

# EL-USB-TP-LCD+ Temperature Data Logger



- ✓ -40 to +125°C (-40 to +257°F) measurement range
- ✓  $\pm 0.7^{\circ}\text{C}$  ( $\pm 1.3^{\circ}\text{F}$ ) accuracy
- ✓ High contrast LCD display
- ✓ Included 1-meter high accuracy thermistor probe (optional extenders available)
- ✓ USB interface
- ✓ Included EL-WIN-USB software for set-up and data analysis
- ✓ Programmable alarms with visual alerts
- ✓ Included long-life 1/2AA replaceable lithium battery

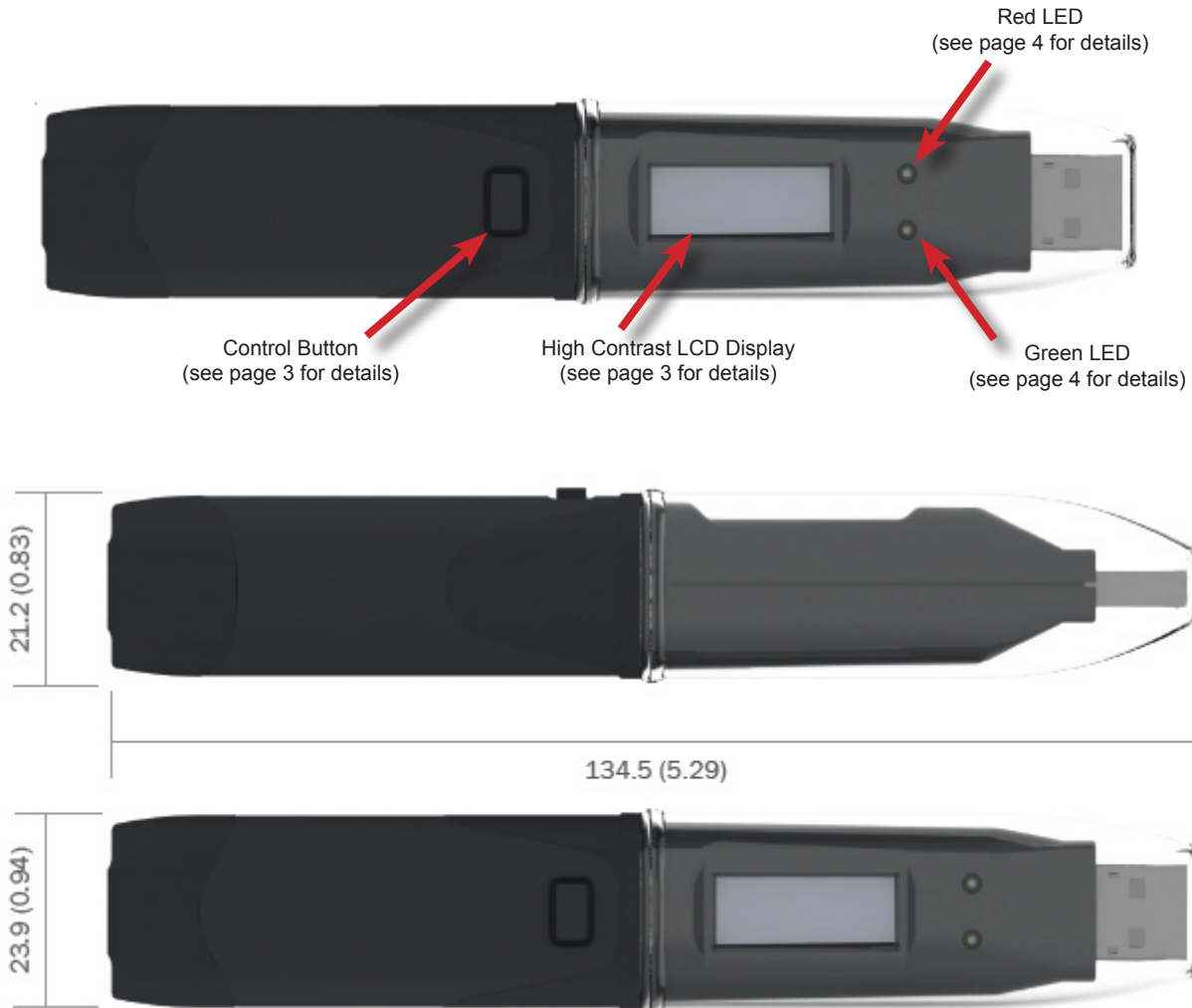
## EL-USB-TP-LCD+ Description

The EL-USB-TP-LCD+ is a stand-alone single channel thermistor data logger. With a measurement range from  $-40$  to  $+125^{\circ}\text{C}$  ( $-40$  to  $+257^{\circ}\text{F}$ ), the included 1 meter thermistor probe is accurate to within  $\pm 0.7^{\circ}\text{C}$ . With a storage capacity of 32,510 readings, and sample intervals ranging from 1 second to 12 hours, the EL-USB-TP-LCD can log temperature data for days, weeks or months at a time. Programmable alarms allow you illuminate a LED when temperatures rise above or fall below user-defined levels.

A high contrast LCD display allows you to view the current temperature, the scale ( $^{\circ}\text{C}$  or  $^{\circ}\text{F}$ ) and the minimum/maximum logged value.

