

# LyoTemp

Lyophilization Data Logger



## PRODUCT USER GUIDE

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# PRODUCT USER GUIDE

## Product Overview

The LyoTemp Data Logger is designed for use in ultra-low operating temperatures for processes such as Lyophilization. The LyoTemp has an operating range of -60 °C to +75 °C, and is designed with a hermetically sealed thermistor temperature sensing element in a long thin flexible cable form, making it ideal for monitoring products during the lyophilization process.

## Installation Guide

### Installing the Software

The Software can be downloaded from the MadgeTech website at [madgetech.com](http://madgetech.com). Follow the instructions provided in the Installation Wizard.

### Installing the Docking Station

**IFC300 (sold separately)** — Follow the instructions provided in the Installation Wizard to install the USB Interface Drivers. Drivers can also be downloaded from the MadgeTech website at [madgetech.com](http://madgetech.com).

### Ordering Information

- 900355-00 — LyoTemp
- 900315-00 — IFC300

## Device Operation

### Connecting and Starting the Data Logger

1. Once the software and USB drivers are installed, plug the USB cable into the docking station.
2. Connect the other end of the USB cable into an open USB port on the computer.
3. Place the data logger into the docking station.
4. The data logger will automatically appear under **Connected Devices** within the software.
5. For most applications, select **Custom Start** from the menu bar and choose the desired start method, reading rate and other parameters appropriate for the data logging application and click **Start**. (*Quick Start applies the most recent custom start options, Batch Start is used for managing multiple loggers at once, Real Time Start stores the dataset as it records while connected to the logger.*)
6. The status of the device will change to **Running**, **Waiting to Start** or **Waiting to Manual Start**, depending upon your start method.
7. Remove the data logger from the docking station and place it in the environment to measure.

**Note:** *The device will stop recording data when the end of memory is reached or the device is stopped, unless user selectable memory wrap is enabled. At this point the device cannot be restarted until it has been re-armed by the computer.*

### Downloading Data from a Data Logger

1. Place the logger into the docking station.
2. Highlight the data logger in the **Connected Devices** list. Click **Stop** on the menu bar.
3. Once the data logger is stopped, with the logger highlighted, click **Download**.
4. Downloading will offload and save all the recorded data to the PC.

# PRODUCT USER GUIDE

## Device Operation (cont'd)

### Manual Start

The LyoTemp can be started using the magnetic wand provided (in the IFC300) to touch the start/mark switch, if it is first programmed for a Manual Start in the MadgeTech 4 Software. Once the device is programmed the status will change to **Waiting for Manual Start**. To begin recording, touch the wand to the start/mark switch, the green LED (OK) will blink 5 times followed by the yellow LED (WARN) and the red LED (ALARM), indicating the device is recording. The logger must be manually stopped through the MadgeTech 4 Software.



### Marking Feature

A date and time stamp may be placed in the recorded data, by touching the magnetic wand to the start/mark switch. The marking feature may be configured to clear the alarm and warn indicators, while the logger is still active.



### Alarm Settings

To change the settings for the alarm:

1. In the **Connected Devices** panel, select the intended device to change the alarm settings.
2. On the **Device** tab, in the **Information** group, click **Properties**. Users can also right-click on the device and select **Properties** in the context menu.
3. A window will appear allowing to set the high and low alarms and warning alarms.
4. Press **Change** to edit the values.
5. Check **Enable Alarm Settings** to enable the feature and check each high and low, warn and alarm box to activate it. The values can be entered in the field manually or by using the scroll bars.

6. Click **Apply** to save the changes to the device. To clear an active alarm or warn, press the **Clear Alarm** or **Clear Warn** button.
7. To set an alarm delay, enter the duration of time into the **Alarm Delay** box in which the readings can be outside of the alarm parameters.

### LED Indicators

	<b>Green LED blinks</b> to indicate safe conditions during logging
	<b>Yellow LED blinks</b> to indicate warn limits have been exceeded
	<b>Red LED blinks</b> to indicate alarm criteria (limits/delay) have been exceeded

### Set Password

To password protect the device so that others cannot start, stop or reset the device:

1. In the **Connected Devices** panel, click the device desired.
2. On the **Device** Tab, in the **Information** Group, click **Properties**. Or, right-click the device and select **Properties** in the context menu.
3. On the **General** Tab, click **Set Password**.
4. Enter and confirm the password in the box that appears, then select **OK**.

## Device Maintenance

### Battery Replacement and Calibration

When battery life is expended or device calibration is required, the LyoTemp data logger must be returned to MadgeTech to participate in the product exchange program. Please call a MadgeTech sales representative for details.

## NEED HELP?



### Product Support & Troubleshooting

- Visit our Resource Library online at [madgetech.com/resources](http://madgetech.com/resources).
- Contact our friendly Customer Support Team at (603) 456-2011 or [support@madgetech.com](mailto:support@madgetech.com).



### MadgeTech 4 Software Support

- Refer to the built-in help section of the MadgeTech 4 Software.
- Download the MadgeTech 4 Software Manual at [madgetech.com](http://madgetech.com).
- Contact our friendly Customer Support Team at (603) 456-2011 or [support@madgetech.com](mailto:support@madgetech.com).

