Everything you need to know about your Digital Data Logger - Daily Use

LogTag® VFC 400

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Section I: Placement of DDL Parts

Do:
1. Place the vial and stand in the middle of the refrigerator or freezer along side of the vaccines.
2. Secure the wires to the shelf and wall with the supplied zip ties so the vial does not move.

Don’t:
1. DO NOT place the vial close to the wall, in the back of the unit, or under the fan that blows cold air. This will influence the temperature reading.
Bracket Placement Outside Unit

Place the data logger at eye level on the front of the storage unit next to your temperature log.
Using Zip Ties and Brackets

Zip Tie
Bracket Placement Outside Unit

Place glycol bottle in the fridge/freezer for at least 1.5 hours prior to starting your logger to allow the solution to reach the appropriate temperature.
SECTION II: The Recorder

- Alarm Triggers
- Display Overview
- Current Display
- Buttons
- Reviewing Min/Max
# Alarm Triggers

The alarm will be triggered when temperatures are:

<table>
<thead>
<tr>
<th>Refrigerator:</th>
<th>°F</th>
<th>°C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Alarm</strong></td>
<td>Above 46°F after 60 minutes</td>
<td>Above 8°C after 60 minutes</td>
</tr>
<tr>
<td><strong>Low Alarm</strong></td>
<td>Below 36°F after 15 minutes</td>
<td>Below 2°C after 15 minutes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Freezer:</th>
<th>°F</th>
<th>°C</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Alarm</strong></td>
<td>Above 5°F after 60 minutes</td>
<td>Above -15°C after 60 minutes</td>
</tr>
<tr>
<td><strong>Low Alarm</strong></td>
<td>Below -40°F after 15 minutes</td>
<td>Below -40°C after 15 minutes</td>
</tr>
</tbody>
</table>

**NOTE:** If you see an alarm, take IMMEDIATE* action.

*SEE PAGES 27-30 to evaluate immediate action response
Display Overview

- **ALARM symbol**
- **Number of days since last download**
- **Recording status symbol**
- **Time**
- **Reading Type**
- **Temperature**
- **High and Low temperature markers**
- **Days alarm(s) occurred**
Display Overview

- **# of Days Recorded**: Displays the total number of days recorded. The LogTag will stop recording temps when the memory is full (30 days). Data needs to be downloaded at least once a month.

- **Alarm Symbol**: Indicates whether an alarm is occurring. X shows that there is an alarm. ✓ shows that there is no alarm.

- **REC•**: Indicates your logger is actively recording temperature data.

- **Current Time**: Indicates the time of day.
Display Overview

Out of Range Temp Markers
• Appears when the temperature goes out of range.

Reading Type
• MAX = warmest reading in a 24 hour period.
• MIN = coldest reading in a 24 hour period.
• CURRENT = the current temperature reading.

Alarm Indicator
• Displays which day an alarm was triggered due to a temperature above or below range (going backwards from today). Download the data immediately and send to the VFC Program.
**Buttons**

### Review/Mark Button
- Pressing button will place logger into review mode and see min/max temperatures.
- Press button again while in review mode will allow you to review up to 30 days of min/max temperatures.
- This action places an inspection mark in the log if recording is active. Every time you push the button, the inspection marks validate your twice daily temp checks.

### Start/Clear/Stop Button
- HOLD down the button (3 seconds) until ready/stopped goes away to start your recording.
- HOLD down the button (3 seconds) until REC• goes away to stop your recording.
Buttons

- Mounting Lug
- Display
- REVIEW/MARK Button
- Sensor Socket
- START/CLEAR/STOP Button
Reviewing Min/Max

Pressing the Review button displays today’s maximum temperature.

Min/max temps automatically reset at midnight each day.

Pressing the Review button a second time displays today’s minimum temperature.

You can review the minimum and maximum temperatures from every day since the last time that you downloaded.

Pressing the Review button a third time displays yesterday’s maximum temperature.

This actions places and inspection mark in the log

Pressing the Review button a fourth time displays yesterday’s minimum temperature.

