

# SENSOSCIENTIFIC OTA DATA LOGGER USER MANUAL

V5.2023



Utah Department of Health  
**IMMUNIZATION  
PROGRAM**  
Immunize for healthy lives

**Utah VFC**  
  
Utah Vaccines for Children



Utah Department of  
**Health & Human Services**  
Population Health

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# SensoScientific OTA Data Logger User

V5.2023

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

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

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

Download the SensoScientific App



With access to the [Senso Cloud Portal](https://cloud.sensoscientific.com) (<https://cloud.sensoscientific.com>), you can access reports, view Min/Max temperatures, and report out of range temperatures.

We will go over all alarm types within Senso (Data, Signal, & Battery). All alarms showing in red need immediate attention. 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 clinics Emergency Response Plan. We will cover this in more detail later on.

# Know the difference:

## Senso Node

*(Color of node may vary)*



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

The display will show for approximately 30 seconds then go into sleep mode.

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

We will discuss this into more detail.

## Senso Probe



It is best to condition the Senso Probe, by placing it in your unit(s) to get to temperature, at least **24** hours prior to installing.

The Senso Probe is reading and monitoring temperatures.

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

## Glycol Bottle

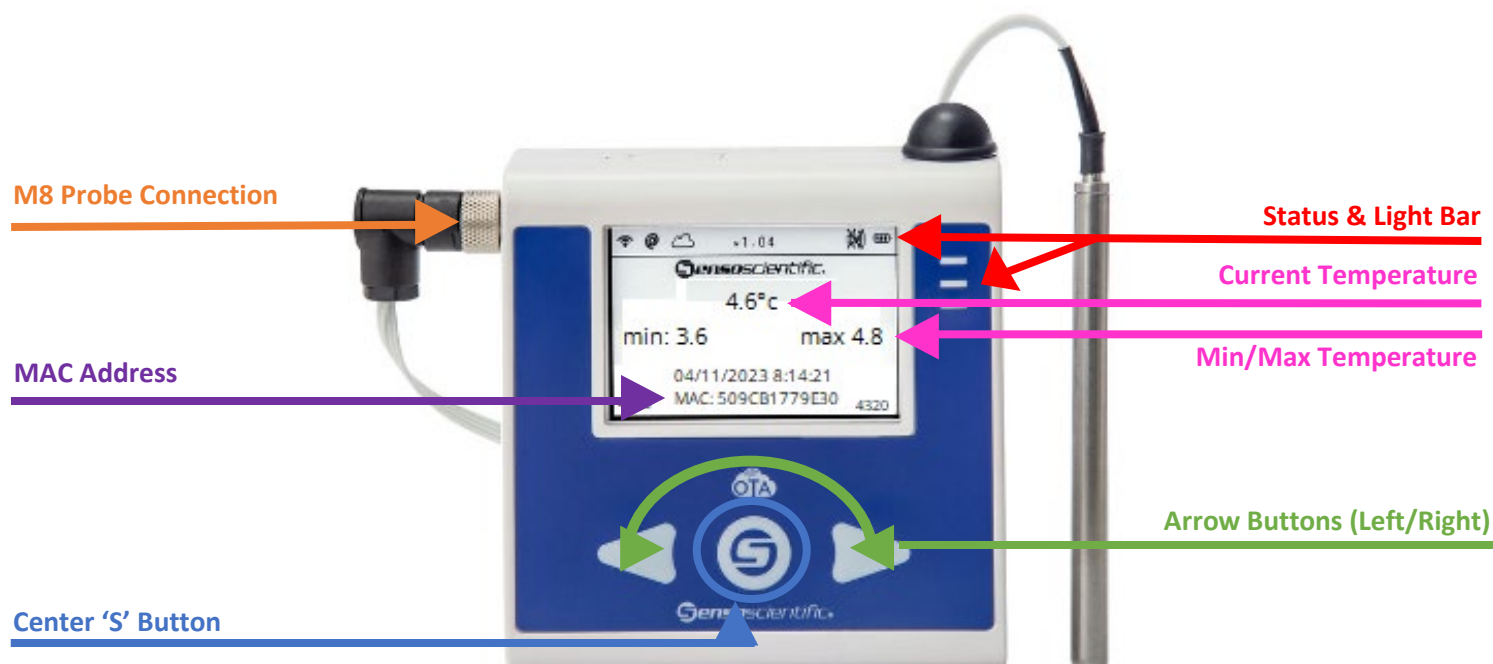


The Glycol Bottle is filled with glycol.

