tempmate-M1——tempbase data management software

User manual

1. Product overview

tempmate-M1—tempbase data management software could upload all the recording data to computer and systematically analyze, collect and manage data.

2. Installation environment

2.1 Hardware environment：
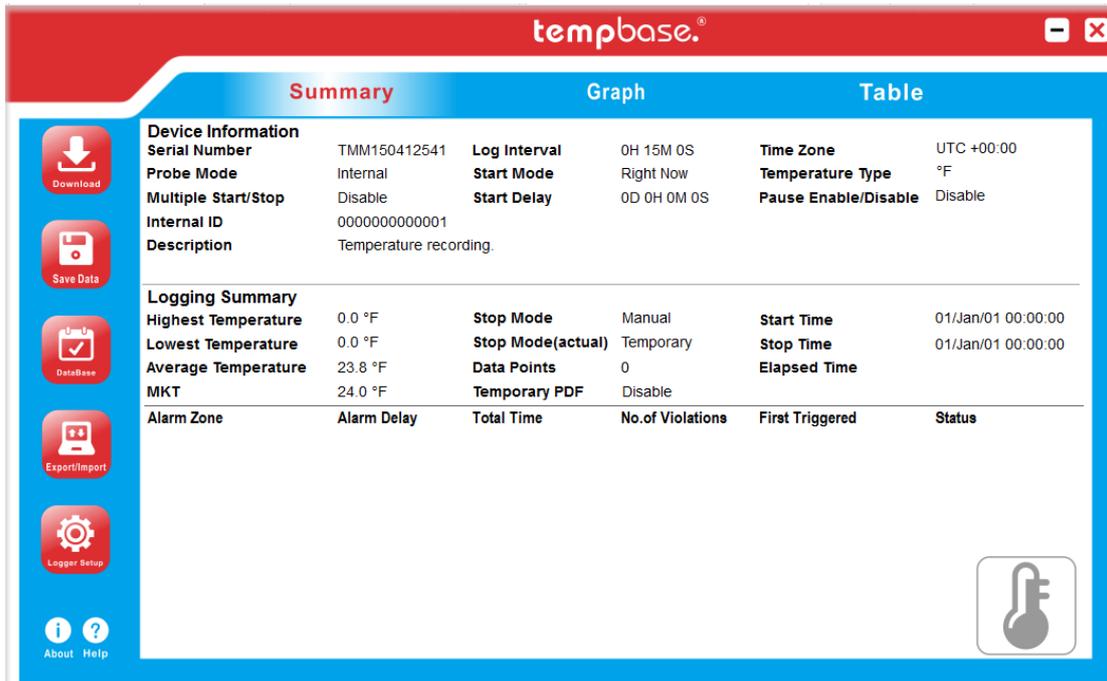CPU：above PII600MHZ
Hard disk：above 40G
Memory：above 512M

2.2 Operation system:
Windows XP（32bit、64bit）,Windows Vista（32bit、64bit）,Win7（32bit、64bit），Windows8(x86/x64)

3.Main function

3.1：Main interface

Tool buttons：

——Download recording data from logger.

——Manually save data: if current data is not saved into database, then press this button to save data. For first time recording data, the system will automatically save the data and display the prompt of auto data saving. If new data are recorded, and insert the logger to computer once more, user needs to save the data manually by clicking the button, and it will display a dialog box to save the data.

——Data base query interface, it displays all saved data information.

——Export data in the format of PDF,EXCEL or ELT.