The included EL-WIN-USB software allows you to choose a thermistor type, set the sample interval, and specify alarm levels. In addition, the software allows you to graph recorded data, print it, or export it to Microsoft Excel format.

## EL-USB-TP-LCD Close-up



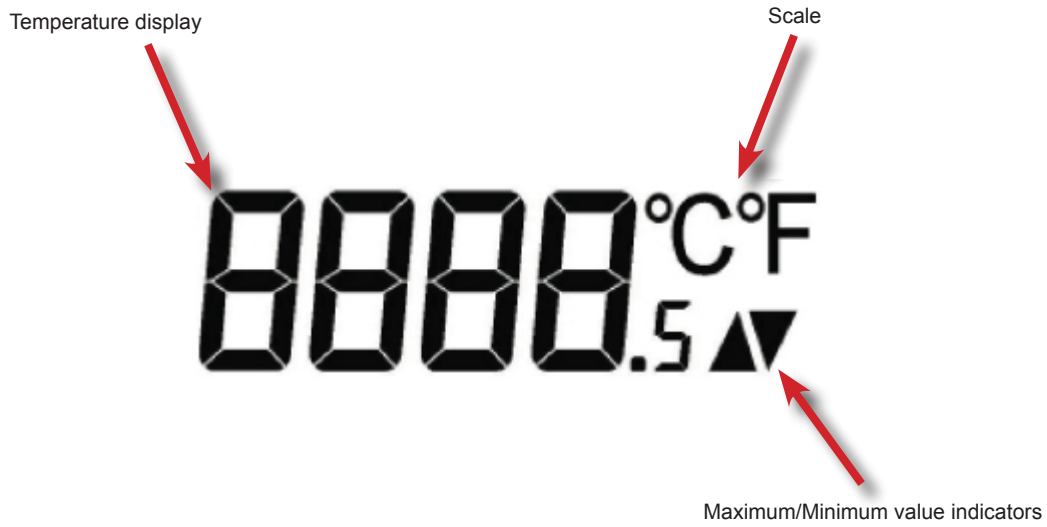
measurements in mm (inches)

The EL-USB-TP-LCD+ includes one 3-meter thermistor probes with 3.5mm stereo connectors (extenders available).



## LCD Display and Functions

The high contrast LCD display shows the current temperature, maximum or minimum logged values and the temperature scale (Celsius or Fahrenheit). The LCD display can show the status of your logging session as well.



Display	Logger Status	Explanation
d5	Delayed Start	Indicates that the EL-USB-TP-LCD will begin logging data at a user-specified date/time.
P5	Push to Start	Data logging will begin when the control button is pressed.
109	Logging	Indicates that the unit is currently logging data. This is briefly visible in "LCD Off" mode, only.
---	Not configured/ not logging data	This is briefly visible if the unit has not been set up to log data, and the control button is pushed.
Prob / 1	Probe Disconnected	Indicates that the temperature probe has been disconnected while logging data. The number indicates the type of probe that the EL-USB-TP-LCD expects to see.

