Sensoscientific®

OTA Series

User Guide

V1.02

Contents

OTA Series 2
Getting to Know Your Device 2
SensoScientific Cloud 3
Setting Up Your Device: App 4
Step 1 – Download App 4
Step 2 – Set Device to Provisioning Mode 5
Step 3 – Connect to Wi-Fi 6
Step 4 – Configure Wi-Fi 8
Setting Up Your Device: Browser 10
Step 1 – Set Device to Provisioning Mode 10
Step 2 – Connect to Wi-Fi 11
Step 3 – Configure the Node 13
Step 4 – Verify Profile 15
Display Notifications 16
LED Status 18
Push-Button Functions 20
Wake Up: 20
Silence Speaker: 21
Min/Max Reset: 22
Turn Off Device: 24
Delete Wi-Fi SSID and Password: 25
Document Information 27

OTA Series

The OTA series is the second generation of Wi-Fi Sensors from SensoScientific. This series of nodes boasts over-the-air upgrade (OTA) 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 2.4GHz 802.11 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 4000 readings locally and transmitting data perpetually to cloud.

Getting to Know Your Device

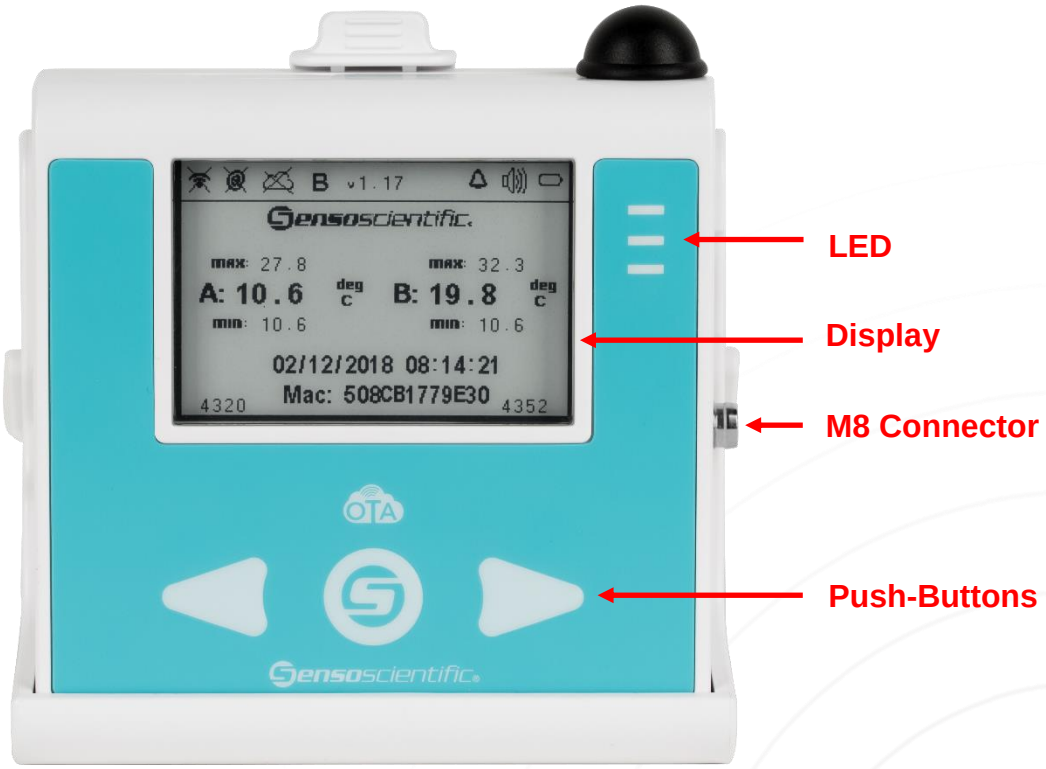


Figure 1 – OTA Node

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.

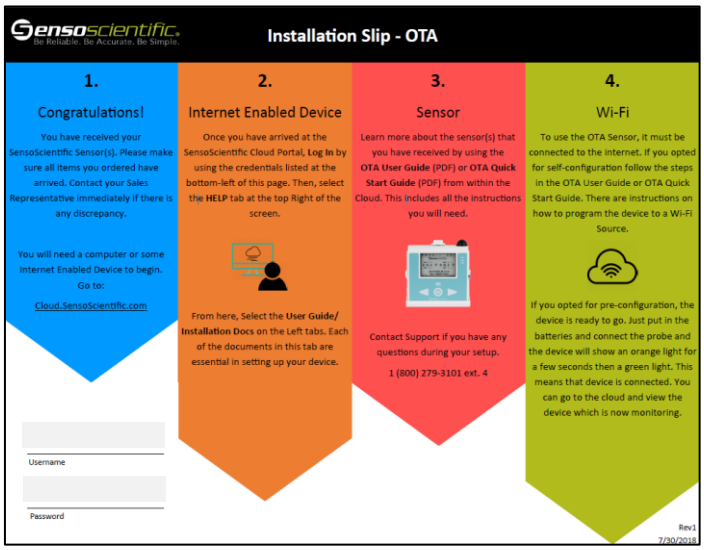


Figure 2 – Installation Slip

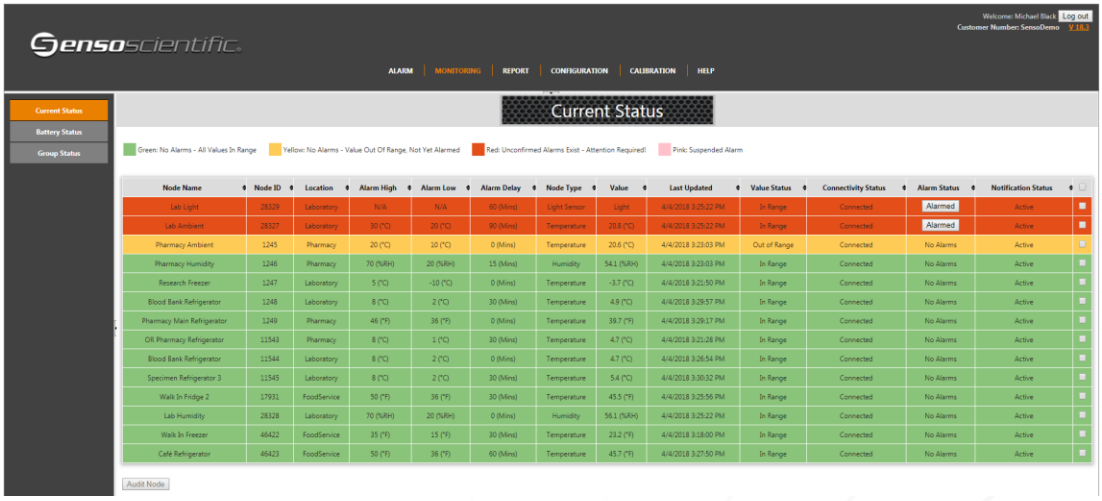


Figure 3 – Cloud Monitoring

Setting Up Your Device: App

The device set-up process takes only a few short minutes. For the device to work properly, it must to 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 smartphone to use, go to the browser method (See Page 10). The following are required to proceed:

1) OTA Wi-Fi Node(s)
2) 2.4GHz Wi-Fi Source
3) Internet accessible iOS or Android cell phone

Note: iOS 8 / Android 6.0 or newer is required.