——Logger parameter setting

——About

——Help

Parameter information：
Device ID——Data logger ID
Log Interval——Record interval
Time Zone——Time Zone
Probe Mode——Temperature sensor type(internal or external)
Start Mode——Logger start modes
Temperature Type——Temperature type(Celsius or Fahrenheit)
Multiple Start/Stop——Permit logger to be started or stopped for several times.
Start Delay——Logger start delay time
Pause Enable/Disable——Permit/prohibit pause of logger
Travel ID——Travel ID number
Travel DSC——Travel description
Highest Temperature——Max.temperature
Stop mode（set）——Stop mode-setting value
Lowest Temperature——Min. Temperature
Stop mode(actual)——Actual stop mode
Stop Time——Stop time
Average Temperature——Average Temperature
Data points——The total record pieces
Elapsed time——The total record time
MKT——Mean kinetic temperature
Temporary PDF——Permit to temporarily generate a PDF file after insert logger to computer.
Over——Alarm upper limit
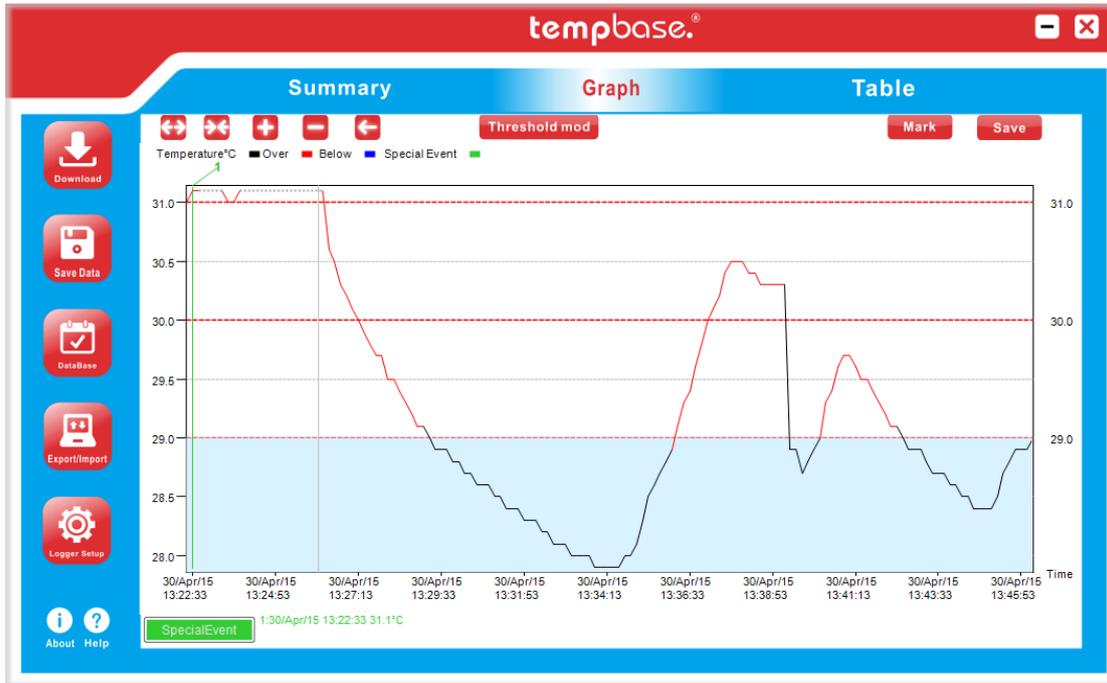Below——Alarm lower limit
Alarm delay——Alarm delay time
Total time——The accumulated alarm time
Alarm events——The times alarm occurs
First triggered——First alarm time
Status ——Logger alarm status

Data graph

Function buttons

——Curve horizontally stretch

——Curve horizontally contract

——Curve zoom in

——Curve zoom out

——Curve return to the original size

——Modify alarm threshold dynamically

——Marking function in the curve

——Save the marking in the curve.

