

# HH-808

8 Channel Thermocouple Data Logger

## User Manual



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## Section 1 - Introduction

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The HH-808 thermocouple temperature data logger is a high precision instrument which has passed all required strict calibrations and professional testing. The datalogger supports 8 types of thermocouples (K, J, E, T, R, S, N, B), including a thermocouple temperature compensation function, and can measure temperature from -200 to 1800°C.

### Section 1.1 - Features

- LCD screen which can display data from 8 channels simultaneously.
- Switchable °C/°F temperature units.
- Low battery indication.
- MAX, MIN and HOLD mode for all channels.
- Concise appearance, high precision, and reliable performance.
- Desktop and wall-mounted.
- Accompanied by powerful software with a concise interface.
- Battery can work for 3 months (one reading every minute, record one reading every 5 minutes)

### Section 1.2 - Application

- Monitor temperature in factories, laboratories, storage house, refrigerators.
- Non-contact infrared surface temperature measurements in hard-to-reach areas such as heating and air conditioning ducts.




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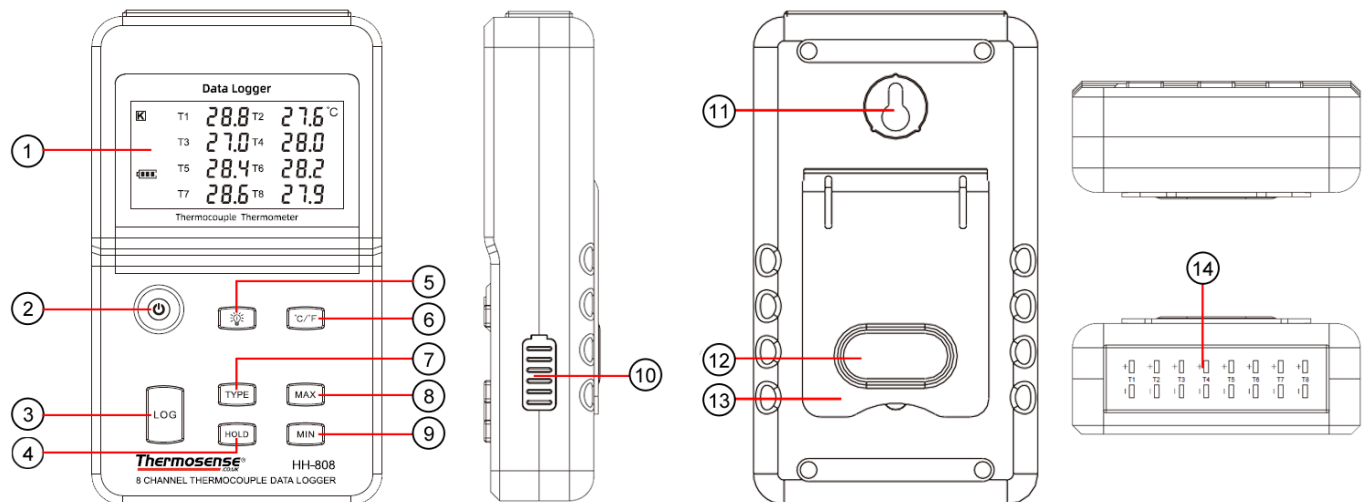
There are no user serviceable parts inside your unit. Attempting to repair or service your unit may void your warranty.

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### Section 1.3 - Data Logger Model

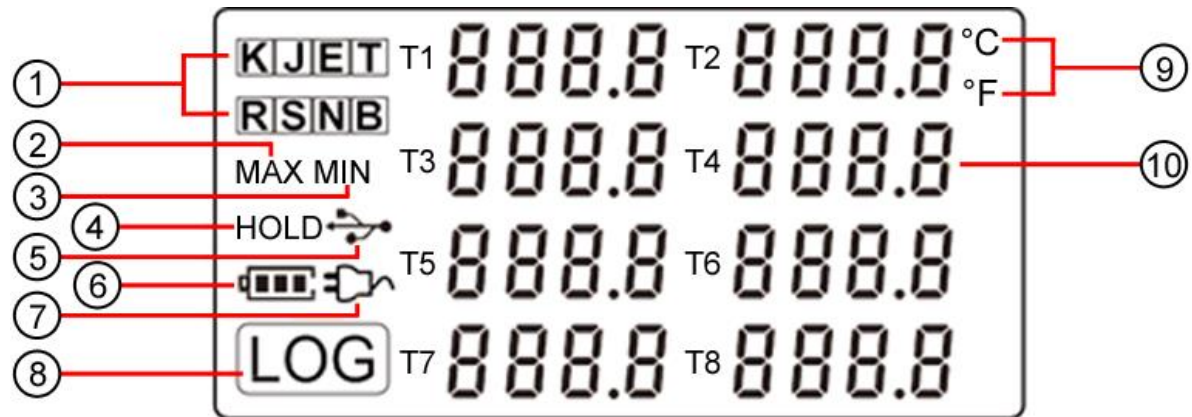
Model	Temperature Range	Resolution	Accuracy	Work Environment	Record Capacity
HH-808	-200 ~ 1800°C -328 ~ 3272°F	0.1°C 0.1°F	0.8±2%°C	0~80%RH 0~50°C	86,000