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

When replacing the probe, glycol may spill.

## Familiarize yourself with the Senso Node



**Status 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 for 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 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 Annually



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 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/SDS 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/SDS 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. If you provided all of the following information, shipping information.

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.

## Printing/Viewing your Certificate of Calibration:

Now you have received new calibrated probe(s), you need to view and print your new certificate of calibration.

Click '**Calibration**'. Turn on the search feature by using the Ctrl + F buttons on your keyboard. Search for the SRS/SDS number(s) to view and retrieve the new Certificates of Calibration. Once located, click '**View Certificate**'.

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

SensoScientific

ALARM | MONITORING | REPORT | CONFIGURATION | **CALIBRATION**

Calibration Status

Sort By: Gauge Serial # Show Previous Probe History

Yellow: Calibration Almost Due Red: Calibration Past Due Orange: Probe Inactive

Print Certificates

Gauge Serial #	Probe Type	Certificate #	Calibration Date	Calibration Due Date	Calibration Type	Calibration Duration	Occurrence	View Certificate	Calibration Alarm Enabled	Notes	Shipping Address
SRS38263	Std probe.6ft cable.-10C.35C	20189	7/24/2017	7/24/2018	STANDARD	Annual	Recurring	View Certificate	✓		
SRS38264	Std probe.6ft cable.-10C.35C	20190	7/24/2017	7/24/2018	STANDARD	Annual	Recurring	View Certificate	✓		
SRS38265	Std probe.6ft cable.-10C.35C	20191	7/24/2017	7/24/2018	STANDARD	Annual	Recurring	View Certificate	✓		
SRS38266	Std probe.6ft cable.-10C.35C	20192	7/24/2017	7/24/2018	STANDARD	Annual	Recurring	View Certificate	✓		
SRS38267	Std probe.6ft cable.-10C.35C	20193	7/24/2017	7/24/2018	STANDARD	Annual	Recurring	View Certificate	✓		
SRS38268	Std probe.6ft cable.-10C.35C	20194	7/24/2017	7/24/2018	STANDARD	Annual	Recurring	View Certificate	✓		
SRS38269	Std probe.6ft cable.-10C.35C	20195	7/24/2017	7/24/2018	STANDARD	Annual	Recurring	View Certificate	✓		
SRS38270	Std probe.6ft cable.-10C.35C	20196	7/24/2017	7/24/2018	STANDARD	Annual	Recurring	View Certificate	✓		
SRS38271	Std probe.6ft cable.-10C.35C	20197	7/24/2017	7/24/2018	STANDARD	Annual	Recurring	View Certificate	✓		
SRS38272	Std probe.6ft cable.-10C.35C	20198	7/24/2017	7/24/2018	STANDARD	Annual	Recurring	View Certificate	✓		
SRS38273	Std probe.6ft cable.-10C.35C	20199	7/24/2017	7/24/2018	STANDARD	Annual	Recurring	View Certificate	✓		
SRS38274	Std probe.6ft cable.-10C.35C	20200	7/24/2017	7/24/2018	STANDARD	Annual	Recurring	View Certificate	✓		

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

SensoScientific Calibration Lab  
220 West Ave, Suite 2  
San Valley, CA 93603  
ISO 17025:2005 Accredited

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

Certificate # 20189

**Instrument Identification:**  
Description: Std probe.6ft cable.-10C.35C Model # SULTP60-C-SRS2 Serial # SRS38263 Manufacturer SS

**Calibration Information:**  
Test Conditions: 21.9°C 42.7uR Calibration Type: Temperature Calibrated: 7/24/2017 Due Date: 7/24/2018  
Calibration Procedure: GCP-SOP-03 Service: Calibrated to customer specs

**Calibration Data:**

Units	Norm In Val	±U	Out Val	Fnd As	Lft As	Min	Max	±Accuracy	Pass/Fail
°C	-16.3	±0.67	-6.6	-9.8	-9.8	-19.10	-8.10	±0.5	Pass
°C	35.6	±0.67	35.0	34.7	34.7	34.30	35.50	±0.5	Pass

**Equipment Used in Calibration:**

Test Instrument ID	Description	Manufacturer	Model Number	Serial Number
TH100-125	Low Temp Chiller Bath	Laurel	TH100-125	14102819555
VERSA-COOL 1	Temp Bath	Thermo Scientific	Versacool	0141125801141218

