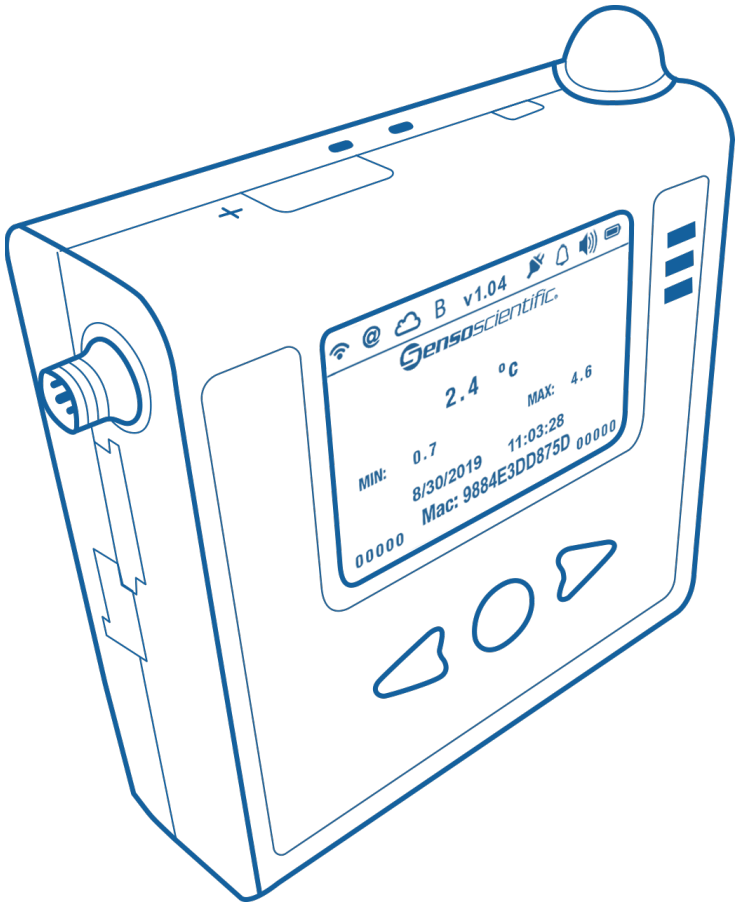
Sensoscientific®
A PST BRAND

USER GUIDE

OTA Wireless Data Logger
Dual Band (2.4 GHz & 5 GHz)



www.sensoscientific.com
685 Cochran Street, Ste. #200, Simi Valley, CA 93065

I. OTA WIRELESS DATA LOGGER

The OTA series is the second generation of Wi-Fi Sensors from SensoScientific. This series of nodes boasts over-the-air (OTA) upgrade capabilities. This enable the devices to remotely upgrade firmware without the need to be manually serviced. The devices offer a large, 2.7" e-ink technology display which constantly shows the most current readings on the node. Critical functions include 2.4 GHz & 5 GHz 802.11 a/b/g/n Wi-Fi compatibility with an onboard visual and audible alarm in the event of data excursions. The battery level is shown along with several feedback notifications on the upper panel of the display. Additional alerts can be provided through a variety of methods such as SMS, text message, voice call, pager, cell phone, fax, and e-mail. All data is time-stamped and recorded – holding 4,000 readings locally and transmitting data perpetually to cloud.

II. GETTING TO KNOW YOUR DEVICE

Figure II-1: OTA Node

III. SENSOSCIENTIFIC CLOUD

The SensoScientific Cloud is the platform that all data is received and recorded. The cloud can be accessed via any internet enabled device using the following link:

cloud.sensoscientific.com

Use the login information provided to you to login.

