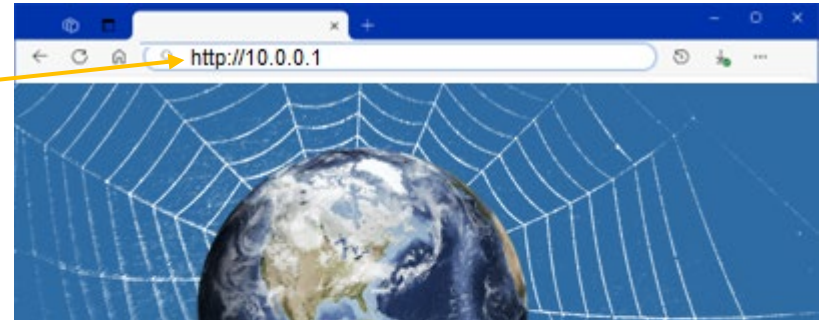


STEP 17:

Open a web browser and type “http://10.0.0.1” in the Navigation box, then press Enter.

Common examples of web browsers include

- Chrome
- Edge
- Safari
- Firefox

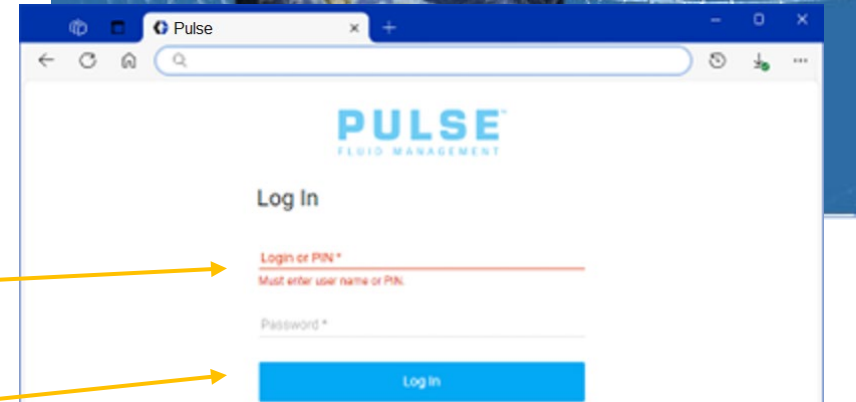


STEP 18:

The Pulse Log In screen will show on your browser.

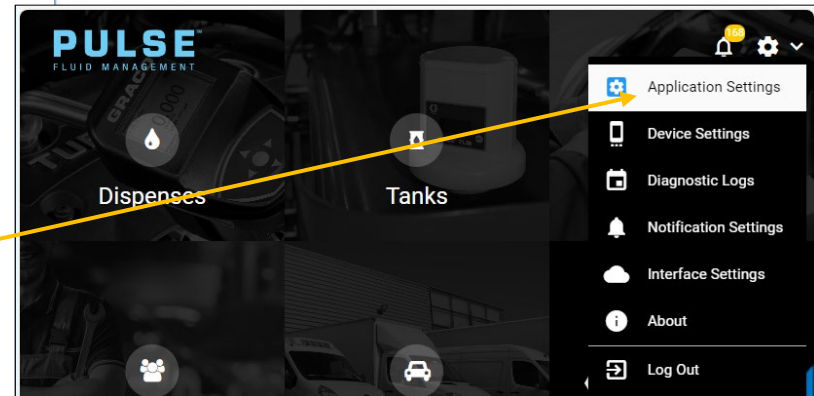
- For the Login, type “admin”
- The password is “pulse”

After the Login and password are entered, click the “Log In” button below them to continue.



STEP 19:

From the Home screen, click the Settings icon in the upper right corner, then click on “Application Settings.”



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STEP 20:

Click on the “Network Settings” tab.

STEP 21:

Under “Hub Network Connection” click on “Wi-Fi” then choose “Ethernet Static IP Address” from the menu that pops up.

STEP 22:

Refer to the Pulse Hub Network Setup sheet and enter the information into each of the four fields.

Be sure to click the “Save” button when completed.