**Section 1.4 - Temperature Data Logger Appearance**



- |  |  |
|--|--|
| 1 LCD Screen                                 | 8 MAX: Display maximum recorded value for all channels |
| 2 Power On/Off                               | 9 MIN: Display minimum recorded value for all channels |
| 3 LOG: Recording function button             | 10 USB & 9V DC power interface                         |
| 4 HOLD: Lock the Value                       | 11 Wall-mount hole                                     |
| 5 Screen Backlight                           | 12 Battery Cover                                       |
| 6 °C/°F Switch                               | 13 Back Stand  |
| 7 TYPE: Sensor type (K, J, E, T, R, S, N, B) | 14 Thermocouple Sensor Interface                       |

**Section 1.5 - Temperature Data Logger Screen**



- |   |                              |
|---|------------------------------|
| 1 Thermocouple Sensor Type: K, J, E, T, R, S, N, B  | 6 Battery level              |
| 2 MAX: Logger running in maximum value mode         | 7 DC Adapter (9V) connected  |
| 3 MIN: Logger running in minimum value mode         | 8 LOG: logger is recording   |
| 4 HOLD: Display is held                             | 9 Temperature Unit: °C or °F |
| 5 USB wire is connected between logger and computer | 10 Temperature display area  |

## Section 1.6 - Button function instructions



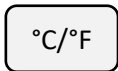
### Power ON/OFF

- (1) When logger power is off, push this button to turn the logger on.
- (2) When logger power is on, push this button to turn the logger off.



### Recording Function

- (1) When logger power is on, press this button, the LCD screen will show "LOG" which indicates that the logger is recording data.
- (2) Pressing the button for 3 seconds will put the logger in standby mode.
- (3) The screen will display "FULL" symbol when storage space is full.



### Switchover Button of °C and °F



### Backlight Button

Press this button to turn on the backlight, press again to turn the backlight off.



### Maximum Lock Button

Press this button once and the LCD shows a "MAX" sign, which indicates that the logger is recording the maximum value for all channels; Press again to exit this mode.



### Minimum Lock Button

Press this button once and the LCD shows a "MIN" sign, which indicates that the logger is recording the minimum value for all channels; Press again to exit this mode.



### Thermocouple Sensor Type Switch Button

Supports 8 types of thermocouple sensors: K, J, E, T, R, S, N, B. Press to switch between different types.



### Measured Values Keeping Button

Press this button once, and the LCD screen will display a "HOLD" sign which indicates that the logger will keep the just measured value until the button is pressed again.

## Section 2 - Installation and Instruction

This section will explain how to use the software to upload, read, configure and synchronize the settings, how to turn the logger on/off and enter/exit the logging mode, and how to delete and download the logging data.

### Section 2.1 - Software Installation

#### 2.1.1 - Computer Hardware Requirements

1. O/S: Windows XP/Vista/8/10 (32/64-bit)
2. CPU: 1.6GHz
3. Physical Memory: 512MB
4. Hard-drive Space: 4 GB
5. USB Port: 1

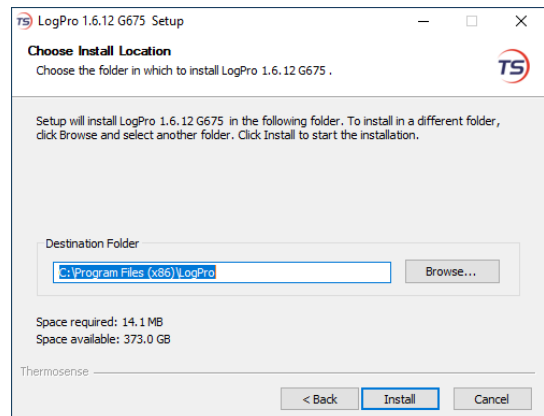
#### 2.1.2 - Install Driver & Software

- Open the LogPro Installer software
- Click next to progress to the installation location window
- Choose the destination folder where you would like to install the LogPro software
- Click install and the installation process will begin
- Once complete, simply click finish to complete the setup

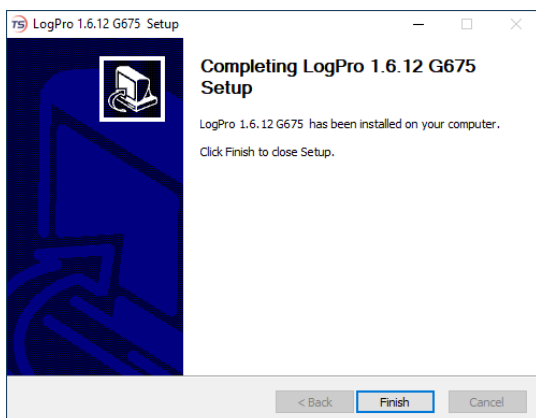
Note: If you need to install the driver separately, please install the 64-bit driver for a Windows 64-bit computer and the 32-bit driver for a Windows 32-bit computer. The driver is located: **(installation directory)\CH341SER\**



