

Overview

The Vermont Department of Health Immunization Program created this guide to support facilities and providers in using LogTag devices for temperature monitoring and recording. These devices are used during vaccine transport, vaccination clinics, or as semi-permanent monitoring of vaccines when SensoScientific monitoring is not an option. This resource includes:

- [Data Logger Setup](#)
- [Cradle Installation](#)
- [Starting the Data Logger](#)
- [Reviewing Min/Max readings](#)
- [Downloading Data from LogTag Devices](#)
- [Understanding Software Tabs and Reviewing Data](#)
- [Managing Issues and Communication with the Program](#)

Depending on the type of LogTag Data Logger you were supplied by the Immunization Program, your instructions may vary. Please review the appropriate guidance below.



Data Logger Setup

Step 1 – Place the glycol bottle in the plastic holder and locate in a central location with the vaccines. Always use the plastic glycol bottle holder.

Step 2 – Pull the cord outside and connect it with the data logger.

Step 3 – Secure the mounting bracket outside of the vaccine carrier, cooler or storage unit.

Step 4 – Insert the connected data logger in the bracket.

Tip: To prevent unnecessary alarms, get the glycol bottle to appropriate temperatures before starting the data logger.

Cradle Installation

The data logger cradle is used to download information from the data logger onto the computer. There are two types of cradle, with and without a detachable cord. The cradle can be left plugged into a computer that will be used to download information, except in a software update. Always ensure the cradle is disconnect while a logtag software update is in process.



Step 1: Download the [software](#)¹ before you plug in the cradle. Refer to the [Logtag Software Download and Settings](#)² reference for more information on this process.

Step 2: Plug the cable into the cradle (if applicable).

Step 3: Plug the cradle into the available USB port on your computer. The computer will automatically detect the cradle and install the device driver software. Once complete, it should display the message “Device driver software installed successfully” or something similar in the lower right corner of your monitor.

¹ logtagrecorders.com/software.php

² www.healthvermont.gov/sites/default/files/documents/pdf/HS-IZ-TempMonitoring-LogTag-Download-and-Settings.pdf

Starting the Data Logger

For both types, the logger must be connected to the probe to give a proper reading. If not connected, the device will give an error (-199.9) until a reading is taken while connected.

Tip: Make sure that the button is pressed firmly and released at the correct time, depending on the logger. If held too long, or released too quickly the logger will stay in ready mode.

Starting the Data Logger - Blue



Step 1 - The logger must be in READY mode to start.

READY mode: the recorder displays the time, battery status, and the READY icon.



Step 2 - Press and hold the start button and observe the STARTING icon starts flashing.

Step 3- Hold the Start button down for 4-6 seconds until the flashing stops.



Step 4- Release the button when the STARTING icon stops flashing.

Recording mode: The recorder shows the current temperature, time, battery status. Alarm triggers are updated each time a reading is taken.

Starting the Data Logger - Red



Step 1 - The logger must be in READY mode to start.

READY mode: the logger displays the time and the READY icon.



Step 2 - Press and hold the Start/Clear/Stop button. STARTING is displayed in addition to READY.

Step 3- Hold the Start button for 1-2 seconds until “Ready” disappears



Step 4 - Release the button when READY and STARTING disappear.

Recording mode: REC appears, indicating your logger is recording temperature data. The checkmark indicates no alarm.

Reviewing and Recording Min/Max

Step 1 – Pressing REVIEW displays the current day’s max temperature reading. The “today” onscreen in the lower right corner should flash, and then “Day 00” will appear to indicate your selection.

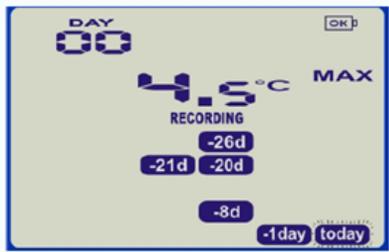
Step 2 – Pressing REVIEW again displays the day’s minimum temperature reading.

Step 3 – Pressing REVIEW again displays the previous day’s maximum temperature. The screen will then display a -1 day to indicate yesterday’s readings.