Nominal In Value - Test Point: Out Value - Standard's Reading: Found As: Unit Under Test's Reading: Left As: Unit Under Test's Reading: After Adjustment: Min: Out Value - Accuracy: Max: Out Value - Accuracy: ±U - Expanded Measurement Uncertainty: ±MC-Accuracy

Calibration Technician: Gaby Rungt  
Quality Manager: Michael Black

**Certification Statement**

SensoScientific's laboratory is an ISO/IEC 17025:2005 Calibration Laboratory Accredited by American Global Standards (AGS) & The American Association for Laboratory Accreditation (A2LA). This 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 calibrator meets its specification and performance at the time of calibration, due to any number of factors (e.g. aging, temperature, shock and contamination), the recommended due date of the item calibrated does not imply continuing conformance to specification during the recommended interval. Should any error or additional recalibration be required, please contact SensoScientific for factory calibration and re-certification traceable to NIST.

This Certificate shall not be reproduced except in full, without written Approval of SensoScientific Inc.



## Removing and replacing probes in your unit(s).

First, place the new calibrated probe in your fridge or freezer. 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.

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.



We recommended placing the new certified calibrated in the probe in the unit(s) for 24 hours, prior to installation



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. At no time should you cut the cable.

Once the probe is removed from the unit, unscrew and detach the cord from the node. **Do not** twist the black cap, the prongs will break and are irreparable.

Repeat the steps in reverse to install the new probe(s).



Correct



Incorrect



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.



## **Requesting and Managing User Access**

**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 that access. Email requests for managing user access. This is not limited to adding additional user(s) but removing access as well. To avoid delays, any/all requests must be sent to [vacteam@utah.gov](mailto:vacteam@utah.gov).

The Primary and Alternate contacts must have access to the account and 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. Users email.
  - a. Each user must have their own email; this is also their user name.
3. Will user receive email alarm notifications?
  - a. Yes or No
  - b. The same email provided earlier.
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, the password will be prompted to be reset upon the initial login.

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

# Introduction to Senso Cloud Portal and the Senso 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 in the [Apple Store](#) and the [Google Play Store](#) on your phone to download. This will give you access from anywhere.



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



**SensoScientific**

Username

Password

[Forgot your password?](#)

For Single sign-on

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

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ALARM | **MONITORING** | REPORT | CONFIGURATION | CALIBRATION | HELP

Current Status

Green: No Alarms - All Values In Range   Yellow: No Alarms - Value Out Of Range, Not Yet Alarmed   Red: Unconfirmed Alarms Exist - Attention Required!   Pink: Suspended Alarm

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 (Min)	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 (Min)	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 (Min)	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 (Min)	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 (Min)	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 (Min)	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 (Min)	Temperature	4.7 (°C)	5/15/2018 9:19:10 AM	In Range	Connected	No Alarms	Active

Image 1

## Documenting Temperatures

There are two ways to view and monitor your temperatures. Choose one way to take temperatures that works best for your facility.

### **Option 1:**



Manually verify current and Min/Max temperatures. 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.

### **Option 2:**



Log into Senso and verify the current and Min/Max temperatures by viewing the Monthly Report.

All temperatures are document on the Manual Temperature Log. Any out of range temperatures must be documented and action taken.

These two options will be shown in detail.

## Option 1:

### Review and record temperatures from the Senso Node

Note: If the Min/Max are outside of the recommended in range temperatures, excursion protocols must be completed.



1. Review the Current, and Min/Max temperatures.

Document the Current and Min/Max temperatures on the Manual Temperature paper log.

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).

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 same.

Celsius (°C) Temperature Log **FOR VFC ORDER** MONTH/YEAR: March 2023

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.