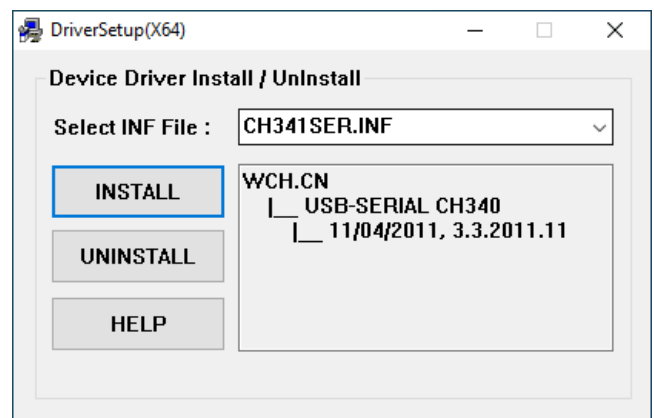
LogPro installation page



Default installation folder



Successful installation

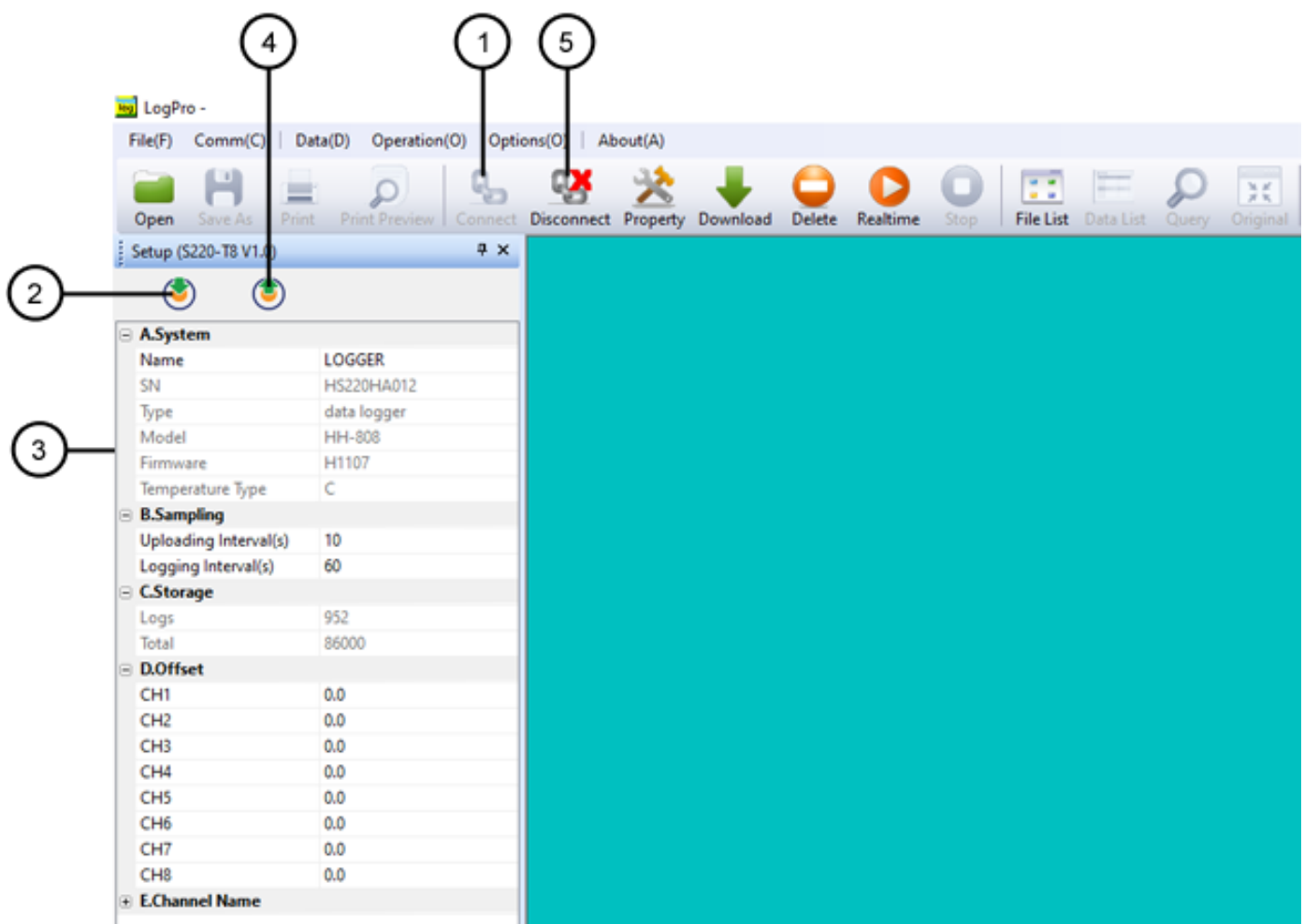


Install driver

## Section 2.2 - How to Read and Configure the Logger

### 2.2.1 - Read and Configure the Logger's Settings

1. Turn on and connect the data logger to the computer<sup>1</sup>
2. Start the LogPro software on the PC
3. From the toolbar select Connect (1)
4. Load and read the logger's current settings (2)
5. Configure the new settings (3)
6. Sync the settings & time. (the PC time will be synchronized to the logger as well) (4)
7. From the toolbar select disconnect (5)
8. Unplug the logger from the computer, the logger is then in Standby mode



<sup>1</sup> The Windows® operating system cannot handle USB devices being unplugged and plugged back in too fast. When unplugging the logger, wait for about 5 seconds before plugging it in again. If you unplug and plug back a device too quickly, the computer may stop recognizing any USB devices on that port. If this happens, you will have to restart the computer. This is a Windows® USB problem and not related to LogPro.

