

Temperature monitoring, recording and dialing device for cold storage, dry storage, Freezer/Refrigerator etc.

Main functions:

- The instruments can measure and record temperature from -200°C to 1250°C
- The instrument continuously monitors and records the temperature inside the storage area
- The data is recorded in the instrument as well as on a computer. Also the data can be monitored through the internet.
- In case of the temperature goes above or below the limit value, the instrument will first sound an alarm and thereafter will dial upto 4 different phone numbers continuously until one of the phones is attended.

Protects Vaccines, Blood, Tissue, Food, Inventory etc. in a Freezer/Refrigerator/Cold storage/Dry Storage etc.

The *Freezer Alarm* is used in health clinics, pediatricians offices, labs, hospitals, manufacturing plants, and even commercial kitchens to alarm and document freezer and refrigerator temperatures. If the temperature moves outside the safe range for too long or the power fails, the Freezer Alarm's auto dialer calls up to 4 different phone numbers to give a warning so you can respond in time to save your inventory.

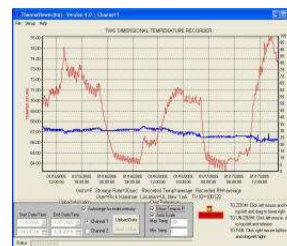
The chart that is displayed on the Freezer Alarm is so easy to understand that each member of your staff will understand it without any special training. They automatically become part of your quality control system every time they glance at the display. They will immediately see if everything is OK or something happened while no one was looking.



Refrigerator/Freezer



Cold Room / Blood Storage Room



Graphic Display of Temperature/Humidity

Monitors, Documents and Alarms

The **ThermaViewer** is a battery-backed up, microprocessor based, **monitor**, which logs and charts temperature or temperature and temperature & humidity. It stores the measured conditions in its RAM memory, displaying a history chart on the display. The chart can be scrolled through or zoomed into and out of so you can see an individual measurement or years of collected data on the display.

By looking at lots of data at once trends can be spotted and individual data points examined.

Constructed of high impact materials to last for years, has no moving parts, **requires no paper, pens or ongoing maintenance**



Use an auto dialer and you will receive a phone call any time an alarm occurs: Any time day or night. Dialers are available to call four, eight or more phone numbers and leave your prerecorded message. Never worry about the safety of your inventory or processes. The phones will be dialed in the programmed sequence until one of the operators attends and acknowledges the call. You can record your own voice alert which will be transmitted to the phone once



an alarm condition occurs.

The best part of the ThermaViewer is that it is completely stand-alone. You do not need a computer to program it, monitor it or babysit it. In fact you never need to get it anywhere near a computer unless you want to print out a copy of the chart.

Alarm a Refrigerator and a Freezer

The Fridge-Freezer Alarm documents and alarms both a refrigerator and a freezer. Or two freezers. Or two refrigerators. Each sensor has its own alarm settings and display and can be either wired back to the monitor or wirelessly transmitting temperature data back to the monitor. The current temperature for each of the sensors is always displayed at the bottom of the chart and the display can be flipped back and forth to show the temperature history chart for each sensor.



The Freezer Alarm works with any Refrigerator and/or Freezer and Cold Room

Hospitals, laboratories, doctor's offices, and even National Guard Units store vaccines and medicines in home-style refrigerators and freezers because they are inexpensive and readily available. These fridge/freezers are not built to maintain the same close temperature tolerances that scientific units do, but **they can be safely used** by adding the Freezer Alarm to any refrigerator and/or freezer. The Freezer Alarm's sensors are placed in the cold compartment of the fridge and freezer, and the monitor not only saves the temperature readings but it also displays a chart so you get a visual picture of the temperature history.

You can, of course, add the **Freezer Alarm** to a scientific refrigerator or freezer also. You can even use the Freezer Alarm with -80° freezers. It will log the temperatures and draw an electronic chart of the temperatures, to comply with JCAHO regulations in addition to sounding the alarm if the temperatures become unsafe.

Add the optional auto dialer to the Freezer Alarm for a phone-call alert any time there is a power outage or the temperature in your freezer exceeds your settings.

Stop Writing Down Temperatures

The time-honored method of manually monitoring the freezer with a piece of paper stuck to the side of the unit is not adequate nor does it comply with JCAHO, CDC and other agency requirements. It is important and necessary to continuously monitor and keep a permanent record of the freezer temperature, twenty-four hours a day, seven days a week. Using our *Freezer Alarm* ensures that you will be in compliance with regulations and your inventory will be protected.

Battery Backup

The Freezer Alarm normally operates on wall power, but if wall power is interrupted the 9 volt battery takes over and **continues to run the unit for up to 40 hours**. All monitoring and logging and even alarms will continue to operate normally while the Fridge-Freezer Alarm is being operated on battery power. The Fridge-Freezer Alarm's display will go to sleep after 20 seconds to preserve the battery, but this does not affect the collection of data or the alarms.

Alarms

It is all too easy for a freezer to malfunction; warm up and then cool down while no one is around. Were this to happen, it would not be noticed with the old manual system where freezer temperature is recorded only once or twice a day. And, of course, with the manual system there is no way to tell what happened over the weekend.

With our **Freezer Alarm** you can immediately tell if the temperature became unsafe when no one was in the office. The temperature history is always displayed on the LCD, so one glance at the display tells you all you need to know



about the storage conditions.