## LED Modes

The red and green LEDs give a visual indication of the state of the EL-USB-TP-LCD, indicate when the battery level is low, and show when alarm levels have been breached.

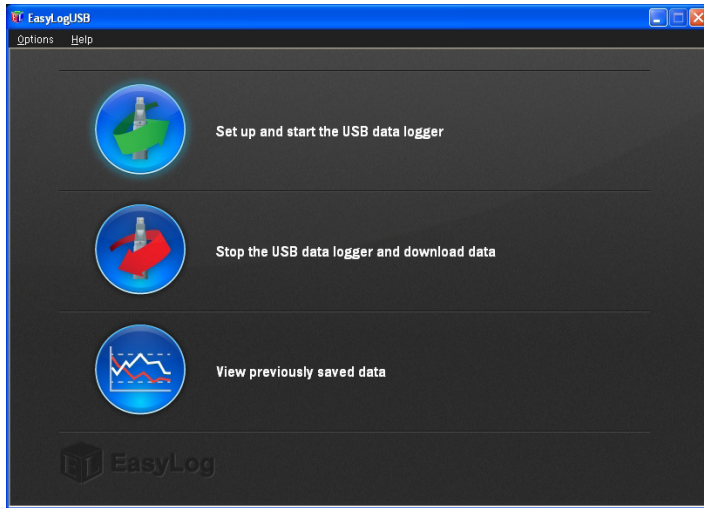


		<b>Green Single Flash (10 seconds)</b> The data logger is currently logging. No alarm.
		<b>Green Single Flash (20 seconds)</b> The data logger is currently logging. No alarm. However, the battery is low and should be replaced before logging important data.
		<b>Green Single Flash (30 seconds)</b> The data logger is not currently logging, but is primed to start at a later date and time (delayed start).
		<b>Green Double Flash (20 seconds)</b> The data logger is full and has stopped logging. No alarm.
		<b>Red Single Flash (10 seconds)</b> The data logger is currently logging. Low alarm.
		<b>Red Single Flash (20 seconds)</b> The data logger is currently logging. Low alarm. However, the battery is low and should be replaced before logging important data.
		<b>Red Double Flash (10 seconds)</b> The data logger is currently logging. High alarm.
		<b>Red Double Flash (20 seconds)</b> The data logger is currently logging. High alarm. However, the battery is low and should be replaced before logging important data.
		<b>Red/Green single flash (20 seconds)</b> The data logger is full and has stopped logging. Alarm (high, low or both).
		<b>No LEDs Flash</b> The data logger is stopped, the battery is dead, or there is no battery.
		<b>Red Triple Flash (10 seconds)</b> The data logger is currently logging but the Thermistor Probe is disconnected.

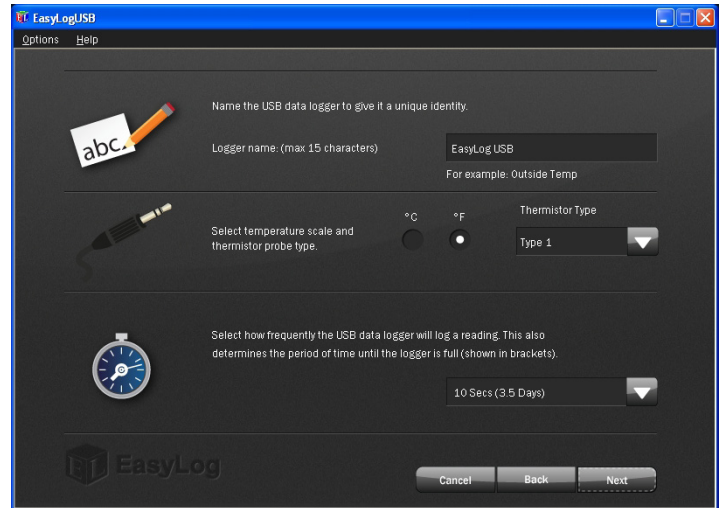
# Software Close Up

The included EL-WIN-USB software allows you to name the EL-USB-TP-LCD+, choose a thermistor type and temperature scale (°C or °F), and set the sample interval. Alarms and delayed start times are also set using the EL-WIN-USB software.

