

USB Reusable Ultra-Low Temperature Data Logger

User Manual of 179-DI

Operating General Instruction

1. The device can be started by holding down the red push button about 3-5s, it starts recording data after the red indicator light flashing three times and keeps flashing ten times.
2. It continues to blink in five second intervals while the device is logging.
3. When finish the data recording, download software the temperature recorder can be connected with computer for reading the data. In the same time, the recorder will be stopped working automatically.

* For international Customer:

Time zone should be set your local starting time, just click “Calibration” button before using via software, Down load software at

<http://www.apresys.com/downloads/>

* Keep the plate recorder properly, could reprint when searching history, and could be kept permanently.

Software Operating Instruction

1. Device Appearance



1.1 Calibration Time

Before using, pls connect data logger with your PC to calibrate your local time.

Time Calibration Step:

- 1, Download software and install it on PC
- 2, Connect USB data logger with computer to calibrate local time before use
- 3, Click “Calibration Time” button on software main menu, Start time will be same as computer time, “Time Calibration has been completed” will appear at left bottom corner



1.2 How to start?

Start by Hand: Press the white button 3 seconds, then the red indicator will flash 3 times slowly, then flash 10 times fastly. That means 179-DI have been started.

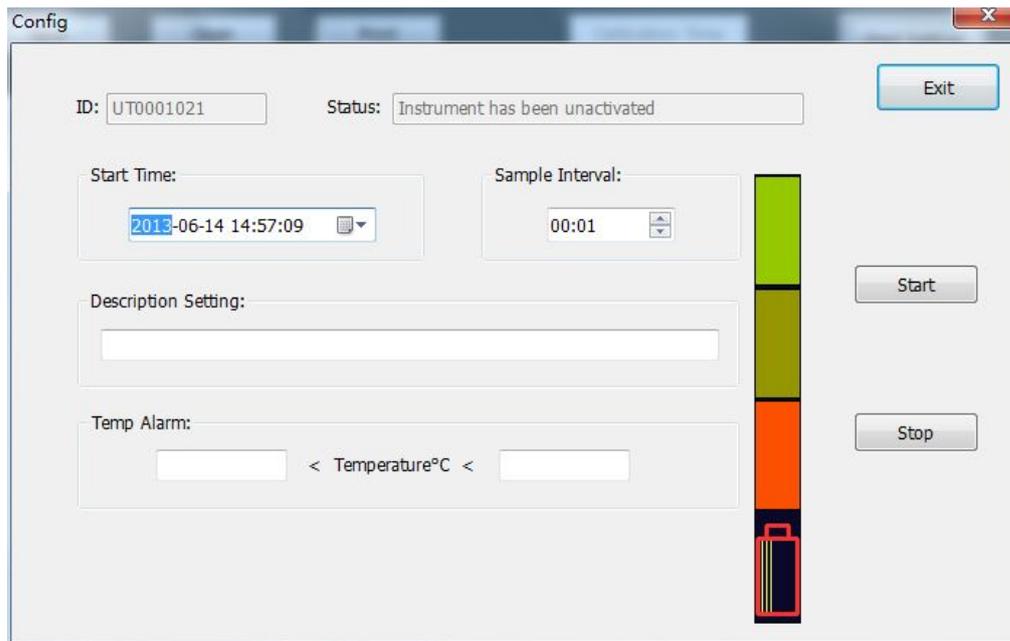
Start via Software: Just click “Start” under “start setting” list.

1.3 How to download and install Software?

Download software at <http://www.apresys.com/downloads/>
named “Apresys Ultra Low TempTrak Setup V1.10”
including USB driver and “Apresys TempTrak”

1.4 How to start again?

Click “Start Setting”, then click “Stop”, click “Start” via software or Press “white button” by hand to start again.



2. Placed 179-DI in the measured environment

(Red Light Indicator Instruction on the last page)