——Marking event display function

Data table

ID	Time	T°C	ID	Time	T°C	ID	Time	T°C	ID	Time	T°C
1	30/Apr/15 13:22:23	31	26	30/Apr/15 13:26:33	30.5	51	30/Apr/15 13:30:43	28.6	76	30/Apr/15 13:34:53	28
2	30/Apr/15 13:22:33	31.1	27	30/Apr/15 13:26:43	30.3	52	30/Apr/15 13:30:53	28.6	77	30/Apr/15 13:35:03	28.1
3	30/Apr/15 13:22:43	31.1	28	30/Apr/15 13:26:53	30.2	53	30/Apr/15 13:31:03	28.5	78	30/Apr/15 13:35:13	28.3
4	30/Apr/15 13:22:53	USB	29	30/Apr/15 13:27:03	30.1	54	30/Apr/15 13:31:13	28.5	79	30/Apr/15 13:35:23	28.5
5	30/Apr/15 13:23:03	USB	30	30/Apr/15 13:27:13	30	55	30/Apr/15 13:31:23	28.4	80	30/Apr/15 13:35:33	28.6
6	30/Apr/15 13:23:13	USB	31	30/Apr/15 13:27:23	29.9	56	30/Apr/15 13:31:33	28.4	81	30/Apr/15 13:35:43	28.7
7	30/Apr/15 13:23:23	USB	32	30/Apr/15 13:27:33	29.8	57	30/Apr/15 13:31:43	28.4	82	30/Apr/15 13:35:53	28.8
8	30/Apr/15 13:23:33	31	33	30/Apr/15 13:27:43	29.7	58	30/Apr/15 13:31:53	28.3	83	30/Apr/15 13:36:03	28.9
9	30/Apr/15 13:23:43	31	34	30/Apr/15 13:27:53	29.7	59	30/Apr/15 13:32:03	28.3	84	30/Apr/15 13:36:13	29.1
10	30/Apr/15 13:23:53	31.1	35	30/Apr/15 13:28:03	29.5	60	30/Apr/15 13:32:13	28.3	85	30/Apr/15 13:36:23	29.3
11	30/Apr/15 13:24:03	USB	36	30/Apr/15 13:28:13	29.5	61	30/Apr/15 13:32:23	28.2	86	30/Apr/15 13:36:33	29.4
12	30/Apr/15 13:24:13	USB	37	30/Apr/15 13:28:23	29.4	62	30/Apr/15 13:32:33	28.2	87	30/Apr/15 13:36:43	29.6
13	30/Apr/15 13:24:23	USB	38	30/Apr/15 13:28:33	29.3	63	30/Apr/15 13:32:43	28.1	88	30/Apr/15 13:36:53	29.8
14	30/Apr/15 13:24:33	USB	39	30/Apr/15 13:28:43	29.2	64	30/Apr/15 13:32:53	28.1	89	30/Apr/15 13:37:03	30
15	30/Apr/15 13:24:43	USB	40	30/Apr/15 13:28:53	29.1	65	30/Apr/15 13:33:03	28.1	90	30/Apr/15 13:37:13	30.1
16	30/Apr/15 13:24:53	USB	41	30/Apr/15 13:29:03	29.1	66	30/Apr/15 13:33:13	28	91	30/Apr/15 13:37:23	30.2
17	30/Apr/15 13:25:03	USB	42	30/Apr/15 13:29:13	29	67	30/Apr/15 13:33:23	28	92	30/Apr/15 13:37:33	30.4
18	30/Apr/15 13:25:13	USB	43	30/Apr/15 13:29:23	28.9	68	30/Apr/15 13:33:33	28	93	30/Apr/15 13:37:43	30.5
19	30/Apr/15 13:25:23	USB	44	30/Apr/15 13:29:33	28.9	69	30/Apr/15 13:33:43	28	94	30/Apr/15 13:37:53	30.5
20	30/Apr/15 13:25:33	USB	45	30/Apr/15 13:29:43	28.9	70	30/Apr/15 13:33:53	27.9	95	30/Apr/15 13:38:03	30.5
21	30/Apr/15 13:25:43	USB	46	30/Apr/15 13:29:53	28.8	71	30/Apr/15 13:34:03	27.9	96	30/Apr/15 13:38:13	30.4
22	30/Apr/15 13:25:53	USB	47	30/Apr/15 13:30:03	28.8	72	30/Apr/15 13:34:13	27.9	97	30/Apr/15 13:38:23	30.4
23	30/Apr/15 13:26:03	USB	48	30/Apr/15 13:30:13	28.7	73	30/Apr/15 13:34:23	27.9	98	30/Apr/15 13:38:33	30.3
24	30/Apr/15 13:26:13	USB	49	30/Apr/15 13:30:23	28.7	74	30/Apr/15 13:34:33	27.9	99	30/Apr/15 13:38:43	30.3
25	30/Apr/15 13:26:23	30.6	50	30/Apr/15 13:30:33	28.6	75	30/Apr/15 13:34:43	28	100	30/Apr/15 13:38:53	30.3

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——Display first page data

——Display previous page data

——Display next page data

——Display last page data

——Skip to the specific page

2：Data query page

Device	Data Sum	Highest	Lowest	Start Time	Stop Time	Status
TMM150400001_0000000000001	144	31.1°C	27.9°C	30/Apr/15 13:22:23	30/Apr/15 13:46:13	OK
TMM150100003_0000000000001	20	23.4°C	22.4°C	22/Apr/15 16:45:14	22/Apr/15 16:48:24	OK
TMM150400042_0000000000001	70	18.1°C	18°C	22/Apr/15 08:36:45	22/Apr/15 08:48:15	OK