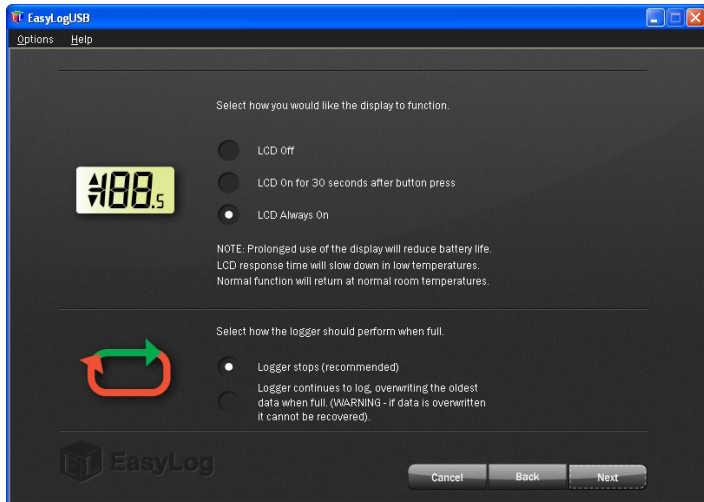
## 1. Start Software



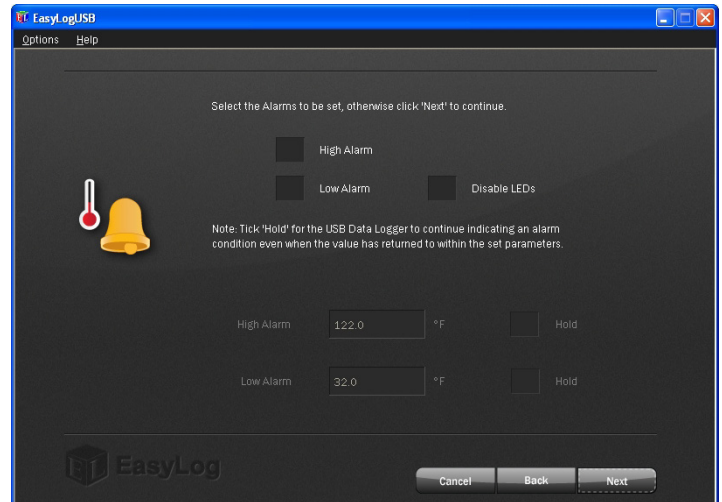
## 2. Choose the scale, thermistor type and sample interval



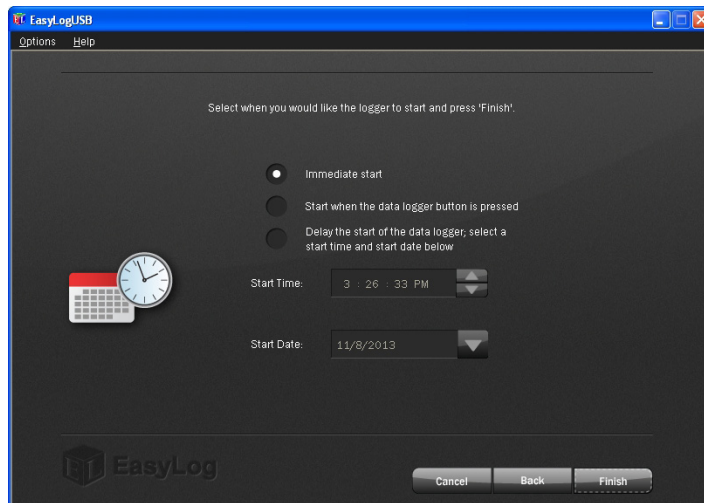
## 3. Choose a LCD and memory configuration



