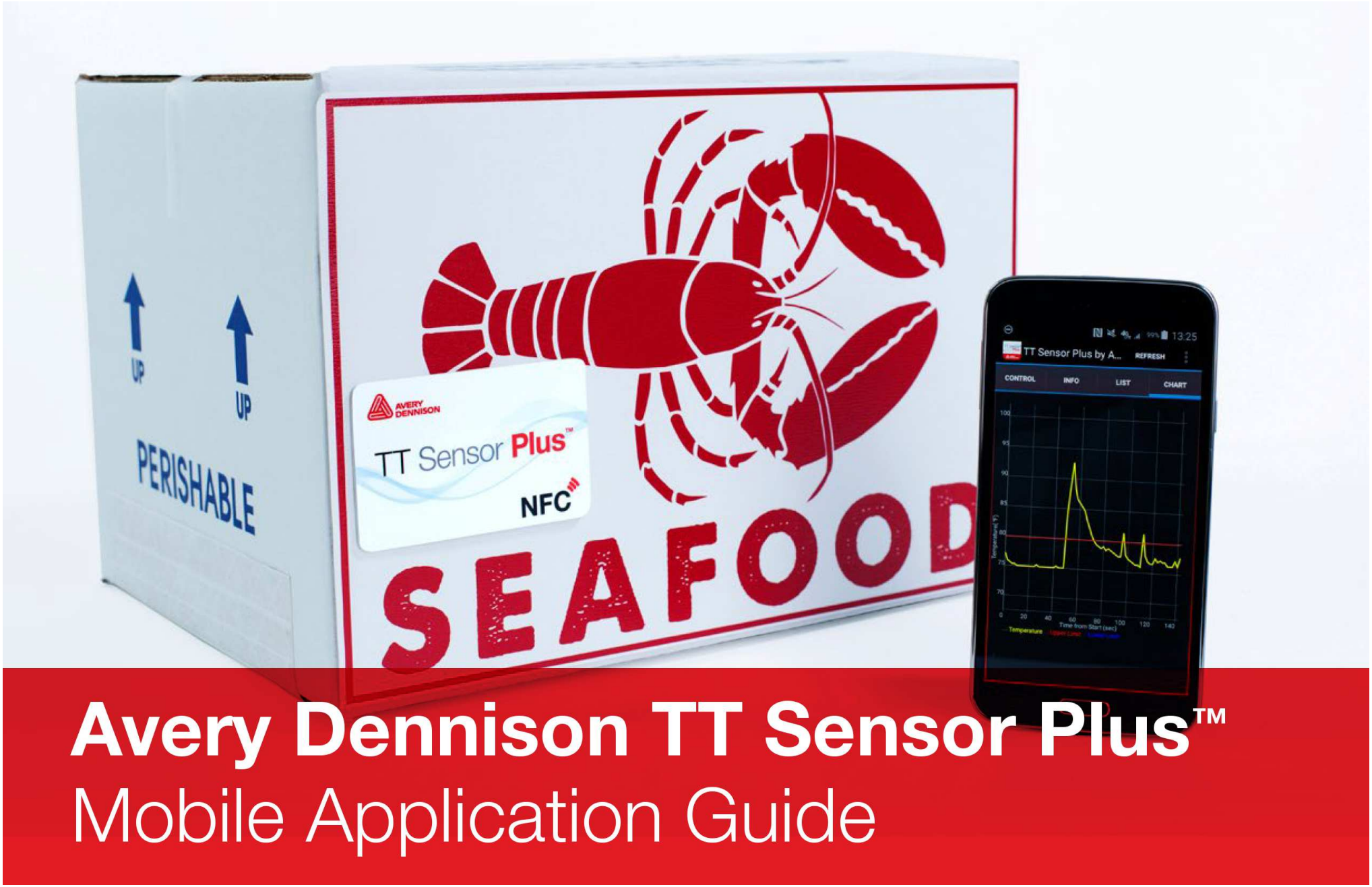

Avery Dennison TT Sensor Plus™

Mobile Application Guide

Introduction to TT Sensor Plus™

The Avery Dennison TT Sensor Plus is a smart label which records time and temperature using the TT Sensor Plus mobile application for NFC-enabled Android devices.

This application guide provides you step-by-step instructions about how to activate and use your TT Sensor Plus labels and mobile application to measure the temperatures goods are subject to throughout the supply chain.