FRIDGE						FREEZER						ACTION DOCUMENTATION	OUT OF RANGE TEMPS:
			Temp Range: 2.0 - 8.0° C		In Range? Y / N				Temp Range: ≤ -15.0° C		In Range? Y / N		
Day of Month	Time	Staff Initials	Min	Max	↓	Min	Max	↓					
1	7:20	TB	3.3	3.6	Y / N				Y / N	Sensor Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>	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		
2	9:00	TB	3.3	3.7	Y / N				Y / N	Sensor Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>			
3	7:30	TB	3.3	3.6	Y / N				Y / N	Sensor Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>			
4					Y / N				Y / N	Sensor Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>			
5		CLOSED			Y / N				Y / N	Sensor Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>			
6	8:00	TB	3.2	3.7	Y / N				Y / N	Sensor Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>			
7	7:45	TB	3.5	3.8	Y / N				Y / N	Sensor Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>			
8	7:20	TB	3.5	3.8	Y / N				Y / N	Sensor Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>			
9	8:30	TB	3.4	3.7	Y / N				Y / N	Sensor Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>			
10	7:10	TB	3.4	3.7	Y / N				Y / N	Sensor Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>			
11					Y / N				Y / N	Sensor Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>			
12		CLOSED			Y / N				Y / N	Sensor Report <input type="checkbox"/> Troubleshoot Other: <input type="checkbox"/>			

## Option 2:

### Review and record temperatures from within Senso

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 your system administrator.
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 5)
3. Select Reports

Node Name	Node ID	Location	Alarm High	Alarm Low	Alarm Delay	Node Type	Value	Graph	Last Updated	Value Status	Connectivity Status	Alarm Status	Notification Status
UDOH ABS	35680	Freezer	-15 (°C)	-40 (°C)	60 (Mins)	Temperature	-23.9 (°C)	24 Hrs	4/4/2023 2:54:24 PM	In Range	Connected	No Alarms	Active

4. Select Monthly Reports

Monthly Report

All Nodes ▼ Select Node Start Date

Show Report

5. Select the Nodes. We recommend selecting “All Nodes”.

Monthly Report

All Nodes ▼ Select Node Start Date

Show Report

- All Nodes
- 35680-UDOH ABS
- 35682-UDOH Thermo 2
- 35683-UDOH Thermo 3
- 35684-UDOH Thermo 1
- 35692-UDOH Whirlpool
- 35696-UDOH Thermo 4

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

Monthly Report

All Nodes ▼ Select Node 03/31/2023 Start Date All Report Type

Show Report

March 2023

Su	Mo	Tu	We	Th	Fr	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

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	Data Scope:			Daily				
Created By:	jegreen@utah.gov	DateTime:			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
UDOH Thermo 4	Fridge	Temperature	°C	3.4	3.6	3.7	4/4/2023 12:03:24 AM	4/4/2023 3:03:13 PM	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
UDOH Thermo 4	Fridge	Temperature	°C	3.4	3.5	3.8	3/31/2023 12:03:10 AM	3/31/2023 11:48:33 PM	96

8. Record the current time, name/initials of staff viewing temperatures, Minimum and Maximum temperatures on the Manual Temperature Log. [\(Reference example 1, page 7\)](#)

**Note: If the Min/Max are outside recommended in range temperatures, excursion protocols must be completed.**

# 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

To avoid delays in processing vaccine orders, make sure to include:

Reason you are sending your temperature log

Reason you are sending your temperature log (*Order vs Monthly review*)

Month/Year

Facility Name

The Unit Name

VFC Pin/USIIS ID

Staff name/initials

Min & Max temperatures

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: March 2023

FACILITY NAME: UDHHS - Immunization Program

UNIT: Unit 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.

FRIDGE						FREEZER						ACTION DOCUMENTATION		OUT OF RANGE TEMPS:
		Temp Range: 2.0 - 8.0° C		In Range?				Temp Range: ≤ -15.0° C		In Range?		If temps not in range, write where Incident Report, Plan of Action and Manufacturer Report are located.		
Day of Month	Time	Staff	Min	Max	Y / N	Min	Max	Y / N				Sensor Report	Troubleshoot	
1	7:20	IB	3.3	3.6	Y / N			Y / N				Sensor Report	Troubleshoot	
2	9:00	IB	3.3	3.7	Y / N			Y / N				Sensor Report	Troubleshoot	
3	7:30	IB	3.3	3.6	Y / N			Y / N				Sensor Report	Troubleshoot	
4					Y / N			Y / N				Sensor Report	Troubleshoot	
5					Y / N			Y / N				Sensor Report	Troubleshoot	
6	8:00	IB	3.2	3.7	Y / N			Y / N				Sensor Report	Troubleshoot	
7	7:45	IB	3.5	3.8	Y / N			Y / N				Sensor Report	Troubleshoot	
8	7:20	IB	3.5	3.8	Y / N			Y / N				Sensor Report	Troubleshoot	
9	8:30	IB	3.4	3.7	Y / N			Y / N				Sensor Report	Troubleshoot	
10	7:10	IB	3.4	3.7	Y / N			Y / N				Sensor Report	Troubleshoot	
11					Y / N			Y / N				Sensor Report	Troubleshoot	
12					Y / N			Y / N				Sensor Report	Troubleshoot	

**EXAMPLE 3**

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.

