# TempTale<sup>®</sup>4 USB Dry Ice Monitor

## Instructions for Use





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Sensitech Inc. • 800 Cummings Center, Suite 258X • Beverly, MA 01915-6197 +1-800-843-8367 • +1-978-927-7033 • Fax 978-921-2112 • sensitech.clientservices@carrier.com © 2020 Carrier. All Rights Reserved.

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All TempTale<sup>®</sup>4 USB Dry Ice monitors are factory-programmed with customized measurement intervals and time-temperature alarm settings.

#### Starting a TempTale®4 USB Dry Ice Monitor

- Prepare your container for shipment according to your SOP (Standard Operating Procedure) for dry ice pack outs.
- Press and hold the red START button (1) for 1 3 seconds until the "Sun" icon - (2) appears in the upper left corner of the display.
- The TempTale 4 USB Dry Ice Monitor will now begin to record data after the pre-programmed start-up delay period has passed.

#### Marking an important event ("Date Stamp")

 TempTale 4 USB Dry Ice monitors provide an option to "Date Stamp" or mark an important event at any time during the monitoring cycle. This mark will be visible as an arrow on the time-temperature graph

and in *italics* when viewing the tabular data.

- To mark the data while the monitor is recording, press and release the START button. The "Arrow" ↑ icon will appear temporarily in the lower left corner and the temperature history information will appear on the display in the following order:
  - 1. Average temperature
  - 2. Highest temperature recorded
  - 3. Total time above high temperature limit
  - 4. Lowest temperature recorded
  - 5. Total time below low temperature limit

#### Alarming

When the TempTale 4 USB Dry Ice monitor is exposed to a temperature outside a pre-programmed time and temperature limit threshold, an "Alarm Bell" icon  $\mathbf{A}$  will appear in the lower right corner of the display.

#### Stopping a TempTale 4 USB Dry Ice Monitor

Press and hold (1 to 3 seconds) the **red STOP** button until the "Stop" icon appears in the upper right corner of the display. Inserting the USB plug into a USB port on the computer will also stop the monitor.

#### **Displayed Information**





- <u>Important</u>: Always use protective gloves and caution when removing the TempTale4 USB Dry Ice monitor from the -80°C dry ice environment.
- Recover the TempTale 4 USB Dry Ice monitor and press the red STOP button for 3 seconds to manually stop the unit. NOTE: If the monitor is not stopped manually, the monitor will continue to record data until the monitor is plugged into a USB port on the computer or until the pre-programmed trip length is exceeded.
- Verify the "Stop" icon **(** is visible on the display.

**Note:** Typical use assumes that the monitor is exposed to extremely low temperatures in the area of -80°C (-112°F). Consequently, the monitor will require a warm up period of 5 minutes before interfacing to the PC's USB port and for the LCD to resume proper operation.

### Retrieving TempTale 4 USB Dry Ice Monitor reports and data files

 Pull out the USB connector cable from the side of the TempTale 4 USB Dry Ice monitor and insert the plug into a USB port on the computer. The monitor will automatically begin creating the Adobe<sup>®</sup> PDF report and Sensitech .ttx data file within the monitor.



• After the LED on the face of the monitor glows solid **GREEN**, the monitor has completed the report and data file generation. The files are now accessible as files on a "removable drive" as shown below. (Windows XP and Vista).

**Note:** Do not remove the plug from the USB port on the computer until the LED on the face of the unit glows solid **GREEN**.



#### Managing and viewing TempTale 4 USB Dry Ice Monitor files

- If the computer has Adobe PDF compatible reader software installed, the PDF report file containing the monitor information, summary statistics, and time-temperature data graph, can be opened and viewed by double clicking on the .pdf file icon.
- If the computer has Sensitech's TempTale Manager<sup>®</sup> Desktop Software installed, the .ttx data file containing the monitor information and time-temperature data, can be opened and accessed by double clicking on the .ttx file icon.
- Both the PDF and .ttx files can be moved, copied, saved and/or attached to email as allowed by the computer operating system.