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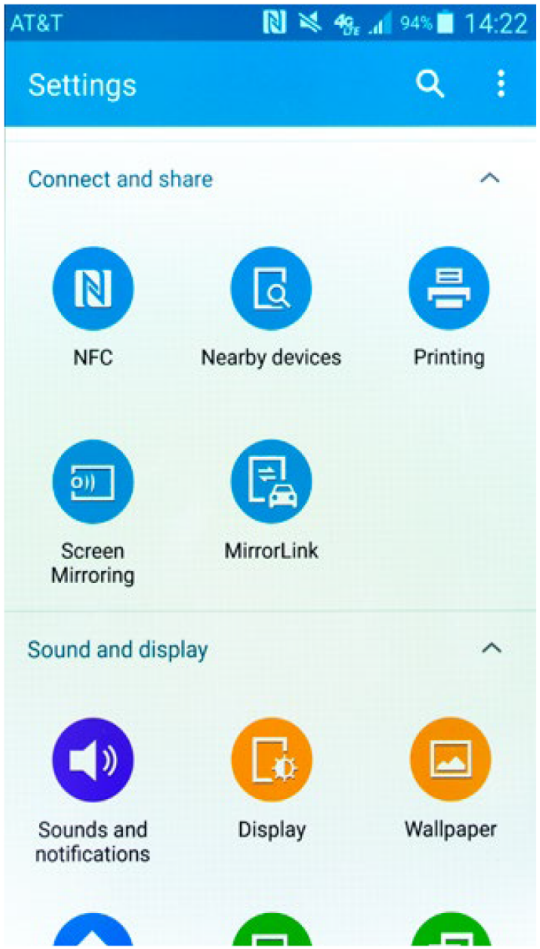
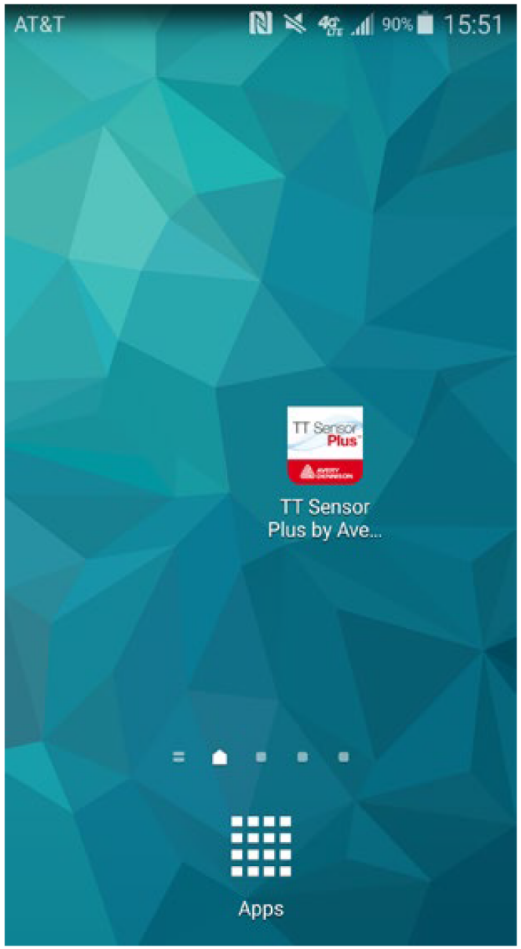




Configuring Your Device

Step 1. Enabling Near Field Communication (NFC) on Your Device

You must have an NFC enabled Android smartphone or tablet

To enable NFC on your device

> Open the **Settings** menu

- Tap the NFC icon

Tap the NFC switch to the **On** position

Install the application

Using the TT Sensor Plus Application

Step 1. Launch the application

Application Settings
Depending on your Android device

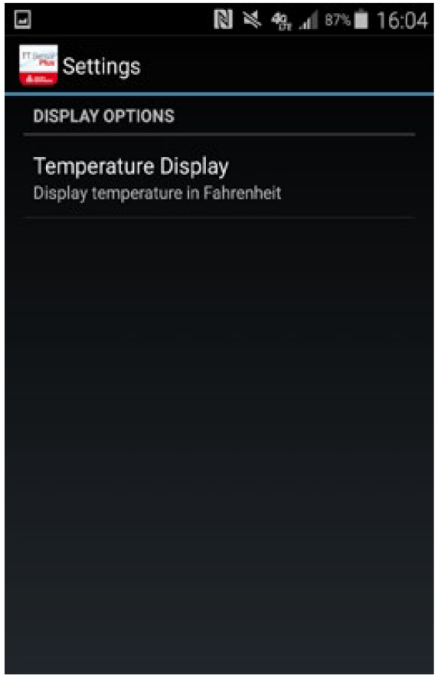
Step 2. Open the application **Settings** by clicking on the three dots in the upper right corner or the menu button (usually located on the bottom left next to the **Home** button)