## 2.2.2 - Setting Parameters

<b>A.System</b>	
Name	LOGGER
SN	HS220HA012
Type	data logger
Model	HH-808
Firmware	H1107
Temperature Type	C
<b>B.Sampling</b>	
Uploading Interval(s)	10
Logging Interval(s)	60
<b>C.Storage</b>	
Logs	952
Total	86000
<b>D.Offset</b>	
CH1	0.0
CH2	0.0
CH3	0.0
CH4	0.0
CH5	0.0
CH6	0.0
CH7	0.0
CH8	0.0

<b>E.Channel Name</b>	
Name1	1
Name2	2
Name3	3
Name4	4
Name5	5
Name6	6
Name7	7
Name8	8

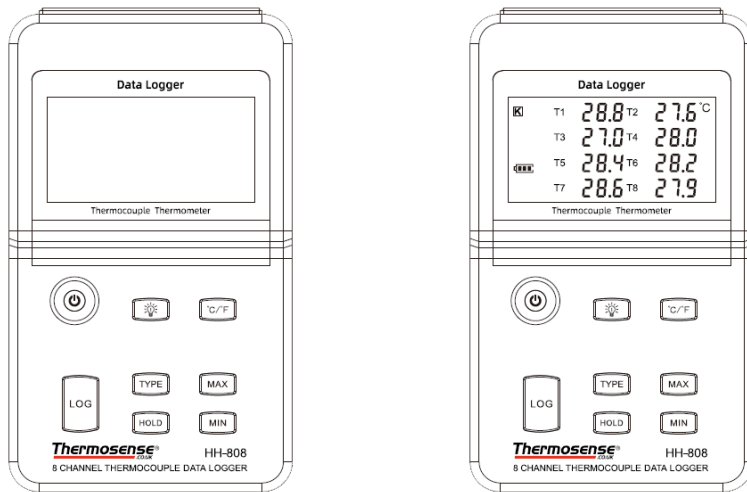
Setting Parameter	Text	Description
<b>Name</b>	English letters or numbers	Name of the logger
<b>SN</b>	10 characters	Must be the same as the one in the label of logger
<b>Sampling Interval (secs)</b>	Number from 1 to 240	Sampling frequency in LCD screen
<b>Logging Interval (secs)</b>	Number from 2 to 86400	Logging frequency
<b>Logs</b>	Number from 0 to 86000	The count of records in the memory
<b>Total</b>	Number 86000	The total capacity of the logger's storage
<b>Offset</b>	Calibration mode: For example, pls fill in 1.5 if the displayed temperature is higher than the actual temperature of 1.5°C; fill in -1.5 if the displayed temperature is lower than the actual temperature of 1.5°C. If you need to adjust the humidity, do the same, the number field is -100~100.	Input a positive number to decrease the value. Input a negative number to increase the value.
<b>Channel Name</b>	English Letters or Numbers	Name of each channel

Calibrate the logger: The logger is factory calibrated to an accuracy given in the device specifications. However, there may be times when you wish to adjust the calibration of your logger. LogPro provides you with the ability to perform a single point offset calibration. This calibration can be used to increase the accuracy of the logger for a restricted data range.

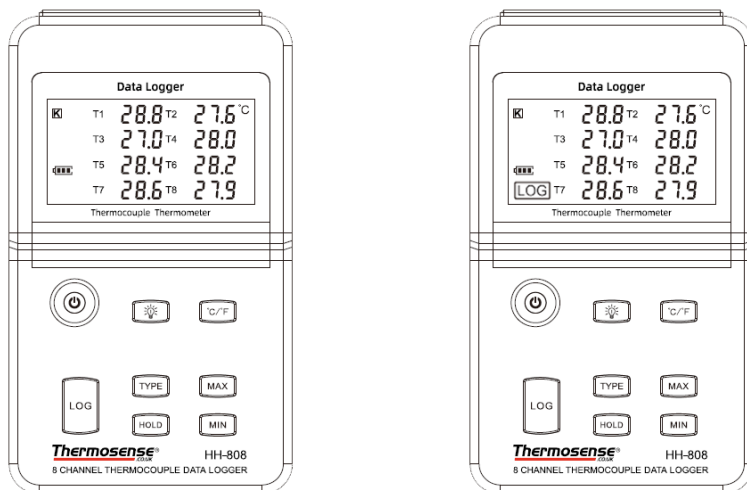


## Section 2.3 - Turn Instrument On/Off & Start/Stop Logging

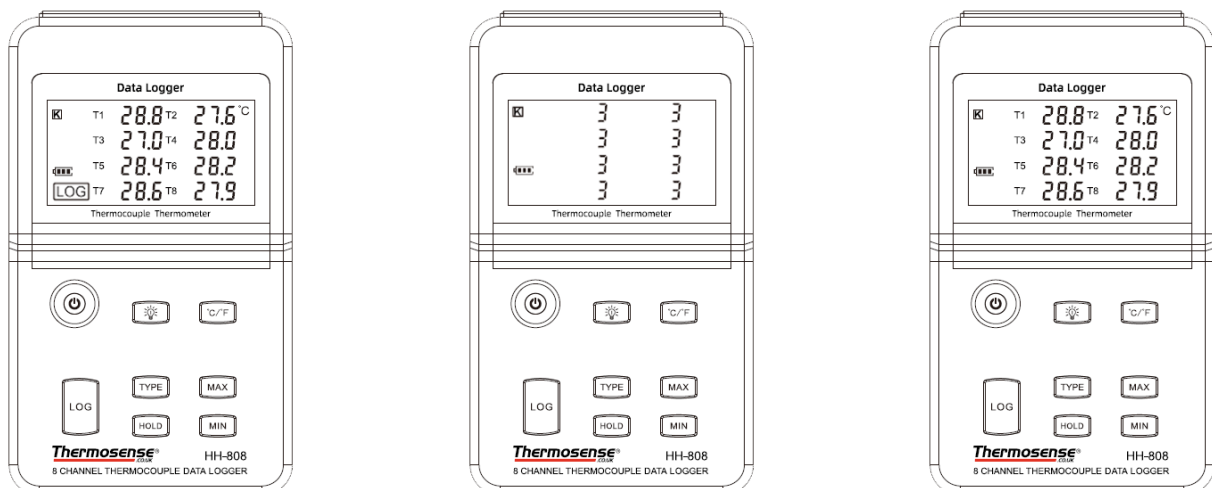
**Turn On Instrument:** press the power button and the LCD display will turn on.



