

## Tlog Series User Manual

### Reusable PDF Temperature (Humidity) Data Logger

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V1.0

## Overview

Tlog series data loggers are used to monitor and record the temperature (humidity) for foods, pharmaceuticals, and other products during their storage and transport, and in each stage of cold chain logistics, such as refrigerated containers/trucks, cooler bags, cooling cabinets, medical cabinets, freezers, and laboratories.

Tlog series features a USB port, LCD screen and two buttons designed to prevent accidental touches. You can view device status and parameters by button press, or customize various parameters, such as start/stop modes, multiple thresholds, storage modes, etc. You can also view automatically generated PDF report without using the ElitechLog software.

Its Tlog B100 series are Bluetooth versions that allow operations without opening package via the Elitech app. Such as parameter configuration, data viewing, Bluetooth print, etc, that provides simple, practical, and convenient experiences.



## USB Data Loggers

Model	Tlog 100	Tlog 100E	Tlog 100H	Tlog 100EH	Tlog 100EC	Tlog 100EL
Type	Internal Temperature	External Temperature	Internal Temperature and Humidity	External Temperature and Humidity	External Cryogenic	External Cryogenic
Measuring Range	-30°C~70°C	-40°C~85°C	-30°C~70°C 0%RH~100%RH	-40°C~85°C 0%RH~100%RH	-85°C~150°C	-196°C~150°C
Sensor	Digital Temperature Sensor		Digital Temperature and Humidity Sensor		Platinum Resistance Temperature Sensor PT100	
Accuracy	Temperature: ±0.3°C (-20°C~40°C), ±0.5°C (-50°C~85°C), ±1°C (-100°C~150°C), ±2°C (others) Humidity: ±3%RH (25°C: 20%RH~80%RH), ±5%RH (others)					

## Bluetooth Data Loggers

Model	Tlog B100	Tlog B100E	Tlog B100H	Tlog B100EH
Type	Internal Temperature	External Temperature	Internal Temperature and Humidity	External Temperature and Humidity
Measuring Range	-30°C~70°C	-40°C~85°C	-30°C~70°C 0%RH~100%RH	-40°C~85°C 0%RH~100%RH
Sensor	Digital Temperature Sensor		Digital Temperature and Humidity Sensor	
Accuracy	Temperature: ±0.3°C (-20°C~40°C), ±0.5°C (others) Humidity: ±3%RH (25°C: 20%RH~80%RH), ±5%RH (others)			

## Specifications

<b>Resolution:</b> Temperature: 0.1°C; Humidity: 0.2%RH
<b>Memory:</b> 32,000 points (max)
<b>Logging Interval:</b> 10s ~ 24h
<b>Start Mode:</b> Press button or use software
<b>Stop Mode:</b> Press button, use software, or auto stop
<b>Alarm Threshold:</b> Configurable; Temperature: up to 3 high limits and 2 low limits; Humidity: 1 high limit and 1 low limit
<b>Alarm Type:</b> Single, cumulative
<b>Alarm Delay:</b> 10s ~ 24h
<b>Data Interface:</b> USB, Bluetooth
<b>Battery:</b> CR2450 3.0V wide-temperature button cell
<b>Battery Life:</b> 2 years for storage and use; cumulatively 180 days at 10 mins logging interval and 25°C (Bluetooth not on)
<b>Protection Level:</b> IP65
<b>Dimensions:</b> 115.5 x 47 x 16.2 mm (LxWxH)
<b>Weight:</b> Approx. 70g

## Operation

**1. Download & Install Software**  
Please download and install the free ElitechLog software (macOS and Windows) from Elitech US: [www.elitechstore.com/pages/download](http://www.elitechstore.com/pages/download) or Elitech UK: [www.elitechlinco.uk/software](http://www.elitechlinco.uk/software) or Elitech BR: [www.elitechbrasil.com.br](http://www.elitechbrasil.com.br).

**2. Configure Parameters**  
First, connect the data logger to the computer via USB cable, wait until the U icon shows on the LCD, then: Configure via ElitechLog software. If you do not need to change the default parameters (in Appendix), please click **Quick Reset** under **Summary** menu to synchronize local time before usage. If you need to change the parameters, please click the **Parameter** menu, enter your preferred parameters, and click **Save Parameter** button to complete the configuration.