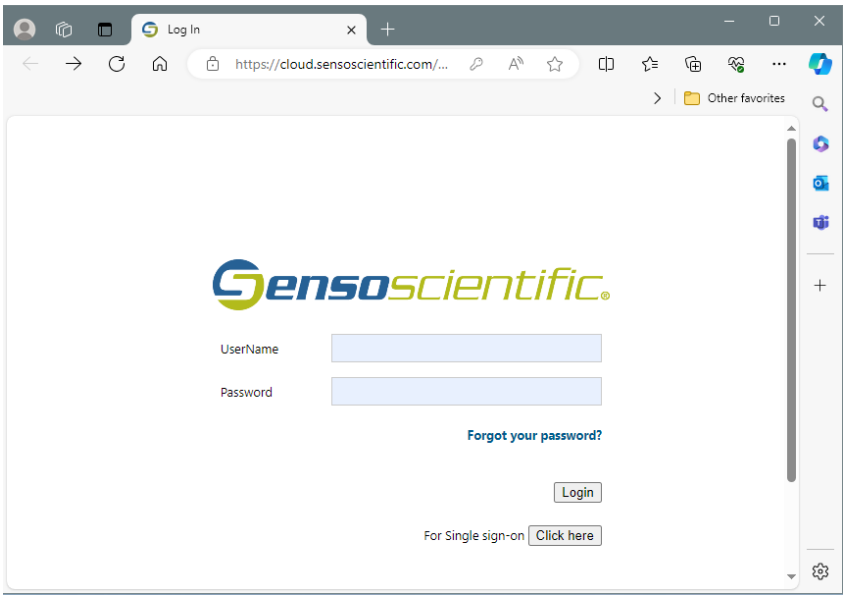


Figure III-1: Website Login

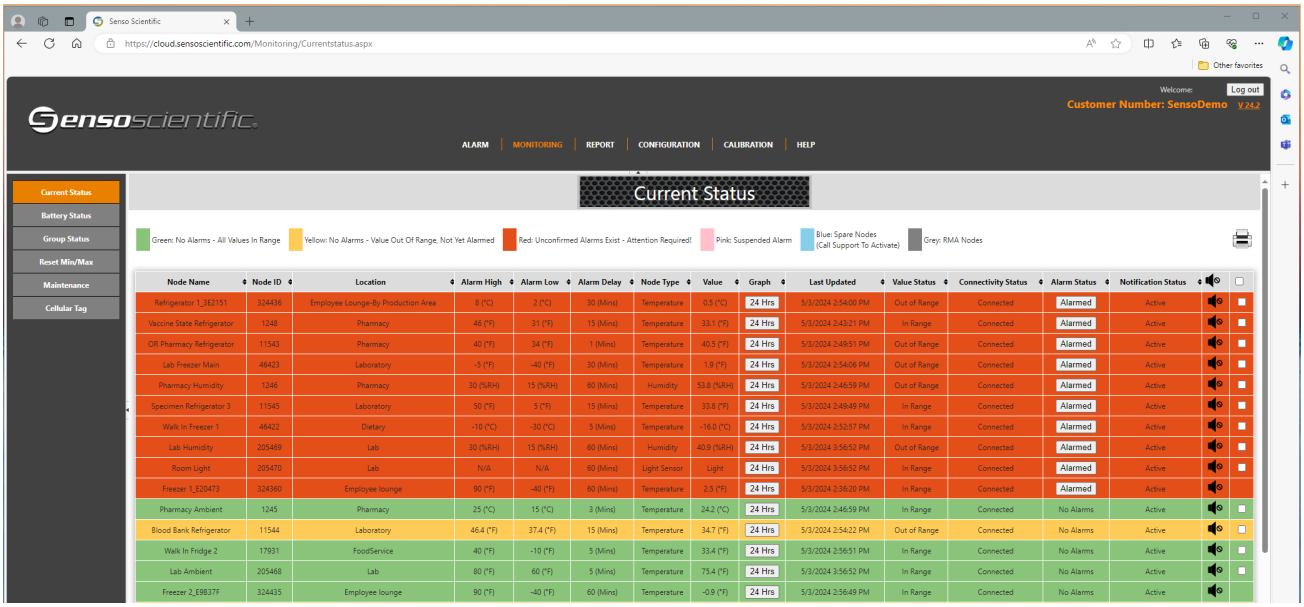


Figure III-2 - Cloud Monitoring

IV. SETTING UP YOUR DEVICE: TOOL

If you have opted for pre-configuration of Wi-Fi, please disregard "Setting Up Your Device."

Step 1 – Login to the SensoScientific Cloud

cloud.sensoscientific.com

A.) Navigate to **HELP** > **Configuration Files**
B.) Download the SensoWifiProvisioning file, unzip, and click the .msi installer.
C.) Once installation completes, a "Senso Wi-Fi Provisioning" Icon should appear on your desktop.

Step 2 – Set Device to Provisioning Mode

The device set-up process takes only a few short minutes. For the device to work properly, it must set-up to a Wi-Fi Network. If you opted for SensoScientific to pre-configure the device, please disregard this section. The device can be configured using a Wi-Fi enabled device. The following are required to proceed:

1. OTA Wireless Data Logger(s)
2. 2.4GHz or 5GHz Wi-Fi Source
3. Wi-Fi Enabled Device (Laptop, Desktop, etc…)

The OTA device must be configured into provisioning mode. This is done by turning the device on (put the batteries in). The device screen will flash, and the yellow LED will turn on solid. The device will attempt to connect to a Wi-Fi source for 15 seconds. An alert displaying "Device unable to connect to the cloud" will pop up and the device will alternate between the green and red LED with an audible beep.