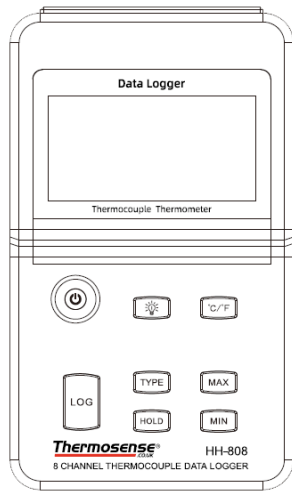
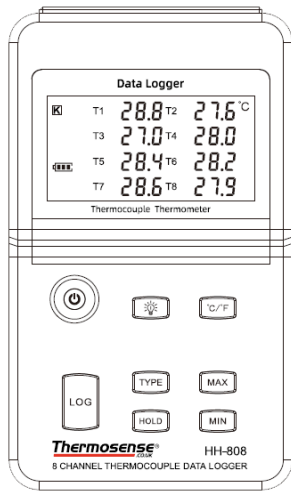
**Start Logging:** when the instrument is on and in standby mode (the “LOG” logo is not displayed), press the “LOG” button and the “LOG” logo will display. The logger will now start logging and storing data.



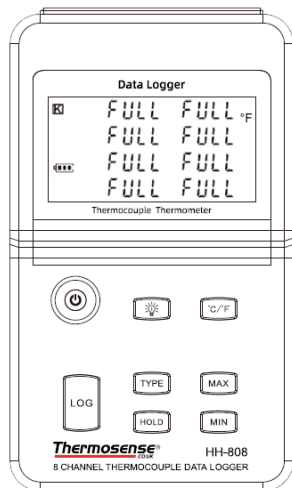
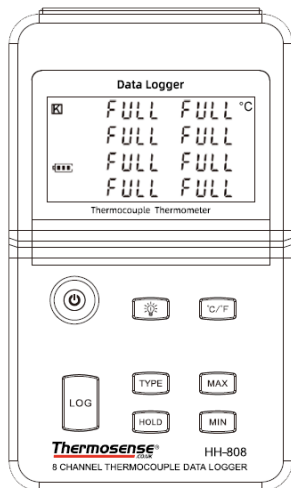
**Stop Logging:** when the instrument is logging, press and hold the “LOG” button and a countdown timer starts. Once the timer has finished the instrument will switch from logging to standby state.



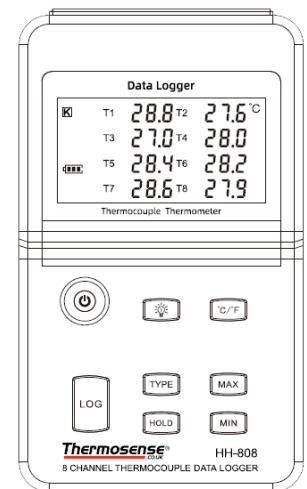
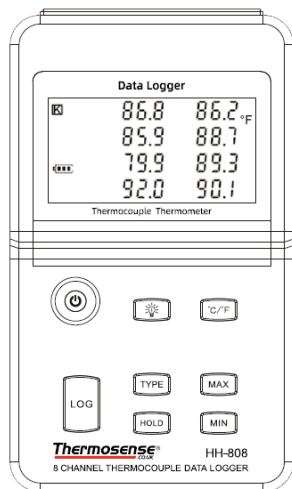
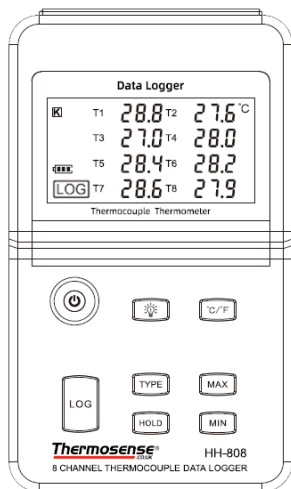
**Turn Off Instrument:** press the power button and the LCD display will turn off.



**Log Full:** the device won't record data if the memory is full. You must download the data and delete it using the LogPro software. Once done, the instrument will then be able to record data again.