**Warning!** For first time user or after battery replacement:  
To avoid time or time zone errors, please make sure you click **Quick Reset** or **Save Parameter** before usage to configure your local time into the logger.

## 3. Start Logging

**Press Button:**  
Press and hold the left button for 5 seconds until the icon ► shows on the LCD, indicating the logger starts logging.

**Auto Start:**  
Immediate Start: The logger starts logging after plugged out from the computer.  
Timed Start: The logger starts counting after removed from the computer, and will automatically start logging when the set date/time comes.

**Note:** If the ► icon keeps flashing, it means the logger configured with start delay; it will start logging after the set delay time elapses.

## 4. Mark Events

Double click the left button to mark current temperature and time, up to 10 groups. After events marked, the LCD will display [EED], currently marked groups and [EED].

## 5. Stop Logging

**Press Button:** Press and hold the right button for 5 seconds until the ■ icon shows on the LCD, indicating the logger stops logging.

**Auto Stop:** When the recorded points reach the maximum memory, the logger will stop automatically.

**Use Software:** Open ElitechLog software, click **Summary** menu, and **Stop Logging** button.

**Note:** \*Stop via **Press Button** is the default. If set as disabled, this function will be invalid, please open ElitechLog software and click **Stop Logging** button to stop it.

## 6. Download Data

Connect the data logger to your computer via USB cable, wait until the icon U shows on the LCD, then download:

**Without software:** A PDF report will generate automatically. Please find and open the removable storage device Tlog and save the PDF report to your computer for viewing.

**Via ElitechLog software:** The logger will auto-upload data to ElitechLog, then please click Export to select your desired file format to export. If data failed for auto-upload, please manually click **Download** and then repeat above operation.

## 7. Re-use the Logger

To reuse a stopped logger, please connect it to the computer, and make sure you have saved or exported the data. Next, reconfigure the logger by repeating the operation in **2. Configure Parameters**. After finished, please follow **3. Start Logging** to restart the logger for new loggings.

**Warning!** \*All previous logging data inside the logger will be deleted after re-configuration as to make space for the new logging. If you forgot to save/export data, please check and manage the logger in the History menu of ElitechLog software.

## 8. Repeat Start

Simply press and hold the left button to quickly restart the stopped logger without any configuration.

Please backup data before Repeat Start, by repeating **6. Download Data**, **Without ElitechLog Software**.

## App Operation

### 1. Turn ON Bluetooth

Press and hold the left and right button for more than 5 seconds until both LED indicators flash and the icon ► flashes on the top right of the LCD.

### 2. Install App

Use your mobile browser to scan the QR code below or find Elitech app (the App) on your App Store to download and install it, then register a new account and log in.



Android APP

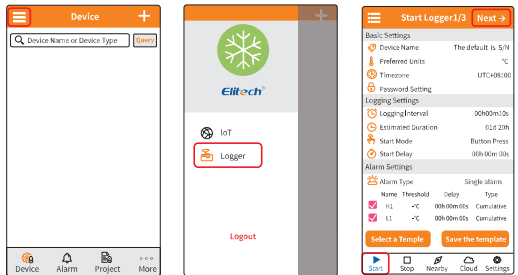


iOS APP

### 3. Configure Parameters

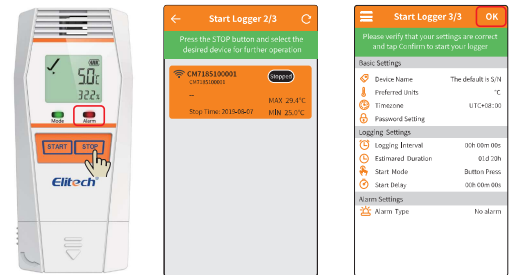
(1) Click the icon ► on the top left and select Data Logger.

(2) Click the **Start** menu on the bottom left for parameter configuration, and then click **Next** on the top right for further operation.




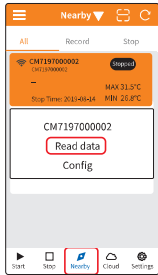
(3) Press and release the right button of the logger, the app will highlight this logger. Click it to view details.