Step 1 – Download App

Go to your phone's app store. Search and download "*SensoScientific*".

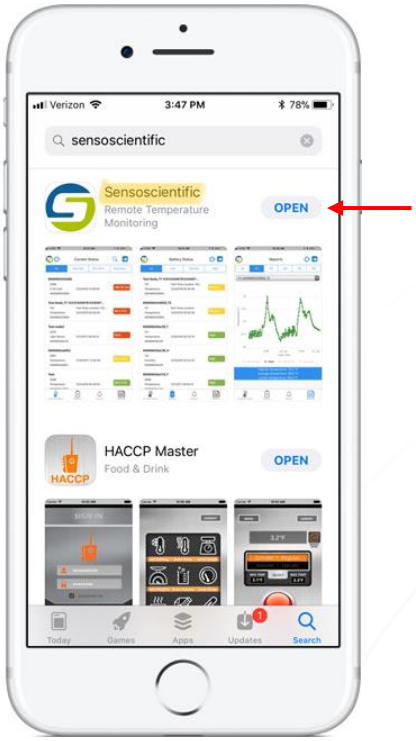


Figure 4 – Search App

Step 2 – 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. After this time, the device will alert that no connection was established by alternating between the green and red LED with an audible beep.

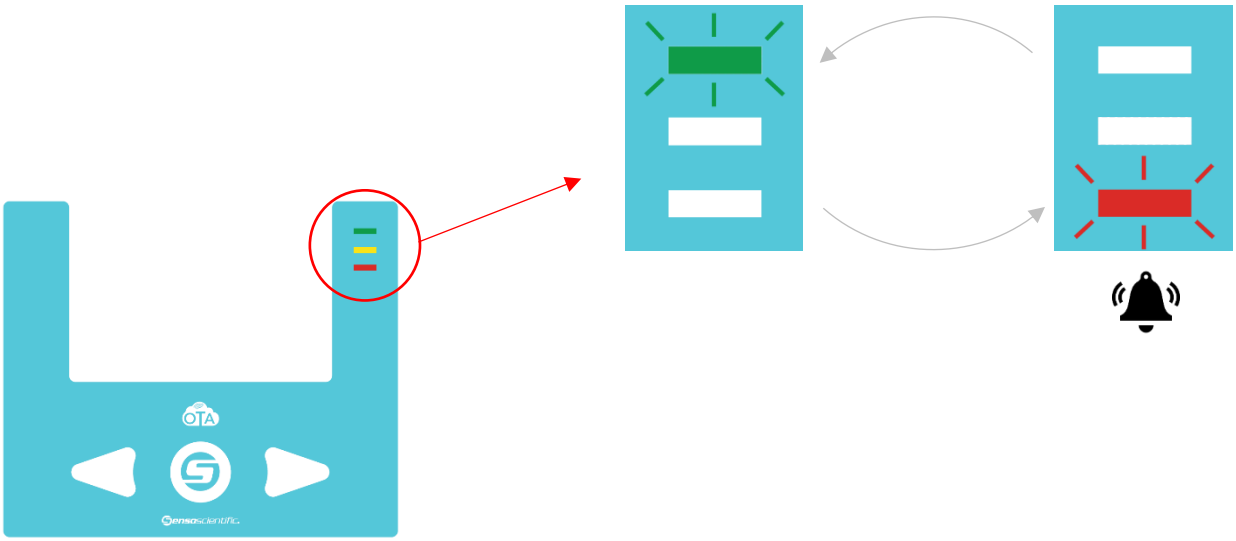


Figure 5 – Provisioning LED Flashing

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

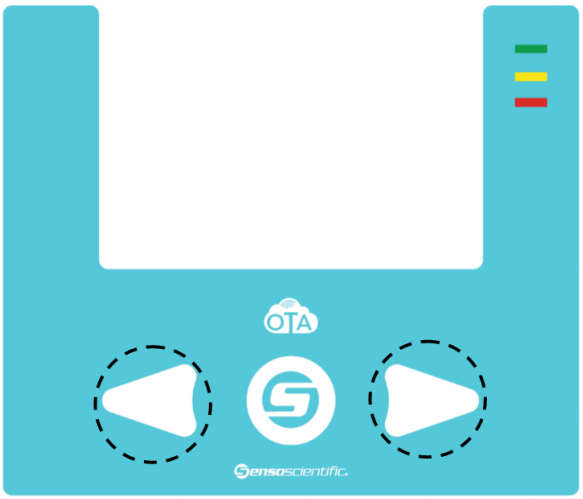


Figure 6 – Provisioning Activation

Step 3 – Connect to Wi-Fi

On your cell phone, connect to the Wi-Fi network *"mysimplelink-57D475"*. This will connect your phone to the OTA Node. See below for further instructions on how to connect your phone to a Wi-Fi network using an iOS or Android device:

Figure 7 – Connect Phone to OTA Sensor

iOS

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.

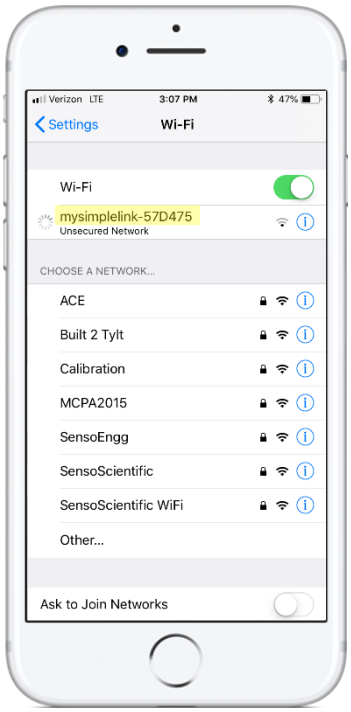


Figure 8 – iPhone Set-Up

Android

1. Open the settings app.
   You can find this in the apps drawer.

2. Tap the Wi-Fi symbol at the top left.

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.

