



Unit Setup Guide

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04—Determine Height

05—Depth Calibration

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Note: Doorways must be created prior to setting up your unit. Instructions on how to create a doorway can be found [here](#).

Download & Login

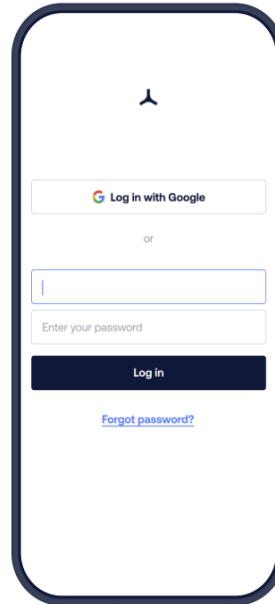
01

Download iOS or Android app and login

The Density Setup App connects to the sensor via bluetooth and assigns a network and doorway to the unit. The app also configures and improves the accuracy of the unit via Advanced Setup tools.

Setup

- Get the Setup App by going to mobile.density.io and downloading from the App Store or Google Play.
- Login with Google Sign-In or with the email and password that you set your Density account up with. Contactsupport@density.io if you need an account.



Setup Network

02

Create a Network Template

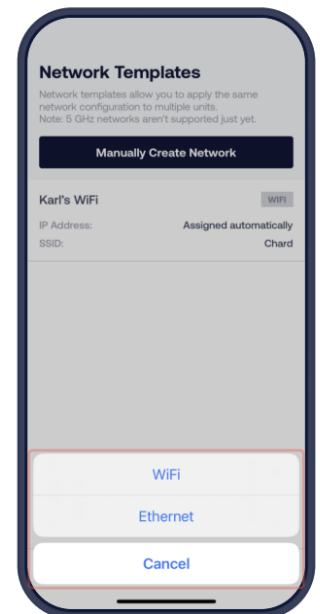
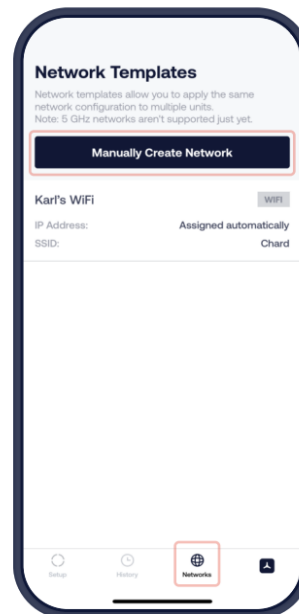
A Network Template is created to bundle your network information (e.g. network name and password) to a profile that can be named and saved. You can assign the saved network template to other units during their setup process to save time.

Note: Density Entry Sensor only supports 2.4 GHz WiFi

Setup

- Select the **Networks** button, then press the **Manually Create Network** button.
- Select **WiFi** or **Ethernet**. The following steps are the same for both WiFi and Ethernet Templates

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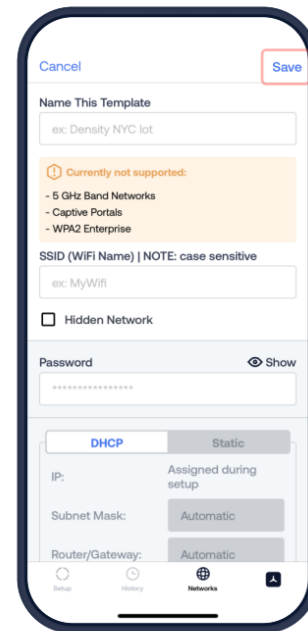
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Choose to setup your network with either **DHCP** or **Static** setup options below. We'd recommend using DHCP unless your IT team has specifically requested a Static IP configuration.

DHCP Setup

- Select **DHCP** (for DHCP, the IP address is automatically assigned to Unit).
- Enter the **Template Name** (whatever you want to call your Network Template), **SSID** (the name of your network), and the **Password** currently setup for your network. After inputting all of the correct information, press the **Save** button.

Note: If you do not have a passphrase for your network, it can be left blank. The SSID field (name of your network) is always required.



Static IP Setup

- Select **Static** (static IP option requires manual input of network and router info).
- Enter the Template Name (whatever you want to call your Network Template), SSID (the name of your network), and the Passphrase currently setup for your network. Additionally you will have to enter a Subnet Mask, Router/Gateway address and DNS info. After inputting all of the correct information, press the **Save** button.