1 / 1   3   First   Back   Next   End
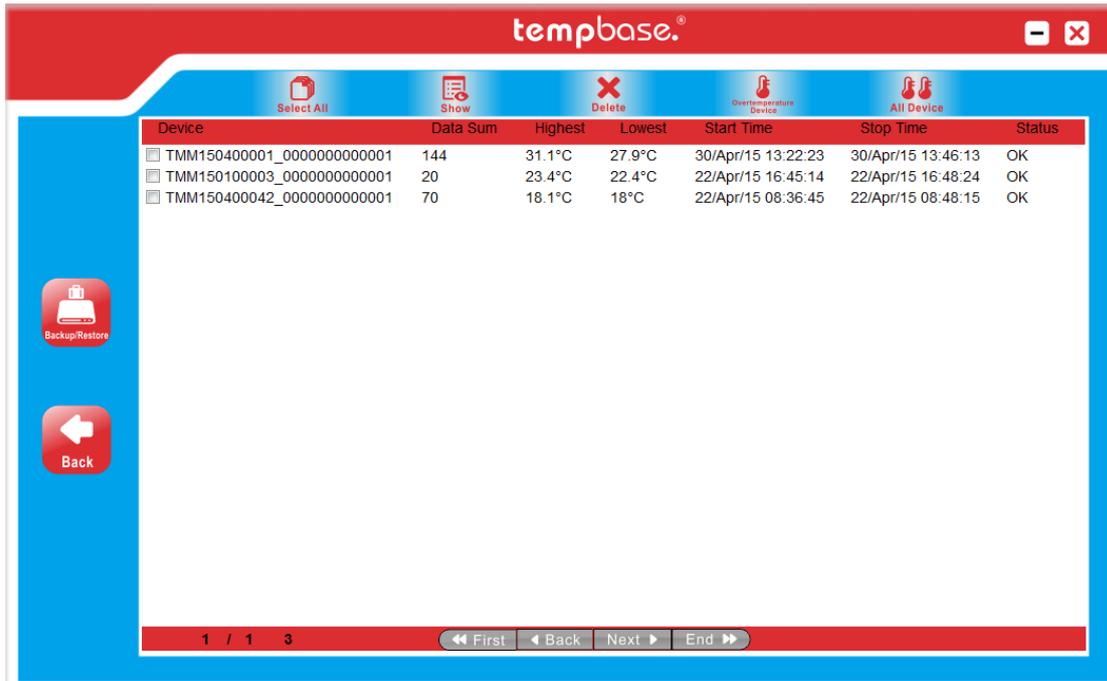
Select all loggers

View the detailed information of the selected logger.

Delete the data of selected logger.

Display all loggers which have exceeded upper/lower limit.

Display all recording(include the normal temperature data and over temperature data.)

Data management function

Back to home page

Display first page data

Display previous page data

`Next ▶` ——Display next page data

`End ▶▶` ——Display last page data

`GO` ——Skip to the specific page

3：Data management page
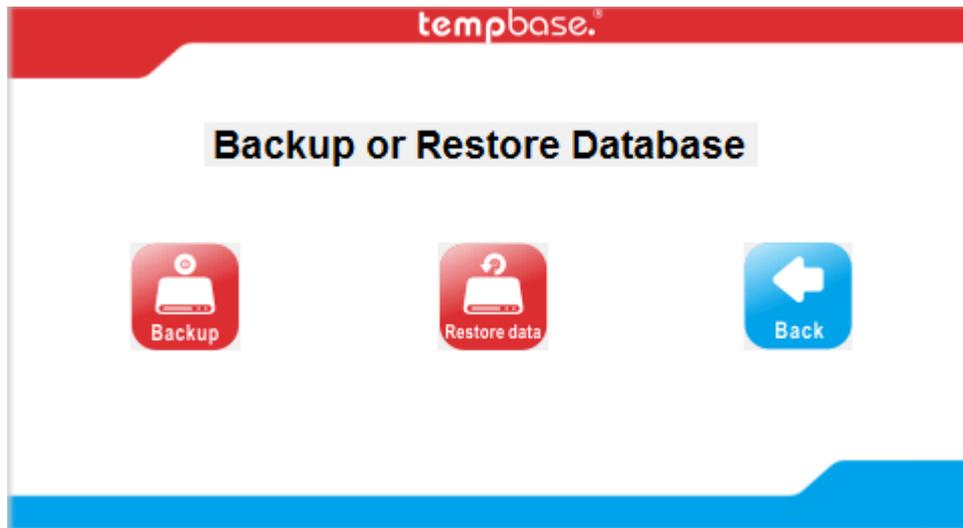
`Backup` ——Data backup(save data in the format of ELT)