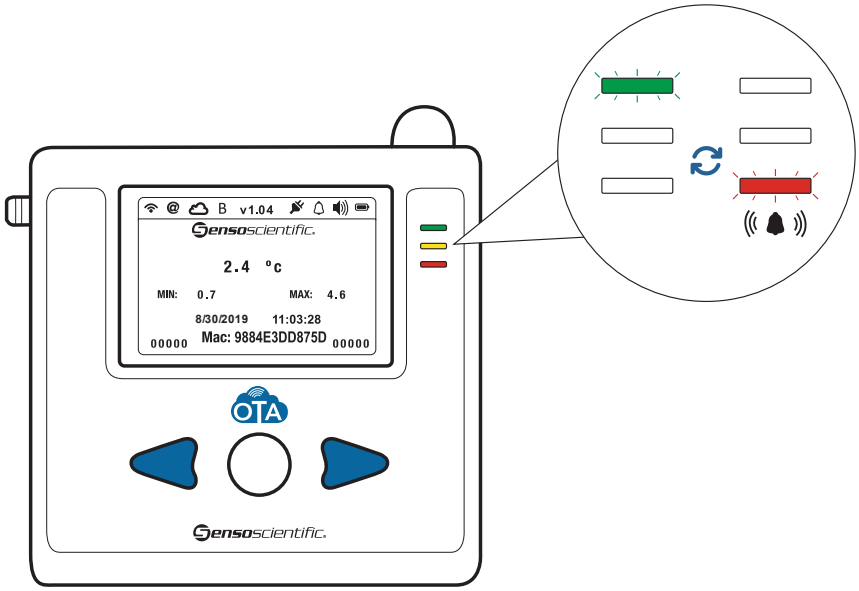


Figure IV-1 - Provisioning LED Flashing

Now, press the left and right arrow buttons simultaneously to enter provisioning mode.

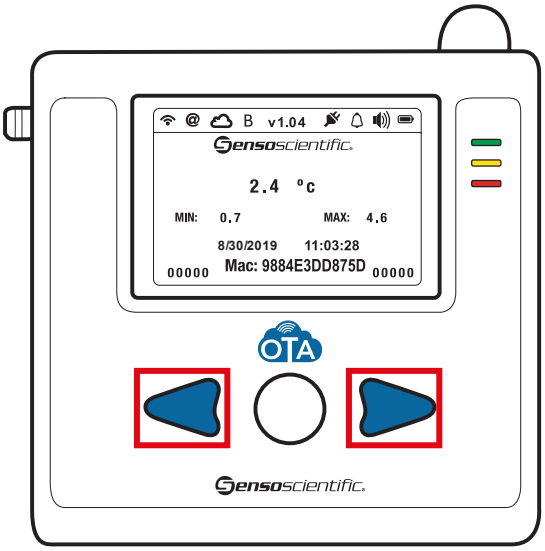


Figure IV-2: Hold Left + Right buttons to enter Provisioning Mode

Step 3 – Open the Tool

Open the "Senso Wi-Fi Provisioning" shortcut on your desktop.

Input the Wi-Fi information and click the "List Device" button. Your device will be listed in the box. Click the "Check All" link.

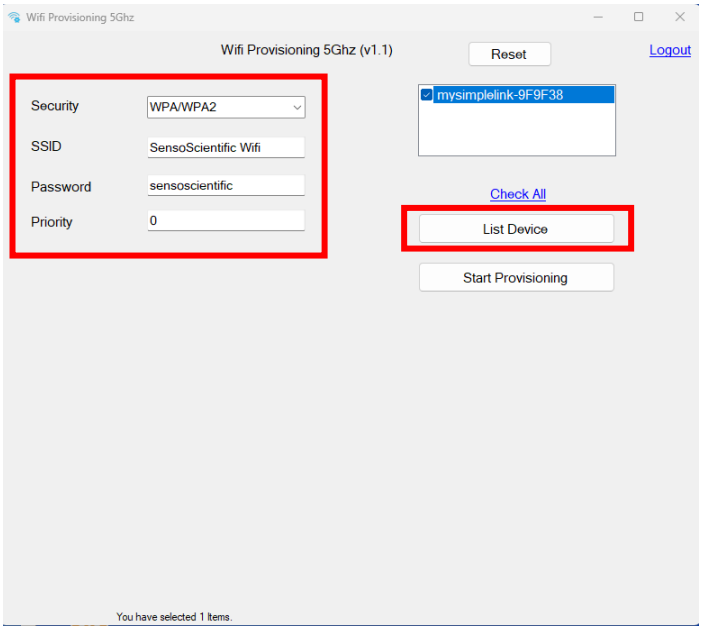


Figure IV-3: Provisioning Software

Press the "Start Provisioning" button. Once the device is provisioned it will display the message "# devices has been provisioned successfully."

Please note, you need to turn off device, wait 30 seconds, and then turn back on.