The image displays two screenshots of the Pulse Hub Fluid Management web interface, illustrating the steps for configuring network settings.

Top Screenshot (Step 20): The "Application Settings" page is shown with the "Network Settings" tab selected. The "Hub Network Connection" section has a dropdown menu open, showing "Wi-Fi" selected. The "Device Network" section shows "Pulse HUB" as the HUB Name. The "Hotspot" section shows "Pulse HUB 58FF" as the Hotspot SSID.

Bottom Screenshot (Step 22): The "Network Settings" page is shown with the "Hub Network Connection" dropdown menu open, showing "Ethernet Static IP Address" selected. The "Device Network" section shows "Pulse HUB" as the HUB Name. The "Hotspot" section shows "Pulse HUB 58FF" as the Hotspot SSID. The "Save" button is highlighted.

Yellow arrows indicate the sequence of actions: from the "Network Settings" tab to the "Wi-Fi" option, then to the "Ethernet Static IP Address" option, and finally to the "Save" button.

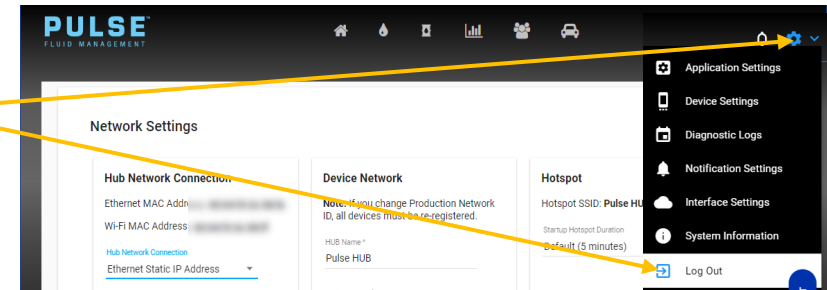
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STEP 23:

Click on the Settings icon in the upper right corner, then click on “Log Out.”



STEP 24:

Unplug the HUB's power cable from the power receptacle.

STEP 25:

Connect one end of the Ethernet cable to the HUB, and the other end to the Ethernet port in your network selected by your IT department.



STEP 26:

Reconnect the power cable to the power receptacle.

STEP 27:

The HUB may require up to 10 minutes to start up before you can access it. Please wait 10 minutes, then proceed to step 28.

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STEP 28:

Open a web browser. In the Navigation box, type the Static IP Address that your IT department wrote on the Pulse Hub Network Setup form, then press Enter.

Common examples of web browsers include

- Chrome
- Edge
- Safari
- Firefox

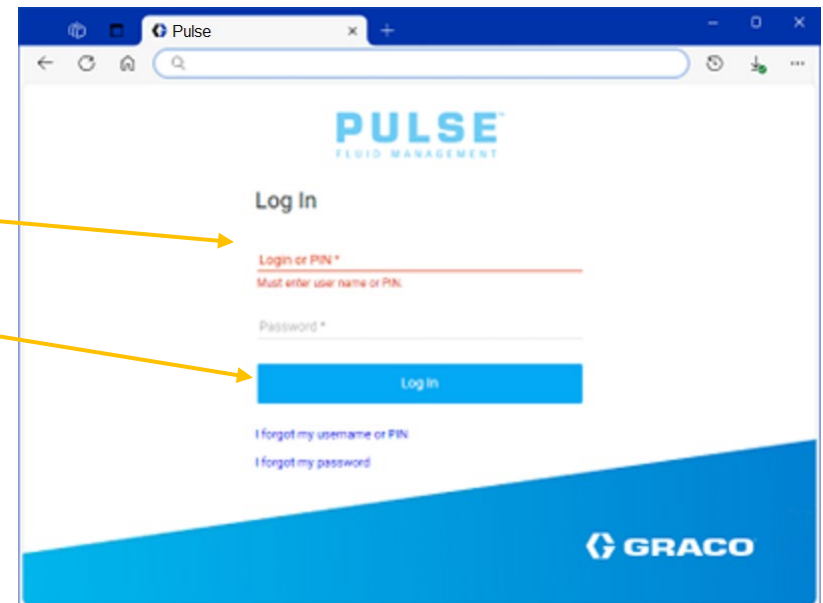


STEP 29:

If the IP address has been entered correctly, the Pulse Log In screen will show on your device.