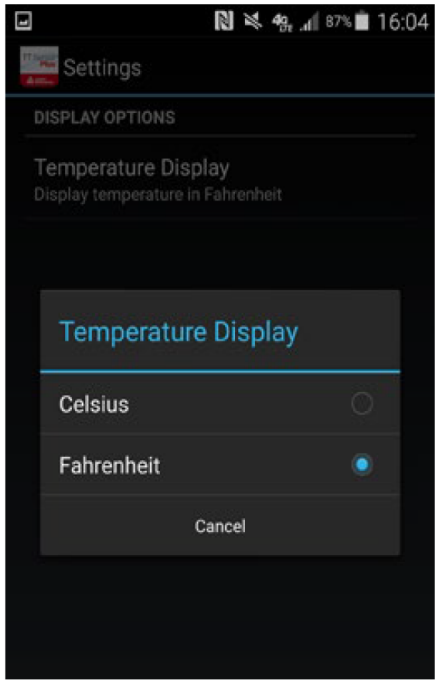
The application settings menu allows you to do three things:

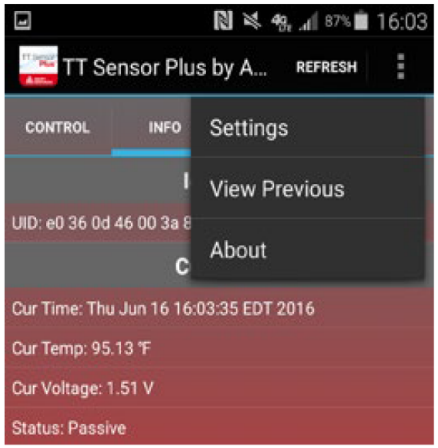
> Select the Celsius or Fahrenheit scale in "**Settings**"

> Recall data from the last TT Sensor Plus read in "**View Previous**"

> See the application version in "**About**"







Main Tabs

Step 1. When the application is running there are four main tabs along the top of the screen: **CONTROL, INFO, LIST, CHART**. The application defaults to the **INFO** tab.