4. Tap Connect to join the network.

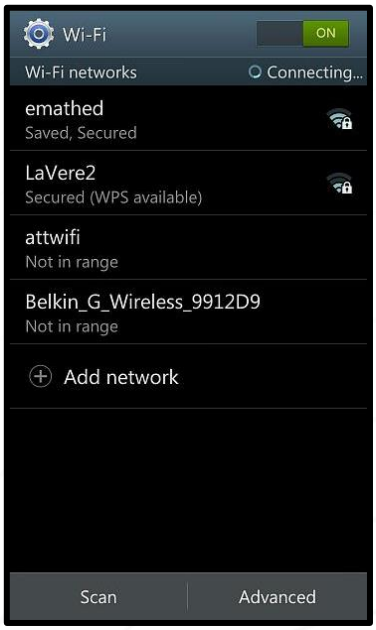


Figure 9 – Android Set-Up

Step 4 – Configure Wi-Fi

Now that you are connected to the OTA node from your cellular phone, go to the SensoScientific app.

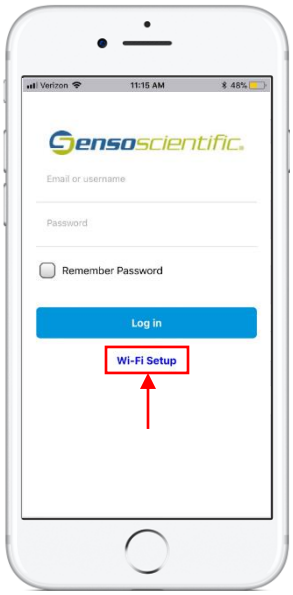


Figure 10 – SensoScientific App

From the app, go to the **Wi-Fi Setup** link at the bottom of the main screen. Configure to the desired network from this platform.

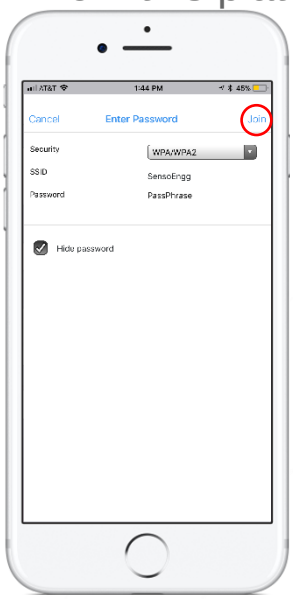


Figure 11 – Wi-Fi Set-Up

Select the security that the network uses and input the appropriate information for the OTA node to join the network.

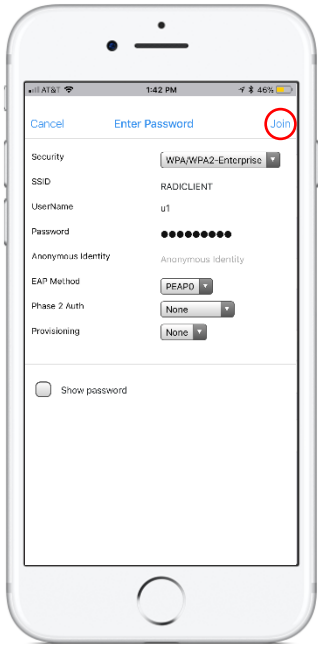


Figure 12 – Enterprise Security

Note: The platform supports enterprise security

Once all the appropriate information has been added, select “Join” at the top right of the screen to connect the device to the desired network. 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
Support extension - option 4 at the prompt

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 (See Figure 2)

Setting Up Your Device: Browser

The device set-up process takes only a few short minutes. For the device to work properly, it must to 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 (See contact page). The following are required to proceed:

1) OTA Wi-Fi Node(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. After this time, the device will alert that no connection was established by alternating between the green and red LED with an audible beep.