- For the Login, type “admin”
- The password is “pulse”

After the Login and password are entered, click the “Log In” button to continue.



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STEP 30:

Click on the “Email Settings” tab.

STEP 31:

Enter the values from the form into the fields on this page.

- Some versions of the form do not include an email address, so you may need to request this from your IT department separately.
- You may also create any email address that you will recognize when receiving emails from Pulse.

STEP 32:

Click on the button labeled “Test Connection.”

- If the information is correct, a green box will appear at the top of the screen stating, “Connection successful.”

Click on “Save” before exiting this page.

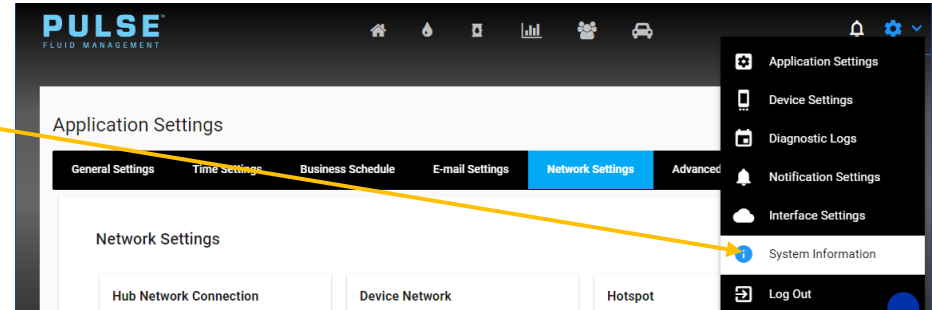
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STEP 33:

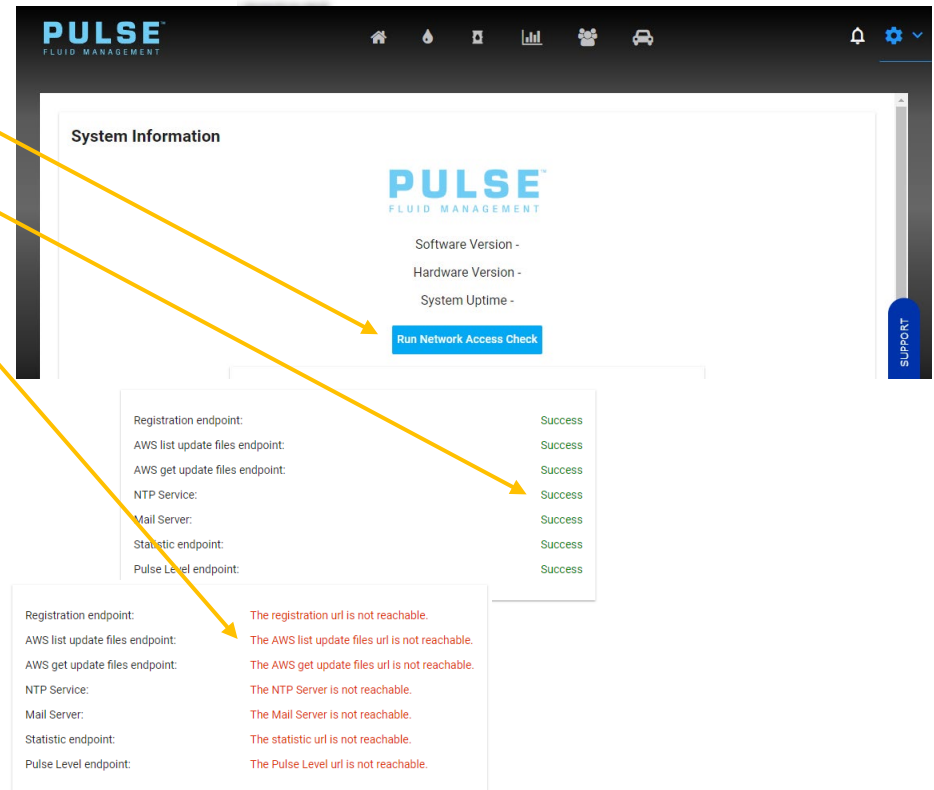
Click the Settings icon in the upper right corner, then click on “System Information.”