Tip 1 – Pressing the START/CLEAR/STOP button at any time will revert the display to normal mode where the current temperature is displayed, but the recording is paused.

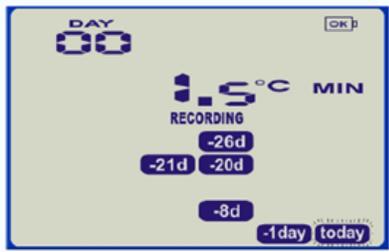
Tip 2 – Anytime the REVIEW button is pressed, the recording is paused for 30 minutes. The recording will start again at the end of that time. You *do not* need to press the START button.

Tip 3 – The 24-hour day starts at midnight. To view temperatures recorded before midnight but after your previous daily check, press the Review button two additional times to see day -01.

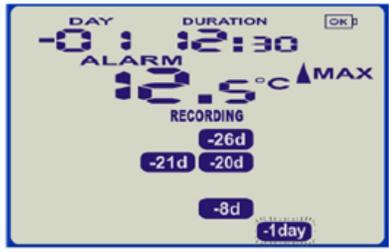


Pressing *Review* button displays current day's max statistic.

The "Today" segment flashes and 'Day 00' is shown to indicate the 'Today' selection. In this screen example the selected day (Today) does not have any recordings that are outside the acceptance range.



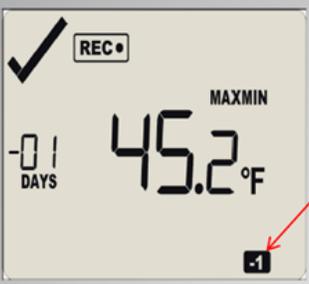
Pressing *Review* button again displays the day's minimum statistic.



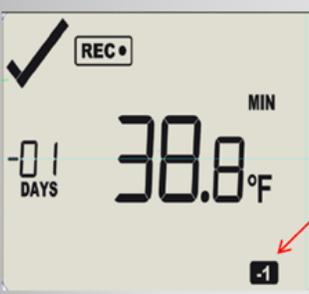
Pressing the *Review* button again displays the next previous day's max statistic.

In this screen example the selected day has recordings that are above the upper limit and the duration value shows the amount of time recorded above the limit. The max statistic is above the upper limit so the up arrow is shown and an alarm was triggered by this statistic as indicated by the ALARM text shown.

Reviewing Day Statistics, cont.



Pressing the *Review/Mark* button a 3rd time displays yesterdays max temperature. The "-1" flashes (indicating yesterday) and "-01 days" is shown to indicate the "Yesterday" selection.



Pressing the *Review/Mark* button a 4th time displays yesterdays min temperature. The "-1" flashes (indicating yesterday) and "-01 days" is shown to indicate the "Yesterday" selection. You can review the min/max for up to 30 days or as long as the loggers has been logging.

Note: If no button is pressed for 30 seconds the regular display returns.

Downloading Data from LogTag Devices



Step 1 – Click the icon on your desktop called LogTag Analyzer (sometimes just “Analyzer”) and open the program.



Step 2 – Unplug the data logger from your unit and bring the data logger to the LogTag Cradle.

Step 3 – Insert the data logger into the cradle facing forward.

Step 4 – When the data logger has been inserted into the cradle, you will see a pop-up message. The data logger will re-configure and go back into “READY” mode when clicking “YES”. If you do not see this

pop-up message, check your settings by reviewing the [Logtag Software Download and Settings³](#).



Step 5 –A chart should display automatically showing temperature readings. Check your “File and Folder Settings” under “Options” to see where your download was saved. If you would like the file saved to a different location or have trouble locating the file, refer to the [Create a Folder for Downloaded Temperature Recordings Guide⁴](#).

Step 6 – You can view Report, Chart, Data, Summary, and Day Summary by clicking on chart tabs.

Step 7 – When the data logger has been re-configured, it will display as “Ready.”

Tip: If the logger is not re-configuring, refer to the [Logtag Software Download and Settings Guide](#) to ensure the **Automation** settings are correct. If this step is unsuccessful, please contact the Immunization Program at AHS.VDHImmunizationProgram@vermont.gov.