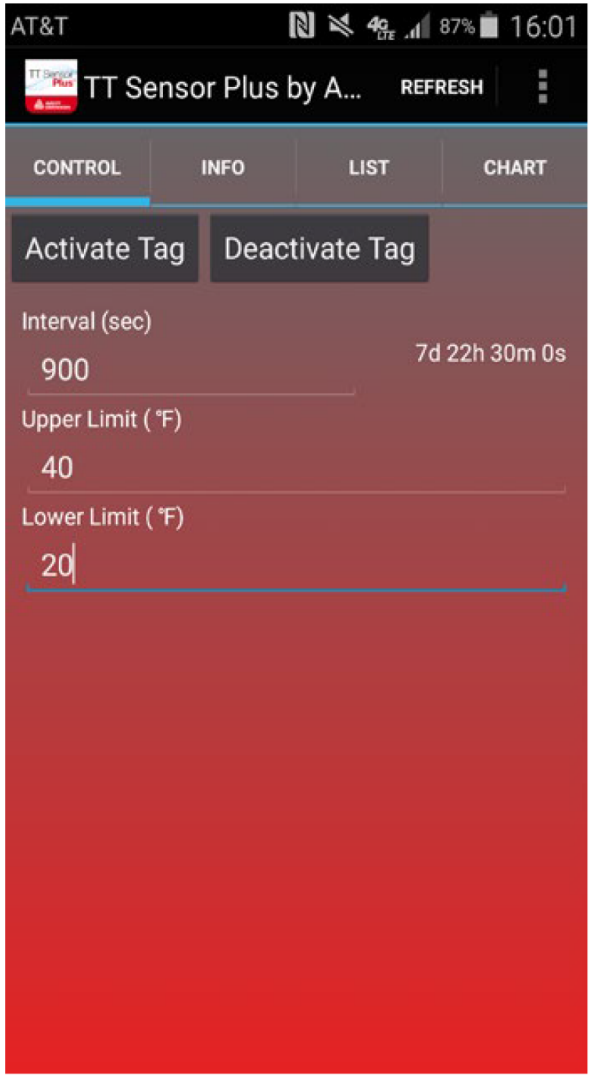
A. CONTROL TAB

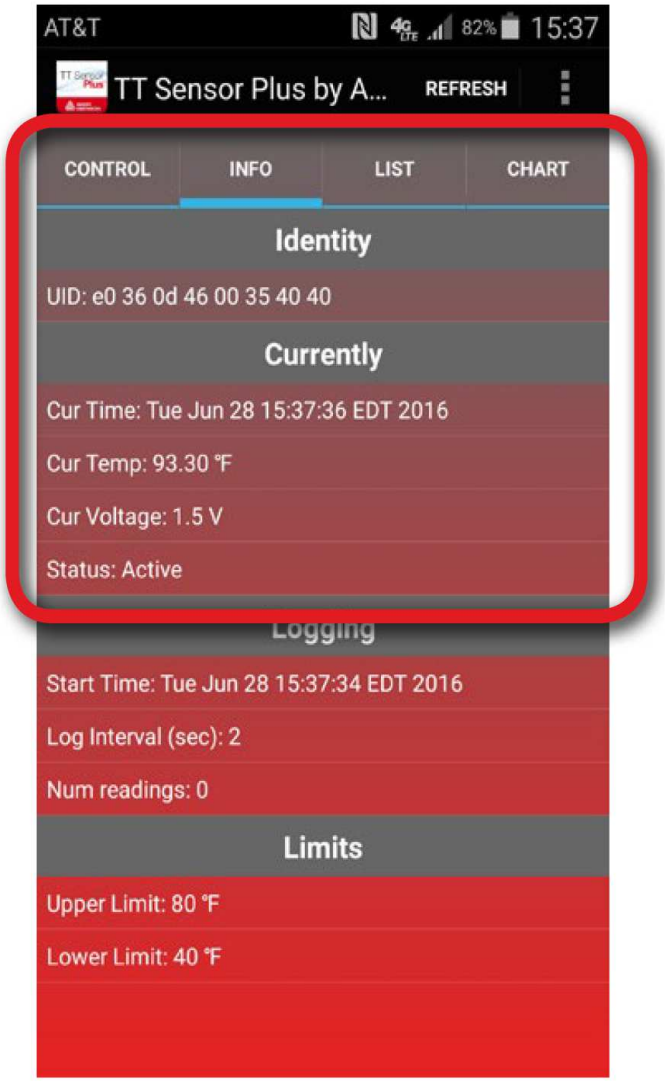
> **Activate** (Start) and **Deactivate** (Stop) Tags

> Set temperature logging interval. Logging intervals are in seconds

- When the interval is entered, a time is displayed to the right of the interval field. This is the maximum time TT Sensor Plus will record data based on the selected time interval. For example:

Temperature Recording Frequency	Interval (Seconds)	Recording Life (Days)
Every minute	60	0.5
Every 5 minutes	300	2.6
Every 30 minutes	1800	15.9
Every hour	3600	31.8
Intervals up to 9.1 hours	32768	288.9





> Enter upper and lower temperatures for alarming purposes

B. INFO TAB

> Identity

- Each NFC tag comes with a unique factory programmed identification number (UID)
- The UID is unique to that tag only and cannot be changed

> Currently

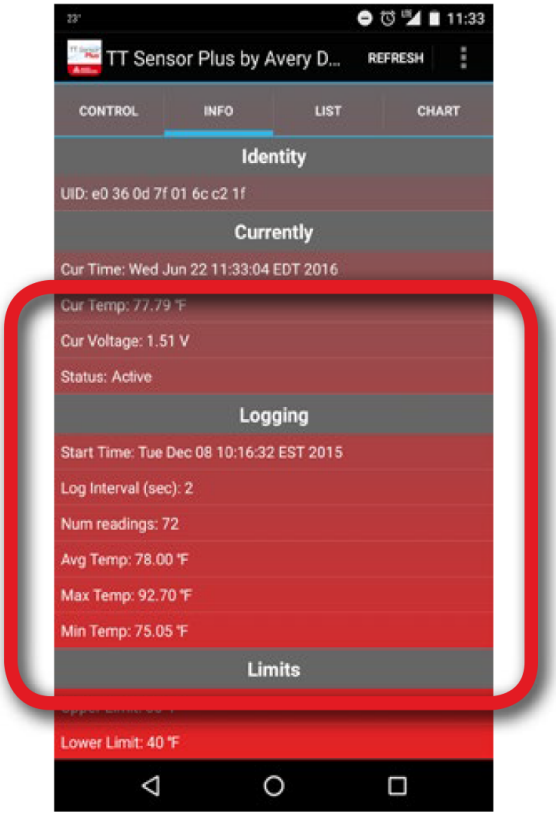
- Date and time
- Temperature
- Battery voltage
- Status
  * **Active** – Tag is measuring and logging temperature data to memory
  * **Passive** – The tag is not recording any data