STEP 34:

Click on the button labeled “Run Network Access Check.”

- For each connection that is good, the word “Success” will appear to the right.
- Any failed connections will be shown as “not reachable.”
- If a specific feature is needed for your operation, then work with your IT department to gain access.
- Some common causes of failures are
 - Firewalls
 - Ports being blocked/closed
 - Typographical errors during this setup process
 - Inaccurate system time



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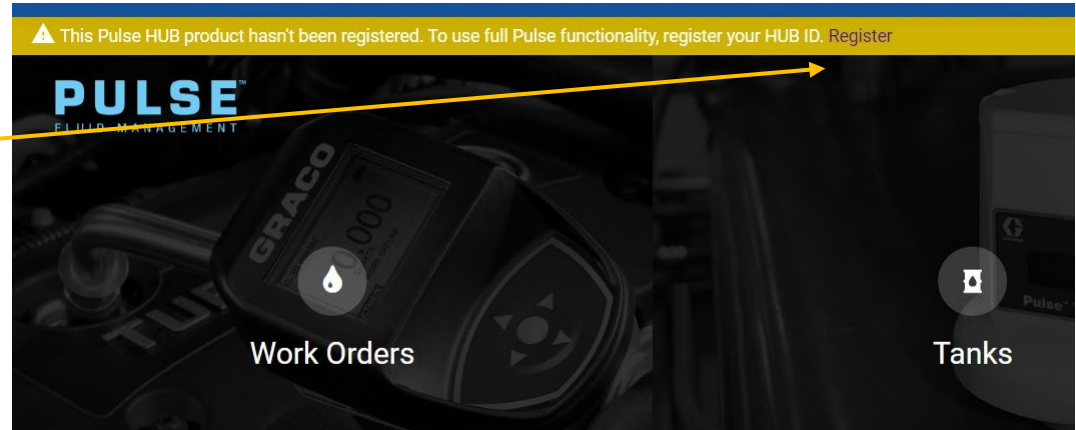


STEP 35:

After a new HUB is configured, it will show a prompt on the top of its web page, with a link labeled “Register.”

Click the link and enter the end user’s information.

- Be sure the end user’s information is entered, not the distributor doing the install.



Done with hardware installation.

Installation of the HUB is complete, but before any meters can be registered you must add at least one Fluid, and at least one Tank.

Please continue to the next slide to begin instructions for adding Fluids and Tanks.

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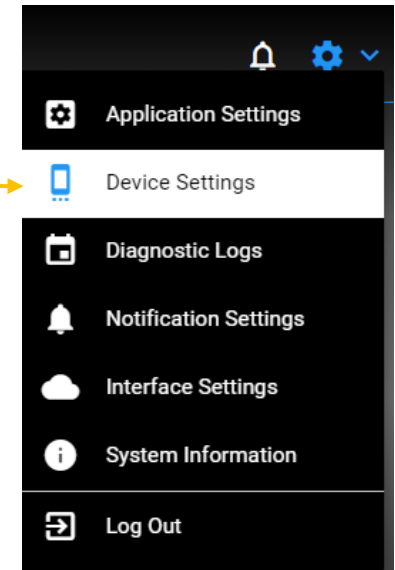
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STEP 36: Adding a Fluid

