

# SensoScientific OTA Data Logger User Manual

V8.2024





Contents .....	1
Sensoscientific OTA Data Logger User .....	2
Knowing The Difference.....	3
Familiarize Yourself With The SensoScientific Node .....	4
Requesting Certified Calibrated Probes .....	5
Print/View Certificate of Calibration.....	6
Removing/Replacing Your Probes.....	7
User Management.....	8
Introduction to the SensoScientific Cloud Portal -SensoScientific Home Page.....	9
Reviewing Temperatures.....	10
Manual Review – Option One.....	10
SensoScientific Cloud Portal Review – Option Two.....	11
Documenting Temperatures .....	13
SensoScientific Alarms.....	14
SensoScientific Data (Temperature) Alarm.....	15
SensoScientific Signal Alarm .....	17
ScensoScientific Battery Alarm.....	18
Confirming Alarms.....	19
Useful Links.....	20

# SENSOSCIENTIFIC OTA DATA LOGGER USER

As a SensoScientific data logger user, you will have the ability to monitor your facility's fridge/freezer temperatures via the SensoScientific Cloud Portal.

Temperatures are transmitted via Wi-Fi to the cloud every 15-20 minutes.

Temperatures can be monitored through the SensoScientific Cloud portal or via the mobile app. The mobile app is available for both IOS and/or Android users.

Download the SensoScientific App:



**Note:** *The SensoScientific mobile app may not be available for all mobile devices and may look different than shown.*

With access to the SensoScientific Cloud Portal ([https:// https://cloud.sensoscientific.com](https://cloud.sensoscientific.com)) you have the ability to access reports, view Min/Max temperatures and run reports to narrow down times for out-of-range temperatures.

This user guide will provide assistance with all alarms (Data, Signal and Battery). All alarms showing in **RED** required immediate action. Action taken will depend on the type of alarm received.

All staff should be trained on what steps should be taken in the event of a temperature excursion and know how to enact your facilities Emergency Response Plan.

# KNOWING THE DIFFERENCE

Knowing the difference between the Node and the Probe is important. The Node displays temperatures of the unit(s). The Probe reads and monitors temperatures and is replaced annually and requires a certificate of calibration. The glycol bottle is filled with glycol and provides a buffer for the probe, this provides more accurate stable temperatures.

## SensoScientific Node

*(Color of node may vary)*



The SensoScientific Node displays the temperatures of your unit(s).

The current, min and max temperatures are always on the display for at a glance easy viewing.

Press the center 'S' button to wake the node from sleep mode

## SensoScientific Probe



It is best to condition the SensoScientific Probe by placing it in your unit(s), at least one-two hours in advance, but can condition 24+ hours prior to installing.

The SensoScientific Probe reads and monitors temperatures.

The SensoScientific Probe(s) must be replaced annually, prior to the Certificate of Calibration expiration.

## Glycol Bottle



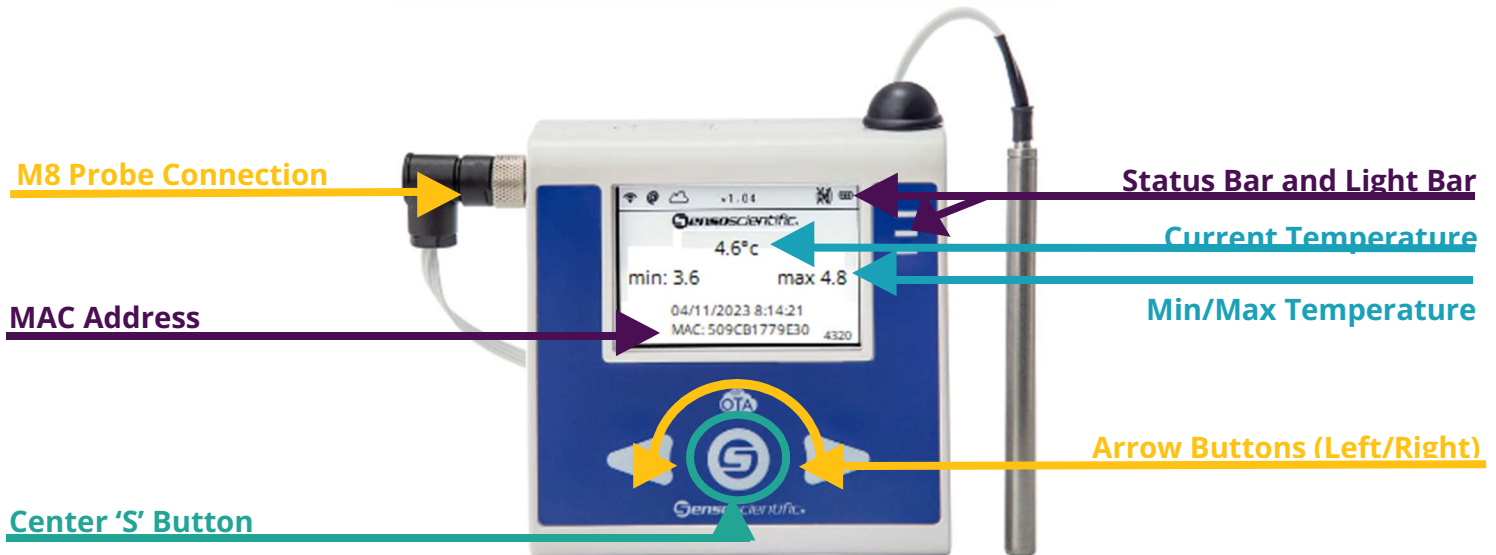
The Glycol Bottle is filled with glycol.

The glycol liquid provides a buffer for the SensoScientific Probe and more accurate temperatures.

Do not discard the bottle or glycol, as you re-use it.

When replacing the probe, be prepared, as the glycol may spill.

# FAMILIARIZE YOURSELF WITH THE SENSOSCIENTIFIC NODE



**Status bar and light bar:** contain valuable information such as connection issues, battery life and alarms. If you are experiencing issues, we will ask what is displayed to help troubleshoot.

**Current and MIN/MAX:** temperatures are displayed at all times.

**M8 Probe Connection:** generally located on the left side of the device, located near the top.

**MAC Address:** Used to uniquely identify the device.

**Center 'S' Button:** Used to wake the device from sleep mode, refresh the temperature, and silence the speaker, aid in min/max reset as well as memory device reset.

You can also power off/on the node by holding the center 'S' button 5xs or hold for 10+ seconds.

- Your facility may need to attempt both options to successfully power off/reset the device.
- Some devices may also have a power switch located on the top of the node.