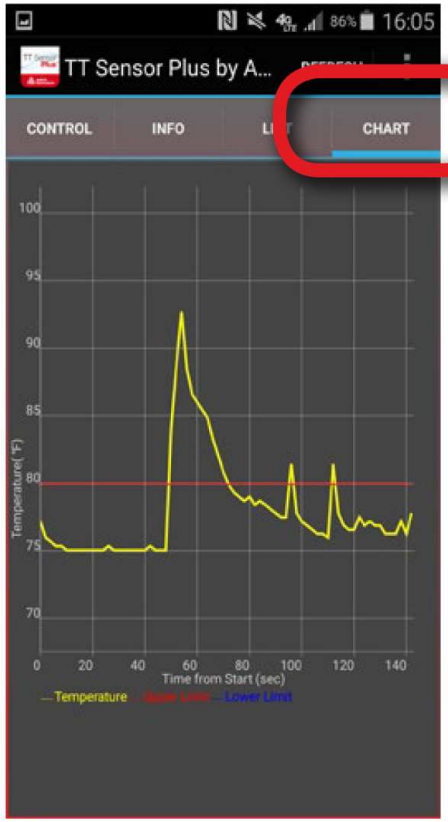
> Logging

- If the tag is in active mode (displayed here)
  * Date and time temperature logging started
  * The interval is between measurements
  * Number of readings captured at the time of the last scan
  * Average, maximum and minimum temperatures recorded

> Limits

- Displays the upper and lower limits you entered





C. LIST TAB

> Displays time-stamped temperature readings in a table format

> Data in gray rows are within the temperature threshold, blue rows below the low temperature threshold limit, red rows exceed temperature threshold

> Data can be sorted in ascending or descending recording time order by tapping the ascending / descending order icon

> Data can be emailed in .csv format (Excel friendly)

D. CHART TAB

> Graphical representation of the temperature data

> Horizontal upper and lower alarm limits displayed

> Pinch/zoom functionality to drill down into data

Setting-Up TT Sensor Plus

Step 1. Place the TT Sensor Plus on your work surface

1. Launch the application on your device and place the device over the label
2. You will hear an audible tone indicating the tag is successfully communicating with your device

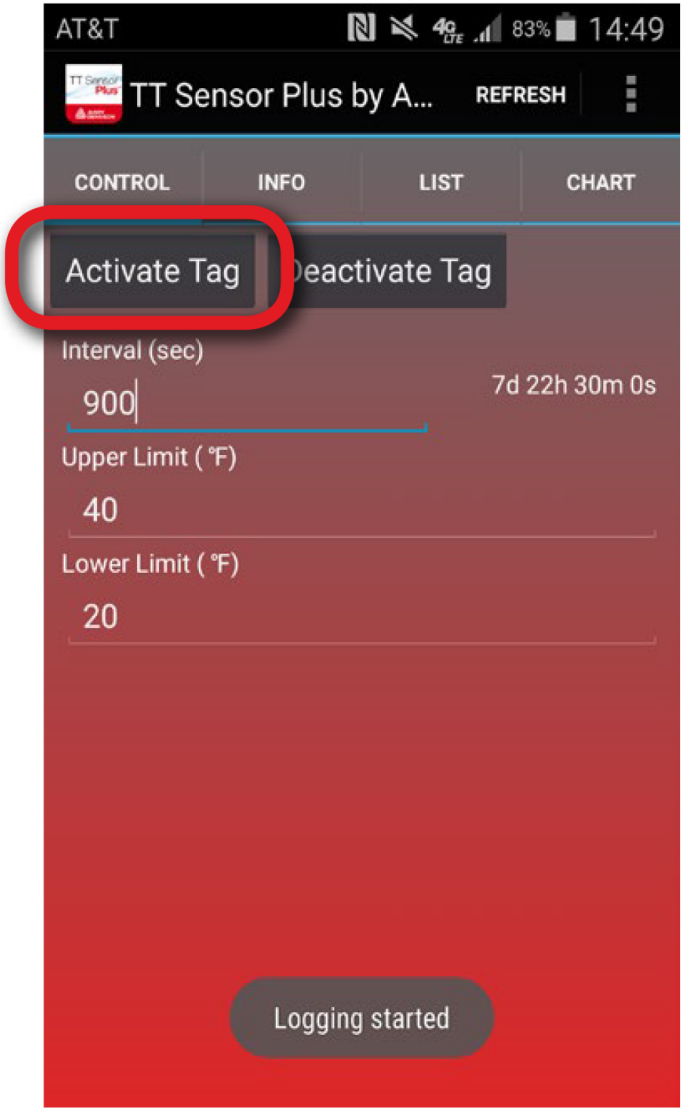
   NOTE: It may take some trial and error to find the optimal read position of your device (often the middle of the back of your device)
3. Keep the device on top of the tag while it is being configured
4. Select the "**CONTROL**" tab at the top of the screen