`Restore data` ——Data restore(Restore ELT file and read it by software)

`Back` ——Back to home page

4：Parameter setting page

Parameter information：

Device ID——Data logger ID

Travel ID——Travel ID number

Log Interval——Record interval

Time Zone——Time Zone

Cycle--- The total record time available.

Probe Mode——Temperature sensor type(internal or external)

Password—setting password

Start Mode——Logger start modes

Start time——Auto start logger at set time

Travel DSC——Travel description

Multiple Start/Stop——Permit logger to be started or stopped for several times.

Pause Enable/Disable——Permit/prohibit pause of logger

Stop mode（set）——Stop mode setting

Temporary PDF——Permit to temporarily generate a PDF file after insert logger to computer.

Time zone——Time zone setting

No alarm setting——not set alarm threshold

Single alarm——Set single alarm threshold(one upper/lower limit)

Multiple alarm——Set several alarm threshold

Battery——Battery display

——Save parameters

 ——Back to home page

 ——Temperature adjustment

5：Sensor adjustment page

Temperature adjustment range: For Celsius, ±5.0 ℃； for Fahrenheit, ±20F.

6：Export data page

——Export data in the format of EXCEL

——Export data in the format of PDF

——Export data in the format of ELT

——Restore/insert ELT data to the software.

M1 multiple-use PDF temperature data logger

Product overview:

This data logger is mainly used to detect the temperature of food, pharmaceuticals, chemicals and other products during transportation or storage. The main features of this product: multiple use, automatically generated PDF report, high water proof level, battery exchangeable.

Specification：80mm（Length）x 25mm（Width） x 12mm（Depth）

Technical parameters：

Temperature range：-30℃～+70℃

Accuracy：±0.5℃（-20~+40℃），±1℃(other range)

Resolution ：0.1℃

Record capacity：32000（MAX）;

Battery lifetime：25℃，if record interval 15minutes, lifetime at least 6 months.

Waterproof level：IP67;

Report type: Encrypted PDF file.

Data connection port：USB

Sensor type：Internal（External optional）

Power supply：Internal CR2032 battery

Operation system：WIN XP/7/8

Initial use：

1、 Install tempbase.exe software，insert M1 logger to computer by USB port, finish USB drive installation according to the prompt.

2、 Open tempbase data management software，after connection logger with computer, the data information will be automatically uploaded. Then user could click "Logger Setup" button to enter parameter configuration interface and configure the parameters according to specific application.

3、 After finish configuration, click "Save" button to save the parameter setting, then it will prompt an interface of Logger Setup Completed", click OK and exit from the interface.

 Device operation instruction：

1. Configuration operation：Open tempbase.exe software，after connection logger with computer, the data information will be automatically uploaded. Then user could click "Logger Setup" button to enter parameter configuration interface and configure the parameters according to specific application. After finish configuration, click "Save" button to save the parameter setting, then it will prompt an interface of Logger Setup Completed", click OK and exit from the interface.

2. Logger start operation：

M1 supports three start modes(manual start, start right now, timing start), the specific start mode is determined by the parameter setting.

Manual start：press left key for 4s to start the logger.

Start right now：Immediately start just after the logger disconnected with computer.

Timing start：Logger starts when reaches to set start time.(Note：The set start time needs to be at least one minute delay than current time).

3. Pause operation：

Double click left key to enter to pause status. Under pause status, the device only records time instead of temperature recording. Double click left key again to cancel pause operation and recover to normal temperature recording.

4. Mark operation：

Double click right key, to finish mark operation. After finish marking operation, if quickly finish pause and pause cancel action, then the current marking could be canceled.

Note：

1）For one recording trip, the device could support Max. 10 times data marking.