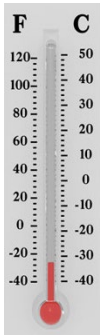
3. Call vaccine manufacturers to determine storage stability.



# Senso Alarms



There are three alarms: Data (Temperature), Signal, and Battery. All **red** alarms require action in Senso. Never leave a **red** alarm in alarmed status.



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

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



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

This will be 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.

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.



\*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 **AA** batteries. Use of any other AA battery will damage the device and may be at the expense of the facility.

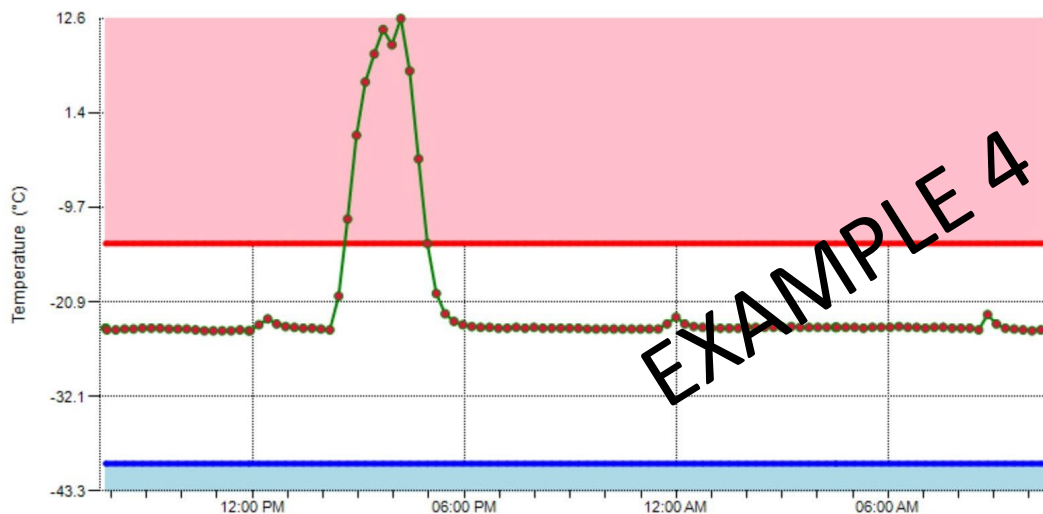
*\*Signal and Battery alarm notifications received during non-business hours does not require immediate action. Action can be taken when you return to the office during business hours.*

# Senso Temperature (Data) 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 [Emergency Response 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. 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 orange 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.

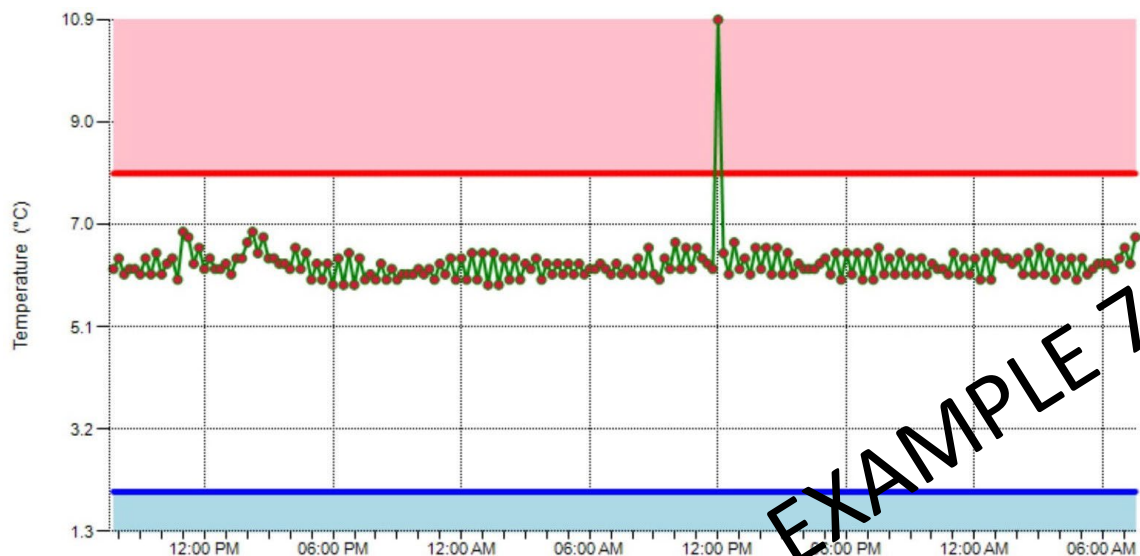
**Vaccine Storage Troubleshooting Record**  
Use this form to document any unacceptable vaccine storage event, such as temperatures outside recommended range.