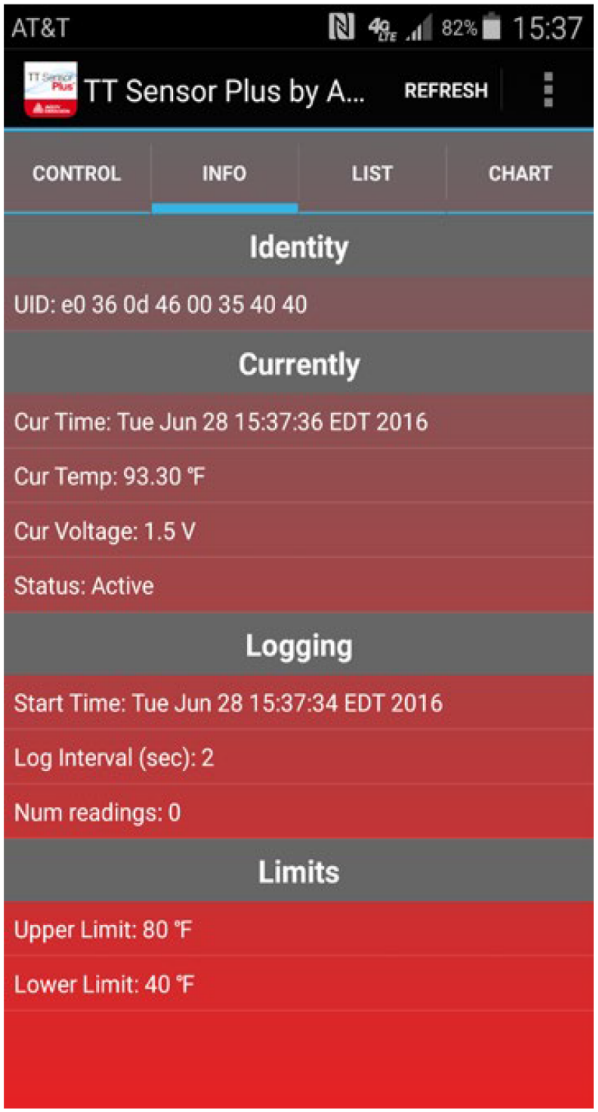
   A. Enter logging interval in seconds

   B. Enter desired upper and lower temperature limits

   C. Press the "**Activate Tag**" button

   D. Once complete, a message at the bottom of the screen will flash "**Logging started**"





E. At this point you can move the TT Sensor Plus away from the device

5. To confirm the label is active, place device over it. Tap **INFO** tab and then under "**Currently**" the status should read, "**Active.**"

   If the application reads, "**Passive**," Select the **Control Button** and **Select Activate Tag**

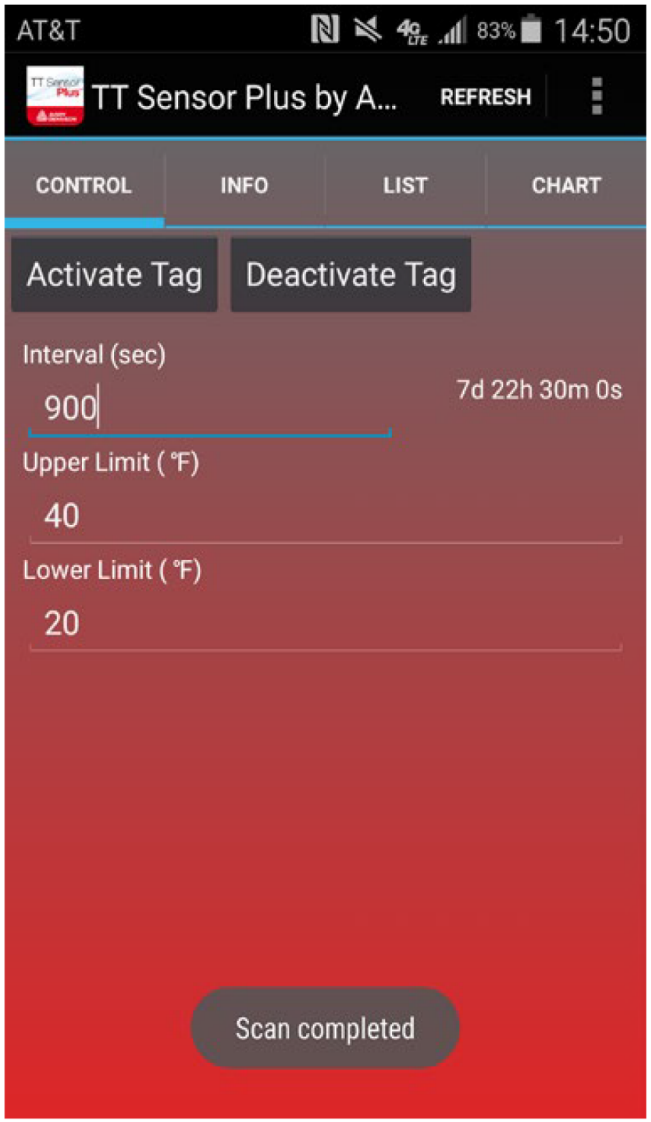
6. Peel the backing paper off the TT Sensor Plus and apply to the product or area you want to record temperature readings, such as: cartons, pallets, cooler wall, processing areas, transport containers