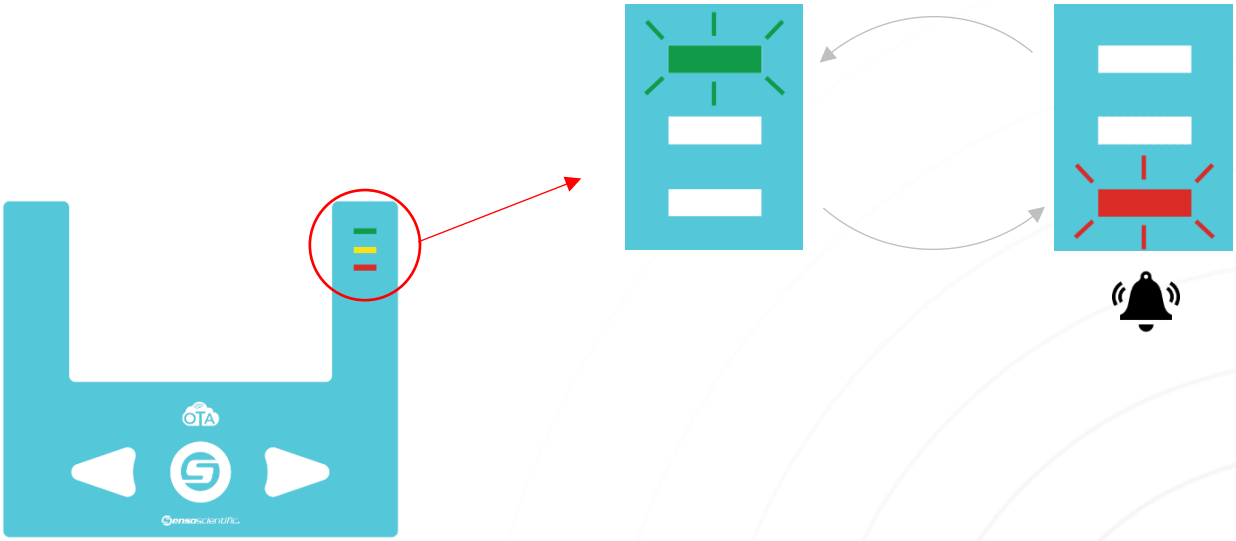


Figure 13 – Provisioning LED Flashing

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

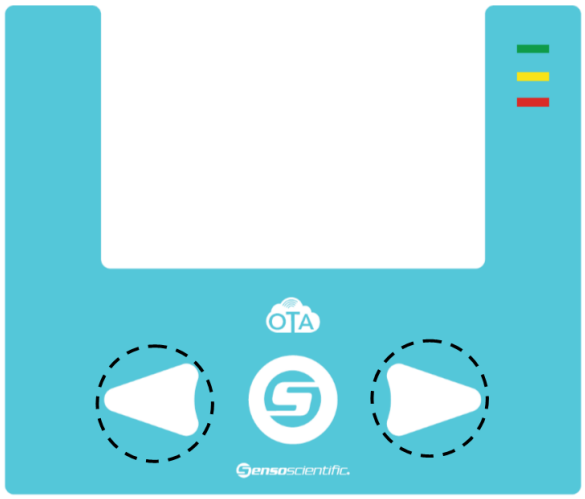


Figure 14 – Provisioning Activation

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. See below for further instructions on how to connect your phone to a Wi-Fi network using an tablets, iOS, or Android device:

Figure 15 – Connect Phone to OTA Sensor

iOS

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.

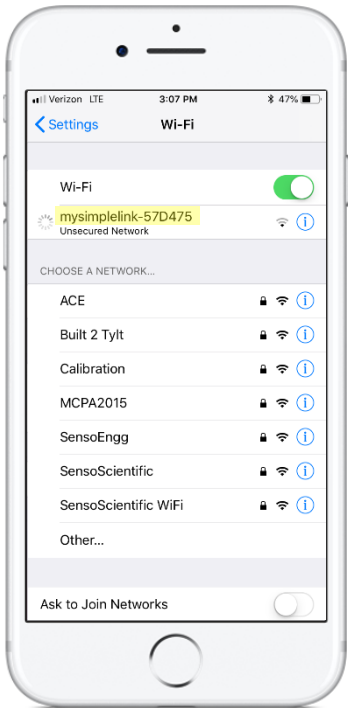


Figure 16 – iPhone Set-Up

Windows 10

1. Open the Network & Internet (press Windows key + I to open the Settings app, or move your cursor to the notification area and click on the network icon).

2. The network icon will list available wireless networks. Select the network you want to connect to and then click Connect. You'll also see Network Settings near the bottom of available wireless networks. This will quickly open the Network & Internet. If you opened Network & Internet from the Settings app, the following figure will also appear:

4. Tap the name of the Wi-Fi network that you want to join - "*mysimplelink-57D475*".

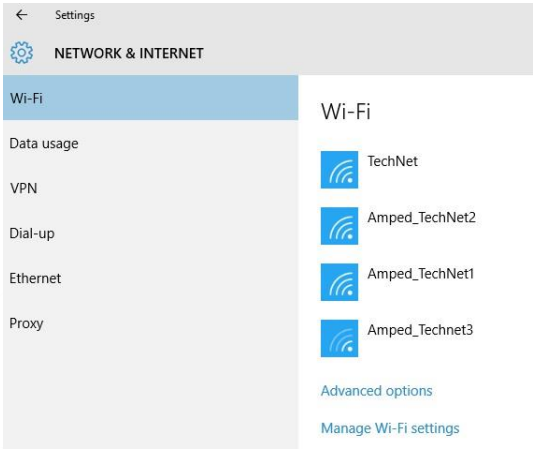


Figure 17 – Windows

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 mysimplelink.net into the browser bar.

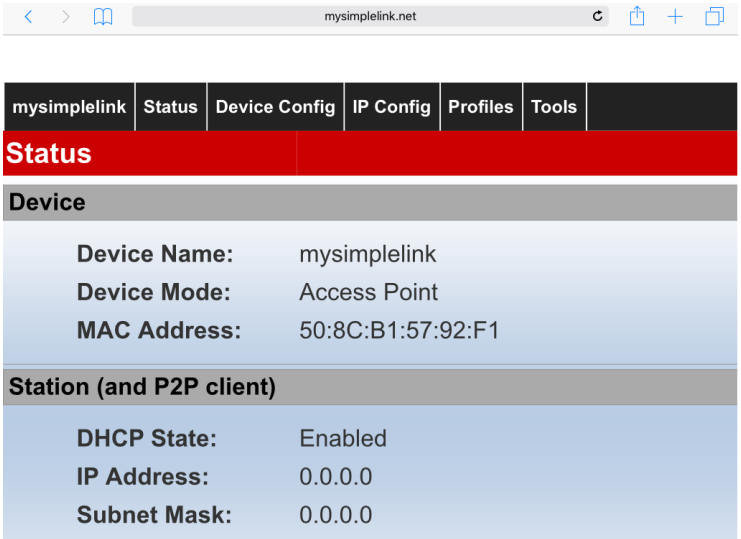


Figure 18 – mysimplelink.net

If Static IP is required, go to the **IP Config** tab. Disable DHCP Client and enter all information in the fields (IP Address, Subnet Mask, Default Gateway, and DNS Server). Once all information is entered select Apply.

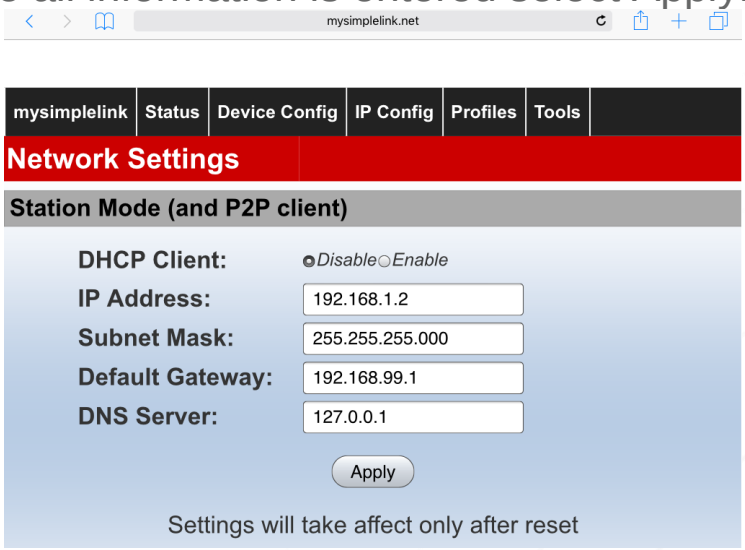


Figure 19 – Static IP

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.