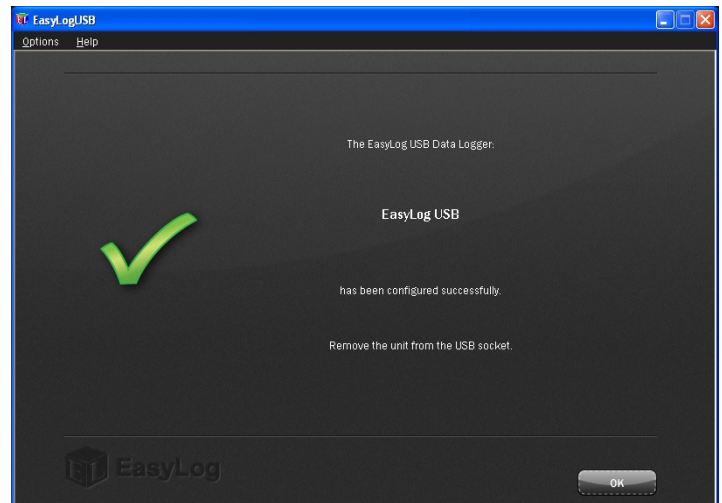
## 4. Set alarms



## 5. Choose when to start recording



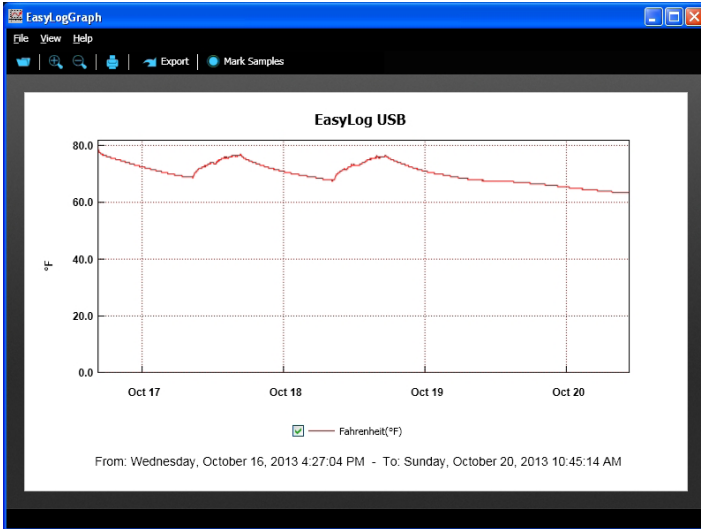
## 6. Setup complete!



## Software Close Up (continued)

Once acquisition is complete, the included EasyLogGraph software allows you to graph the data, print it, or save it in .xls format for easy viewing in Microsoft Excel.

Data displayed in EasyLogGraph software



Data displayed in Microsoft Excel

EasyLog USB Time	Fahrenheit(°F)	Serial Number
1 10/16/2013 16:27	77.5	140
2 10/16/2013 16:27	77.5	
3 10/16/2013 16:27	79.5	
4 10/16/2013 16:27	80	
5 10/16/2013 16:27	80	
6 10/16/2013 16:27	80	
7 10/16/2013 16:28	80	
8 10/16/2013 16:28	80	
9 10/16/2013 16:28	80	
10 10/16/2013 16:28	80	
11 10/16/2013 16:28	80	
12 10/16/2013 16:28	80	
13 10/16/2013 16:29	80	
14 10/16/2013 16:29	80	
15 10/16/2013 16:29	79.5	
16 10/16/2013 16:29	79.5	
17 10/16/2013 16:29	79.5	
18 10/16/2013 16:29	79.5	
19 10/16/2013 16:29	79.5	
20 10/16/2013 16:30	79.5	
21 10/16/2013 16:30	79.5	
22 10/16/2013 16:30	79.5	
23 10/16/2013 16:30	79.5	
24 10/16/2013 16:30	79.5	

## Record Times

Sampling Interval	Record Time
1 second	9 hours
10 seconds	3 days
30 seconds	11 days
1 minute	22 days
5 minutes	112 days
30 minutes	677 days
1 hour	> 2 years
6 hours	> 2 years
12 hours	> 2 years

## Specifications

Specification	Minimum	Typical	Maximum	Unit
Supplied probe measurement range	-40 (-40)	-	+125 (+257)	°C (°F)
Operating temperature range*	-10 (+14)	-	+40 (+104)	°C (°F)
Resolution (internal and displayed)	-	0.5 (1)	-	°C (°F)
Accuracy	-	±0.7 (±1.3)	-	°C (°F)
Logging rate	ever 1s	-	every 12 hr	-
Battery life**	-	6**	-	Months

\* Operating temperature applies to the data logger unit only.