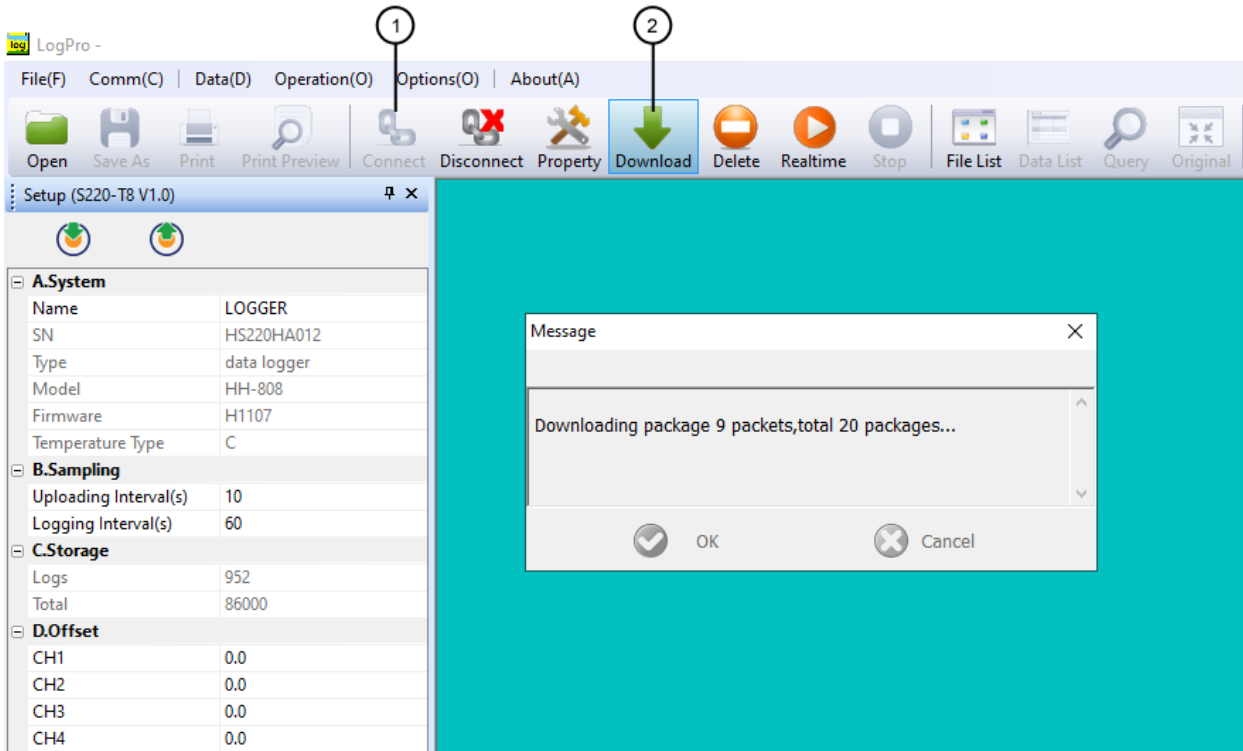


**°C or °F:** press the °C/°F button to switch between readings in °C and °F.

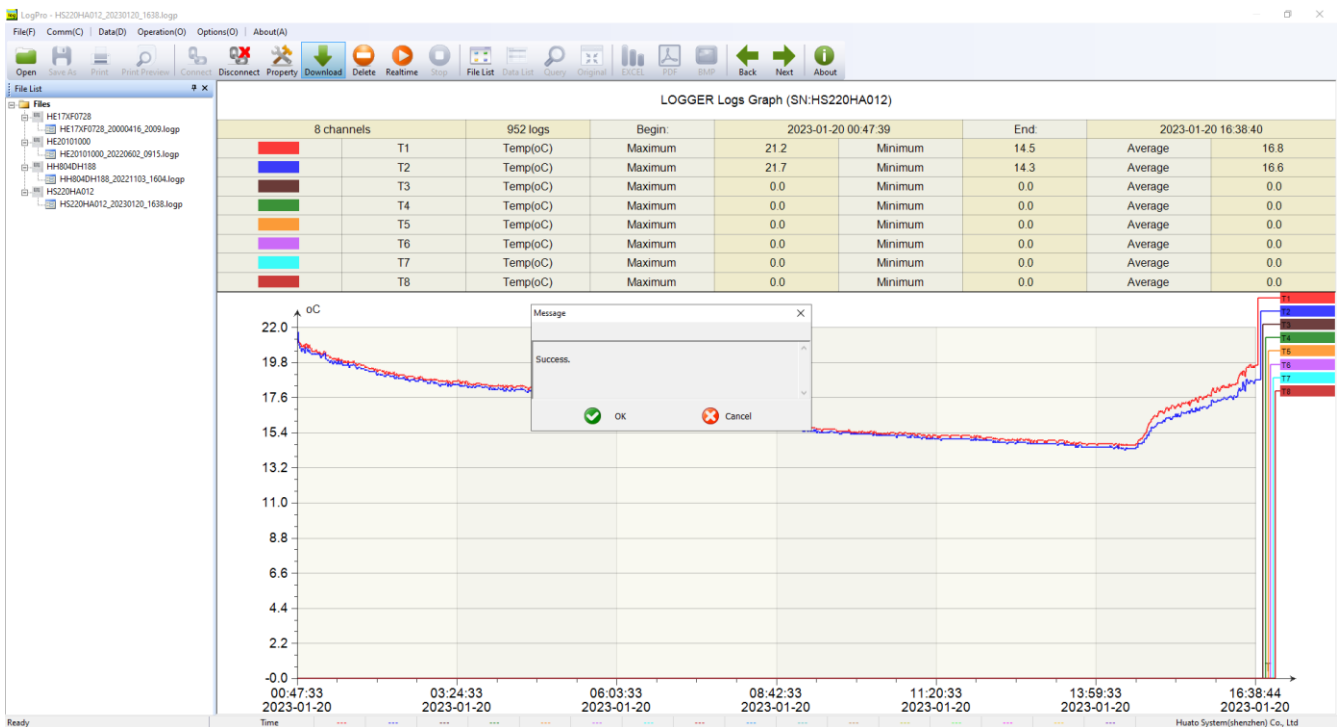


### Section 2.4 - Download the Logging Data

1. Connect the data logger to the computer via the USB cable
2. Start LogPro software on the PC
3. From the toolbar select Connect (1)
4. From the toolbar select Download (2)