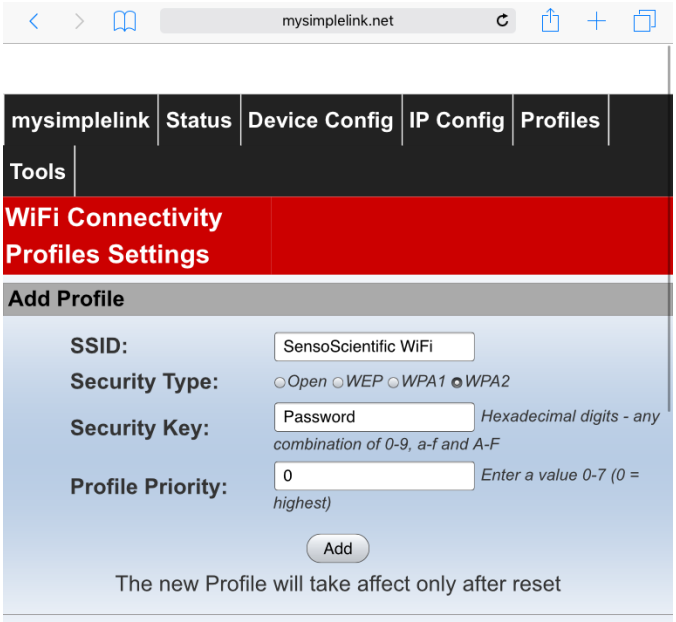


Figure 20 – Network Information

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.

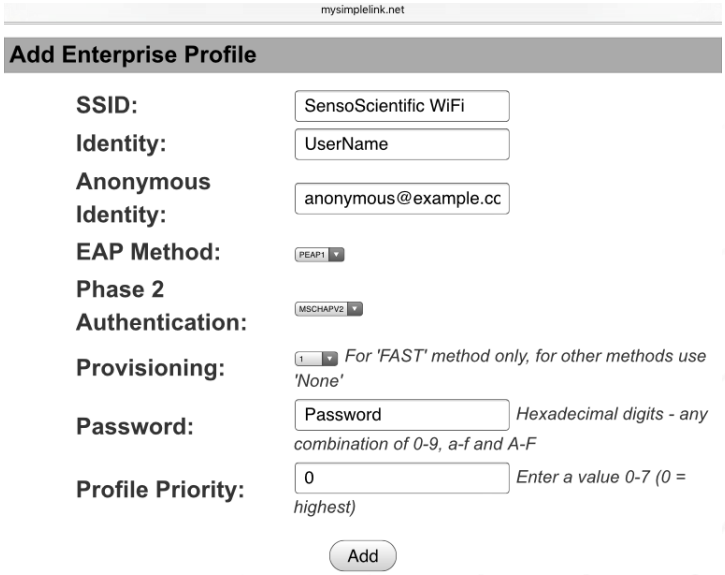


Figure 21 – Enterprise Security

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.

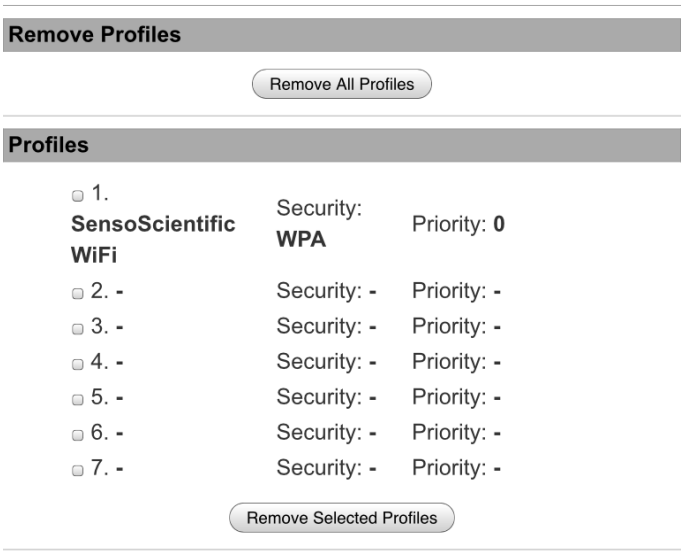


Figure 22 – Profiles

Finally, restart the device twice and the device configuration will be complete. To restart the device, take out the batteries from the back of the device, unplug the power supply, and wait 30 seconds. Put the batteries back in or plug the power supply into the device. Repeat this two-step process again to complete the reset procedure. Once this is done, the device will connect to the network and show a green light. Also, the symbols at the top left of the device screen (notification panel) will not have any crosses through it (See Table 1). 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

Support extension - option 4 at the prompt

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 (See Figure 2)

Display Notifications

The display shows many different notifications which are critical for the operation of the device. Below are descriptions of each of the notifications on the notification panel. See the legend below:

