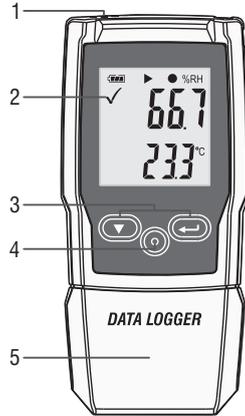


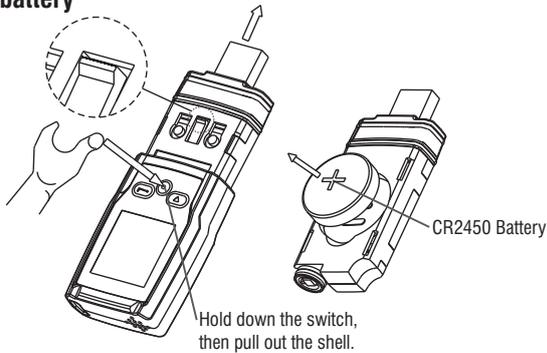
## Temperature and Humidity data logger Manual

### 1-Product overview:

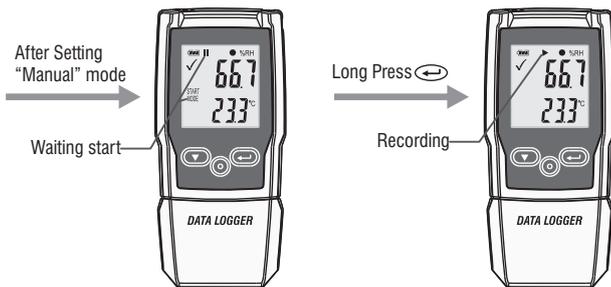
- Sensor
- Alarm indicator, red/green LED inside.  
✓ : green LED flashing, ✗ :Red LED flashing.
- Electronic function key
- Mechanical switch, hold down the switch, then pull out the shell.
- USB protecting hood. Connect PC software, then you can setting up the data logger.



### 2-Replace battery



### Third step:



**Fourth step:** After recording some data, you can use the PC software download data. Sample rate is 1minute, 10 minutes is ten data.



### 4-Sample rate & Record time

Sample rate /min	Record time /day	Sample rate /min	Record time /day
1	13.9	8	111.2
2	27.8	9	125.1
3	41.7	10	139.0
4	55.6	15	208.4
5	69.5	20	277.9
6	83.4	25	347.4
7	97.3	27	375.2

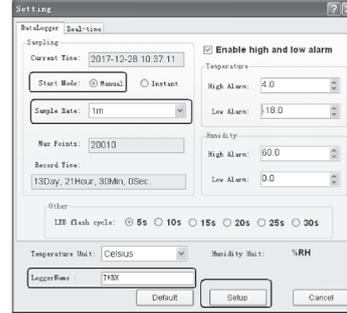
### 3-Simple start:

- Check the battery indicator is normal.
- Connect the USB data logger to the Windows PC. The first time using, according to the computer instructions, install the system's own driver. Similar to A new U disk.
- Setting the data logger. Please check the software CD, use the PC software setting the data logger. For more information, please refer to the PC software help document.
- Recording and download data.

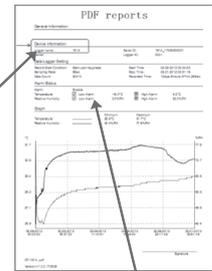
**First step:** Open the software. Then open the setting window.



**Second step:** refer to the picture.



\*Logger Name will synchronize to the PDF reports.



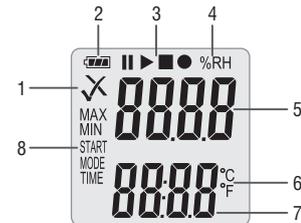
\*Enable high and low alarm parameter will synchronize to the PDF reports.

Alarm Status			
Alarm:	Enable		
Temperature:	<input checked="" type="checkbox"/> Low Alarm	-18.0°C	<input checked="" type="checkbox"/> High Alarm 4.0°C
Relative Humidity:	<input checked="" type="checkbox"/> Low Alarm	0.0%RH	<input checked="" type="checkbox"/> High Alarm 60.0%RH

### 5-LCD display and button

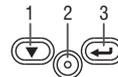
#### Display:

- Alarm indicator
- Battery indicator
- Recording indicator
- Humidity unit
- Humidity reading
- Temperature unit
- Temperature reading
- Function indicator



#### Buttons:

- Down key
- Replace battery
- Enter key



#### Alarm indicator

- ✓ Measurement values are within programmed limits. Green LED is flashing.
- ✗ Measurement exceeded the programmed limits. If activated during programming a red LED is flashing.