Subnet/Mask

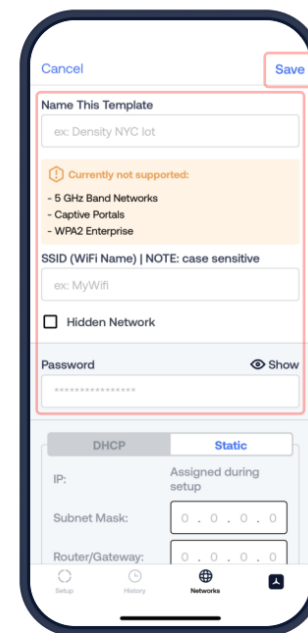
A 32-bit number that masks an IP address, and divides the IP address into network address and host address.

Router Gateway

Subnet Mask the IP address assigned to the router or gateway.

DNS (Domain Name System)

Converts domain names into IP addresses.



Sensor Setup

03

Setting Up the Sensor

Note: Before getting started with the sensor setup, you must first create a doorway in your Density Dashboard (dashboard.density.io) before you can add a sensor to a doorway. If you need help, please reach out to your Customer Success Manager or contact support@density.io

Hang up the sensor before starting the setup process (refer to the Complete Installation Guide for install instructions). Write down the serial number (located on the top side of the sensor before starting the sensor setup).

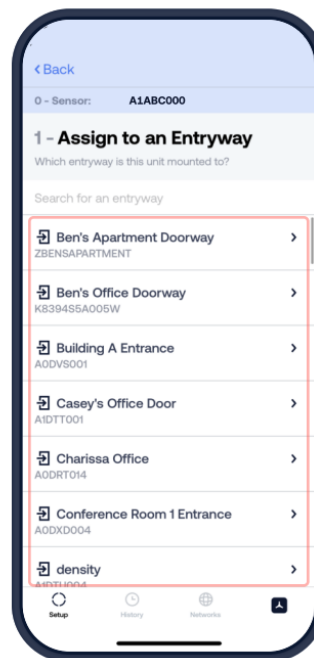
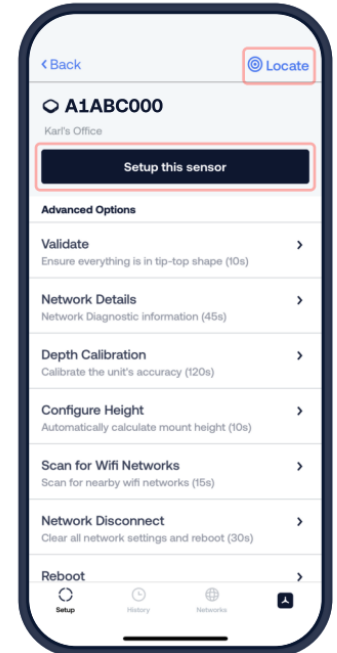
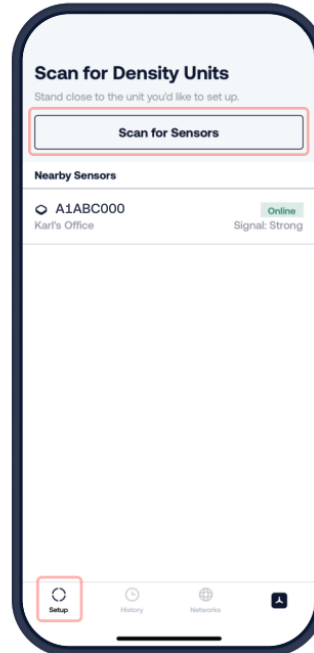
Setup

- Select the **Setup** button. Stand beneath the sensor you would like to set up and press the **Scan for Sensors** button.
- Press the **Locate** button. The LED on the front of the sensor will blink white 5 times. After the sensor stops blinking, press the **Setup this sensor** button.
- Confirm the serial number on the app matches the serial number on the sensor.

Note: The label can be found on either the top of the mount OR the top of the sensor lid.

- Select the doorway you'll like to assign the sensors to.