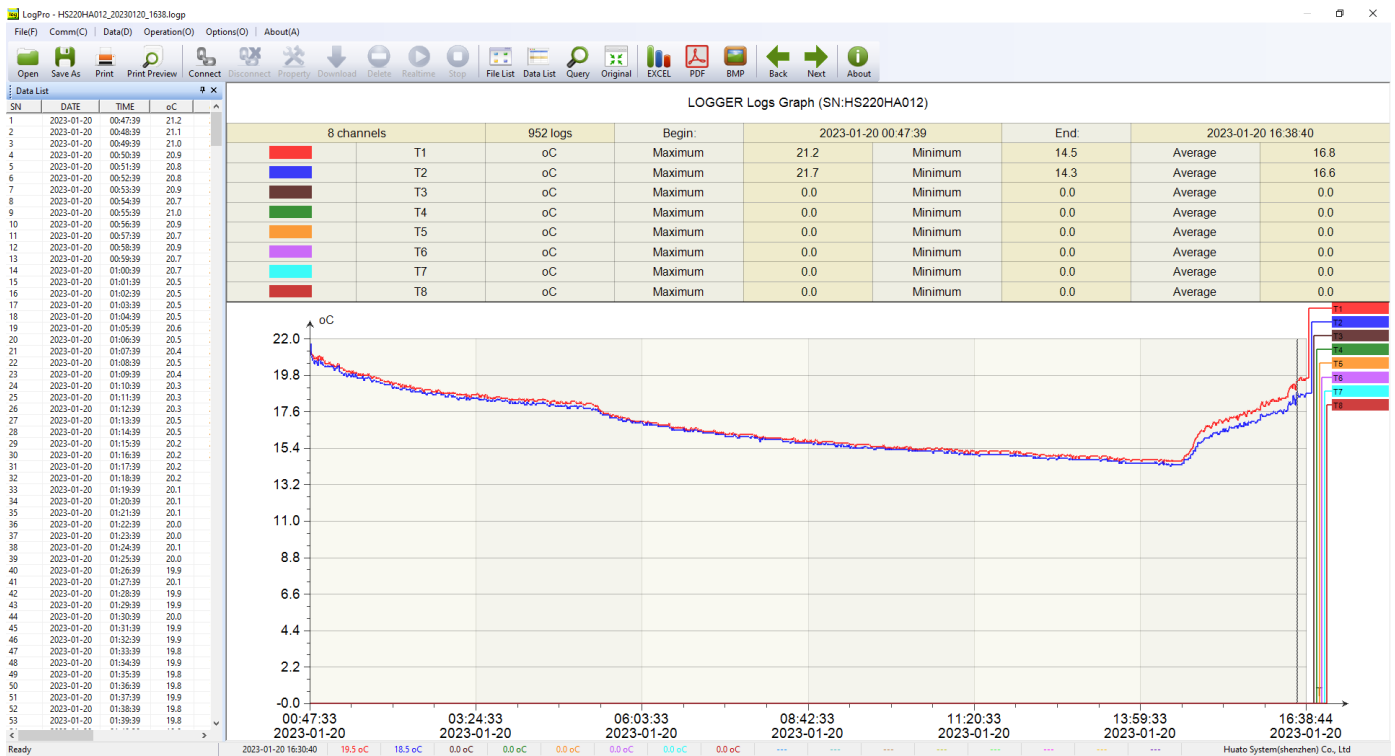
Once the data has downloaded from the logger to the PC, the log graph will be displayed.



**Tip:** Press and hold the left mouse button to drag a box, when the left mouse button is released, the graph will be redrawn with the data in the selected rectangle area. Click the right mouse button, and the graph will be redrawn with all data in the log file.

## Section 2.5 - View Data Sheet

Click the “Data List” button on the toolbar and the data list window is shown below.



The data pane lists the data samples collected by the logging device.

The column width of each column is adjustable by using the left mouse button and dragging the column to the desired width.

## Section 2.6 - Exporting Logs from LogPro



Export data list to an Excel file.



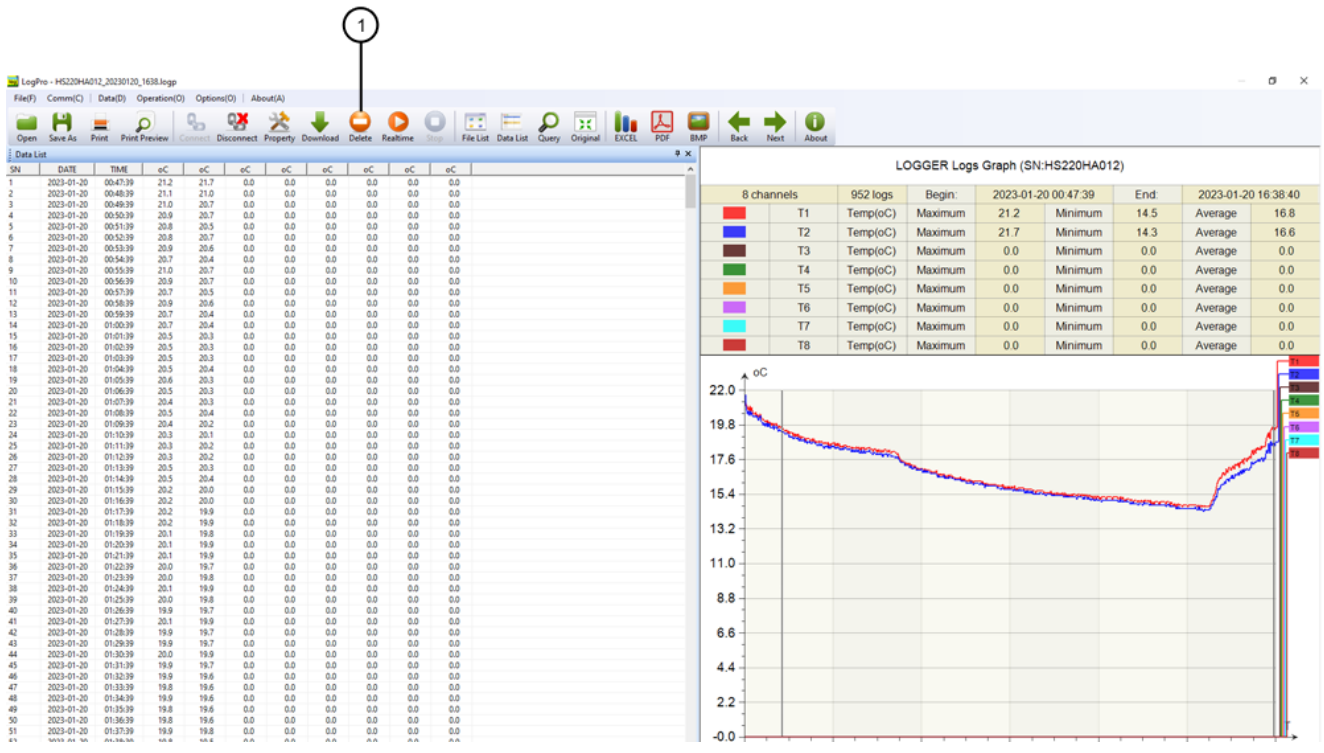
Export data list to a PDF file.