**Arrow Buttons:** Aid in min/max temperature resets as well as reset the memory on the device.

If a facility is manually viewing and documenting temperatures (not using the cloud portal), the MIN/MAX **MUST** be reset on the device. **THIS IS REQUIRED.** Once daily temperatures are viewed and recorded:

- Press the Center 'S' button and 'Right Arrow' at the same time.
  - The green and yellow light will flash.
- Release the center button, but continue holding the right arrow button.
  - The yellow light will remain solid and the green light will flash.
- Once the green light becomes solid, release the right button.
- This will refresh (resets) the MIN/MAX temperatures. If done correctly, all three temperatures (current, min and max) will display the same.

# REQUESTING CERTIFIED CALIBRATED PROBES



Facilities must request new certified calibrated probes annually. Requests can be made by sending an email to [vacteam@utah.gov](mailto:vacteam@utah.gov). To avoid delays, **DO NOT** contact SensoScientific directly.

All inquiries (not limited to: new certified calibrated probes, user management and/or troubleshooting issues) must be sent and received by [vacteam@utah.gov](mailto:vacteam@utah.gov).

In the email ([vacteam@utah.gov](mailto:vacteam@utah.gov)), you will need to provide the following information:

- Facility Name
- VFC Pin / USIIS ID
- Contact name
- Contact phone number
- Contact email
- Facility mailing address
- Current SRS number(s)
  - This is the Gauge S/N number listed.
- Expiration date(s)
  - This is the due date listed
    - This information can be located on the colored tag that is on the cord.
    - Please include all SRS number(s) in one email to avoid confusion and ensure that all new calibrated probes ship at the same time.

Once received, Vaccine Management staff will reach out with additional questions.

We recommend requesting new calibrated probes at minimum 2 weeks prior to expiration to avoid delays. Creating a calendar reminder is a great way to track when a request should be submitted.

# PRINT/VIEW CERTIFICATE OF CALIBRATION

Upon receipt of new calibrated probe(s), you need to view and print your new certificate of calibration.

Click **'Calibration'**. You can turn on the search in your web browser by using the Ctrl + F buttons on your keyboard. Search for the SRS number(s) to view and retrieve the new Certificates of Calibration.

Once located, click **'View Certificate'**.

The new SRS numbers can be located on the tag on the cord.

You are required to have a valid Certificate of Calibration for each fridge/freezer unit that contains VFC or any State supplied vaccine.

You will need to provide a copy when requested.

It is good business practice to view and print/save the current certificate(s) when new probe(s) are received.

**Certificate of Calibration For**  
**UTAH DEPARTMENT OF HEALTH**  
 Complies with ISO/IEC 17025:2005 Certificate # 20189

**Instrument Identification:**  
 Description: Std probe, 6ft cable, 140°C to 200°C Model # SULTP92-C-SRS2 Serial # SRS38263 Manufacturer SS

**Certificate Information:**  
 Test Conditions: 21.8°C 42.1%/RH Calibration Type: Temperature Calibrated: 7/24/2017 Due Date: 7/24/2018

Calibration Procedure: GCP-SOP-C3 Service: Calibrated in customer space

**Calibration Data:**

Units	Nom In Val	±U	Out Val	Find As	Lt As	Min	Max	±Accuracy	Pass/Fail
°C	-16.3	±0.67	-9.6	-9.5	-9.9	-10.10	-9.10	±0.5	Pass
°C	35.6	±0.67	35.6	34.7	34.7	34.50	35.50	±0.5	Pass

**Equipment Used in Calibration:**

Test Instrument ID	Description	Manufacturer	Model Number	Serial Number
R990-124	Low Temp. Chiller Bath	Labtech	R990-124	14102410000
VERACOOOL 1	Temp Bath	Thermo Scientific	Versacool	0141120801141218

Normal In Value - Test Point; Out Value - Standard's Reading; Found As - Unit Under Test's Reading; Lt As - Unit Under Test's Reading After Adjustment; Min - Out Value - Accuracy; Max - Out Value + Accuracy; ±U - Expanded Measurement Uncertainty; ±Ac - Accuracy.

Calibration Technician: Gaby Rangel Quality Manager: Michael Black

**Certification Statement**

Genoscientific's laboratory is an ISO/IEC 17025:2005 Calibration Laboratory Accredited by American Global Standards (AGS) & The American Association for Laboratory Accreditation (A2LA). The Accreditation demonstrates technical competence for a defined scope and the operation of laboratory quality management systems. The standards that have been utilized in this calibration are certified by, or are traceable to, the National Institute of Standards and Technology (NIST), and meet or exceed manufacturers' requirements for the above mentioned item. Although the item calibrated meets the specification and performance at the time of calibration, due to any number of factors (e.g., aging, temperature, shock, and contamination), the accuracy of the item calibrated does not imply continuing conformance to specification during the recommended interval. Should any earlier or additional recalibration be required, please contact Genoscientific for factory calibration and re-certification (traceable to NIST).

This Certificate shall not be reproduced except in full, without written approval of Genoscientific Inc.



# REMOVING/REPLACING YOUR PROBES

First, place the new calibrated probe in your fridge or freezer. This should be done a minimum of one-two hours in advance. We recommended the probe condition for up to 24+ hours prior to installation. This will help the probe condition to the temperature of the unit and prevent numerous alarms.

It is recommended the probe be mounted in the center of the unit(s). The center of the unit has the most stable temperatures and the least fluctuations. This ensures the correct temperature is recorded and reported.

Once the probe is conditioned, gently remove the probe from the glycol bottle. This may be a little messy; have something on hand to help clean up any glycol that may spill. Do not discard the glycol bottle as you will reuse it.



A minimum of one-two hours in advance to condition probes. We recommended placing the new certified calibrated probe in the unit(s) for 24 hours. prior to installation.



At no time should you cut the cable.

Please note that not all units have accessory ports, verify prior to installing how the probe is installed in your unit(s). Remove the probe from the glycol bottle. Gently slide the probe out of the auxiliary port in your unit.

The glycol bottle will NOT fit through the accessory port.

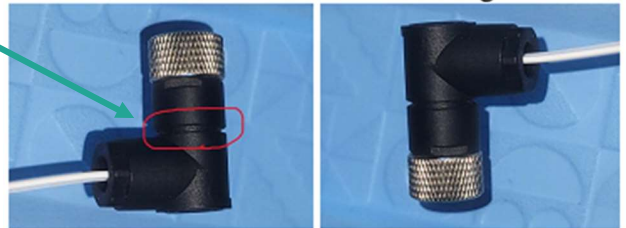


Once you have removed the probe from the unit, unscrew and detach the cord from the node. **DO NOT TWIST THE BLACK CAP**, the prongs will break and are irreparable. Your facility will be held financially responsible for the replacement cost of the node. Repeat the steps in reverse to install the new probe(s).