³ www.healthvermont.gov/sites/default/files/documents/pdf/HS-IZ-TempMonitoring-LogTag-Download-and-Settings.pdf

⁴ www.healthvermont.gov/sites/default/files/documents/pdf/ID_IZ_INFOHCP_S%26H_Creatingafolderfordownloads.pdf

Step 8 – Remove the data logger from the cradle and return it to the storage unit. Make sure to return it to the refrigerator or freezer to which it is assigned.

Step 9 – Plug in the cord from the glycol bottle and start the logger.

Understanding Software Tabs & Reviewing Data

Report Tab - provides a summary of data, configuration details, number of days, alarm status, battery status, lowest and highest temperature readings, high alarm (when the temperature was too warm), and low alarm (when the temperature was too cold). Reviewing this information will provide a general idea about the temperature in the vaccine storage unit. Any time Min/Max is reviewed by pressing the “Review” button, the date and time are logged under “Events Info.”

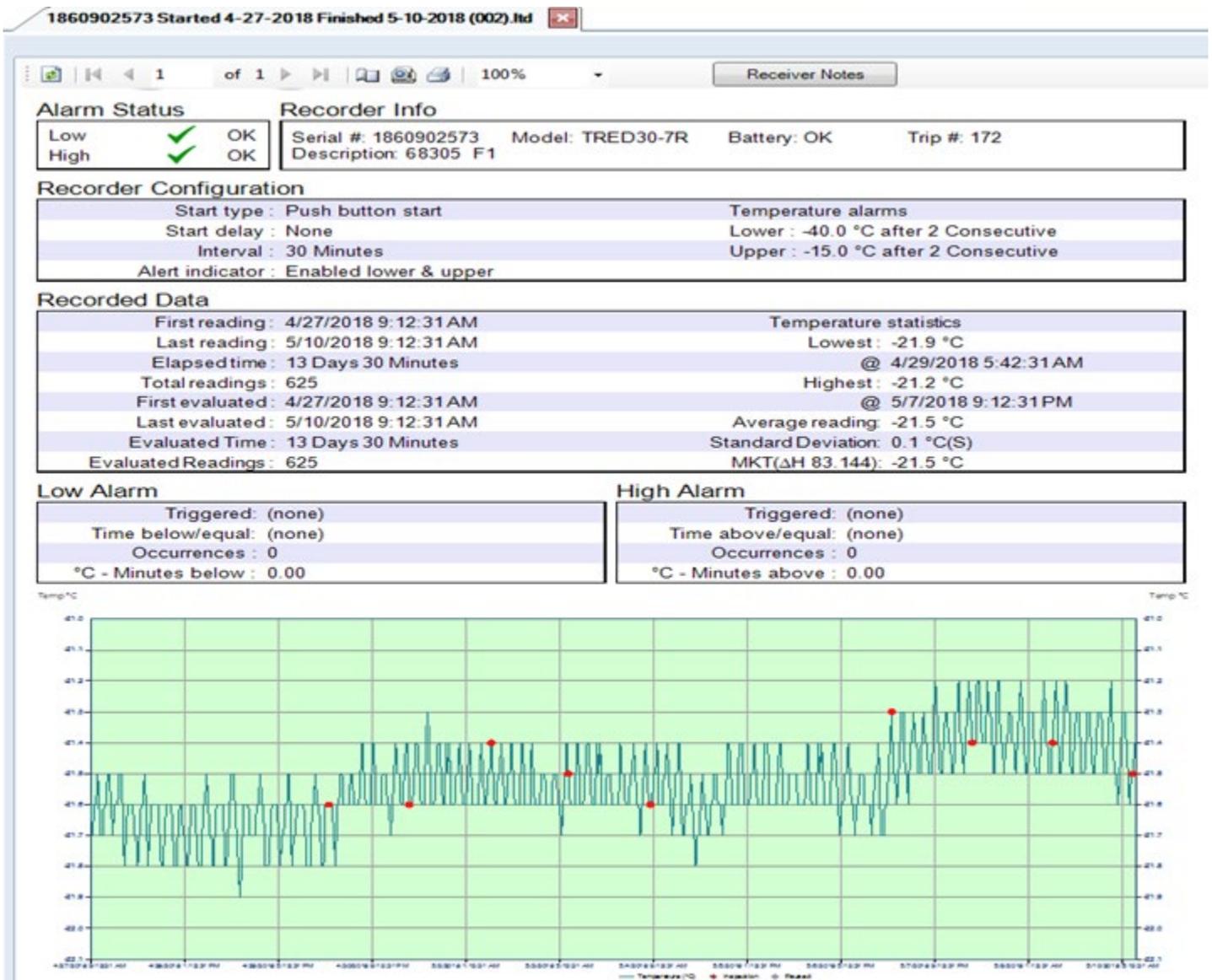
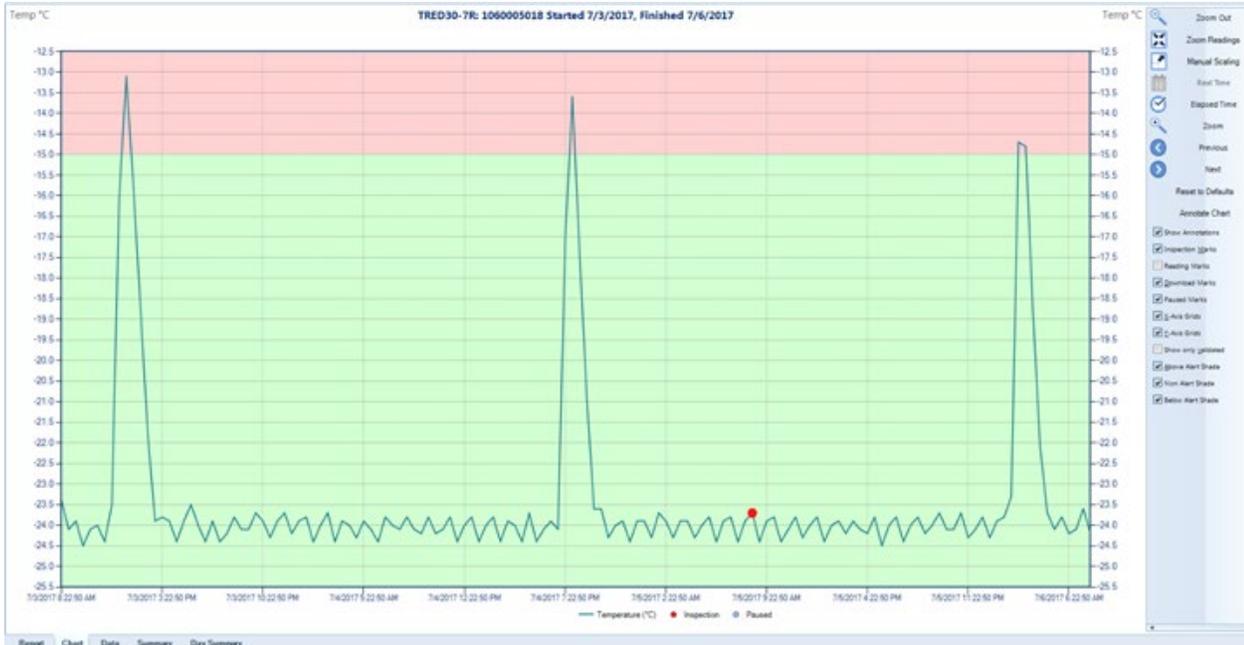


Chart Tab - shows a chart of temperature recordings. The green background indicates those temperature recordings in range, and the red background indicates temperatures out of range. This tab shows you how the temperature fluctuates and during a specific time frame.



Data Tab: shows every reading the data logger recorded. It provides the date, time, temperature reading, and elapsed time since the last reading. Recordings in red indicate too warm temperatures, temperatures in blue indicate too cold temperatures, and recordings in black indicate in-range temperatures.