Export graph to a BMP file.

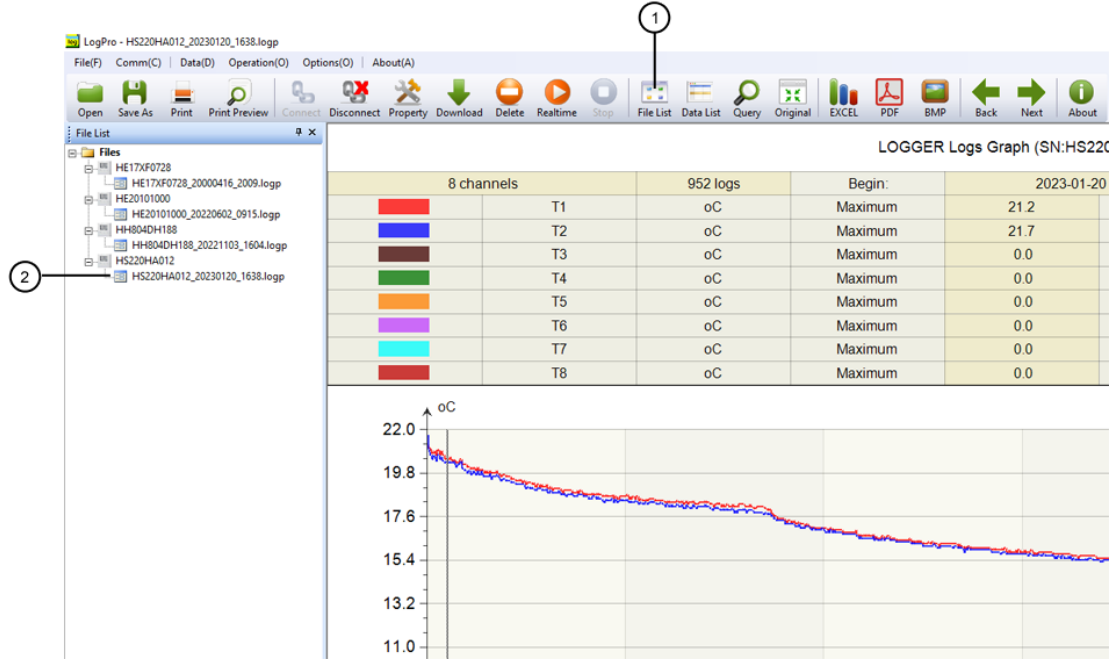
**Section 2.7 - Delete Records in the Logger**

- From the toolbar select Delete ①



**Section 2.8 - Check the Save File in File list**

- From the toolbar select File List ①
- Click to open the file ②
- Double click left mouse button, then the selected file is opened.
- Click right mouse button, a popup menu is shown as below, you can rename or delete the log file.
- The saved file is saved in the LogPro software's installation path on the PC's hard drive.



## Section 3 - Attention

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- The ABS plastic shell should be retardant, but not resistant to acid and alkali
- If repair is needed, only an authorized technician can do the repair
- The 9V battery is not rechargeable
- USB power supply (4.8V) is not sufficient to power the instrument

## Section 4 - FAQ

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### Section 4.1 - LCD Screen Dim

LCD screen dim may occur if there is insufficient battery power, or the environment temperature is too low/high. **Solution:** In the case of insufficient battery, replace the battery. If it's due to the environment temperature, take the logger out of the environment.

### Section 4.2 - Data & Time Error

Reason:

- The Battery level is low.
- The Data Logger has not been synchronised prior to recording.

Solution:

- Replace the battery.
- Synchronise the properties before starting recording (see section 2.2.1).

### Section 4.3 - Software "Runtime Error"

Reason:

- Computer operating system forbids software creating files.

Solution:

- Run the LogPro software as an administrator.
- Install software to a different drive (e.g. D or E) if available.
- A data logger name cannot contain any of the following characters: \ / : \* ? " < > |
- The software's installation path cannot include garbage characters.

### Section 4.4 - Check COM Port Number

Press the "Win" + "R" keys on the keyboard and type "devmgmt.msc" to Open "Device Manager" in Windows. Expand "Ports (COM & LPT)" -> "USB-serial CH340 (COM No.)" is the Data Logger.