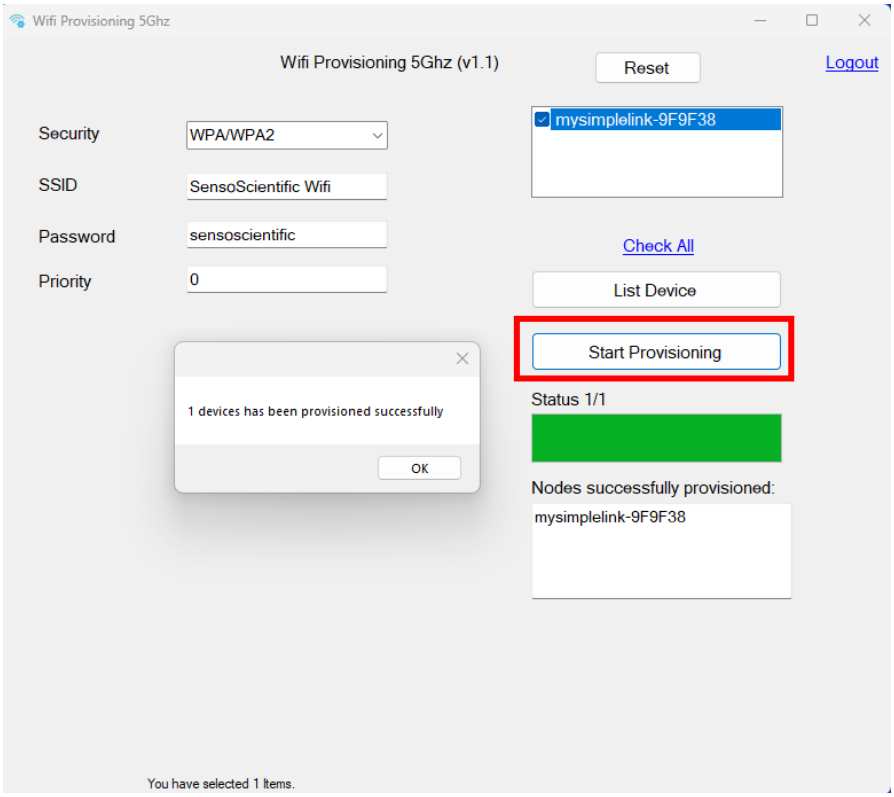


Figure IV-4: Provisioning Software

If any issues are found while trying to connect or at any time throughout the set-up process, please contact technical support.

1-800-279-3101

For support assistance, select option 4 when prompted.

Plug the probe into the device and place the probe wherever you are looking to monitor data. Go to cloud.sensoscientific.com to access your data. Use the username and password provided to you via email or in the Installation Slip within your shipment.

V. SETTING UP YOUR DEVICE: BROWSER

The device set-up process takes only a few short minutes. For the device to work properly, it must be set-up to a Wi-Fi Network. If you opted for SensoScientific to pre-configure the device, please disregard this section. The device can be configured using the *SensoScientific* app available on iOS or Android devices. If you do not have a Wi-Fi enabled device contact technical support. The following are required to proceed:

1. OTA Wireless Data Logger(s)
2. 2.4GHz Wi-Fi Source
3. Wi-Fi Enabled Device (Laptop, Smartphone, Tablet, etc.)

Step 1 – Set Device to Provisioning Mode

The OTA device must be configured to the provisioning mode. This is done by turning the device on (put the batteries in). The device screen will flash, and the yellow LED will turn on solid. The device will attempt to connect to a Wi-Fi source for 15 seconds. An alert displaying "Device unable to connect to the cloud" will pop up and the device will alternate between the green and red LED with an audible beep.

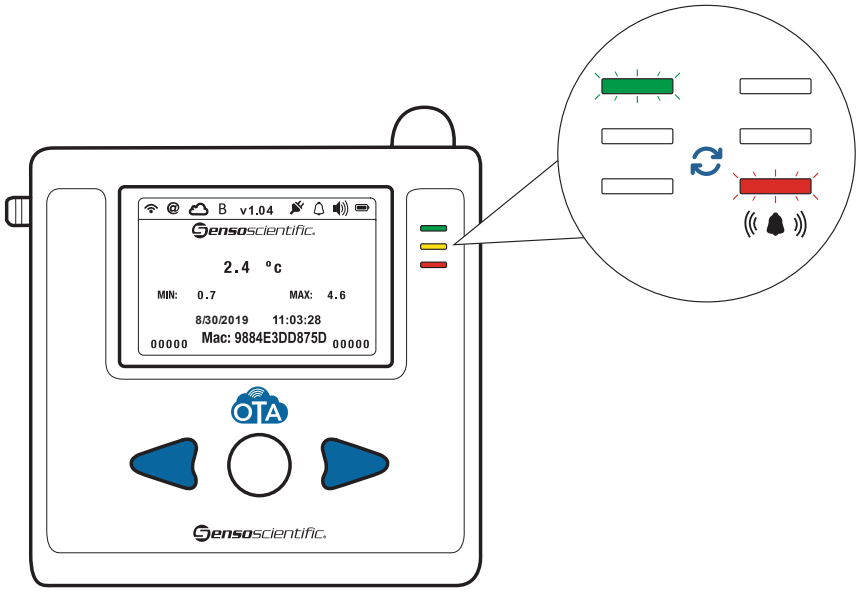


Figure V-1: Provisioning LED Flashing

Now, press the left and right buttons simultaneously on the device to enter the provisioning mode.