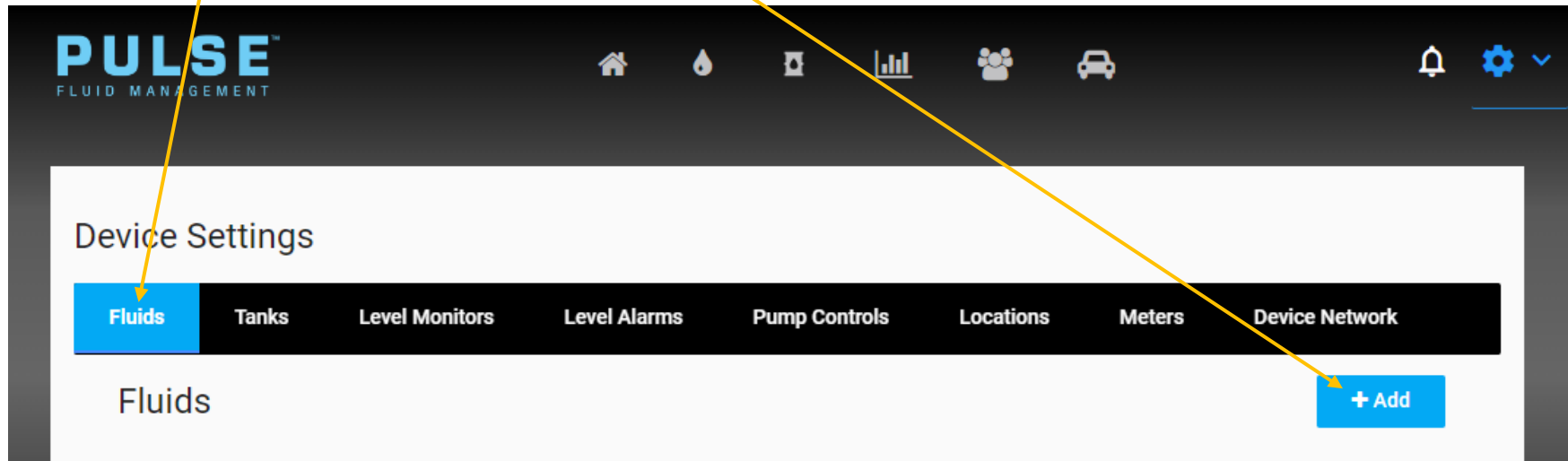
Log in to the Pulse software from your computer or mobile device.

Click on the Settings icon in the upper right corner, then click on “Device Settings.”



STEP 37:

Click on the “Fluids” tab, then click the “Add” button.



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STEP 38:

Enter a fluid name.

- The name is how the fluid is referenced in the software.
- All fluids must have a unique fluid name.

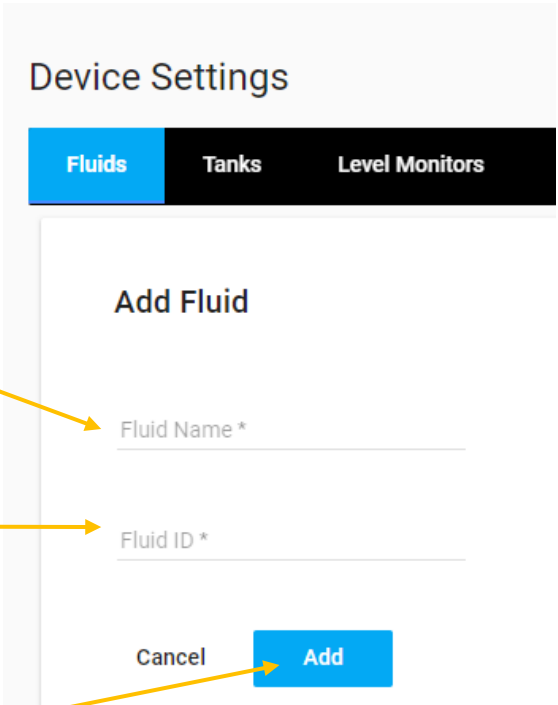
STEP 39:

Enter the Fluid ID.

- This value is primarily used with third party integrations.
- The Fluid ID should match the corresponding fluid part number in your CMMS or Dashboard. If you do not use third party integrations, you can re-use the fluid name in this field.
- All fluids must have a unique Fluid ID.

STEP 40:

Click the “Add” button to finish adding the fluid.