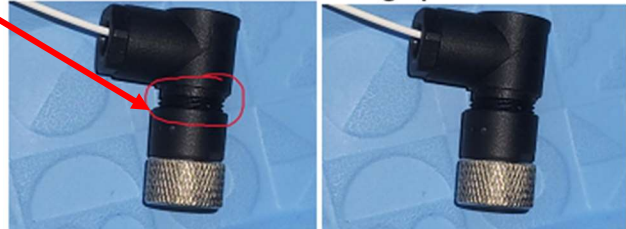


**Important:** verify proper connection of the threads on the probe was made, once installation is complete.

**Correct**-there are no threads showing



**Incorrect**-threads are showing/space between





# USER MANAGEMENT

## **IMPORTANT: DO NOT contact SensoScientific directly**

Prior to 2022, Group Admins had access to manage users for their facility. In a recent update, SensoScientific removed Group Admin access.

All user requests must be requested via email. This is not limited to adding additional user(s), but also removing user access as well. To avoid delays, any/all requests must be sent to [vacteam@utah.gov](mailto:vacteam@utah.gov).

Please note: The Primary and Alternate contacts must have access to the account and receive alarm notifications. Additional staff may also receive alarm notifications. We recommend any/all staff that administer vaccines have access, as they can help identify issues if out of range temperatures occur while the Primary and Alternate contacts are out of the office.

If additional information is needed, staff from the Vaccine Management Team will reach out prior to creating the users account.

### **Here is a list of information needed:**

1. Facility needing access to.
  - a. If multiple locations, please state which locations.
2. User's email.
  - a. Each user must have their own email; this is also their user name.
  - b. An email address can only be used once in the entire SensoScientific system.
    - i. If your facility has private devices and an email is already in use, a different email address will need to be used to access the account under the State provided devices.
3. Will user receive email alarm notifications?
  - a. Yes or No
  - b. The same email provided earlier will be used for notifications.
4. Will user receive text alarm notifications?
  - a. Yes or No
  - b. If yes, a cell phone number that allows text messages must be provided.
5. A temporary password will be assigned when the account is created.
  - a. Upon initial login, the user will be prompted to change the password.
  - b. Password never updates or changes.

The Vaccine Management Team will work to create the user account.

The user will receive an email with login information. Please remember, upon the initial login, the user will be prompted to reset the password.

At any time, a list of user(s) can be requested. We encourage the facility to request this list as frequently as needed to ensure only those that need access, have access.

# INTRODUCTION TO THE SENSOSCIENTIFIC CLOUD PORTAL - SENSOSCIENTIFIC HOME PAGE

Log in to Senso with your username and password: <https://cloud.sensoscientific.com>

The SensoScientific cloud portal app is also available for both IOS and Android users. Please check the [Apple Store](#) or the [Google Play Store](#) on your mobile device to download. This will give you access from anywhere.



Go to your phone's app store.

Search and download "SensoScientific"

*Note: the mobile app may look different for all mobile devices*



While on the Current Status screen, you can check the status of your units and navigate to different reports.

Node Name	Node ID	Location	Alarm High	Alarm Low	Alarm Delay	Node Type	Value	Last Updated	Value Status	Connectivity Status	Alarm Status	Notification Status
UDOH Conservator	35680	Freezer	-14 (°C)	-40 (°C)	60 (Mins)	Temperature	-15.9 (°C)	5/15/2018 9:24:47 AM	In Range	Connected	No Alarms	Active
UDOH Thermo 2	35682	Fridge	8 (°C)	2 (°C)	60 (Mins)	Temperature	3.5 (°C)	5/15/2018 9:18:11 AM	In Range	Connected	No Alarms	Active
UDOH Thermo 3	35683	Fridge	8 (°C)	2 (°C)	60 (Mins)	Temperature	4.2 (°C)	5/15/2018 9:25:48 AM	In Range	Connected	No Alarms	Active
UDOH Thermo 1	35684	Fridge	8 (°C)	2 (°C)	60 (Mins)	Temperature	3.5 (°C)	5/15/2018 9:26:13 AM	In Range	Connected	No Alarms	Active
UDOH Conservator	35685	Fridge	8 (°C)	2 (°C)	60 (Mins)	Temperature	4.0 (°C)	5/15/2018 9:22:04 AM	In Range	Connected	No Alarms	Active
UDOH Whirlpool	35692	Freezer	-15 (°C)	-40 (°C)	60 (Mins)	Temperature	-29.2 (°C)	5/15/2018 9:13:37 AM	In Range	Connected	No Alarms	Active
UDOH Thermo 4 Fridge	35696	Fridge	8 (°C)	2 (°C)	60 (Mins)	Temperature	4.7 (°C)	5/15/2018 9:19:10 AM	In Range	Connected	No Alarms	Active

Image 1

# REVIEWING TEMPERATURES

There are two ways to view and monitor your temperatures; Manual and SensoScientific Cloud Portal Review. You will need to choose one way to take temperatures that works best for your facility.

## MANUAL REVIEW – OPTION ONE

**Note: If the Min/Max are outside of the recommended in range temperatures, excursion protocols must be completed. Excursion paperwork must be submitted with temperature logs to avoid delays.**

Manually verify current and Min/Max temperatures via the node. Document the Min/Max temperatures. If you take temperatures by using this method, you must press the Center 'S' button and the 'Right Arrow' button to reset the Min/Max temperatures daily. Resetting the Min/Max correctly will reset all three temperatures (current, min and max to the current temperature) ensuring the Min/Max was reset correctly.

It is still recommended to review status within the cloud portal. This ensures that any alarms received can be addressed in a timely manner as well as possibly catch and troubleshoot problems during business hours.