Facility Name: \_\_\_\_\_ VFC Pin/USHS ID: \_\_\_\_\_

Date & Time of Event <small>If multiple, related events occur, see Description of Event below.</small>	Unit Information	Storage Unit Temperature <small>at the time the problem was discovered</small>	Person Completing Report <small>at the time the problem was discovered</small>
Date: _____	Unit Name: _____	Temp when discovered: _____	Name: _____
Time: _____	<input type="checkbox"/> Refrigerator <input type="checkbox"/> Freezer	Minimum temp: _____ Maximum temp: _____	Title: _____ Date: _____
<b>Description of Event</b> <i>(If multiple, related events occurred, list each date, time, and length of time out of storage.)</i> <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> <i>(Document thoroughly. This information is critical to determining whether the vaccine might still be viable!)</i> <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 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? (Note: For public-purchase vaccine, complete Return &amp; Transfer Form for accountability.)</li> </ul>			

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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 it was a temperature spike.



## Senso Signal Alarm



A signal alarm is notifying you that the Wi-Fi connection has been lost.

The node will try to connect to the Wi-Fi to transmit the stored data for two hours, if the connection is still down after this time, you will receive an alarm. 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 in Senso to avoid multiple alarm notifications.

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. Press the center 'S' button to force the node to re-establish the Wi-Fi connection and transmit store temperature data.

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

**Please Note:** 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.

## Senso Battery Alarm



A battery alarm is notifying you that the battery level is below 5%. At that time, you should replace the batteries. The Immunization Program no longer supplies replacement batteries.

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.

The Senso Node Ota does not require a specific battery, as other models have. It requires **four AA** batteries. Use of any other battery can result in damage to the device and may be at your clinics expense.

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.

Genscientific									
ALARM   MONITORING   REPORT   CONFIGURATION   CALIBRATION   HELP									
Battery Status									
Current Status	Node Name	Node ID	Location	Node Type	Status	Message	Last Updated	Alarm Status	Power Source
Battery Status	UDOH ABS	35680	Freezer	Temperature		Normal	8/21/2018 11:50:15 AM	No Alarms	N/A
Group Status	UDOH Thermo 2	35682	Fridge	Temperature		High	8/21/2018 11:57:00 AM	No Alarms	N/A
Reset Min/Max	UDOH Thermo 3	35683	Fridge	Temperature		High	8/21/2018 11:48:59 AM	No Alarms	N/A
Maintenance	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 in Senso









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 logged into Senso, log into Senso.
2. While on the “Monitoring” tab, you will see nodes in alarm 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

View Alarm

Location	Node Type	Alarm Date	Alarm Type	Graph	Take Action
Fridge	Temperature	9/21/2018 9:21:22 AM	Data Alarm	<button>Graph</button>	<button>Take Action</button>

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.

Root Cause: 

Other ▼  
Defrost Cycle  
Equipment lost power  
Device was restocked  
Other

Detail Description



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.

Corrective Action(Max 500 characters)

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.

Is the equipment working properly? ☒ Yes ☐ No

Confirm

7. If your equipment has failed, you cannot re-establish the Wi-Fi connection, or are still experiencing other issues you can suspend your alarm. Mark that the equipment is not working properly, choose the length of time to suspend the alarm and click ‘Confirm’. You will receive another alarm once the time lapses.

Is the equipment working properly? ☐ Yes ☒ No

Suspend Duration 

30 mins ▼

Suspend

30 mins

1 hr

2 hrs

12 hrs

24 hrs

48 hrs

1 Week

1 Month

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

8. Once corrections are made, and/or the equipment is operating within normal ranges, repeat steps to confirm your alarm.



## Useful Links

**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 App



**\*\*Please note – If 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  
(801) 538-9450