The screen will revert back to the current display after 30 seconds.
SECTION III: The Download

- Stop Recorder
- The Download
- Start Recorder
Stop Recorder

**Recording***

1. Press and hold the Stop button until the word “STOPPED” appears (1-2 seconds)

**Stopped***

2. Disconnect the recorder from the cord.

*Recording, stopped, starting, and ready refer to the “state indicators” on the display screen.
The Download

1. Open the LogTag program by double clicking on the icon on the desktop to open grey screen:

2. Connect the USB Interface cradle to the computer:  
(If it is not already connected)

3. Insert recorder into cradle:  
   Data is automatically downloaded and saved. You will see this animation:

4. Click OK when you are notified that the recorder has been reconfigured:
Start Recorder

1. Return/Reconnect the recorder to its corresponding sensor connector immediately after download.
   Make sure you are attaching the refrigerator to refrigerator and freezer to freezer.
2. Press and hold the Start button.
   Observe the STARTING icon appear.
3. Release the Start button when the READY icon disappears
   • Will not start if the button is held for more than 2 seconds after READY disappears
   • Will not start if button is released before READY disappears
4. READY and STARTING will disappear, and the symbol REC• will be shown

Recording*
SECTION IV: The Data

- Analyze Data
- Zoom
- Email Data
- Save and Retrieve Data
Analyze Data

Data can be viewed 5 different ways:

- Report *
- Chart *
- Data *
- Summary
- Day Summary

*In this manual, we will only discuss the Report, Chart, and Data tabs
Report
• Chart Title will include **VFC PIN #, Clinic name, Refrigerator/Freezer, date and time started recording and date and time finished recording**.
• Temperatures recorded in the **pink** zone are too warm, **green** is good, and **blue** is too cold.
• The **red** dots show when the review button was pressed.
Data

- **Blue** temperatures are too cold
- Black temperatures are good
- **Red** temperatures are too warm

Pink highlights show when the Review button is pressed.

<table>
<thead>
<tr>
<th>Index</th>
<th>Date</th>
<th>Time</th>
<th>Elapsed Time</th>
<th>Readings °F</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>4/4/2013</td>
<td>12:25:32 PM</td>
<td>03:00:00</td>
<td>15.4</td>
</tr>
<tr>
<td>32</td>
<td>4/4/2013</td>
<td>12:31:32 PM</td>
<td>03:06:00</td>
<td>26.4</td>
</tr>
<tr>
<td>33</td>
<td>4/4/2013</td>
<td>12:37:32 PM</td>
<td>03:12:00</td>
<td>38.7</td>
</tr>
<tr>
<td>34</td>
<td>4/4/2013</td>
<td>12:43:32 PM</td>
<td>03:18:00</td>
<td>47.1</td>
</tr>
<tr>
<td>35</td>
<td>4/4/2013</td>
<td>12:49:32 PM</td>
<td>03:24:00</td>
<td>54.0</td>
</tr>
<tr>
<td>36</td>
<td>4/4/2013</td>
<td>12:55:32 PM</td>
<td>03:30:00</td>
<td>56.3</td>
</tr>
<tr>
<td>37</td>
<td>4/4/2013</td>
<td>1:01:32 PM</td>
<td>03:36:00</td>
<td>54.5</td>
</tr>
<tr>
<td>38</td>
<td>4/4/2013</td>
<td>1:07:32 PM</td>
<td>03:42:00</td>
<td>52.3</td>
</tr>
<tr>
<td>39</td>
<td>4/4/2013</td>
<td>1:13:32 PM</td>
<td>03:48:00</td>
<td>50.5</td>
</tr>
<tr>
<td>40</td>
<td>4/4/2013</td>
<td>1:19:32 PM</td>
<td>03:54:00</td>
<td>48.9</td>
</tr>
<tr>
<td>41</td>
<td>4/4/2013</td>
<td>1:25:32 PM</td>
<td>04:00:00</td>
<td>47.5</td>
</tr>
<tr>
<td>42</td>
<td>4/4/2013</td>
<td>1:31:32 PM</td>
<td>04:06:00</td>
<td>46.4</td>
</tr>
<tr>
<td>43</td>
<td>4/4/2013</td>
<td>1:37:32 PM</td>
<td>04:12:00</td>
<td>45.3</td>
</tr>
<tr>
<td>44</td>
<td>4/4/2013</td>
<td>1:43:32 PM</td>
<td>04:18:00</td>
<td>44.6</td>
</tr>
<tr>
<td>45</td>
<td>4/4/2013</td>
<td>1:49:32 PM</td>
<td>04:24:00</td>
<td>43.9</td>
</tr>
<tr>
<td>46</td>
<td>4/4/2013</td>
<td>1:55:32 PM</td>
<td>04:30:00</td>
<td>43.3</td>
</tr>
</tbody>
</table>
Email Data