Device Settings

Fluids Tanks Level Monitors

Add Fluid

Fluid Name *

Fluid ID *

Cancel Add

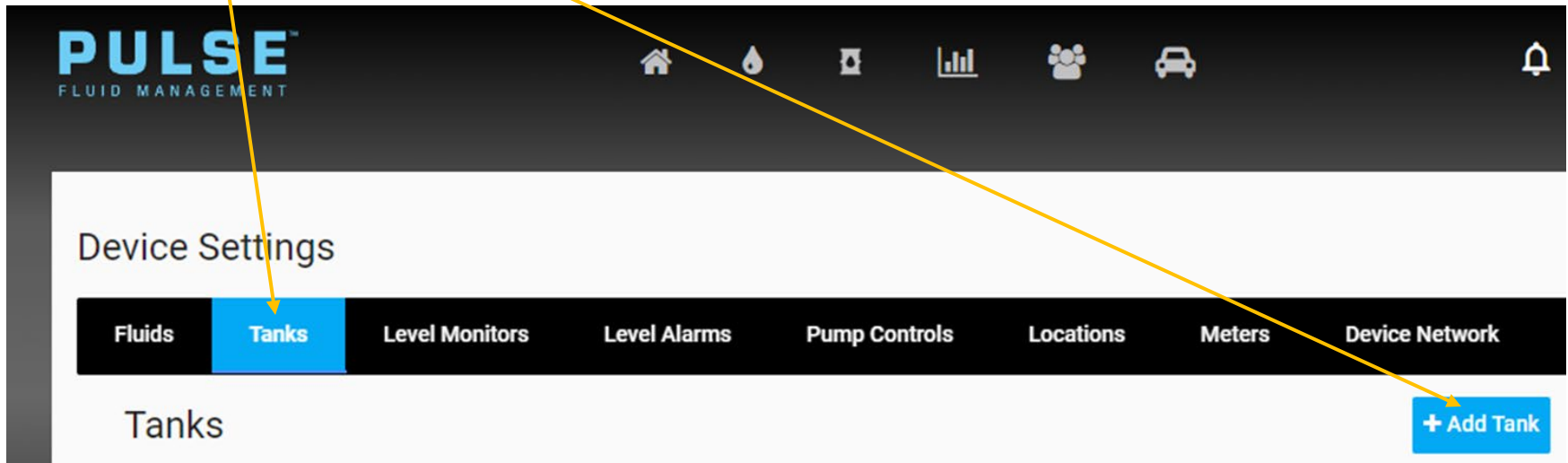
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STEP 41: Adding a Tank

Click on the “Tanks” tab, then click the “Add Tank” button.



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STEP 42:

Read through and answer each of the questions about the size and shape of your tank, and which notification you want Pulse to send out.

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Home Work Orders Tanks Reports Users Assets

Device Settings

Fluids **Tanks** Level Monitors Level Alarms Pump Controls Locations Meters Device Network

Add Tank

1 Select Tank Settings 2 Create Tank Profile

Cancel Next

Select Tank Settings

What units will you use for the fluid volume measurements?

Measurements *
Gallons

What is the tank capacity?

gal. *

Which volume thresholds do you need?

☒ Tank Level Low

☒ Tank Level High

At what volume should a Low Level notification be created?

25 %

At what volume should a High Level notification be created?

75 %

Enter email address of your supplier if you want them to receive Tank Volume Low/High Event email notification.

Supplier email

Do you want the system to calculate a theoretical fluid volume in the tank based on completed dispenses?

☐ Yes

☒ No

Will your Tank have a standard shape?

☒ Yes

☐ No

What is your Tank shape?

Tank Shape *

What length units will you use to specify tank dimensions?

Length units *
Inches

Cancel Next

Support

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Done

After the fluids and tanks have been added, you can proceed to registering your dispense meters.

For Pulse Asset systems, please see the Pulse Asset training guide for lessons on entering User and Asset information and programming NFC tags: <https://docs.gracopulse.com/asset>

If you have an older HUB which needs a software update, please refer to the guide at this link: <https://support-articles.s3.amazonaws.com/Pulse+Software+Update.pdf>

For a deeper dive into Pulse software setup and capabilities, please review the “Pulse Software Setup Guide” available at this link: <https://docs.gracopulse.com/system/setup/#/>