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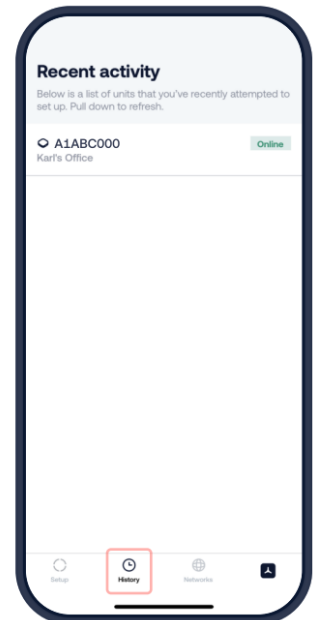
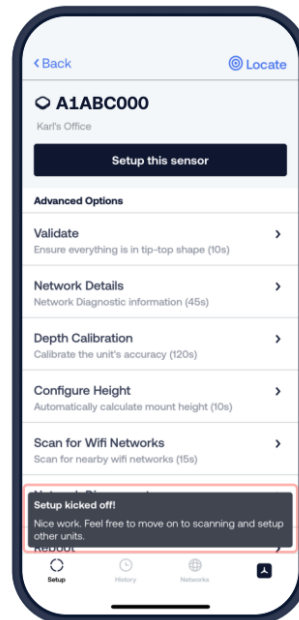
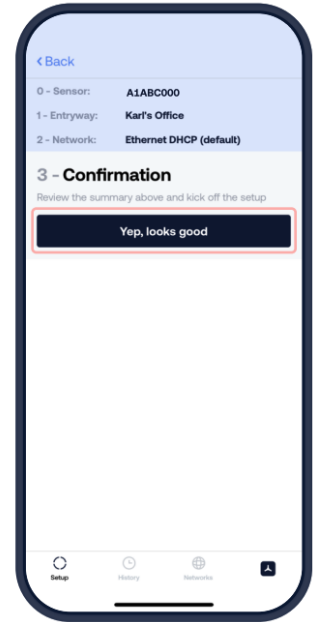
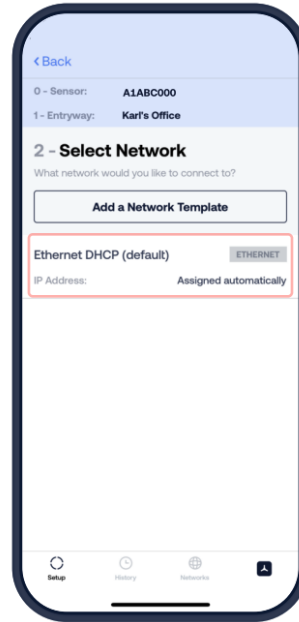


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- **Select a network** from the list of network templates.
- Press the **Yep, looks good** button.
- **Setup kicked off!** Move on to scanning and setting up other units if you have more.
- Press the **History** icon to see a history of units that have been setup and their status.

Note: If you have two or more sensors covering an entry threshold or doorway, you'll need to reach support@density.io to set it up. Please provide the following details in the email:

- Doorway name
- Sensor height
- Distance between sensors (middle of black lens to middle of black lens)
- Serial numbers (listed from left to right if facing sensor)



Determine Height

04

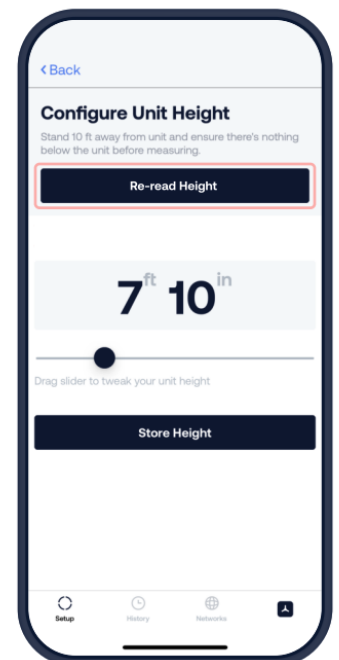
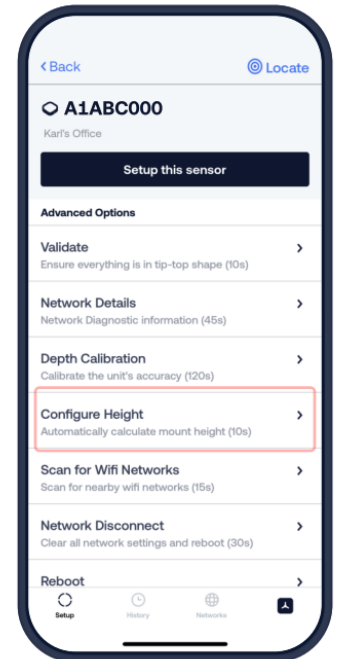
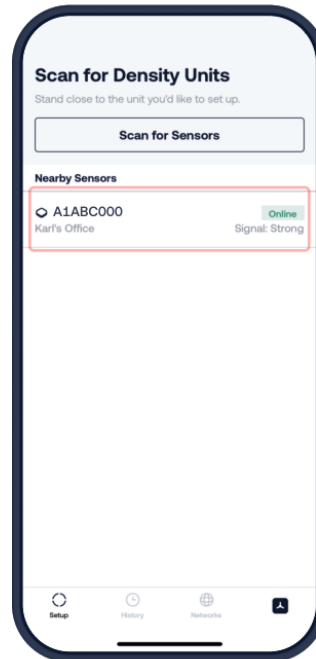
Measure Sensor Height