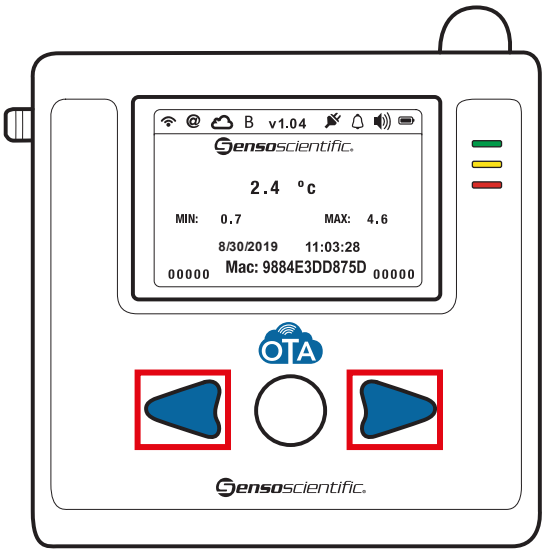


Figure V-2: Hold Left + Right buttons to enter Provisioning Mode

Step 2 – Connect to Wi-Fi

On your Wi-Fi enabled device, connect to the Wi-Fi network "mysimplelink-57D475". The last six digits of the network name are the last six digits of the OTA Node's MAC Address. This will connect your phone to the OTA Node.

Figure V-3: Connect Wi-Fi enabled device to OTA Node

Smartphone

1. From your Home screen, go to Settings > Wi-Fi.
2. Turn on Wi-Fi. Your device will automatically search for available Wi-Fi networks.
3. Tap the name of the Wi-Fi network that you want to join - "mysimplelink-57D475". The digits after the hyphen will be the last 6 characters of the device's MAC Address.

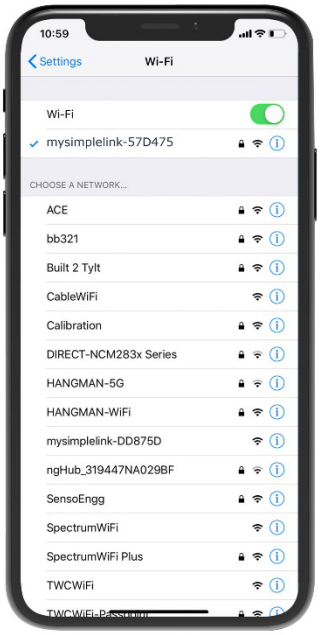


Figure V-4: Smartphone Setup

Windows 10 OS

1. Open the Network Status window. Alternatively, this can be opened by pressing the Windows key + I. Select "Network & Internet." Click "Show available networks."
2. Next, in the bottom right corner of your desktop, all available networks will appear.
3. Tap the name of the Wi-Fi network that you want to join - "mysimplelink-57D475."

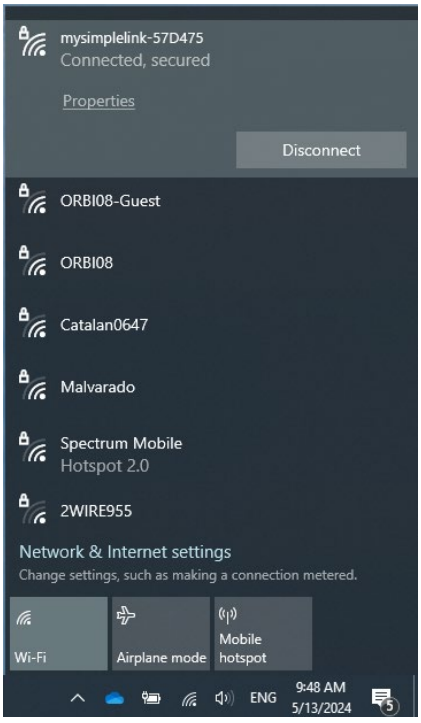


Figure V-5: Windows Setup

Step 3 – Configure the Node

On your Wi-Fi enabled device (Laptop, iPad, etc.), go to an internet browser (Internet Explorer, Google Chrome, Firefox, etc.) and type 10.123.45.1 into the browser bar.

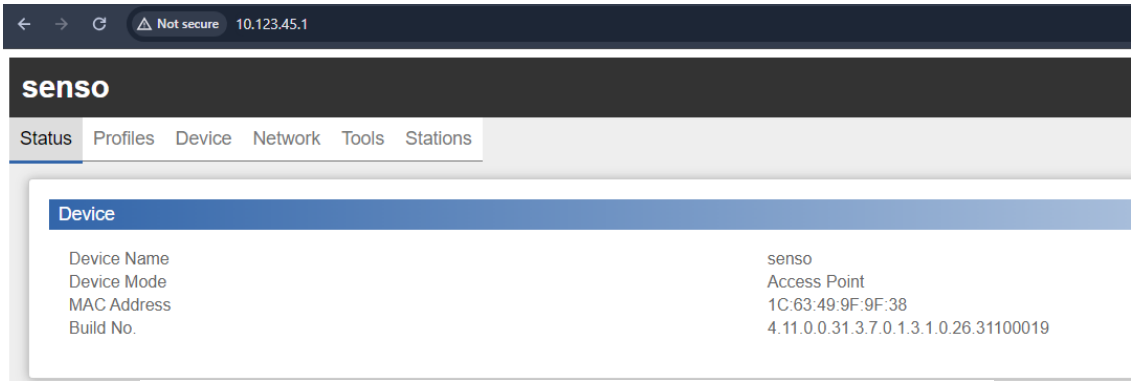


Figure V-6 – "Status" Tab

If a Static IP is required, go to the "Stations" tab. Disable DHCP Client and enter your IP Address, Subnet Mask, Default Gateway, and DNS Server details. Once complete, select the "Apply" button.