Phone Call (Voice) Alert

The Freezer Alarm monitors and alarms **both** a refrigerator and a freezer, or two different freezers, or two different refrigerators all the time. With the optional auto dialer **you will receive a phone call any time the freezer alarm is triggered**. So if the temperature gets too warm or cold for too long, or the power fails, the freezer monitor goes into alarm mode and the auto dialer calls several people to deliver a message. With our Freezer Alarm you will never be unaware of an unsafe condition.

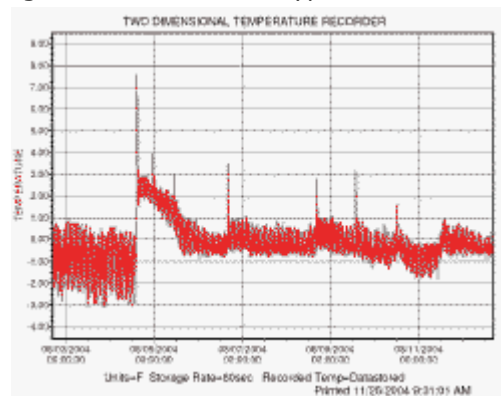
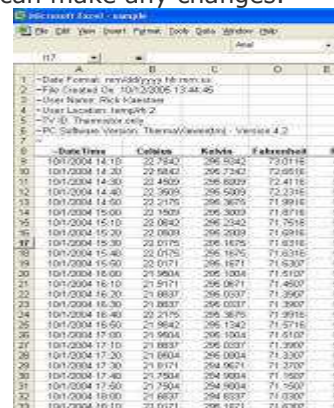
Simple Monitoring

The data can be seen on the screen of the instrument, in multiple computers over a network or through the internet from a different part of the world.

Documented Proof for Auditors and Regulators

It displays and prints documentation that can be shown to regulators or auditors as proof that your inventory has been properly stored and maintained. The alarm itself does not have a printer but you can download data to any PC type computer where it can be printed out in graphic format or saved as an Excel file and an encrypted file.

The **freezer alarm downloads an encrypted file** to your computer for back up and printing. Once the data has been logged by the Freezer Alarm it can never be changed. Even after the temperature history has been downloaded from the Freezer Alarm the temperatures can not be changed. The files are encrypted so that no one can make any changes.

Date/Time	Celsius	Kelvin	Fahrenheit
10/1/2004 14:10	22.7540	296.3242	73.0118
10/1/2004 14:20	22.5842	296.7342	72.6516
10/1/2004 14:30	22.4509	296.6009	72.4118
10/1/2004 14:40	22.3905	296.5309	72.3118
10/1/2004 14:50	22.2175	296.3675	71.9914
10/1/2004 15:00	22.1509	296.3009	71.8718
10/1/2004 15:10	22.0842	296.2342	71.7518
10/1/2004 15:20	22.0039	296.2039	71.6018
10/1/2004 15:30	22.0175	296.1675	71.6318
10/1/2004 15:40	22.0175	296.1675	71.6318
10/1/2004 15:50	22.0171	296.1671	71.6300
10/1/2004 16:00	21.9804	296.1304	71.5600
10/1/2004 16:10	21.9711	296.1411	71.5480
10/1/2004 16:20	21.8837	296.0537	71.3900
10/1/2004 16:30	21.8837	296.0537	71.3900
10/1/2004 16:40	22.2175	296.3675	71.9918
10/1/2004 16:50	21.9642	296.1342	71.5718
10/1/2004 17:00	21.9604	296.1004	71.5100
10/1/2004 17:10	21.8837	296.0337	71.3900
10/1/2004 17:20	21.6604	296.0004	71.3300
10/1/2004 17:30	21.6171	296.0671	71.2700
10/1/2004 17:40	21.7504	296.0904	71.1500
10/1/2004 17:50	21.7504	296.0904	71.1500
10/1/2004 18:00	21.6837	296.0337	71.0300
10/1/2004 18:10	22.0171	296.1671	71.6300

Print or view temperature history chart from the Freezer Alarm

No Hidden Costs.

There are no monthly fees. You own the equipment. You decide when and who the auto dialer calls if there is an alarm. It can call up to four different people and deliver a sixteen-second message that you record. The Fridge-Freezer Alarm is completely stand alone. No one has to check on it every month. The Fridge-Freezer Alarm uses no paper charts or pens and requires no maintenance - there are no moving parts to wear out or replace. The **Fridge Freezer Alarm** is your protection against unsafe temperatures.

Alarm for -80° freezers

The Alarm for -80° freezers is a easy to use instrument. Thermocouple sensors monitor temperatures between -200° and 1250°C. This unit has its own menus so that it never has to be plugged into a computer unless you want to print out or copy the collected temperatures

The large LCD display constantly **displays** a temperature history of each sensor. You can see **As much as 1.5 years of temperature history** at one time on the screen, so it is easy to spot trends and anomalies. The display has a trace mode to zoom into any individual temperature. All menus are password protected to prevent unauthorized access.



Additional Information

Sensor	one or two sensors
Accuracy	Depends on the type of Thermocouple used ($\pm 2.2^{\circ}\text{C}$ or $\pm 1^{\circ}\text{C}$)
Range	Depends on the type of Thermocouple used typically from -80°C to -200°C
Channels	1 or 2 temperature only
Display	Backlit graphic LCD
Alarm	High and low alarm for each sensor. Also power failure alarm.
Type of Relay	Normally open (N/O)
Logs Data	Yes
Loggin Freq	Once every 10 seconds to once every 24 hours
Capacity	80,000 per sensor
PC Interface	Serial
Power Source	Wall Power
Battery	40 hour backup battery (9 vdc)
Menu System	Yes