To improve the accuracy of your sensor, use the **Configure Height** tool to measure the distance from the ground to the sensor. This step takes approximately 10 seconds.

Setup

- Select a sensor from the setup list.
- Select **Configure height**.
- Stand approximately 10ft (3m) away from the sensor and make sure there is nothing below the sensor before measuring. Press the **Read Height** button.
- Once height has been determined, press the **Store Height** button.

*Note: The height can be reset by clicking **Re-read height** button.*



Depth Calibration

05

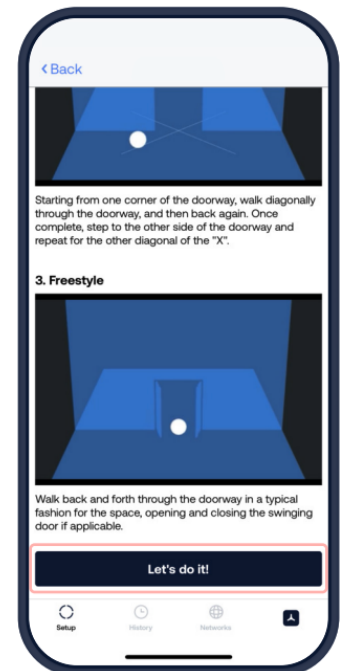
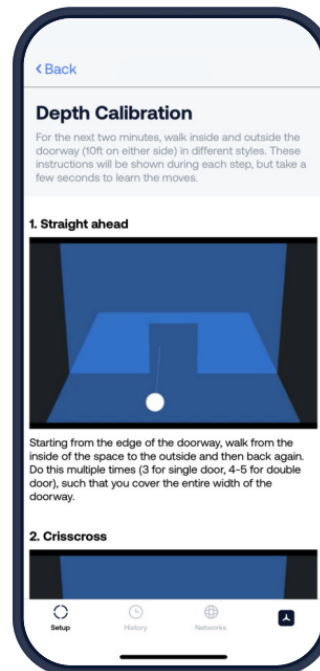
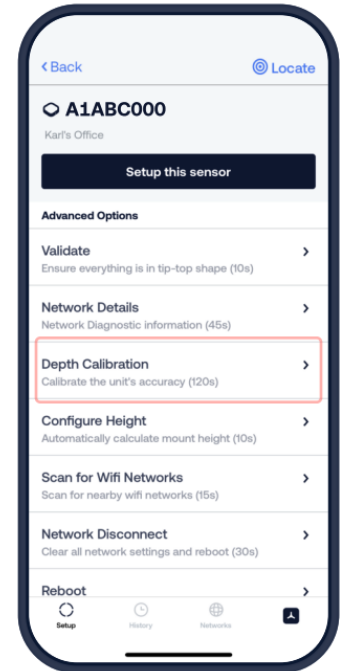
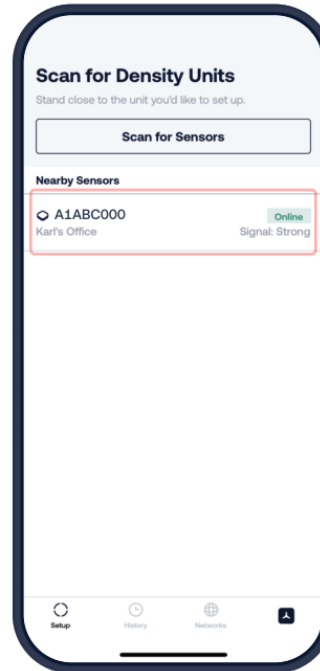
Perform Depth Calibration

To improve the accuracy of your sensor, use the **Depth Calibration** tool to take measurements of someone walking underneath the sensor. This step takes approximately 2 minutes.