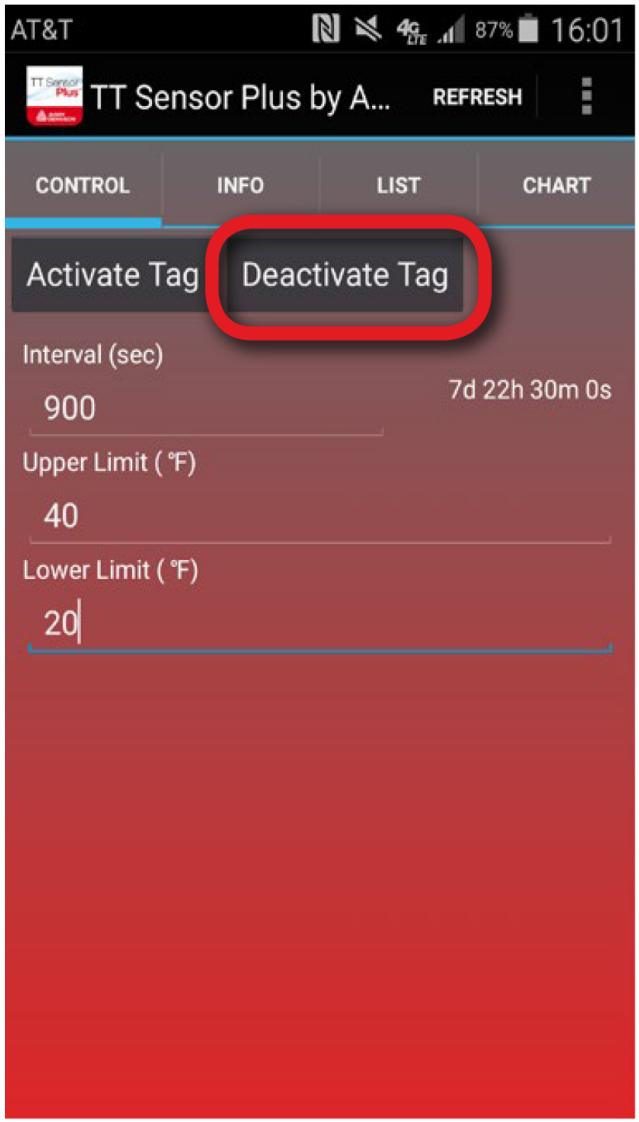
Logging Temperature Data

1. TT Sensor Plus can store a maximum of 762 temperature readings
2. The label will continue to log at the programmed interval until its memory is full or it is deactivated

Reading TT Sensor Plus

1. TT Sensor Plus can be read at any time during the data logging process
2. Launch the application and place the device on top of the TT Sensor Plus to read and retrieve the data
3. Do not remove the device until you see a message on the screen flash "**Scan completed**"
4. Once the data has been retrieved, you can move the device from the TT Sensor Plus and review the information in the various tabs and review the graph





Saving and Sharing Temperature Data

1. After reading the label, select the "**LIST**" tab.
2. Select the sharing icon
3. Choose your preferred method for sharing the .csv file
   - Email
   - Cloud (Dropbox) Storage*

Stopping TT Sensor Plus from Logging Data

1. When you are done recording, you can deactivate or stop TT Sensor Plus from logging data
2. Launch application, and put your device over the TT Sensor Plus to be deactivated
3. Select the "**CONTROL**" tab at the top of the screen
4. Select "**Deactivate Tag**" button