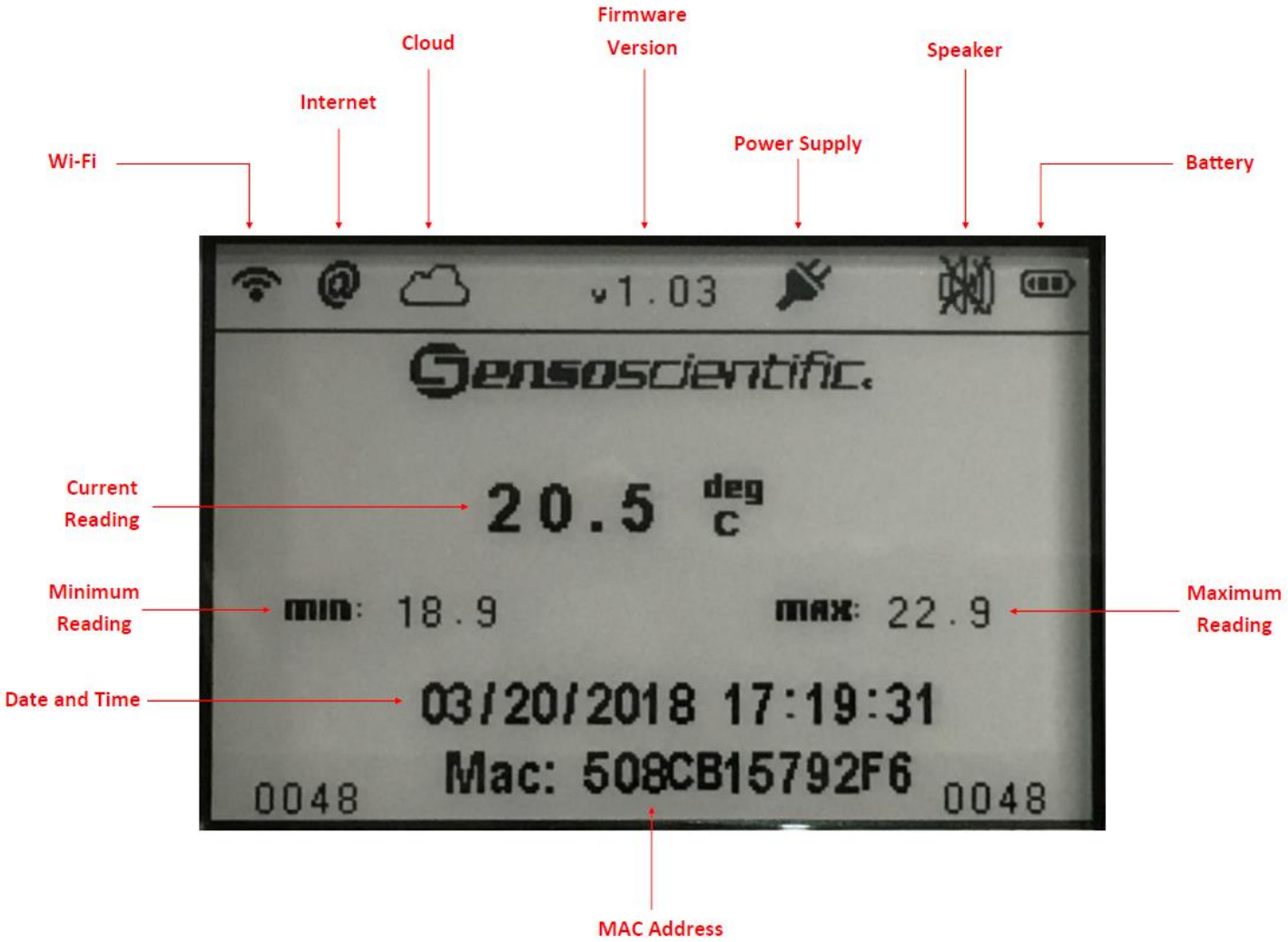


Figure 23 – Display Legend

Note that the B at the top of the display will appear when the Wi-Fi, Internet, or Cloud connection cannot be established.

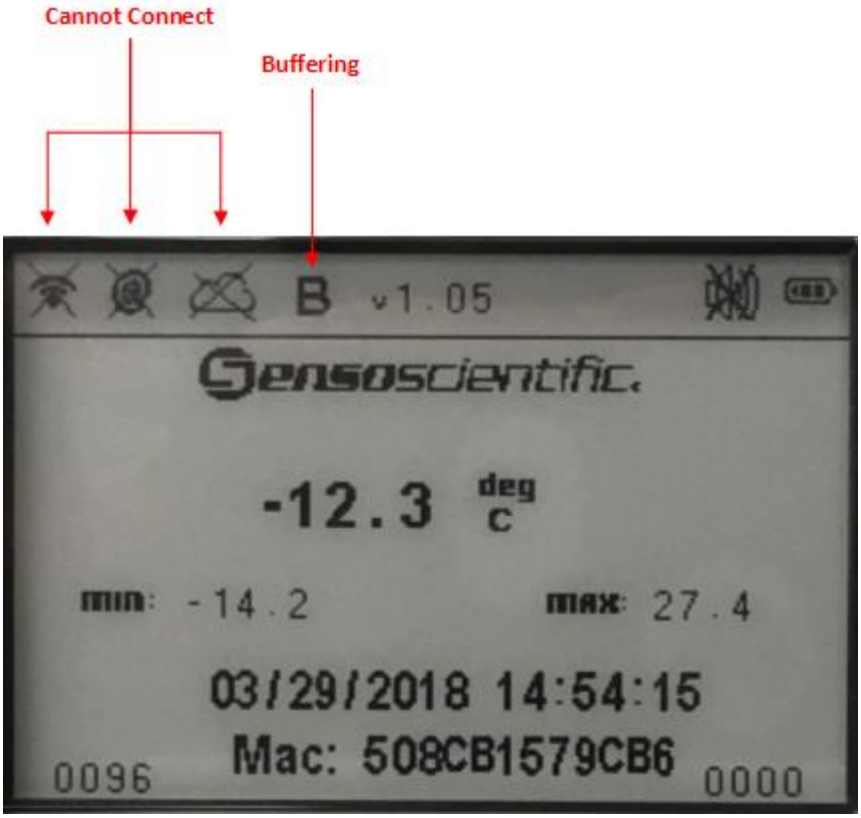


Figure 24 – Buffering

The top of the display is called the notification panel. This is where the all the information about the node is read. Each symbol is explained in the table below:

Symbol	Name	Description:
	Wi-Fi	The Wi-Fi Symbol notifies the user when the device is connected to a Wi-Fi Access point. This symbol will be crossed out when connectivity cannot be established.
@	Internet	The internet symbol notifies the user when the device is connected to the internet. This symbol will be crossed out when connectivity cannot be established.
	Cloud	The cloud symbol shows whether the device is connected to the cloud and is storing data.
B	Buffering	When a connection cannot be established, the temperature readings will be stored on the device. 4000 readings can be saved on the device.
v1.03	Firmware Version	The firmware version line identifies which version of firmware that the device is using.

	Power Supply	The Power Supply symbol shows when the device is connected to power via Micro USB. This symbol will not show when the power supply is not connected.
	Speaker	The Speaker symbol shows whether the audible alarm is on or off. If the audible alarm is off (muted) then the audible alarm will be crossed out and will not sound. The alarm will still alert on the cloud.
	Battery	The battery level is displayed at High, Medium, Low, and Empty.
min: max:	Maximum /Minimum Reading	The minimum and maximum readings show the highest and lowest recorded readings on the device. This can be reset at any time.
Mac:	MAC Address:	A Mac Address is used to uniquely identify the device.

Table 1 – Display Notifications

LED Status

The three LEDs at the front of the device are used to provide user feedback about the device. The LED colors are green, yellow, and red – much like a traffic light.

Figure 25 – LED

The following table explains each of the LED States of the device.