1. Review the Current, and Min/Max temperatures. Document the Current and Min/Max temperatures.
2. Simultaneously press and hold the 'Right Arrow' button and Center 'S' button down at the same time. The light bar will start to flash. Once the light bar starts to flash, release the Center 'S' button (continue to hold the 'Right Arrow' button).
3. Important- Once all of the lights on the light bar stop flashing release the 'Right Arrow' button. This will refresh and reset the MIN/MAX temperatures. If done correctly, all three temperatures (current, min and max) will display the current temperature. (For example current, Min and Max should read: 4.6°C)

**Celsius (°C) Temperature Log**      MONTH YEAR June 2024

FACILITY NAME: UDHHS - Immunization Program      **FOR VFC ORDER**

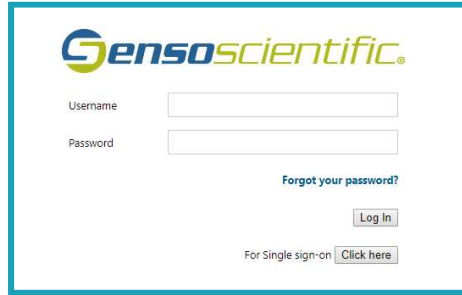
UNIT: Thermo 4      VFC PIN/USHS ID: P-9998 / OSP097

**ANY TEMPERATURES OUTSIDE MANUFACTURER RANGE MUST BE ADDRESSED AND REPORTED.**  
Please submit Action Documents with Temperature Logs.

Day of Month	Time	Staff Initials	FRIDGE		FREEZER		ACTION DOCUMENTATION	OUT OF RANGE TEMPS:
			Temp Range: 2.0 - 8.0° C	In Range? Y / N	Temp Range: <-15° C	In Range? Y / N		
1	7:20	TB	3.3	3.6	Y		<input type="checkbox"/> Senso Report <input type="checkbox"/> Troubleshoot Other:	1. Store the vaccine under proper conditions according to Vaccine Management Plan, as quickly as possible and label "Do Not Use."  2. Calculate time vaccine was out of range from the last recorded in range temperature until the current time (or the time unit temperatures went back into range). <sup>*</sup> Identify worst case scenario. See Emergency Response Worksheet for additional information.  3. Call vaccine manufacturers to determine vaccine stability.
2	9:00	TB	3.3	3.7	Y		<input type="checkbox"/> Senso Report <input type="checkbox"/> Troubleshoot Other:	
3	7:30	TB	3.3	3.6	Y		<input type="checkbox"/> Senso Report <input type="checkbox"/> Troubleshoot Other:	
4					Y / N		<input type="checkbox"/> Senso Report <input type="checkbox"/> Troubleshoot Other:	
5			CLOSED		Y / N		<input type="checkbox"/> Senso Report <input type="checkbox"/> Troubleshoot Other:	
6	8:00	TB	3.2	3.7	Y		<input type="checkbox"/> Senso Report <input type="checkbox"/> Troubleshoot Other:	
7	7:45	TB	3.5	3.8	Y		<input type="checkbox"/> Senso Report <input type="checkbox"/> Troubleshoot Other:	
8	7:20	TB	3.5	3.8	Y / N		<input type="checkbox"/> Senso Report <input type="checkbox"/> Troubleshoot Other:	
9	8:30	TB	3.4	3.7	Y		<input type="checkbox"/> Senso Report <input type="checkbox"/> Troubleshoot Other:	
10	7:10	TB	3.4	3.7	Y		<input type="checkbox"/> Senso Report <input type="checkbox"/> Troubleshoot Other:	
11					Y / N		<input type="checkbox"/> Senso Report <input type="checkbox"/> Troubleshoot Other:	
12			CLOSED		Y / N		<input type="checkbox"/> Senso Report <input type="checkbox"/> Troubleshoot Other:	

# SENSOSCIENTIFIC CLOUD PORTAL REVIEW – OPTION TWO

Note: If the Min/Max are outside recommended in range temperatures, excursion protocols must be completed. Excursion paperwork must be submitted with temperature logs to avoid delays.



By logging into Senso and reviewing current and Min/Max temperatures, by viewing the Monthly Report.

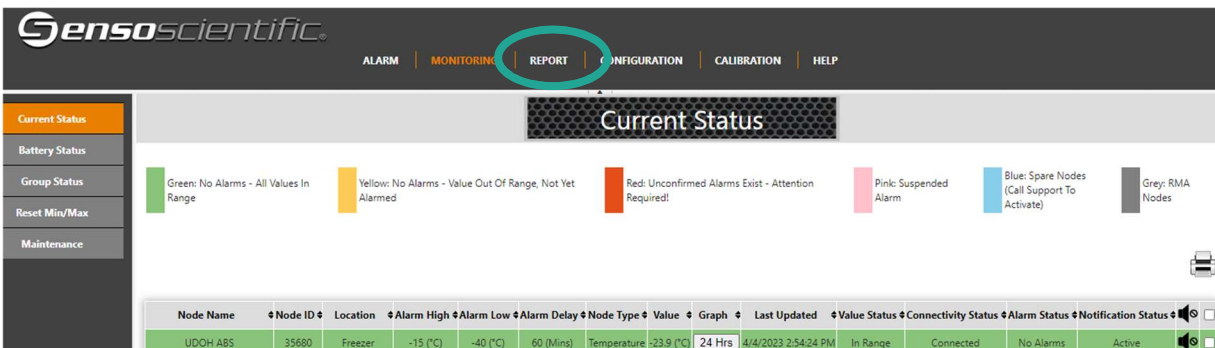
SensoScientific automatically resets the Min/Max daily at midnight each day for those facilities using the cloud portal to review and document temperatures.

Regardless of how your facility chooses to review temperatures, all temperatures are documented on the Manual Temperature Log. Any and all out-of-range temperatures must be documented and action taken.

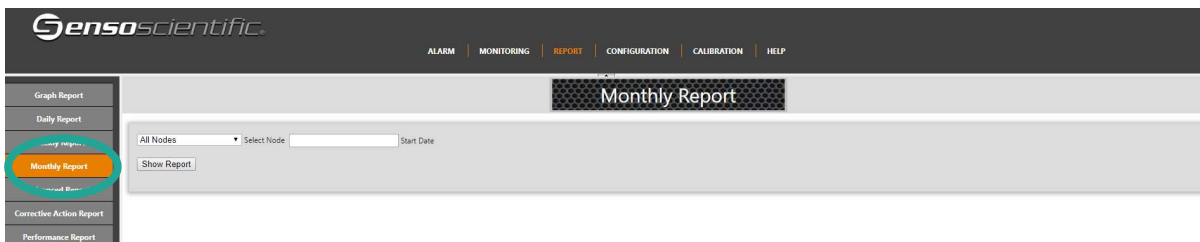
Review and record temperatures from within Sensoscientific Cloud portal.