After some initial practice emailing data, you will only email your data to the VFC program when there is an **ALARM**

**Steps:**

1. Log on to your email account and “compose” a new email.

2. Enter chicagovfc@cityofchicago.org in the “to”.

3. Attach the file illustrating the alarm by clicking on the paper clip icon and selecting the appropriate file
   - Your files automatically download and save to the computer based on your initial set up. Talk to your IT person about where your files are saved to.
   - Files are usually saved under “Documents” and then “My LogTag Data.”
   - If your practice has a shared drive, it may also be saved under there.
Email data to chicagovfc@cityofchicago.org
• Only need to send data when there is an ALARM
• Still need to download frequently for your records

What to include in email:
1. VFC PIN
   • COXXXX
2. Brief description of ALARM
   • Low alarm occurred over the weekend
3. Direct call-back number
   • In case urgent action required
Retrieve Previously Saved Data

To retrieve previously saved data:
1. On the toolbar of the grey screen, choose the **Open Folder** icon:

![Control Solutions VTMC 2.9 Build 11](image)

This will display the file open window to allow you to locate and open LogTag files that contain previously saved LogTag readings.

**OR** select **File**; choose **Open**

![Control Solutions VTMC 2.9 Build 11](image)
SECTION V: Alarms

- Take Immediate Action
- Evaluating Alarms
- Action Steps
- Clearing an Alarm
Take IMMEDIATE Action

When you see an alarm, you must take IMMEDIATE action! Use PAGES 28-29 to evaluate your immediate action response.
## Evaluating Refrigerator ALARMS

<table>
<thead>
<tr>
<th>High Alarm</th>
<th>This may be related to the defrost cycle of your appliance. <strong>Wait no more than 60 min</strong> and check to see if the temperature has returned to the proper range. If NOT, Take action steps listed on page 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 46°F or 8°C for 60 min.</td>
<td></td>
</tr>
</tbody>
</table>
| Low Alarm             | 1. **Download** the LogTag data and follow the action steps on the next page. Email to [chicagovfc@cityofchicago.org](mailto:chicagovfc@cityofchicago.org) and describe what happened in the body of the email.  
  2. **Adjust** the refrigerator to a warmer temperature and carefully monitor the temperature until it has returned to the proper range. |
| Between 33 and 36°F for less than 15 min (between 0.5 and 2°C for less than 15 min). |                                                                                                                                               |
| Low Alarm             | **STOP USING THE VACCINES** and take action steps listed on page 30                                                                          |
| Below 32°F or 0°C for 15 min. |                                                                                                                                               |

## Evaluating Freezer ALARMS

<table>
<thead>
<tr>
<th>High Alarm</th>
<th>Wait no more than 60 min and check to see if the temperature has returned to the proper range. If NOT, Take action steps listed on page 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 5°F or -15°C for 60 min.</td>
<td></td>
</tr>
<tr>
<td>Low Alarm</td>
<td><strong>No low alarm</strong> (Although a low alarm was set, your freezer will never cold enough to trigger the alarm).</td>
</tr>
</tbody>
</table>
Action Steps- To be Completed for all ALARMs

1. Immediately store vaccines at proper temperature (if needed, move to another appliance).

2. Immediately download the data and analyze it by using the guidelines listed on page 29. Email the data to the Vaccine Management Unit at chicagovfc@cityofchicago.org.
   *Note: when emailing the data, please explain why there was a temperature excursion in the body of the email.

3. If needed, adjust the storage unit’s temperature accordingly and make notes on your temperature log. Make adjustments known to other staff working with this unit.
Example 1:
Example 1:

1. Download data immediately
2. Send to Chicago VFC (chicagovfc@cityofchicago.org)
Example 2:

LogTag

Recorder has been downloaded 4/14/2017 2:39:43 PM (UTC -06:00, daylight time)

Alarm Status  Recorder Info
Low | Model: TRE930-7SR
High | Battery: OK
Fail | Trip #: 3
User ID: 

Recorder Configuration
- Start type: Push button start
- Start delay: None
- Interval: 15 Minutes
- Alarm indicator: Enabled lower & upper