*This requires the device has installed the Dropbox mobile application

5. Do not remove the device until you see a message on the screen flash "**Stop logging**"

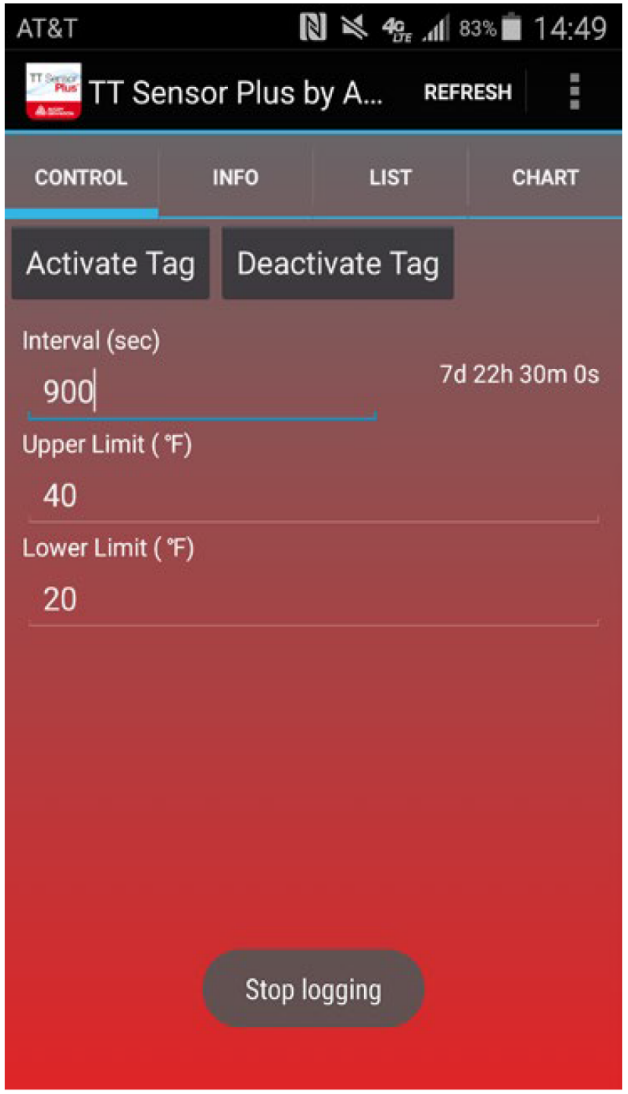
6. The temperature information that was logged is stored on the label

   NOTE: If you reactivate a previously used TT Sensor Plus, the stored data will be cleared and overwritten

Refreshing TT Sensor Plus Data

1. To refresh the display of data on your device you can:

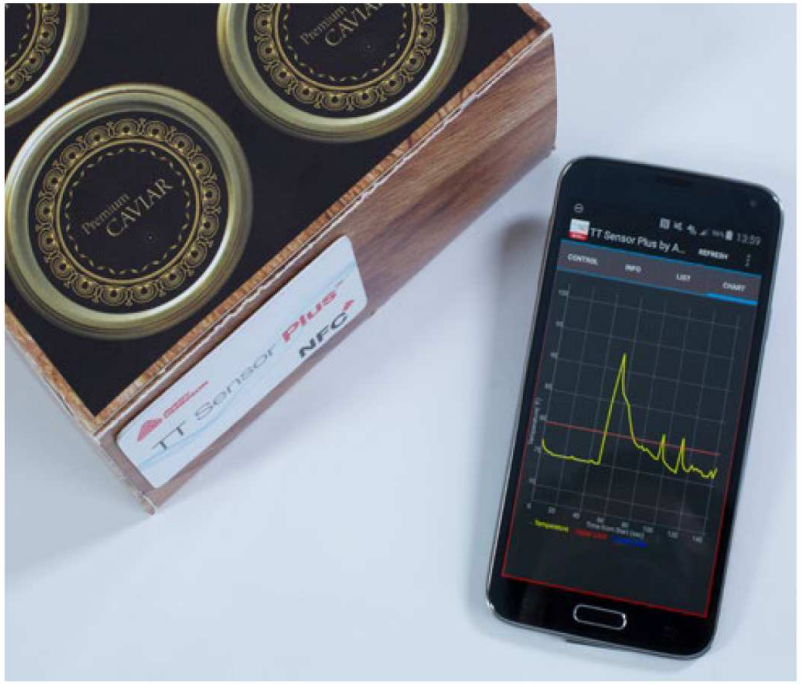
   - Selecting the "**Refresh**" button at the top of any page of the application, or
   - Move the device from the TT Sensor Plus for a few seconds and then move it back over the label



Bring Packaging Alive with **DirectLink™** and NFC

By simply ‘tapping’ an NFC enabled smartphone against DirectLink packaging containing a NFC feature, consumers can gain immediate access to user-friendly content. The technology can link to almost any kind of digital content, such as a website, coupon, survey, video/music stream, or even a service manual. All without an app!

Avery Dennison now provides DirectLink labeling products that bring this technology to primary packaging. By providing quick and easy access to digital information, Avery Dennison helps to build a new bridge between consumers and brands.



All comparisons are believed to be reliable and accurate. However, the furnishing of such information and comparisons is for reference purposes only and does not constitute a warranty of any kind. Actual product performance should always be tested for fitness-for-use.

ADV# 418, 16102, 07/2016, 1000

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