

### Features

- N.I.S.T traceable calibration
- Continuous data logging
- Thermocouple and glycol bottle included
- Battery back-up
- User replaceable battery and external power
- Large, backlit LCD display
- Min./max. & average statistics
- Wall mountable
- Front keypad w/lock feature

### Applications

- Vaccine temperature monitoring
  - Refrigerators
  - Freezers
- Medical & pharmaceutical monitoring
- Process verification and validation

MadgeTech's Vaccine Temperature Monitoring System (VTMS) is ideal for the continuous measurement and data logging of temperature sensitive vaccines or pharmaceuticals in refrigerators, freezers, and coolers. The system includes a N.I.S.T. traceable TCTemp2000 data logger with thermocouple, Glycol bottle and a power supply. Additionally, the TCTemp2000 data logger in the VTMS system has a convenient LCD to ensure temperature parameters are met, in real time. The current reading, minimum, maximum and average statistics can all be obtained through the display.

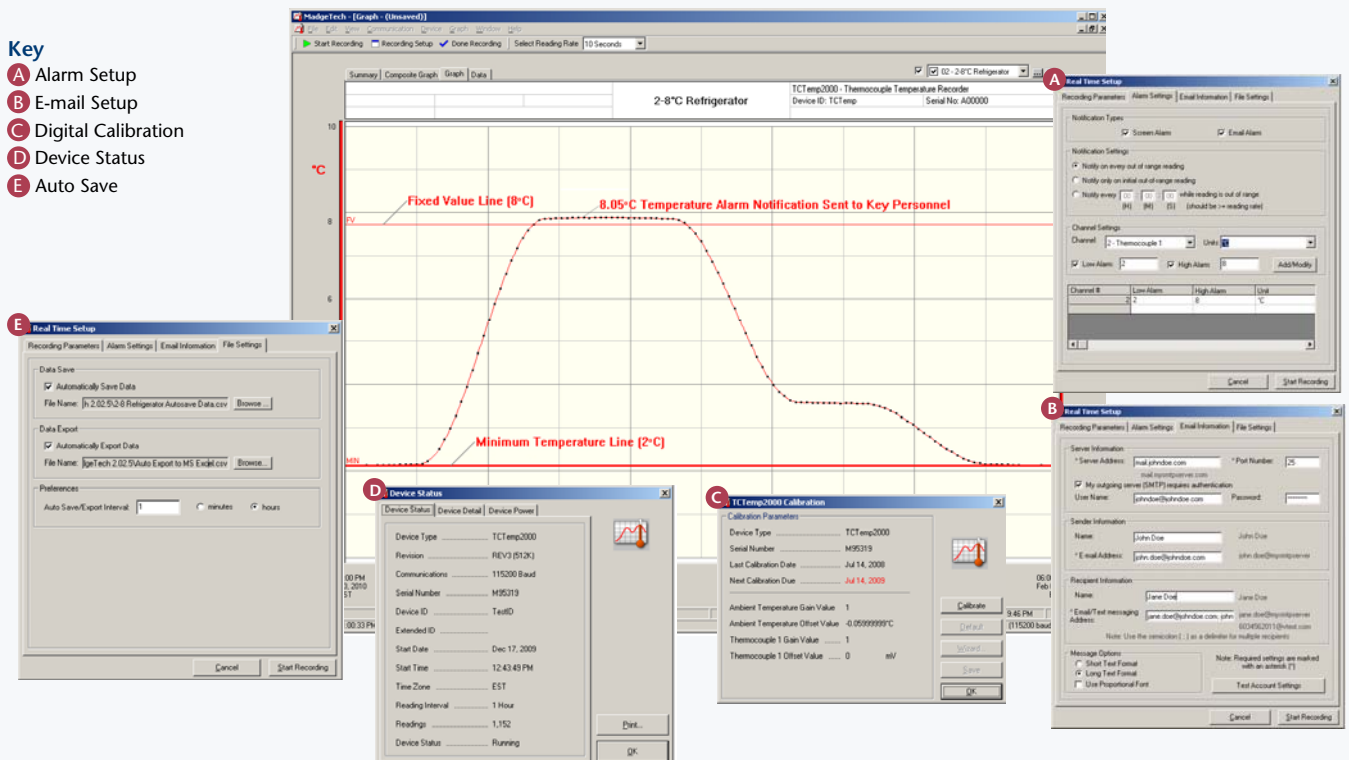


In the real-time chart recording mode the VTMS can alert the user, or other personnel, via e-mail or text message if the refrigerator has failed, or if the temperature is outside of the nominal range. This allows users to take immediate actions to ensure vaccines and pharmaceuticals in storage are not destroyed. To prevent false alarms, the TCTemp2000 is connected to a Glycol bottle which provides temperature buffered readings.