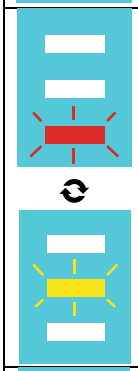
LED	Status	Description:
	Wake Up	The device will wake up periodically to take a reading and reset the screen. During this wake-up function, the LED will show a solid yellow light.
	Sleep (Power Supply)	When the device is connected to a power supply via micro-USB, the device will show a blinking green light when in sleep mode.
	Sleep (Battery)	When the device is powered by battery, the device will <u>not</u> show any light when in the sleep mode.
	MAC Address Not Registered	When the device is connected to the Wi-Fi and can access the internet, it will show a blinking yellow and red light when the MAC Address is not registered.
	Data Alarm (Power Supply)	When the device reads data, which is outside the alarm limits provided in the cloud, an alarm will sound on the device. ***The device will constantly sound*** until either speaker is turned off or the device reads data in the alarm limits.
	Data Alarm (Battery)	When the device reads data, which is outside the alarm limits provided in the cloud, an alarm will sound on the device. ***The device will sound every time the device wakes up*** until either speaker is turned off or the device reads data in the alarm limits.

Table 2 – LED Status

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 most current reading and time stamp, press the center button to wake up the device and reset the screen. The yellow light will turn on solid, and the screen will reset.

Figure 26 – Wake Up Device

Silence Speaker:

To silence the audible alarm speaker, hold the center button for five seconds. The yellow light will flash until you release. Once the button is released, the yellow light will turn solid and the screen will reset. This will silence the audible alarm until the next time the device wakes up and take a reading. In order to permanently disable the audible alarm, it must be disabled from the cloud.

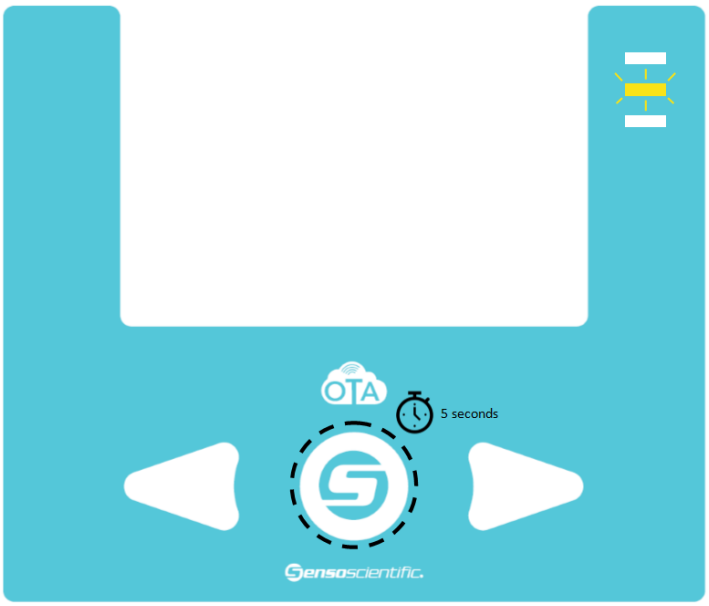


Figure 27 – Turn Off Speaker

Min/Max Reset:

The minimum and maximum readings on the display are constantly updated from when the device is turned on. But, the minimum and maximum readings can be reset at any time. The following push-button sequence will accomplish this.