1. Log in to the Senso portal with your username and password. Each user has their own user name and password. If you do not have access, please contact the Vaccine Management Team for assistance at [vacteam@utah.gov](mailto:vacteam@utah.gov).
2. Once logged into Senso you will be directed to the Current Status Page. This is also known as the Senso Home Page. (Reference image 1, page 9)

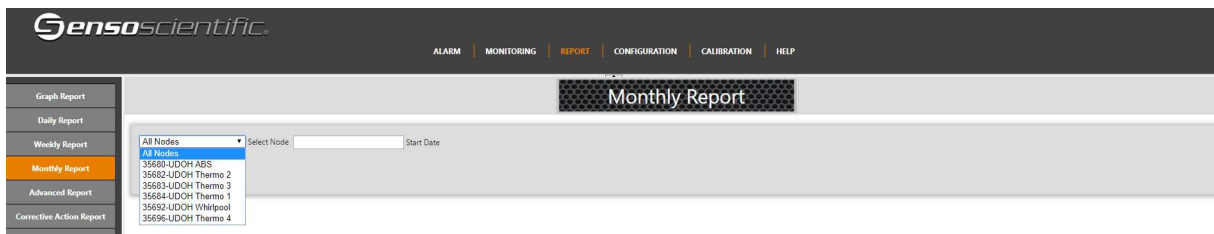
### 3. Select Reports



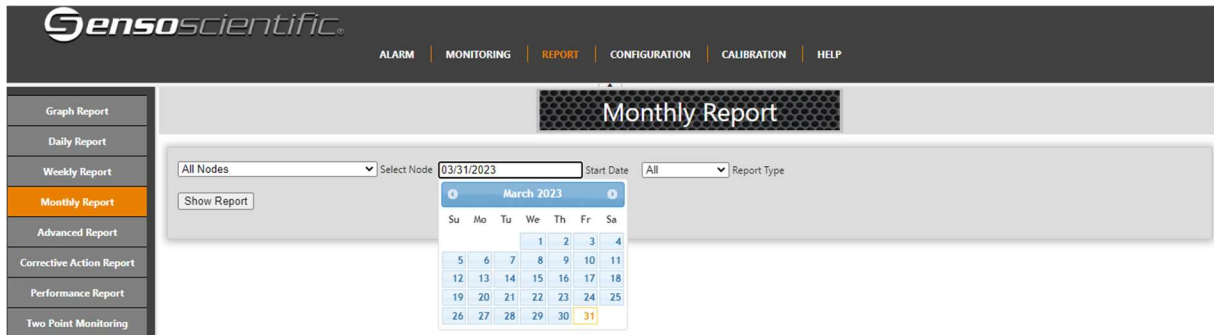
### 4. Select Monthly Reports



5. Select the Nodes. We recommend selecting "All Nodes".



6. Enter the Start Date: this is the date that temperatures were last document/recorded in your facility.



7. Review the Min/Max temperatures to ensure that the unit has not experienced a temperature excursion.

**Monthly Report**

Company Name: UTAH DEPARTMENT OF HEALTH  
 Company Address: 288 NORTH 1460 WEST, SALT LAKE CITY, Utah, 84116  
 Node Selected: All Nodes  
 Start Date: 03/31/2023  
 Report Scope: For One Month      Date Scope: Daily  
 Created By: jgreen@utah.gov      Date Time: 4/4/2023 3:13:40 PM (MDT)

Name	Location	Type	Unit	Min	Avg	Max	From	To	Beat rate
UDOH ABS	Freezer	Temperature	°C	-24.4	-24.0	-22.0	4/4/2023 12:09:32 AM	4/4/2023 3:09:24 PM	61
UDOH ABS	Freezer	Temperature	°C	-24.4	-23.9	-21.1	4/3/2023 12:09:08 AM	4/3/2023 11:54:32 PM	96
UDOH ABS	Freezer	Temperature	°C	-24.5	-24.0	-21.9	4/2/2023 12:08:54 AM	4/2/2023 11:54:07 PM	96
UDOH ABS	Freezer	Temperature	°C	-24.2	-23.9	-21.8	4/1/2023 12:09:14 AM	4/1/2023 11:53:54 PM	96
UDOH ABS	Freezer	Temperature	°C	-24.3	-23.9	-21.7	3/31/2023 12:09:24 AM	3/31/2023 11:54:11 PM	96
<b>UDOH Thermo 4</b>	Fridge	Temperature	°C	<b>3.4</b>	3.6	<b>3.7</b>	<b>4/4/2023 12:03:24 AM</b>	<b>4/4/2023 3:03:13 PM</b>	61
UDOH Thermo 4	Fridge	Temperature	°C	3.4	3.6	3.8	4/3/2023 12:03:30 AM	4/3/2023 11:48:24 PM	96
UDOH Thermo 4	Fridge	Temperature	°C	3.4	3.5	3.8	4/2/2023 12:03:43 AM	4/2/2023 11:48:31 PM	96
UDOH Thermo 4	Fridge	Temperature	°C	3.4	3.5	3.7	4/1/2023 12:03:33 AM	4/1/2023 11:48:43 PM	96
<b>UDOH Thermo 4</b>	Fridge	Temperature	°C	<b>3.4</b>	3.5	<b>3.8</b>	<b>3/31/2023 12:03:10 AM</b>	<b>3/31/2023 11:48:33 PM</b>	96

8. Record the current time, name/initials of staff viewing temperatures, **minimum** and **maximum** temperatures on the **manual Temperature Log**. (Reference example 1, page 11)



# DOCUMENTING TEMPERATURES

Temperatures must be visually inspected and documented every day at the beginning of business hours.

Temperature logs, for Celsius and Fahrenheit, can be located on our [website](#).

Manual temperature paper log(s) are required for recording your DAILY temperatures.

Temperature log(s) are required to be submitted monthly, regardless of ordering schedule. If your facility is eligible to place an order, please make sure to notify the Vaccine Management Team via email ([vacteam@utah.gov](mailto:vacteam@utah.gov)) stating you are placing an order. Including this information on your temperature log or in your email will help avoid delays.

Your temperature log should always include the following information:

1. Reason you are sending your temperature log (*Order vs Monthly review*)
2. Month/Year
3. Facility Name
4. The Unit Name
5. Provider Pin/USIIS ID
6. Staff name/initials
7. Min & Max temperatures
8. Note days your clinic is closed/observed a holiday

**\*Out-of-range temperatures required additional information. Documentation for all out-of-range temperatures must be submitted with the temperature log for vaccine orders.**

Celsius (°C) Temperature Log **FOR VFC ORDER** MONTH/YEAR: June 2024

FACILITY NAME: UDHHS - Immunization Program

UNIT: Thermo 4 VFC PIN/USIIS ID: P-9998 / OSP097

**ANY TEMPERATURES OUTSIDE MANUFACTURER RANGE MUST BE ADDRESSED AND REPORTED.**  
Please submit Action Documentation with Temperature Logs.