Setup

- Select a sensor from the setup list.
- Select **Depth Calibration**.
- Read through Depth Calibration steps.
- Once you have read through the instructions, scroll to the bottom and select the **Lets do it!** button and follow the guided steps.

Note: You have to select a new sensor ID before you perform depth calibration for the next sensor



Advanced Options

06

Troubleshooting

Advanced options are troubleshooting tools and are not considered part of a standard successful setup process.

Validate:

Ensures everything on the sensor is in working order. This step takes approximately 10 seconds.

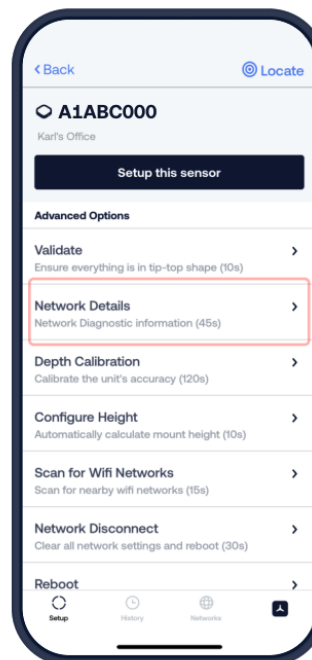
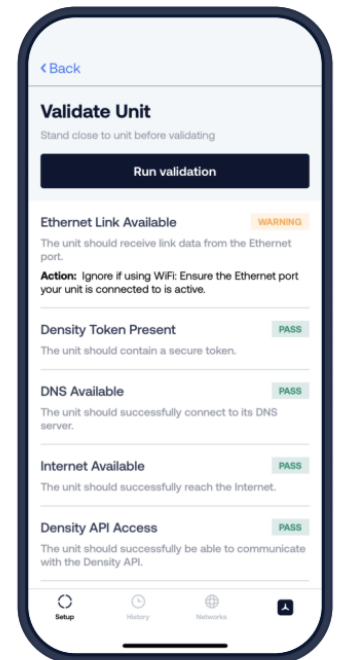
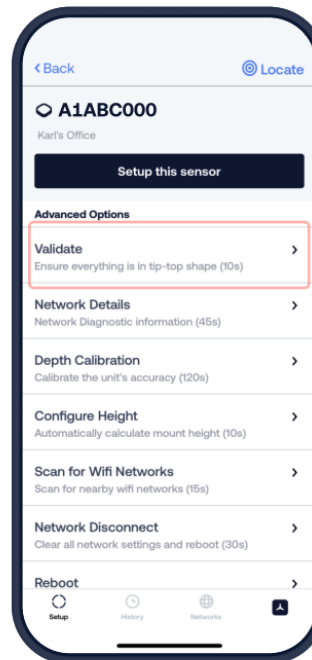
- Select a sensor from the setup list
- Select **Validate**.
- Press the **Run validation** button. Confirm that all items on the validation list have a Pass indicator. If there are issues, follow the instructions for each item in the application.

Network Details:

Gathers Network diagnostic information. This step takes approximately 45 second.

- Select a unit from the setup list.
- Select **Network Details**.
- Select **Gather network info**.