3. Operation Instruction

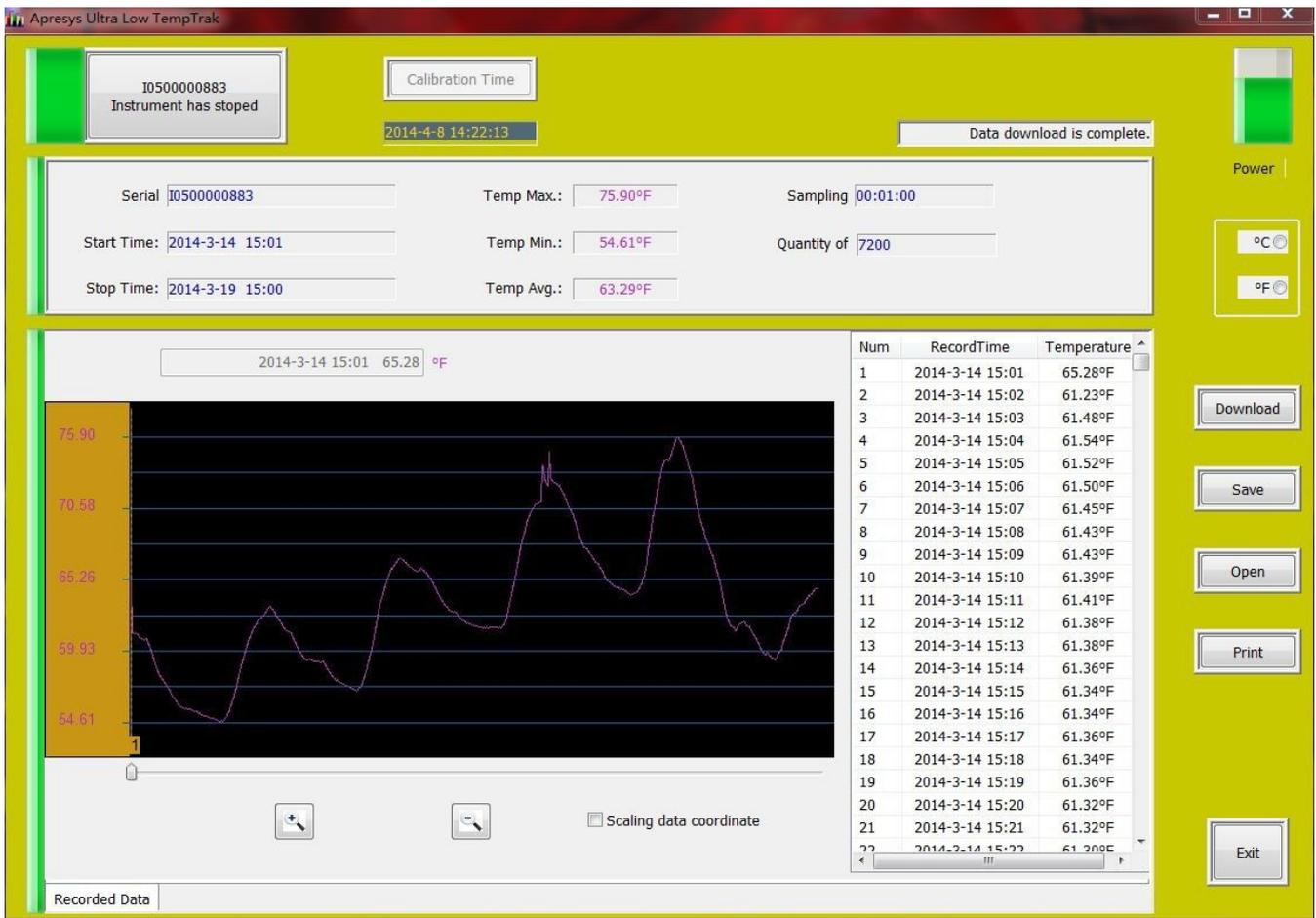
Connect Recorder with PC, the software will read data and power indicator automatically, In the same time, the recorder will be stopped working automatically.

(Note:"Calibration Time" is valid only for unused disposable ultra low temperature data logger)

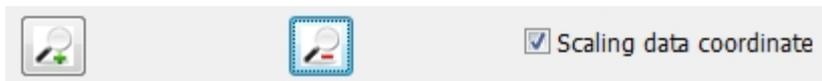
4. How to download and read the recorded data?

4. 1 Read Recorded Data

4.1.1 Open the software, connect data logger with PC, the software displays general data on the left and data curves on the right as following,



4.1.2 Three icons below the graph represent: zoom in, zoom out and scaling data coordinates, check scaling data coordinates; the software will scale coordinates of the current data automatically.