Index	Date	Time	Elapsed	Temperature °C	
1	7/3/2017	8:22:50 AM	00:00:00	-23.4	
2	7/3/2017	8:52:50 AM	00:30:00	-24.1	
3	7/3/2017	9:22:50 AM	01:00:00	-23.9	
4	7/3/2017	9:52:50 AM	01:30:00	-24.5	
5	7/3/2017	10:22:50 AM	02:00:00	-24.1	
6	7/3/2017	10:52:50 AM	02:30:00	-24.0	
7	7/3/2017	11:22:50 AM	03:00:00	-24.4	
8	7/3/2017	11:52:50 AM	03:30:00	-23.5	
9	7/3/2017	12:22:50 PM	04:00:00	-16.1	
10	7/3/2017	12:52:50 PM	04:30:00	-13.1	Above Alert
11	7/3/2017	1:22:50 PM	05:00:00	-15.8	
12	7/3/2017	1:52:50 PM	05:30:00	-18.8	

Summary Tab: shows detailed information about every instance the data logger was paused by pressing the “Review” button. It specifies the time, average reading, and low or high alarm since the last pausing.

Statistics for Started readings

LogTag ID	1860902591
Description	68724 R1
Battery status	OK
Time zone	UTC -05:00, daylight time (Display clock adjusted)
Reading interval	30 Minutes
Number of starts	179
Number of readings	35
Number of started readings	35
First reading	7/2/2018 4:31:05 PM
Last reading	7/3/2018 9:31:05 AM
Average reading	4.3 °C
Time below/equal lower alert	1 Hour 30 Minutes
Time above/equal upper alert	None

Day Summary Tab: provides a summary for every day the data logger recorded the temperature readings. It shows date, Max reading, Alarm, Time above, Time below, and Min. reading. A red dot indicates an “Alarm” was triggered, a blue arrow pointing down means the temperature was too cold, and a red arrow pointing up is temperature too warm.

D	Date	Alarm	Max. reading (°C)	Time above/equal upper alert	Min. reading (°C)	Time below/equal lower alert
0	7/3/2018		5.5	0	4.8	0
-	7/2/2018	●	5.1	0	-5.3	1 Hour 30 Minutes

Managing Issues and Communication with the Program

Changing the Battery

The Immunization Program provides batteries at no charge. See the [Changing Battery Guide](#)⁵ for more information.

How to Temporarily Turn Off the Audible Alarm (Red Loggers only)



If the temperature goes out of range for 2 consecutive readings, then the audible alarm will sound. To turn off, hold and press the START/CLEAR/STOP button until the X becomes a checkmark.

The audible alarm will sound again in 5 minutes, even if the temperature is back in range. You must download the data logger to clear the alarm.

Sending Temperature Data to the Vermont Department of Health

If a data logger monitors a primary vaccine storage unit, data must be submitted monthly. For all short-term use, send data only when out-of-range temperatures are recorded. Follow the [Temperature Excursion Protocol](#)⁶ for more information.

Step 1 – Open the email program (Gmail, Yahoo!Mail, Hotmail, Outlook or other) and start a new message. Address the message to AHS.VDHImmunizationProgram@vermont.gov.

Step 2 – Select the temperature recording file you want to send. It should reside within your computer’s folders under “Data Logger Downloads” or “My Logtag Data”. Always attach a .ltd or log tag file **NOT** a pdf.



If you cannot locate the folder on the desktop, use the search function for your computer to search “My Logtag Data” within all programs and files on your computer. The location of the folder should appear. See [Create a Folder for Downloaded Temperature Recordings Guide](#)⁷ for more information.

Step 3 – Send.

Contact

After reviewing this guide, if additional technical support is needed, please contact the Vermont Department of Health Immunization Program at AHS.VDHImmunizationProgram@vermont.gov or by phone at 802-863-7638.

⁵ www.healthvermont.gov/sites/default/files/documents/pdf/ID_IZ_INFOHCP_S%26H_Changingthebattery.pdf

⁶ www.healthvermont.gov/sites/default/files/documents/pdf/COVID19-Vaccine-Temp-Excursion-Protocol.pdf

⁷ www.healthvermont.gov/sites/default/files/documents/pdf/ID_IZ_INFOHCP_S%26H_Creatingafolderfordownloads.pdf