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

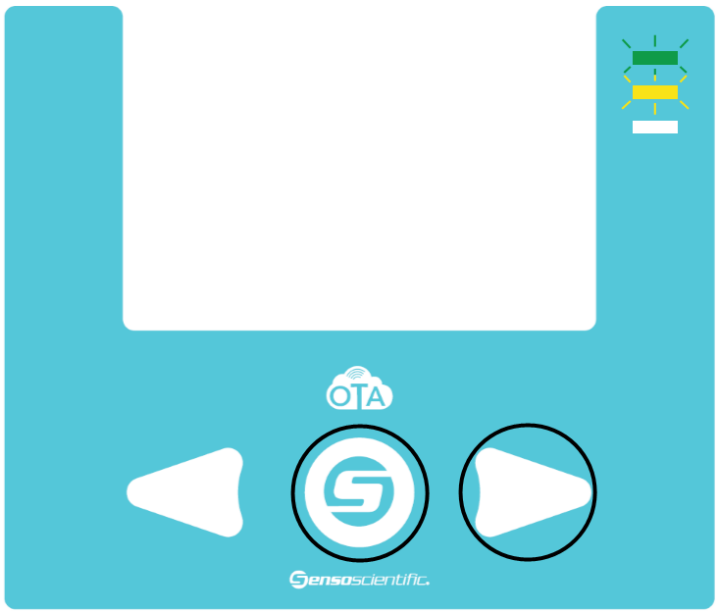


Figure 28 – Min/Max Reset Step 1

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

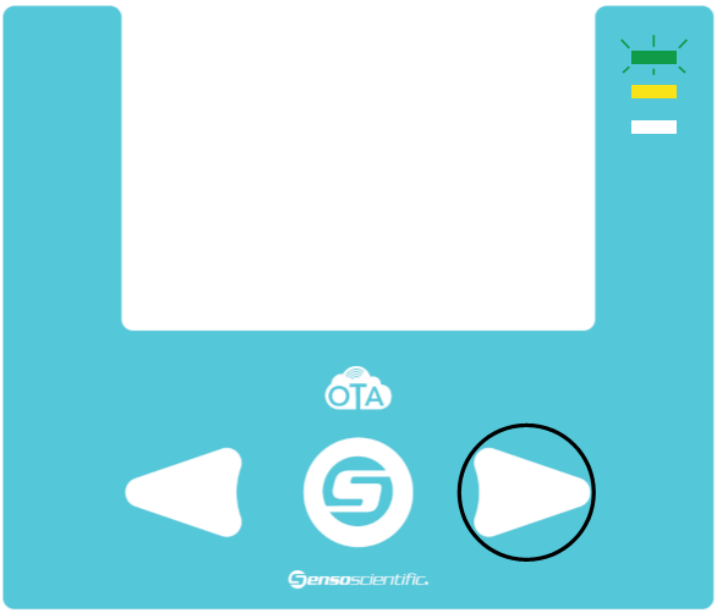


Figure 29 – Min/Max Reset Step 2

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

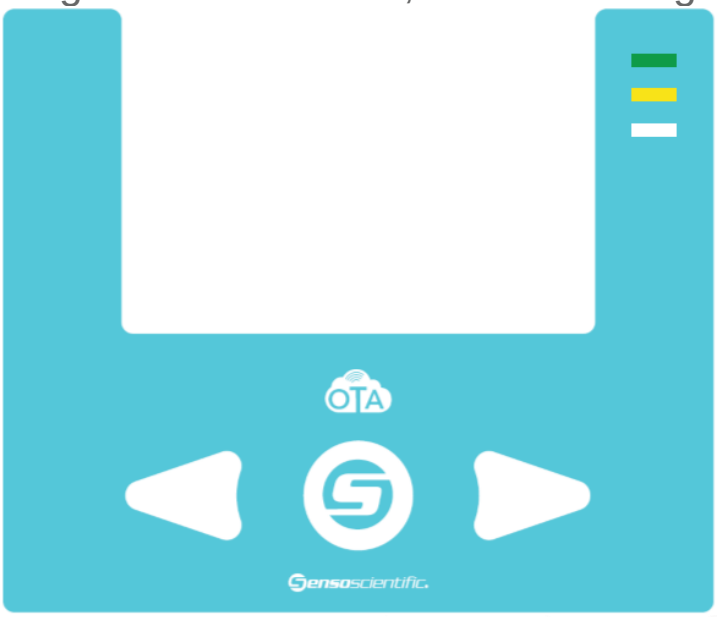


Figure 30 – Min/Max Reset Step 3

Turn Off Device:

To turn off your device. Press and hold the center button for 10 seconds. The screen will flash and turn off. To turn the device back on, press the center button once to reset/wake up the device.

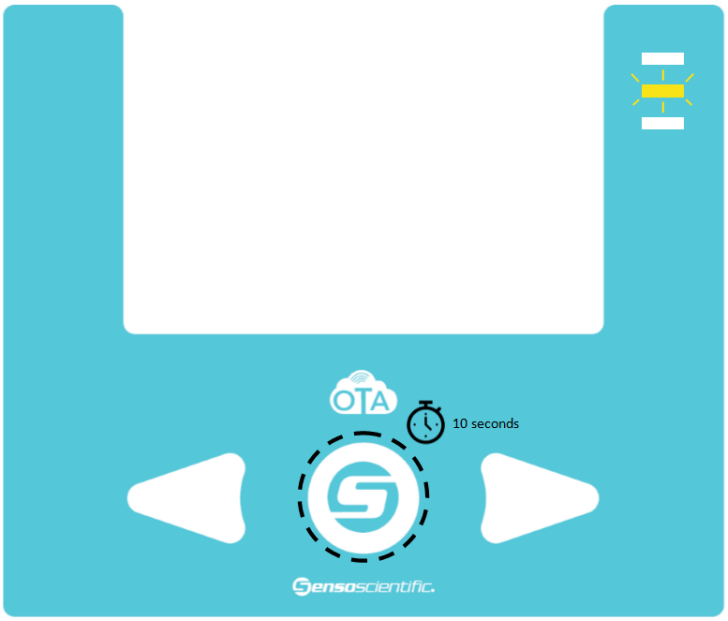


Figure 31 – Turn Off Device

Delete Wi-Fi SSID and Password:

To clear the memory on the device for the Wi-Fi information that has been configured, follow the steps below:

1. Hold the left and center button for 10 seconds until the device stops alarming and blinking red.

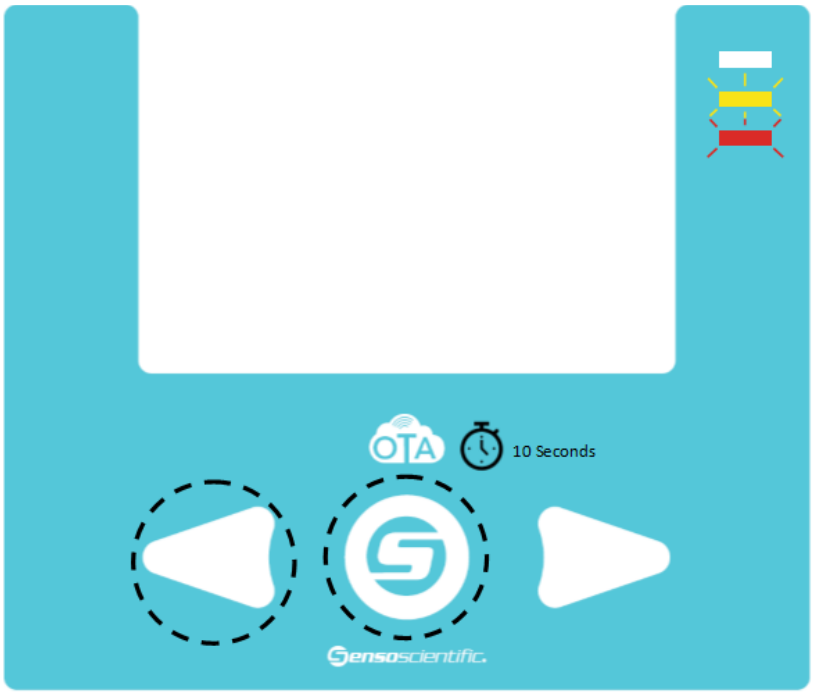


Figure 32 – Delete Wi-Fi Information

Once the Wi-Fi information has been deleted, follow the Wi-Fi setup steps under Setting Up Your Device.

Contact
Sales / Technical Support

Please contact our sales team with any pre-sales questions on our temperature monitoring solutions.

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

E-Mail:
salesinfo@sensoscientific.com
support@sensoscientific.com
Click for SensoScientific's 24/7 Online Help Desk

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This device complies with part 15 of the FCC Rules. 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.

FCC Statement: 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.

The equipment complies with FCC Radiation exposure limit set forth for uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

Document Information

Revision History

Revision	Modified by	Description of Change
V0.06	MB / 04.04.2018	Displays Wi-Fi Setup Mode
V1.00	MB / 05.17.2018	Added Delete Wi-Fi Profile; changed iOS screenshot; Change Device Provisioning Screen.
V1.01	MB / 06.13.2018	Changed Button Prompt to activate Wi-Fi Provisioning Mode
V1.01a	MB / 07.18.2018	SSID of the OTA provisioning updated
V1.01b	MB / 07.30.2018	Browser Configuration, OTA Installation Slip, and ToC
V1.02	MB / 08.29.2018	Authentication Update

Associated forms and procedures

Doc. No.	Document Title

Associated records

Doc. No.	Document Title

DOCUMENT END