4.1.3 Choose the unit degrees Celsius and Fahrenheit above as you required



Num	RecordTime	Temperature	Num	RecordTime	Temperature
1	2013-6-5 10:43	30.63°C	1	2013-6-5 10:43	87.13°F
2	2013-6-5 10:44	30.63°C	2	2013-6-5 10:44	87.13°F
3	2013-6-5 10:45	30.63°C	3	2013-6-5 10:45	87.13°F
4	2013-6-5 10:46	30.56°C	4	2013-6-5 10:46	87.01°F
5	2013-6-5 10:47	30.50°C	5	2013-6-5 10:47	86.90°F
6	2013-6-5 10:48	30.38°C	6	2013-6-5 10:48	86.68°F
7	2013-6-5 10:49	30.25°C	7	2013-6-5 10:49	86.45°F
8	2013-6-5 10:50	30.19°C	8	2013-6-5 10:50	86.34°F
9	2013-6-5 10:51	30.13°C	9	2013-6-5 10:51	86.23°F
10	2013-6-5 10:52	30.19°C	10	2013-6-5 10:52	86.34°F
11	2013-6-5 10:53	30.19°C	11	2013-6-5 10:53	86.34°F
12	2013-6-5 10:54	30.25°C	12	2013-6-5 10:54	86.45°F
13	2013-6-5 10:55	30.25°C	13	2013-6-5 10:55	86.45°F
14	2013-6-5 10:56	30.31°C	14	2013-6-5 10:56	86.56°F
15	2013-6-5 10:57	30.31°C	15	2013-6-5 10:57	86.56°F
16	2013-6-5 10:58	30.31°C	16	2013-6-5 10:58	86.56°F
17	2013-6-5 10:59	30.31°C	17	2013-6-5 10:59	86.56°F
18	2013-6-5 11:00	30.31°C	18	2013-6-5 11:00	86.56°F
19	2013-6-5 11:01	30.44°C	19	2013-6-5 11:01	86.79°F
20	2013-6-5 11:02	30.38°C	20	2013-6-5 11:02	86.68°F
21	2013-6-5 11:03	30.31°C	21	2013-6-5 11:03	86.56°F
22	2013-6-5 11:04	30.38°C	22	2013-6-5 11:04	86.68°F
23	2013-6-5 11:05	30.38°C	23	2013-6-5 11:05	86.68°F

Summary Data

4.2 Save Data

4.2.1 Save data format as software format (.apru) and excel (.xlc or .xls)

Apresys Files (*.aprc)
WorkSheet Files (*.xlc;*.xls)

4.2.2 Excel format has two sheets, one named “Summary”, another named Data.

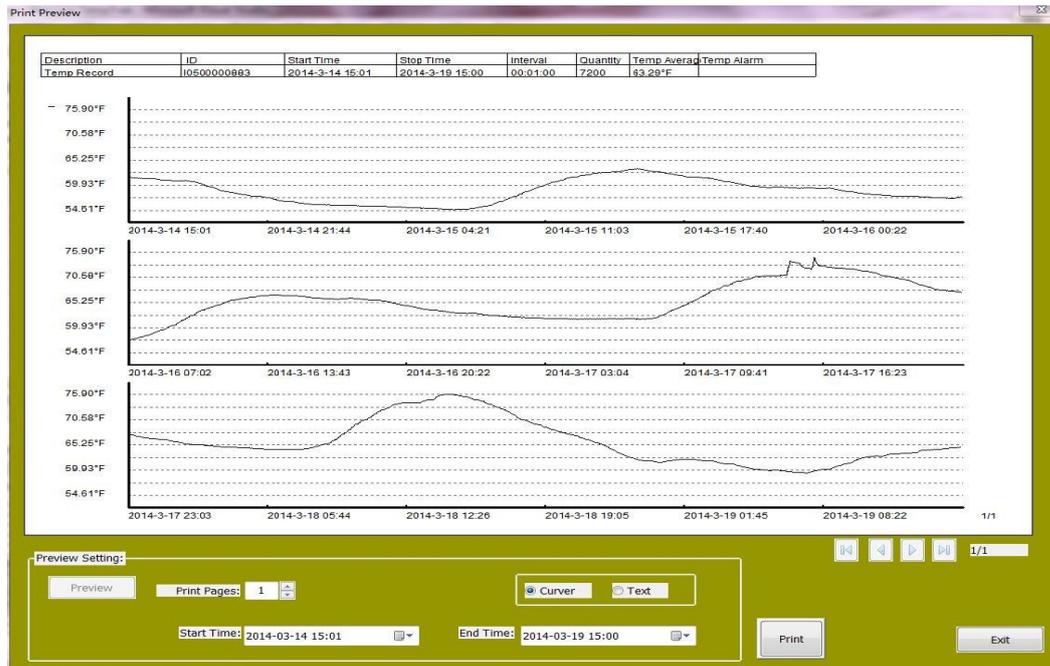
4.3 Open File

1. Open the software firstly, then click “open” a file only with *. Apru format via software

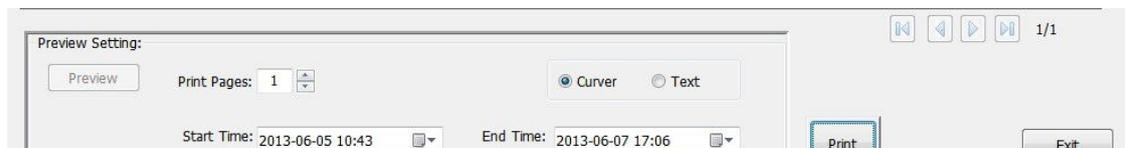
Apresys Files (*.aprc)