2）Under status of pause or sensor disconnected status (when external sensor is configured), mark operation is disabled.

5. Stop operation:

M1 supports two stop modes（stop when reaches to Max. record capacity、 manual stop），and the specific stop mode is determined by parameter setting.

Stop when reaches to Max. record capacity：When record capacity reaches to Max. Record capacity, logger will stop automatically.

Manual stop：the device only stops when it is manually stopped except that the battery is consumed out. If the record data reaches to its Max. Capacity, then the data will be overwritten.

Note During the status of data overwriting, MARK operation will not be zero cleared That is, no matter how many times overwriting it has, Max. MRARK times is still be 10 times and every marking data will be saved without clearing.

6. Viewing operation：

During logger recording or stopping status, insert the logger to computer, then the data could be viewed by software or PDF report generated in the U disk.

PDF reports are different if there is alarm setting：

➢ If no alarm setting, there is no alarm information column and in data table, no alarm color marking, and at the left upper corner, it displays PDF in the black rectangle.

➢ If the alarm is set as upper/lower alarm, it has alarm information column, and it has three lines information: upper alarm information, standard zone information, lower alarm information. In data table, for upper alarm recording data, it displays in red, and for lower alarm data, displays in blue. And in the left upper corner, if alarm occurs, the background of rectangle is in red and display ALARM inside. If no alarm occurs, the background of rectangle is in green and display OK inside.

➢ If the alarm is set as multiple zone alarm, in PDF alarm information column, it could have max. Six lines: upper 3, upper 2,upper 1, standard zone; lower 1, lower 2.In data table, for upper alarm recording data, it displays in red, and for lower alarm data, displays in blue. And in the left upper corner, if alarm occurs, the background of rectangle is in red and display ALARM inside. If no alarm occurs, the background of rectangle is in green and display OK inside.

Note：

1）、Under all alarm modes，if data table zone, for Marking data, it displays in green; if the

record points are invalid data(USB connection(USB), pause data(PAUSE), sensor failure or sensor is not connected (NC)), then the recording marking is in gray. And in PDF curve zone, for the case of USB data connection (USB), data pause（PAUSE), sensor failure (NC), all of their lines will be drawn as bold gray dotted lines.

2）、if connect logger to computer during recording, there is no recording data during connection period.

3）、During the period of logger connection with computer, whether there is PDF report generated in U disk depends on initial parameter configuration.

7、Multiple start：

The logger supports the function of continuous starting after last logger stopping without the need to reconfigure the parameters.

Key function description：

Left key：Start(restart) logger、menu switch、pause；

Right key：MARK, manual stop.

Battery management

1、Battery level indication

Battery level indication	Battery capacity
	40%～100%
	20%～40%
	5%～10%
（flash）	<5%
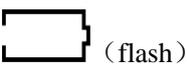
Note：When the battery capacity is lower or equal to 10%, please replace the battery at the soonest. If the battery capacity is lower than 5%, the device will stop recording.

2、Battery replacement

1）、Replace steps
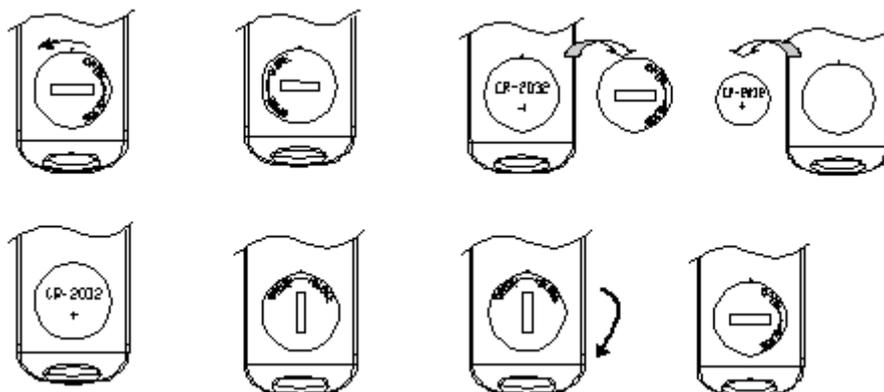
2）NOTE：

It is suggested to check battery before restart the logger to ensure that for battery remaining could finish the recording task. The battery could be replaced before you configure the parameter. After replacement of battery, user needs to configure the parameter again.