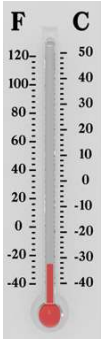
Day of Month	Time	Initials	FRIDGE		In Range?	FREEZER		In Range?	ACTION DOCUMENTATION <small>If temps. in range, write where Incident Report, Plan of Action and Manufacturer Report are located.</small>	OUT OF RANGE TEMPS: 1. Store the vaccine under proper conditions according to Vaccine Management Plan, as quickly as possible and label "Do Not Use." 2. Calculate time vaccine was out of range from the last recorded in range temperature until the current time (or the time unit temperatures went back into range). * Identify worst case scenario. See Emergency Response Worksheet for additional information. 3. Call vaccine manufacturers to determine vaccine viability.
			Temp Range: 2.0 - 8.0° C	Min	Max	Y / N	Temp Range: ≤ -15.0° C	Min		
1	8:00	IB	3.3	3.6	Y / N			Y / N	Sensio Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>	
2	9:00	IB	3.3	3.7	Y / N			Y / N	Sensio Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>	
3	7:30	IB	3.3	3.6	Y / N			Y / N	Sensio Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>	
4					Y / N			Y / N	Sensio Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>	
5		CLOSED			Y / N			Y / N	Sensio Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>	
6	8:00	IB	3.2	3.7	Y / N			Y / N	Sensio Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>	
7	7:45	IB	3.5	3.8	Y / N			Y / N	Sensio Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>	
8	7:20	IB	3.5	3.8	Y / N			Y / N	Sensio Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>	
9	8:30	IB	3.4	3.7	Y / N			Y / N	Sensio Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>	
10	7:10	IB	3.4	3.7	Y / N			Y / N	Sensio Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>	
11		CLOSED			Y / N			Y / N	Sensio Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>	
12					Y / N			Y / N	Sensio Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>	



# SENSOSCIENTIFIC ALARMS



There are three alarms: Data (Temperature), Signal (Loss of Wi-Fi connection), and Battery. All **RED** alarms in SensoScientific Cloud Portal require action. Never leave a **RED** alarm in alarmed status. Action must be taken.



Temperature alarms, also known as a Data alarm, notifies staff that unit(s) are out of range for more than 15 minutes.

Immediate action must be taken to ensure the viability of the vaccine.

If your unit(s) experience out-of-range temperatures, manufacturers should always be contacted via their online excursion tools or by phone and excursion paperwork should always be included with temperature logs when submitted to avoid additional delays.



You can time stamp temperatures within SensoScientific by pressing center 'S' button.

The SensoScientific node can store up to 4000 temperatures, In the event of a Wi-Fi outage, once Wi-Fi is re-established and no changes are made, temperature data will start to transmit.

This is a great tool to use in the event of an excursion. It will document the exact time the excursion occurred and the duration.



\*Signal alarm notifies staff that the WI-FI connection is down. Once the connection is re-established, temperature data will be transmitted.

It is good business practice if a Wi-Fi outage is known to last for more than 50 minutes to monitor with backup data loggers, this will help ensure there is no loss of temperature data.

As a last resort, you may need to turn the power off/on to re-establish the Wi-Fi connection. Doing this will result in the stored temperature data to be deleted, *which can result in additional time from staff and information and paperwork to be submitted.*



\*Battery alarm notifies staff that the battery is low and needs to be replaced. When you or your staff receives this alarm, it is time to replace your batteries. The Immunization Program no longer supplies replacement batteries.

Senso requires four standard Lithium **AA** batteries. Use of any other AA battery (such as alkaline) may damage the device and be at the expense of the facility.

*\*Signal and Battery alarm notifications received during non-business hours does not necessarily require immediate action, but should be reviewed. Action can be taken when you return to the office during business hours.*

# SENSOSCIENTIFIC DATA (TEMPERATURE) ALARM

When a temperature alarm is received, it may come across as a data alarm. This alarm is notifying you that you have a unit with out-of-range temperatures. **IMMEDIATE ACTION MUST BE TAKEN.**

An email containing the Graph report will show the temperature excursion. All staff should know what to do in the event of an emergency and how to enact your facilities [Vaccine Management Plan](#).

Once your unit has gone back into range or the issue has been corrected, document the action taken. You will need to confirm the alarm within Senso to return the node to green status.



In the event of a temperature excursion, run the Advance Report within Senso for the period in question. Selecting 'All' in the drop down in this report will help pinpoint the length of time your vaccine were exposed to out of range temperatures.

Advanced Report

Name	Location	Type	Unit	Value	Date/Time
UDOH ABS	Freezer	Temperature	°C	-23.2	PM 8/14/2018 5:27:28
UDOH ABS	Freezer	Temperature	°C	-22.3	PM 8/14/2018 5:12:25
UDOH ABS	Freezer	Temperature	°C	-19.9	PM 8/14/2018 4:57:19
UDOH ABS	Freezer	Temperature	°C	-14.0	PM 8/14/2018 4:42:14
UDOH ABS	Freezer	Temperature	°C	-4.0	PM 8/14/2018 4:27:11
UDOH ABS	Freezer	Temperature	°C	6.4	PM 8/14/2018 4:12:08
UDOH ABS	Freezer	Temperature	°C	12.6	PM 8/14/2018 3:57:05
UDOH ABS	Freezer	Temperature	°C	9.5	PM 8/14/2018 3:42:00
UDOH ABS	Freezer	Temperature	°C	11.3	PM 8/14/2018 3:26:54
UDOH ABS	Freezer	Temperature	°C	8.4	PM 8/14/2018 3:11:50
UDOH ABS	Freezer	Temperature	°C	5.1	PM 8/14/2018 2:56:47
UDOH ABS	Freezer	Temperature	°C	-1.2	PM 8/14/2018 2:41:40
UDOH ABS	Freezer	Temperature	°C	-11.1	PM 8/14/2018 2:26:30
UDOH ABS	Freezer	Temperature	°C	-20.2	PM 8/14/2018 2:11:27
UDOH ABS	Freezer	Temperature	°C	-24.2	PM 8/14/2018 1:56:23

Green highlighted show the in-range temperatures, date, and time.

The red highlighted section shows out-of-range temperatures, date, and time.

In this example: the in-range temp before the excursion was 2:26 PM. The next in-range temp was at 4:57 PM. Calculate the time between in-range to in-range. The vaccines were in out of range temps for a total 2 hours 31 minutes.

Document all information on the Troubleshoot Record. Provide as much information as possible to avoid delays in processing vaccine order.



## Vaccine Storage Troubleshooting Record

Use this form to document any unacceptable vaccine storage event, including temps outside recommended range, once vaccine has been placed into proper conditions.