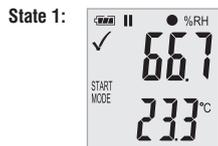
#### Battery indicator

- Full battery
- Battery OK
- Low battery
- Empty battery, replace

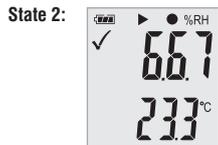
#### Recording indicators

The current state of the recording is indicated by the following symbols:

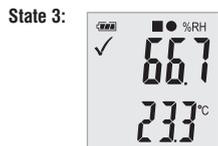
- Waiting start
- Recording stopped
- Recording started
- Appear after setting



II The logger is in the "Manual" mode, but the start key has not been pressed yet.



► The logger is recording.



■ Recording is stopped.

## 6-Function Menu

If the logger is not recording, only Start Recording is available. Press the button to enter the function menu and to display humidity or air pressure, and select the menu functions. To activate a user menu function press the button and hold it for three seconds.

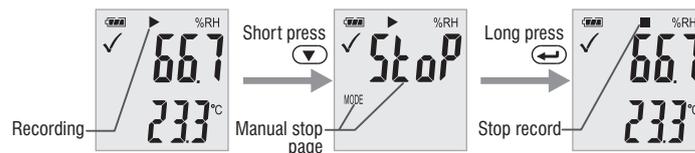
### • Start Recording

To start the recording if the logger is in "Manual" mode.



### • Stop Recording

In recording state, Press the button to select this function to stop recording. Press button and hold it for three seconds.



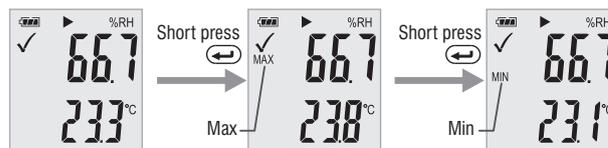
### • Remaining Recording Time

Display the remaining time until end of recording. The following picture shows remaining recording time is 12 days.



### • Max & Min

Short press button switch shows the highest reading since start of recording. Short press button switch shows the lowest reading since start of recording.



### • Generating a PDF-File

As soon as the logger is connected to a USB-slot, a PDF file with all recorded data in chart and an overview of alarms is generated automatically. During PDF generation "USB PDF" appears on the display, green and red led light indicator, when the PDF file is ready "PDF" disappear and remaining "USB" on the display.

Depending on the number of stored measurements, generating the PDF-file might take up to 30 seconds.

As soon as the logger is reprogrammed, the PDF file on the logger will be deleted.

## 7-LED Status Guide

LED Indication	Action
Cycle green single flash	-Logging
Cycle red single flash	-Logging, low alarm or high alarm. -Manual mode waiting start -Memory full -Stop upon key
Green double flash one time	-Setup successful -check upgrade file successful

## 8-Specification ( T = 25°C unless otherwise noted )

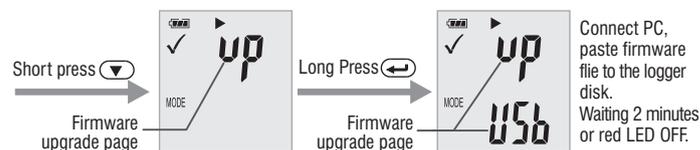
Relative Humidity	Overall Range	0 to 100%
	Accuracy (0 to 20 and 80 to 100%)	±5.0%
	Accuracy (20 to 40 and 60 to 80%)	±3.5%
	Accuracy (40 to 60%)	±3.0%
	resolution	0.1
Temperature	Overall Range	-30 to 60°C ( -22 to 140°F )
	Accuracy(-30 to +0°C,-22 to 32°F )	±1°C,±1.8°F
	Accuracy ( 0 to 60°C,32 to 140°F )	±0.5°C,±0.9°F
	resolution	0.1
Display condition	-30~60°C	
Type	Data memory	Sample rate
Temperature and Humidity	20010	1min~24h

### Remark:

CR2450 battery performance is optimal in room temperature. Battery life cycle will reduce at low temperature (-18°C). If the device is to be used to record in extremely low temperature, it is advised to take measures to reduce power consumption to prolong operation time. An option includes:

- Choose battery that is designed to operate at low temperature
- Disable LED to reduce power consumption
- Set longer sample interval, 5 minutes for example

## 9-Firmware upgrade



Connect PC, paste firmware file to the logger disk. Waiting 2 minutes or red LED OFF.

User can also upgrade its firmware in this page.

In this page, long press and display will show "UP+USB"

Then insert the device into the PC USB port. The device will appear as a Mass Storage Device in PC with no content.

Drag and drop the firmware to the folder.

The device will disappear in the OS. DO NOT unplug the device from PC. It takes around After upgrade completed, Device will automatically appear as a Mass Storage Device again.

The firmware version is indicated in the left bottom corner of the .pdf test report generated.

## 10-Restore Default factory firmware

Remove the battery, in the following order:

1. Hold down the button (until power on) ; connect to the computer USB, the green LED light up.
2. Waiting for 2 minutes, computer will identify the instrument USB disk.

## 11-Delete all data

Logger work normally on battery power. Hold down two buttons , connect to the computer USB, the logger will delete all data.

\*If waiting for 5 minutes and the instrument can't connect to the computer, maybe need to restore default factory firmware, or need to delete all data.