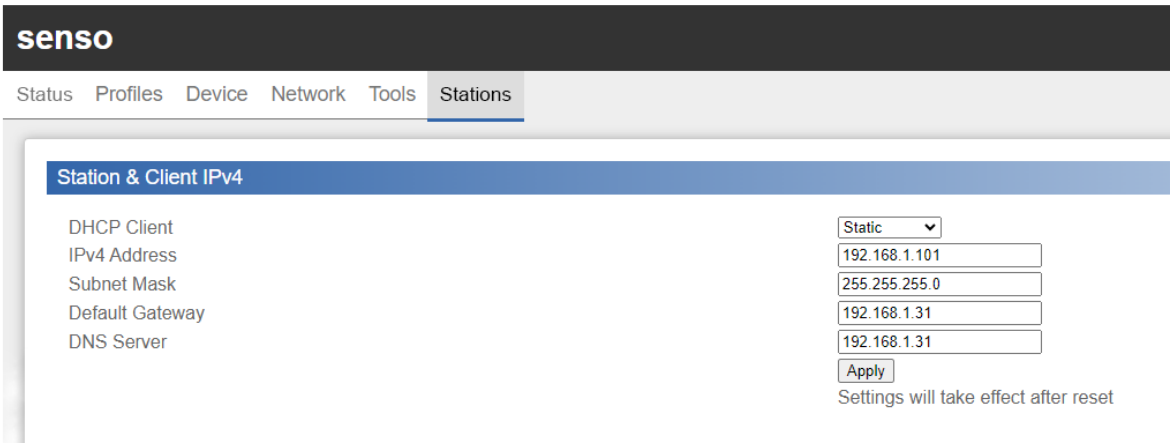


Figure V-7: "Stations" Tab

Go to **Profiles** to add the network information (SSID and Password). For Open, WEP, WPA1, and WPA2 authentication, enter the network information under **Add Profile**. Once all information has been put in, press "**Add**" for the profile to be saved.

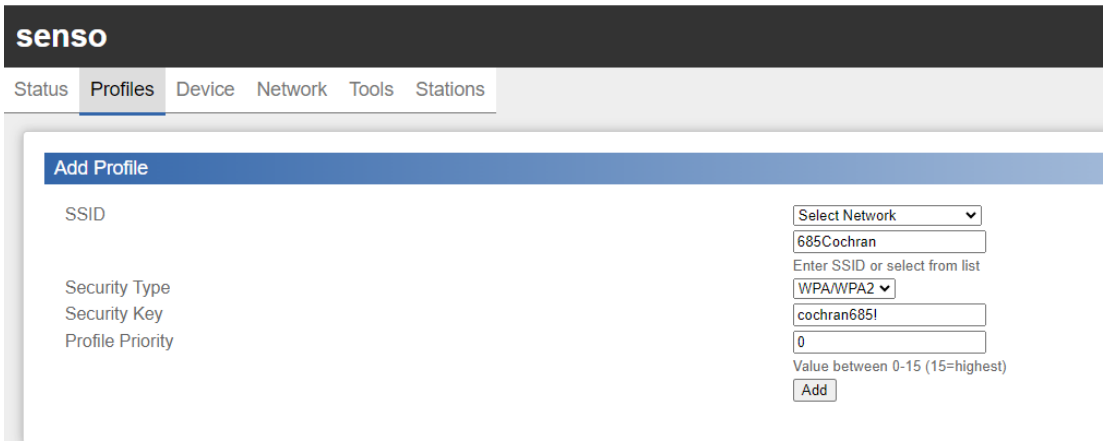


Figure V-8: "Profile" Tab

For enterprise security, scroll down to the bottom of the page under **Add Enterprise Profile**. Input all information and select Add to save the profile.