## MadgeTech Data Logger Software

### Key

- A Alarm Setup
- B E-mail Setup
- C Digital Calibration
- D Device Status
- E Auto Save



# VTMS SPECIFICATIONS\*

## TEMPERATURE

Sensor: Type K Thermocouple  
**Ideal Measurement Range:** -50°C to 80°C (-58°F to +176°F)  
**Resolution:** 0.1°C  
**Calibrated Accuracy:** ±1°C  
**Internal Channel Temperature Range:** -20 to +60°C  
**Temperature Resolution:** 0.1°C  
**Calibrated Accuracy:** ±0.5°C (0 to +50°C)  
**Thermocouple connection:** Female subminiature (SMP)  
**Cold Junction Compensation:** Automatic, based on internal channel

## DOT-MATRIX LCD

**Dimensions:** 2.5" x 1.375" (63mm x 35mm)  
**Text:** Configurable channel text size  
**Indicators:** Power, status, memory  
**Backlight:** Configurable w/auto shut-off and contrast adjustment  
**Start/Stop Time:** Software programmable start time and date, up to six months in advance; programmable stop time  
**Memory:** 131,071 readings per channel; 262,143 total readings; software configurable memory wrap

**Reading Rate:** 1 reading every 2 seconds to 1 every 24 hours

**Calibration:** Digital calibration through software  
**Calibration Date:** Automatically recorded within device

**Battery Type:** 9V lithium battery included, user replaceable; optional AC adapter

**Battery Life:** 1 year battery life at 1 min reading rate with display off. 30 days typical with continuous LCD and no backlight

**Data Format:** Date and time stamped °C, °F, K, °R

**Time Accuracy:** ±1 minute/month (at 20° to 30°C)

**Computer Interface:** PC serial or USB (interface cable required); 115,200 baud

**Software:** XP SP3/Vista/Windows 7

**Operating Environment:** -20 to +60°C, 0 to 95%RH non-condensing

**Dimensions:** 4.8" x 3.3" x 1.25" (122mm x 84mm x 32mm)

**Probe Length:** 2.5" for 30ml glycol bottle

**Wire Length:** 3'

**Weight:** 18oz (510g)

**Enclosure:** Black anodized aluminum

**Approvals:** CE

## SOFTWARE FEATURES

**BATTERY WARNING:** MAY LEAK AND/OR FLAME IF OPENED, RECHARGED.

<b>Multiple Graphs:</b> Simultaneously analyze data from several units or deployments; easily switch to a single data series	<b>Statistics:</b> Automatically calculate averages, min, max, standard deviation, and mean kinetic temperature.
<b>Real-Time Recording:</b> Collect and display data in real-time while continuing to log	<b>Export Data:</b> Export data in a variety of common formats, or switch to Excel® with a single click
<b>Graphical Cursor:</b> One click displays readings by time, value, parameter or sample number	<b>Calibration:</b> Automatically calculate and store calibration parameters
<b>Data Table:</b> Instantly access tabular view for detailed dates, times, values, and annotations	<b>Logger Configuration:</b> Easy set up and launch of data loggers with immediate or delayed start, preferred sample rate, and device ID
<b>Scaling Options:</b> Autoscale function fits data to the screen, or allows user to manually enter their own values	<b>Communications:</b> Automatically sets up communications port, or lets user select configuration
<b>Formatting Options:</b> Change colors, line styles, plotting options, show or hide channels quickly	<b>Printing:</b> Automatically print graphical or tabular data

\*SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. SPECIFIC WARRANTY AND REMEDY LIMITATIONS APPLY. CALL 1-603-456-2011 OR GO TO WWW.MADGETECH.COM FOR DETAILS.

## ORDERING INFORMATION

Model	Description	Price (U.S.)
VTMS	Vaccine Temperature Monitoring System. Includes data logger with N.I.S.T. certificate, thermocouple probe, glycol bottle and 9 volt AC wall mounted adapter (North American version)	\$599.00
VTMS-EU	Vaccine Temperature Monitoring System. Includes data logger with N.I.S.T. certificate, thermocouple probe, glycol bottle and 9 volt AC wall mounted adapter (European version)	\$599.00
IFC200	Software, manual and USB interface cable (One required for complete system)	\$119.00
U9VL-J	Replacement battery for VTMS	\$15.00

### ASK ABOUT OUR OTHER DATA RECORDERS

Temperature	Pulse/Event/State
Humidity	Low Level Current
Pressure	Low Level Voltage
pH	RF Transmitters
Level	Intrinsically Safe
Shock	Spectral Vibration
LCD Display	