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Network Disconnect

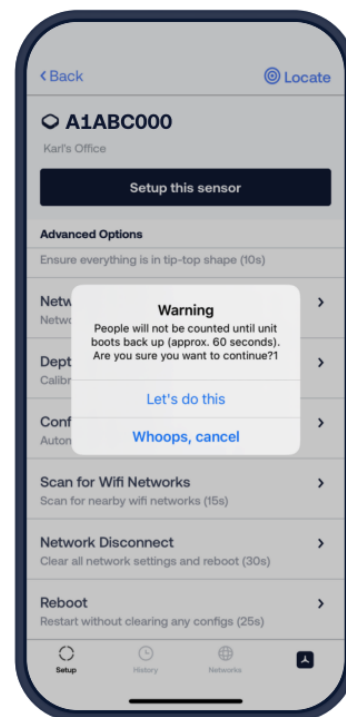
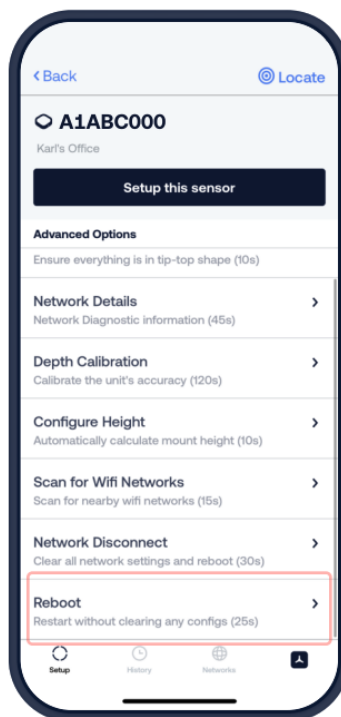
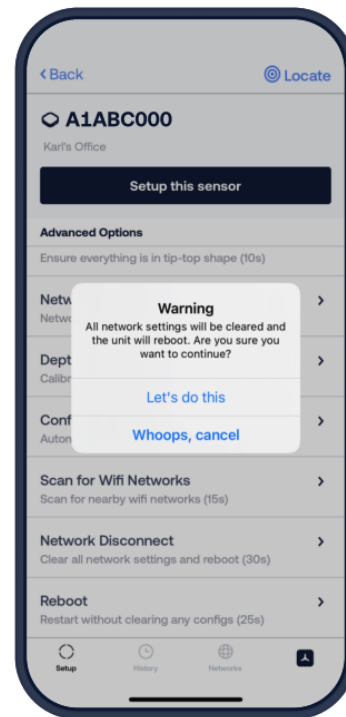
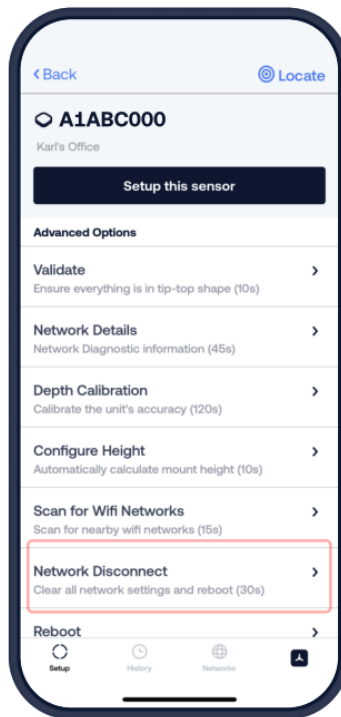
Clears all network settings and reboots the sensor.

- Select a sensor from the setup list.
- Select **Network Disconnect**.
- Select **Let's do this** to proceed, or **Whoops, cancel** to stop.

Reboot

Reboots the sensor. People will not be counted for approximately 60 seconds.

- Select a sensor from the setup list.
- Select **Reboot**.
- Select **Let's do this** to proceed, or **Whoops, cancel** to stop.



Status LED Guide

07

LED Status Indicators

The sensor has an indicator LED located on the front of the sensor. The color chart to the right explains the meaning of each color, defines any issues, and lists what actions to take if necessary.

Color	Pattern	Visual	Meaning	Description/Action
None	No Light		Sensor is not receiving power	Check whether sensor is plugged into power and receiving power from the source
White	Solid		Operating normally	No action needed
White	Flashing		Locate sensor function	Indicates which sensor you're interacting with when using Locate function in Unit Setup app
Blue	Solid		Ready to be provisioned	Typical state out of the box once sufficient power is provided
Blue	Flashing		Sensor is provisioning	Triggered via Unit Setup app. This process may take 5-10 minutes
Orange	Solid		Factory OS	Contact support@density.io
Orange	Flashing		Low power mode	Confirm switch is PoE+ with at least 30W per port or test ethernet cable
Purple	Solid		Sensor cannot connect to Density server	Provision sensor via Unit Setup app and if not resolved, run Validation in same app
Purple	Flashing		Server cannot connect to DNS	Verify DNS is available on VLAN. If no internal DNS server, review corporate firewalls to verify device can reach default DNS servers
Red	Solid		Sensor does not have a network configuration	If using WiFi, use the Unit Setup app to create a Network Template. If using Ethernet, verify DHCP server is available on VLAN
Red	Flashing		No Dongle Present or No ToF (reserved)	Occurs when device has not yet been provisioned and the Bluetooth Dongle is absent. Plug in Bluetooth Dongle to provision. (this is expected to go away in the future as devices will be able to be connected to Ethernet and provisioned on Density's end)