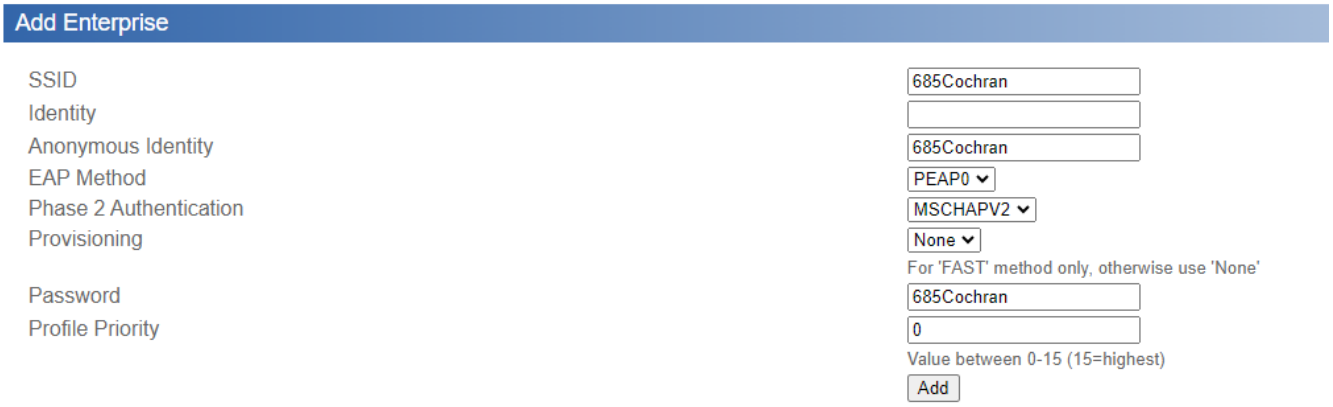


Figure V-9: Enterprise Security

Step 4 – Verify Profile

Once the profile has been added, go to the bottom of the Profile tab and verify that the profile has been added. It should be listed in any of the profiles.

Figure V-10: Profiles

Finally, restart the device to complete the configuration. Turn the node off, wait 30 seconds, and then turn it back on. When the message "device was not able to connect to the cloud" appears, press the middle "S" button once. The device will reboot, and once it connects to the network, you will see the temperature displayed along with the latest time and date. If any issues are found while trying to connect or at any time throughout the set-up process, contact technical support.

1-800-279-3101

For support assistance, select option 4 when prompted.

Plug the probe into the device and place the probe wherever you are looking to monitor data. Go to cloud.sensoscientific.com to access your data. Use the username and password provided to you via email or in the Installation Slip within your shipment.

VI. DISPLAY NOTIFICATIONS

The display shows critical notifications essential for device operation. Below, you'll find descriptions and a legend for each notification on the panel.

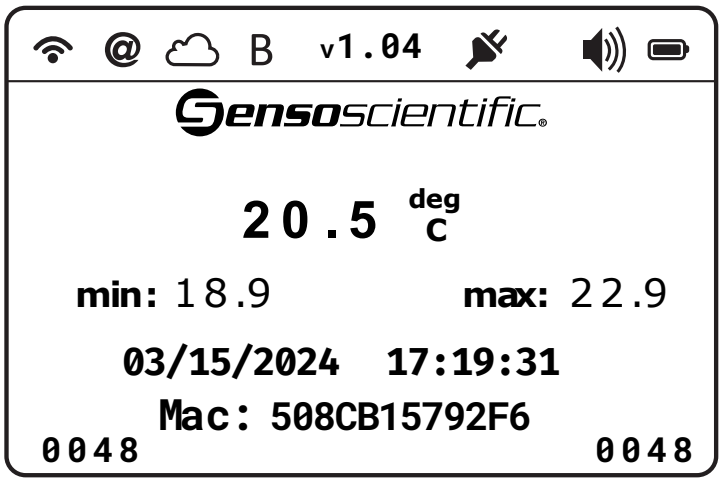


Figure VI-1: Node Display

Note: The 'B' symbol appears when Wi-Fi, Internet, or Cloud connections cannot be established. This area is the notification panel, displaying all node information. Refer to below for further explanation.

Wi-Fi: Notifies user when device is connected to a Wi-Fi Access point. This symbol will be crossed out when connectivity cannot be established.

Internet: Notifies user when device is connected to the internet. This symbol will be crossed out when connectivity cannot be established.

Cloud: Shows whether the device is connected to the cloud and is storing data.

Buffering: Appears when the node is uploading stored readings to the cloud. Each device can store up to 4,000 readings.

v1.04 **Firmware Version:** Identifies which version of firmware the device is using.

Power Supply: Appears when device is connected to power via Micro USB. This symbol disappears when power supply is not connected.

Speaker: Indicates if audible alarm is ON or OFF. Symbol disappears when disabled. Alarm will still alert on the cloud even when device is muted.

Battery: Displayed at High, Medium, Low, and Empty.

min:
max:

Min/Max Readings: Shows the highest and lowest recorded readings on device. This can be reset at any time.

Mac:

MAC Address: Used to uniquely identify device.

Figure VI-2: Display Legend

VII. LED STATUS

The three LEDs at the front of the device are used to indicate current status. The LED colors are green, yellow, and red – much like a traffic light.

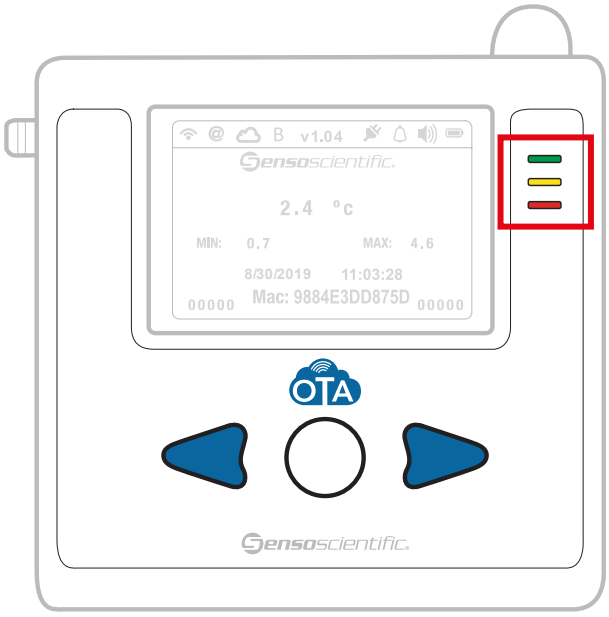
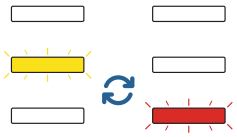


Figure VII-1: LED

The following table explains each LED Status.