Facility Name:		Facility ID/USIIS ID:	
<b>Date &amp; Time of Event</b> If multiple, related events occur, see Description of Event below.	<b>Unit Information</b>	<b>Storage Unit Temperature</b> during an out-of-range event.	<b>Person Completing Report</b> at the time the problem was discovered.
Date:	Unit Name:	Minimum (lowest) temp: <input type="checkbox"/> °C <input type="checkbox"/> °F	Name:
Time:	<input type="checkbox"/> Refrigerator <input type="checkbox"/> Freezer	Maximum (highest) temp: <input type="checkbox"/> °C <input type="checkbox"/> °F	Title: Date:
<b>Description of Event</b> (If multiple, related events occurred, list each date, time, and length of time out of storage.)			
<ul style="list-style-type: none"> <li>General description (i.e., what happened?)</li> <li>Estimated length of time between event and last documented reading of storage temperature in acceptable range (36° to 46°F [2° to 8°C] for refrigerator; -58° to 5°F [-50° to -15°C] for freezer).</li> <li>Inventory of affected vaccines, including (1) lot #'s and (2) whether purchased with public (for example, VFC) or private funds (Use separate sheet if needed, but maintain the inventory with this troubleshooting record).</li> <li>Prior to this event, have there been any storage problems with this unit and/or with the affected vaccine?</li> <li>Include any other information you feel might be relevant to understanding the event.</li> </ul>			
<b>Action Taken</b> (Document thoroughly. This information is critical to determining whether the vaccine might still be usable)			
<ul style="list-style-type: none"> <li>When were the affected vaccines placed in proper storage conditions? (Note: Do not discard the vaccine. Store exposed vaccine in proper conditions and label it "do not use" until after you can discuss with the Utah Immunization Program and/or the manufacturer(s).)</li> <li>Who was contacted regarding the incident? (List all: Supervisor, Utah Immunization Program, manufacturer(s) including Case Number.)</li> <li>IMPORTANT: What did you do to prevent a similar problem from occurring in the future?</li> </ul>			
<b>Results</b>			
<ul style="list-style-type: none"> <li>What happened to the vaccine? Was it able to be used? If not, was it returned to the distributor? Enter the Return/Waste Authorization number from VOMS for reference and include the Manufacturer's case numbers and/or information provided from the Manufacturer's online excursion calculator tools. <i>Not all manufacturers have excursion tools available on their websites.</i></li> <li>(Note: For publicly-purchase vaccines, complete Return/Waste in VOMS for accountability i.e.: Return ID 11991/ Waste ID 59499.)</li> </ul>			
I have reviewed the above documentation and have ensured measures have been taken at our facility to prevent similar vaccine loss in the future.			
Primary Coordinator	Signature	Date	Back-up Coordinator
			Signature
			Date
Medical Director	Signature	Date	

EXAMPLE 6

A false temperature alarm, also referred to as temperature spike, may occur. The Graph report will show the temperature in range, went immediately out of range, then right back into range. For this alarm, you simply need to confirm and document that it was temperature spike and include the graph when submitting.



EXAMPLE 7

# SENSOSCIENTIFIC SIGNAL ALARM



The signal alarm notifies you that the Wi-Fi connection has been lost.

When you receive the alarm, the node has tried to connect to the Wi-Fi to transmit the stored data for two hours. Once the Wi-Fi connection is re-established, press the 'S' button to transmit any stored data. You will then need to confirm the alarm within the SensoScientific cloud portal to turn the status back to 'Green' and active status.

It is good business practice to monitor with backup data loggers if a Wi-Fi outage is known to last for more than 50 minutes. This will help ensure there is no loss of temperature data.

If your Wi-Fi connection is going to be down longer than a few hours, you can suspend your alarm to avoid receiving multiple notifications. Once your Wi-Fi connection is re-established you will then need to re-confirm your alarm to turn the status back to 'Green' and put the node back into active status. If the alarm is not re-confirmed, it will re-alarm once the time elapses and additional action will be required.

A signal alarm received after normal business hours does not require immediate attention. You can address the issue when you are back in the office.

If the Wi-Fi connects before you receive an alarm, you will not receive an alarm and no additional action is required.



1. Once Wi-Fi is re-established, 'Buffering' should appear on the display and temperature data should start to transmit.
2. If temperature data does not automatically start to transmit, press the center 'S' button to force the node to re-establish the Wi-Fi connection and transmit stored temperature data.

**Important:** As a last resort, you may need to power off/on the node to re-establish the connection.

**Please Note:** The OTA node can store up to 4000 temperature readings. Once the Wi-Fi reconnects, the device will show buffering on the screen and stored reading should transmit and be available via the cloud portal. You may need to power off/on the Senso node to re-establish the Wi-Fi connection. Turning the Senso node off should be done as last resort as any stored data may be lost.

# SCENSOSCIENTIFIC BATTERY ALARM



The battery alarm is notifying you that the battery level is below 5%. At that time, you should replace the batteries.

The Senso Node OTA does not require a special battery, as previous models have. It requires **four AA LITHIUM** batteries. Due to the amount of energy the node draws, Lithium batteries last longer. Use of any other battery (such as alkaline) can result in damage to the device and may be at your clinic's expense.

The Immunization Program no longer supplies replacement batteries.

You can extend the length of your batteries by making sure you are keeping your devices plugged in to an external power source. Pressing the 'S' button frequently may result in a false battery reading.

A battery alarm received after normal business hours does not require immediate attention. You can address the issue when you are back in the office.

You can be proactive in checking the status of your battery by logging into Senso and viewing the Battery Status Report. Click the sub tab Battery Status and you are able to view the battery life.

The screenshot shows the SensoScientific web interface. The top navigation bar includes 'ALARM', 'MONITORING', 'REPORT', 'CONFIGURATION', 'CALIBRATION', and 'HELP'. The 'Battery Status' sub-tab is selected. The main content area displays a table with the following data:

Node Name	Node ID	Location	Node Type	Status	Message	Last Updated	Alarm Status	Power Source
UDOH ABS	35680	Freezer	Temperature		Normal	8/21/2018 11:50:15 AM	No Alarms	N/A
UDOH Thermo 2	35682	Fridge	Temperature		High	8/21/2018 11:57:00 AM	No Alarms	N/A
UDOH Thermo 3	35683	Fridge	Temperature		High	8/21/2018 11:48:59 AM	No Alarms	N/A
UDOH Thermo 1	35684	Fridge	Temperature		High	8/21/2018 11:53:51 AM	No Alarms	N/A
UDOH Whirlpool	35692	Freezer	Temperature		High	8/21/2018 11:49:47 AM	No Alarms	N/A
UDOH Thermo 4	35696	Fridge	Temperature		High	8/21/2018 11:54:10 AM	No Alarms	N/A



# CONFIRMING ALARMS

Once an alarm has been triggered within Senso, you must take action. You must take action even if your unit goes back into range, the Wi-Fi is reconnected, or you replace the battery.