(4) Confirm the parameters and click **OK** on top right to complete the configuration.





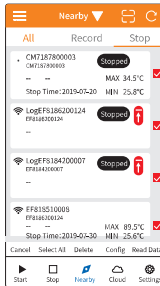
4. View Data

1) In **Nearby** menu page, click  on the top right to refresh the device list. Press the right button of the logger, the app will highlight and top this logger. Click the logger and select **Read data**.



6. Bulk Operation

1) Switch to **Nearby** menu, click the sub menu **Record** or **Stopped**, and then click  on the top right to refresh the device list.  
2) Hold one logger in the list, and you may switch to multi-select status (BOS APP click  on the top right). Check the loggers and then click **Delete**, **Configure** or **Read Data** to handle several loggers simultaneously.

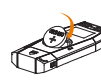
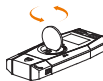



4. LCD-LED Indication

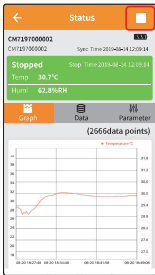
LCD Display	LED Indicator	Meaning...
▶		Started
■		Stopped
✓	flashes once every 10 seconds	Logging normally
✖	flashes once every 10 seconds	High/low temperature limit exceeded.
flashes		Bluetooth opened
flashes on	flashes once per second	Data transmission via Bluetooth

Battery Replacement

- (1) Turn the battery cover counter clockwise and remove it. take out the old battery.
- (2) Place a new battery inside with "+" side up.
- (3) Turn the battery cover clockwise and tighten it.



2) After data is read, you may view it in the graph and detailed list. Click the icon  on the top right to stop the logger that is logging. Under **Data** mend, click **Generate Report** to export your report in the desired format (PDF, Excel), click **Print** to print the report via the connected Bluetooth printer.



Time	Temperature
2019-04-12 15:40:14	25.1°C
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2019-04-12 15:40:14	25.1°C
2019-04-12 15:40:14	25.1°C
2019-04-12 15:40:14	25.1°C
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2019-04-12 15:40:14	25.1°C

Status Indication


1. Buttons

Function	Operation	Indicator
Start logging	Press and hold the left button for 5 seconds	flashes 5 times
Stop logging	Press and hold the right button for 5 seconds	flashes 5 times
Mark events	Double click the left button	Flash 3 times simultaneously
Open (close) Bluetooth	Press and hold the left and right buttons for 5 seconds	flash 5 times simultaneously
Check/Switch interfaces	Press and release the left button	(for ) Flashes once
Back to main menu	Press and release the right button	(for ) Flashes once

2. LCD Screen

①	②	③	④	⑤	⑥	⑦	⑧	⑨
Function Instruction	Alarm Status	Stopped/Logging	Logging Interval/Logging Points/Humidity Value	Circular Logging	Date/Time	Temperature Value	Battery Level	Bluetooth

5. Scan Bar Code for parameter configuration and data viewing

Switch to **Nearby** Menu, then click the icon  on top right to scan the bar code at the back of the logger for a further operation (Configure, Read Data).



3. LCD Interface

1. Not started	23.4°C
2. Timed (Delay) start	23.4°C
3. Started	23.4°C
4. Logging points	10000
5. Maximum	43.4°C
6. Minimum	21.1°C
7. Current date	03-25
8. Current time	08:25:09
9. Marked - Marked events	8
10. Marked events full	FULL
11. Sensor error	Err
12. PDF generation progress	PDF 38%
13. USB communicating	23.4°C

Default Parameter Configurations

Parameter	Default	Remark	Parameter	Default	Remark
Logging Interval	10 min		Repeat Start	Disable	
Start Mode	Press Button		High Temperature Limit H3	/	
Start Delay	/		High Temperature Limit H2	/	
Press Button	Enable		High Temperature Limit H1	8°C	
Temporary PDF	Enable		Low Temperature Limit L1	2°C	
Temperature Unit	°C		Low Temperature Limit L2	/	
Time Zone	UTC+8:00		Calibration Temperature	0°C	
Circular Logging	Disable		High Humidity Limit	/	
Alarm Mode	Multiple Alarms		Low Humidity Limit	/	
Alarm Type	Single		Calibration Humidity	/	
Alarm Delay	/				