Recorded Data
- First reading: 11/6/2016 7:44:42 AM
- Last reading: 1/21/2017 7:29:42 AM
- Elapsed Time: 79 Days, 23 Hours, 45 Minutes
- Total readings: 7680
- First evaluated: 11/6/2016 7:44:42 AM
- Last evaluated: 1/21/2017 7:29:42 AM
- Evaluated Time: 79 Days, 23 Hours, 45 Minutes
- Evaluated Readings: 7680

Temperature alarms
- Lower: 35.0°F
- Upper: 46.0°F after 4 Consecutive

Temperature statistics
- Lowest: 26.1°F @ 11/5/2016 4:59:42 PM
- Highest: 50.9°F @ 1/22/2017 11:59:42 AM
- Average reading: 38.7°F
- Standard Deviation (S): 8.3°F
- Mean Kinetic Temperature: 34.11°F

Low Alarm
- Triggered: 11/6/2016 7:44:42 AM
- Time below: 55 Days, 10 Hours, 37 Minutes, 30 Seconds
- Occurrences: 63
- °F - Minutes below: 232165.12

High Alarm
- Triggered: 1/22/2017 11:59:42 PM
- Time above: 1 Hour, 15 Minutes
- Occurrences: 1
- °F - Minutes above: 292.28

Example 2:

1. 2 “X” indicators showing ALARM (low and high)
2. Low alarm section shows temperatures below low alarm for 55+ days
3. Graph: No red inspection marks, temps below lower limit
Clearing an Alarm

Alarms are ONLY cleared when the data logger is put into its cradle and the data is downloaded into the computer.
SECTION VI: Wrap-Up

- Review
- Changing the Battery
- Recalibration
- Next Steps
- Resources
- Back-up DDL
Temp Logs vs. DDL Data

**Temp Logs**

- Updated **TWICE** daily
- **FAXED** when ordering Vaccine
  - *Since last order*
- **ENTERED** into ICARE

**DDL Data**

- Downloaded at least **ONCE A MONTH**
- **EMAILED** when ALARM occurs
- **PRINTED** reports for QAR
  - *3 months of reports*
Changing the Battery

LogTag uses a watch battery type CR2032

1. Remove the sticker where the calibration information is printed (Figure 1.)
2. Remove battery compartment cover by turning the cover with a coin or the new battery
3. Remove the battery with a paper clip and replace the battery* (Figure 3.)
4. Replace the battery compartment cover and the calibration sticker

*Note: It may be challenging to remove the battery. Use a paper clip to help. DO NOT use a pen or pencil as this can damage the battery holder.
Recalibration

It will be the provider’s responsibility to get their data logger recalibrated when the certificate of calibration expires.

The calibration on the LogTags expire after 2 years. Recalibration is about $40/each per recorder (recalibration and battery change. Turn around time averages about 3 days.)

In the mean time: please use your backup thermometer to record temperatures

Recalibration Instructions can be found on the Chicago HAN.

In order to receive an automatic recalibration notification from Control Solutions, send an email with the following information to sales@vfcdataloggers.com:

1. State/Certificate Name (“Chicago, IL/City of Chicago Public Health Immunization Program”)
2. Company Name (practice name)
3. Contact and Email information
4. Phone Number
5. Logger ID number (found on calibration sticker)

**Note:** Control Solutions will not share, distribute, or sell this information with anyone
DDLs in Chicago

As of January 2018, CDC will require that back-up thermometers be continuous recording devices (DDLS)

To meet VFC Program requirements the device must be equipped with:

1. A temperature probe
2. An active temperature display that can be easily read from the outside of the unit
3. The capacity for continuous monitoring and recording capabilities where the data can be routinely downloaded

Additional recommended features:
- Alarm for out-of-range temperatures
- Current, minimum, and maximum temperatures display
- Low battery indicator
- Accuracy of +/- 1°F (0.5°C)
- Memory storage of at least 4,000 readings
- Reading rate at a maximum time interval of every 30 minutes
- Use of a probe that best reflects the temperature of the vaccine (such as a buffered probe)
Other Helpful Resources

- View the LogTag® User Guide:
  1. Double click icon ( ) to open the grey screen.
  2. Select Help
  3. Choose User Guide

- LogTag® Technical Support: (888) 311-0636
Thank You!

On-going help and support:
Primary Contact: Vaccine Management Unit - (312) 746-5385
Email: chicagovfc@cityofchicago.org

Alternative Contacts:
Kevin Hansen - (312) 746-9330
Control Solutions - 1(888) 311-0636

Send downloaded data to: chicagovfc@cityofchicago.org