**All alarms MUST be confirmed once the issue has been identified and corrected.**

If the alarm is confirmed, and the unit is still experiencing issues, you will continue to receive alarms.

How to confirm the alarm in Senso:

1. If you are not already logged into Senso, log into Senso.
2. While on the "Monitoring" tab, you will see nodes in alarmed state those are in **RED**. Click "Alarmed" in the Alarm Status column for the appropriate node.

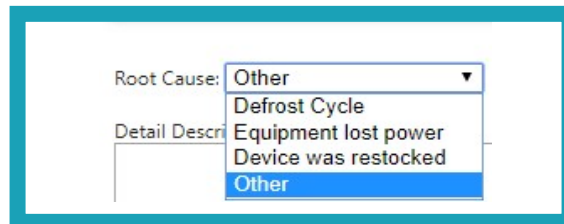
Fridge	8 (°C)	2 (°C)	10 (Mins)	Temperature	-206.7 (°C)	24 Hrs	4/4/2023 2:47:35 PM	Out of Range	Connected	Alarmed	Active		
Freezer	-15 (°C)	-40 (°C)	10 (Mins)	Temperature	-206.7 (°C)	24 Hrs	4/4/2023 2:54:42 PM	Out of Range	Connected	Alarmed	Active		
Fridge	8 (°C)	2 (°C)	10 (Mins)	Temperature	5.0 (°C)	24 Hrs	4/4/2023 1:06:02 PM	In Range	Disconnected	Alarmed	Active		
Freezer	-15 (°C)	-40 (°C)	10 (Mins)	Temperature	-24.4 (°C)	24 Hrs	3/23/2023 7:49:00 AM	In Range	Disconnected	Alarmed	Active		

*Please note: you may need to repeat this step for multiple alarms.*

3. On the "View Alarm" page, click Take Action

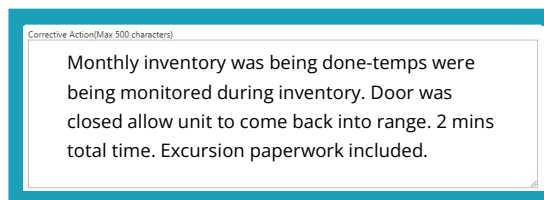


4. On the Diagnose Alarm Page, Select the "**Root Cause**" from the drop down box. There are a few options, choose the one that best describes your alarm.



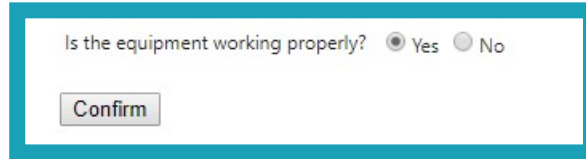
5. Enter the action taken in the **Corrective Action box**.

This will be a description of the incident. For example, "the batteries were replaced", "the door was found ajar and closed", "adjustments were made to the unit settings", or "unit recently restocked". Please remember that in the event of a temperature alarm, provide as much information as you can.



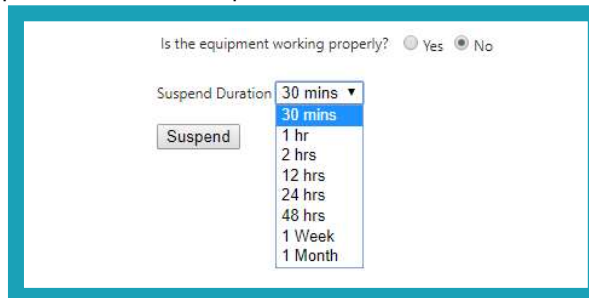


6. Once you have verified the equipment is working property click 'Confirm'. This will move you out of alarmed state and back to green. If you are still experiencing issues, you will receive another alarm.



A screenshot of a web form with a light blue border. At the top, it asks "Is the equipment working properly?" with two radio buttons: "Yes" (selected) and "No". Below this is a "Confirm" button.

7. If your equipment has failed, you cannot re-establish the Wi-Fi connection or you are still experiencing issues, you can suspend your alarm. Mark 'No' that the equipment is not working properly. Then, choose the length of time to suspend the alarm and click 'Confirm'. You will receive another alarm once the time lapses. If you need more time, repeat the above steps.



A screenshot of a web form with a light blue border. At the top, it asks "Is the equipment working properly?" with two radio buttons: "Yes" and "No" (selected). Below this is a "Suspend Duration" dropdown menu currently set to "30 mins". The dropdown menu is open, showing options: "30 mins", "1 hr", "2 hrs", "12 hrs", "24 hrs", "48 hrs", "1 Week", and "1 Month". A "Suspend" button is located below the dropdown.

When alarms are suspended, the **RED** status on the Current Status screen will update to **PINK** and re-alarm after the time elapses. If the problem is corrected before re-alarm, action is still required within Senso to clear the alarm.

9. Once corrections are made, and/or the equipment is operating within normal ranges, repeat steps to confirm your alarm to get back to **GREEN** active status.

## USEFUL LINKS

**Immunization Web Page:** Official website of the Immunization Program where information can be found for healthcare providers, School and early childhood programs and other immunization related information.

**VFC Forms:** Training, Provider & Eligibility Forms, VFC Educational Material, Report Forms, Storage & Handling Forms, Tally Sheets, and more. The website is updated to keep required information current.

**Vaccine Storage & Handling Toolkit:** View/Print the current Vaccine Storage and Handling Toolkit [Jan 2023] from CDCs website.

**USIIS Portal:** Login to the USIIS portal to gain access to USIIS Immunize, Vaccine Inventory, Doses Administered Reporting, VOMS, Clinic Reports & Batch Processes, and more.

**SensoScientific Login Portal:** Log in to view temperatures, run reports, and confirm alarms.

Download the SensoScientific mobile app:   

**Note:** *The SensoScientific mobile app may not be available for all mobile devices and may look different than shown..*

**\*\*Please note – If any sites are bookmarked in your web browser, they may need to be refreshed/updated to reflect the most current information\*\***



### QUESTIONS?

For additional assistance, please contact the Vaccine Management Team [vacteam@utah.gov](mailto:vacteam@utah.gov) or (801) 538-9450