4.4 Print Data

- 4.4.1. Click “print” button, the page will appear as below, including an overview of the data and graph display



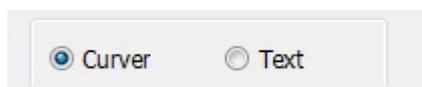
4.4.2. Set print and printer on the bottom of the page



4.4.3. When the number of printing pages changes, "preview" button is valid on the left; will display a new print preview.



4.4.4. Print Preview has two mode, "curve" and "text" mode.



4.4.5. Click the "print" button, printing page will display automatically.

5. Battery Indicator:

5.1 "Startup Settings" is valid for reusable temperature recorder, click "Startup Settings", and appear following screen. "ID" and "record status" cannot be edited, the white part as editable information.

5.2 Battery Indicator: Check the battery status via software.

Note: it is non-rechargeable battery.

Note: Pls use the data loggers in 5 years in order to avoid no power.



5.3 Start Time: You can set the delay start time, such as tomorrow, then click “start”. It will start recording tomorrow automatically.

5.4 Sample Interval: You can set sample interval from **1 min to 24 hours**

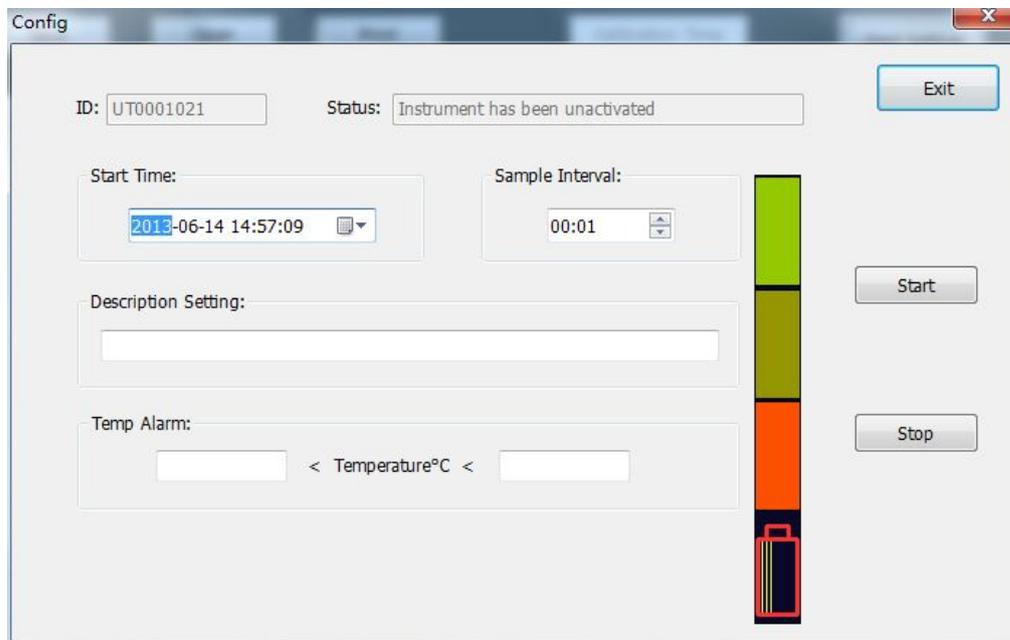
5.5 You can write the letters and numbers in the Description Setting.

5.6 When you want to check the recorded readings, you just need to click “stop”, then read the data via software or download on your PC.

5.7 When you click “Start” on used data logger, all the recorded data will be canceled in the data logger. You can not read it again.

Note: Pls download the recorded data on your PC before click “Start” again.

5.8 You can set temperature alarm range, when the measured temperature exceeds the setting range, it will display “ * “ at back of the temperature reading.



5.9 Interval Time: Total 3200 readings, you can set the interval time to calculate how long the data collection last.

Red Light Blinking Indicator

Apresys[®]

Reusable Ultra-Low Temperature Data logger (179-DI)

To Start

Press white button three seconds, red light blinks 3 times, then 10 times fastly, that means the data logger has been started to record successfully. (can start by computer)

On Working

Press white button, red light is off after 3 seconds, that means it is on working.

Unused or Used Data Logger

If the data logger has not been started, press white button 3 seconds, the data logger starts recording again, previous old data will be lost.

The default time interval is 2 minutes for first start manually, further default time interval is upon previous setting.