\*\* Depending on sample rate, ambient temperature and use of LCD.

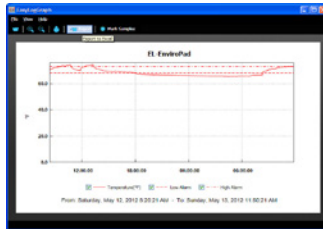
# EL-USB-TP-LCD+ Ordering Information

Description	Order Number
<b>EL-USB-TP-LCD+ Data Logger</b> Includes data logger, one (1) battery (preinstalled), one (1) high accuracy thermistor probe, downloadable configuration, review and Excel export software.	<b>EL-USB-TP-LCD+</b>
<b>Optional Accessories</b>	
<b>Spare Battery</b> Please note: 2 batteries are required to run the EL-GFX-DTP data logger.	<b>BAT-3V6</b>
<b>Probe Extender</b> 5 meter thermistor probe extender.	<b>EL-PROBEEXTENDER-5M</b>
<b>Probe Extender</b> 1.5 meter thermistor probe extender.	<b>EL-PROBEEXTENDER-1.5M</b>
<b>Probe Extender</b> 10 meter thermistor probe extender.	<b>EL-PROBEEXTENDER-10M</b>

## Included



EL-USB-TP-LCD



EasyLog Graph Software



Thermistor Temperature Probe  
(3 meters)



1 Battery  
(pre-installed)

## Optional Accessories



EL-PROBEEXTENDER-5M  
(5 meter)



EL-PROBEEXTENDER-1.5M  
(1.5 meter)



EL-PROBEEXTENDER-10M  
(10 meter)

# EL-USB Data Logger Series Overview

## EasyLog Products for Any Application

From temperature and humidity to carbon monoxide trending, there's an EasyLog data logger that's right for you. Click on "Go" to go to the product's web page.

Measurement		Model EL-USB (click on page number to jump to page)																		
Function	Range	-LITE	-1	-1-LCD	-1-RCG	-1-PRO	-2	-2+	-2-LCD	-2-LCD+	-3	-4	-5	-ACT	-CO	-TC	-TC-LCD	-TP-LCD	-TP-LCD+	
Temperature	-10 to +50°C (+14 to +122°F)	<a href="#">Go</a>																		
Temperature	-35 to +80°C (-31 to +176°F)		<a href="#">Go</a>	<a href="#">Go</a>																
Temperature	-20 to +60°C (-4 to +140°F)				<a href="#">Go</a>															
High Temperature	-40 to +125°C (-40 to +257°F)					<a href="#">Go</a>												<a href="#">Go</a>	<a href="#">Go</a>	
Humidity, temperature, dew point	0 to 100% RH -35 to +80°C (-31 to +176°F)						<a href="#">Go</a>	<a href="#">Go</a>	<a href="#">Go</a>	<a href="#">Go</a>										
Voltage	0 to 30 VDC										<a href="#">Go</a>									
Process current	4 to 20 mA											<a href="#">Go</a>								
Event, State, Count	3-28 VDC												<a href="#">Go</a>							
Current	-1000 to 1000 mV													<a href="#">Go</a>						
Carbon monoxide	0 to 1000 ppm														<a href="#">Go</a>					
Thermocouple	-130 to +900°C -200 to +1300°C -200 to +350°C															<a href="#">Go</a>	<a href="#">Go</a>			



# Lascar Data Logger Product Lines

## EL-USB Data Loggers



Lascar EasyLog model EL-USB series products are a line of low cost, compact, battery-operated data loggers with built-in memory and a USB interface for easy setup and data download. Each product in the line offers a specific measurement function (including temperature, voltage, process current, and more).

## EL-GFX Data Loggers



The EL-GFX line of data loggers is the latest release from Lascar Electronics with similar functionality of the EL-USB series with an added graphic display for data.

## EL-WiFi Data Loggers



Lascar's EL-Wifi Data Logger series products are low cost, compact, battery-operated data loggers with wireless connectivity to any PC over a WiFi router. Each product in the line features a large, easy-to-read display of current measurements, and is purchased for specific measurement functions.



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## **Data Acquisition Product Links**

(click on text to jump to page)

[Data Acquisition](#) | [Data Logger](#)