	**Wake Up:** A solid yellow light means device will activate periodically to take a reading and reset the screen.
	**Sleep (Battery**): No light shown means device is in sleep mode. Function is only available when the device is powered by battery.
	**MAC Address Not Registered:** A blinking yellow and red light means even though device is connected to an internet-enabled Wi-Fi network, the MAC Address is not registered.

	**Data Alarm (Power Supply):** When device detects data outside predefined alarm limits in the cloud, an alarm will sound on the device. This alarm will persist until either the speaker is turned off or the data returns to a value within the alarm limits.
	**Data Alarm (Battery):** When device detects data outside predefined alarm limits in the cloud, an alarm will sound on the device upon wake up. This alarm will persist until either the speaker is turned off or the data returns to a value within the alarm limits.

Figure VII-2: LED Legend

VIII. PUSH-BUTTON FUNCTIONS

The OTA node offers a push-button interface. Most of the device functionality is accessed from this interface. To prevent unintended functions from being activated, Push-Button sequences are used.

Wake Up:

To get the latest reading and timestamp, press the center button to wake up the device and reset the screen. A solid yellow light will appear and the screen will reset.

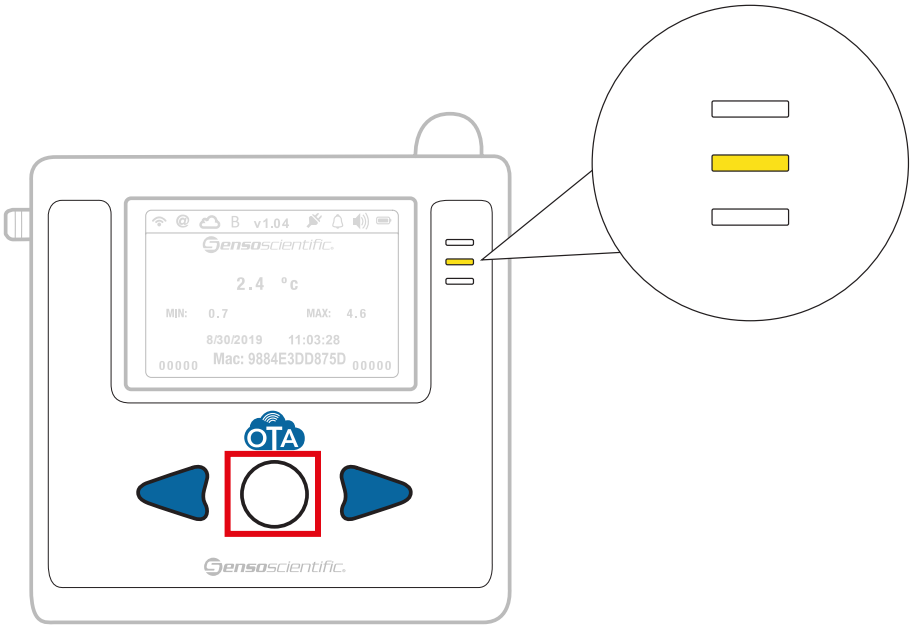


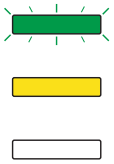
Figure VIII-1: Wake Up Device

Min/Max Reset:

The minimum and maximum readings on the display are constantly updated the moment the device turns on. However, these readings can be reset at any time. The following push-button sequence will accomplish this.

Step 1
Press and hold the center and right button simultaneously. The green and yellow light will flash.

Step 2
Release the center button but continue holding the right button. The yellow light will remain solid and the green light will flash.



Step 3
Once the green light becomes solid, release the right button.

IX. CONTACT SALES / TECHNICAL SUPPORT

Our technical support team is available Monday through Friday, between the hours of 8:00 AM and 5:00 PM Pacific Standard Time. We also provide our clients with 24/7 support for emergency support requirements.

Phone:

800-279-3101

For support assistance, select option 4 when prompted. For sales inquiries, choose option 3 at the prompt.

Fax:

888-238-6002

E-Mail:

salesinfo@sensoscientific.com

support@sensoscientific.com

24/7 Priority Support:

This feature provides our clients a simple way to create support tickets to get in touch with technical support.

Navigate to **HELP** > **Submit a Ticket** in the SensoScientific cloud.

X. DOCUMENT INFORMATION

Version History		
Version	**Modified by**	**Description of Change**
V5.00	ST / 04.04.2024	Initial version

Associated forms and procedures	
Doc. No.	**Document Title**

Associate Records	
Doc. No.	**Document Title**

DOCUMENT END