Note：When the logger is connected to computer under the status of recording or pause status, it is prohibited to plug off USB without battery power supply.

LCD display notice：

1、Alarm LCD display

When LCD display time is configured as 15s, click left key, LCD displays. If over temperature incident occurs, it firstly displays alarm interface for about 1s, then skip to main interface automatically.
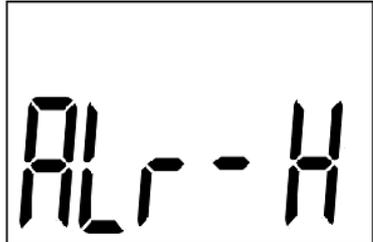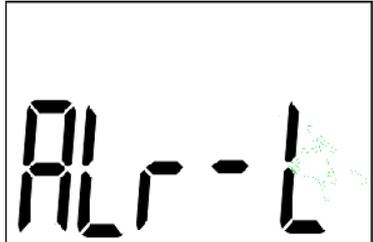
When display time is configured as "forever", If over temperature incident occurs, it displays alarm interface all the time. Press left key to skip to main interface.

When display time is configured as "0", there is no LCD display.
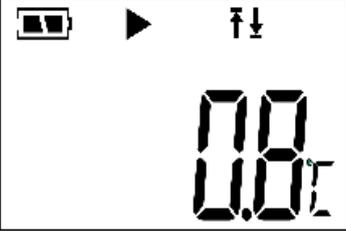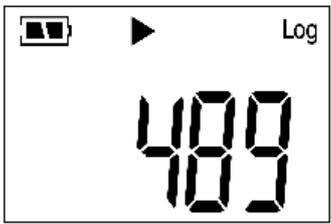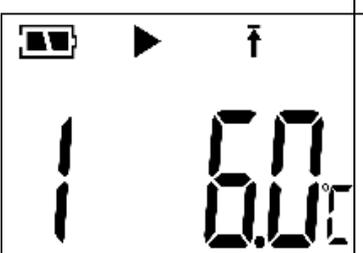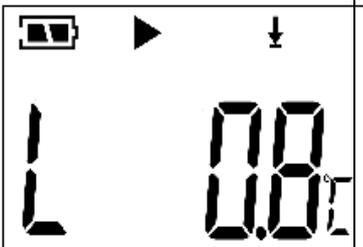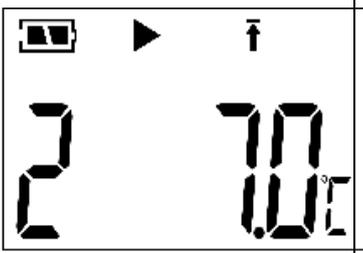
Appendix 1：Working status description：

Device status	LCD display	Device status	LCD display
1、 **Start logger**	St Art	2、Start delay	(battery) ▶ "▶" is flashing
3、Recording status	rEC During recording status, in the middle of the first line, static display "▶".	4、Pause	PAUSE in the middle of the first line, blinking display"■".
5、**MARK success**	√ SEt 8	6、MARK failure	× SEt 10
7、Device stop	StOP in the middle of the first line, static display"■".	8、**USB connection**	(battery) (monitor) USb
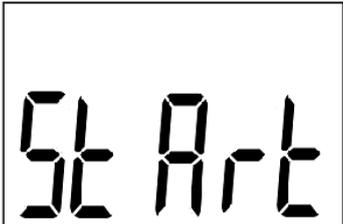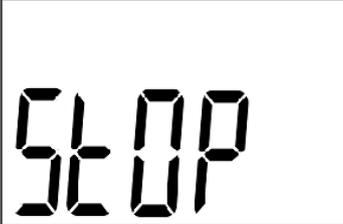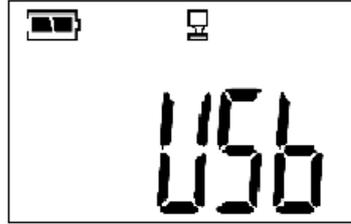
APPENDIX **2**：**other LCD display**

1、**erase data status**	

2、**PDF generation status**	PDF file is under generation, PDF is in flash status.	3 、 Alarm interface	Only exceed upper limit： Only exceed lower limit Both upper and lower limit occurs：

Appendix 3：LCD page display

PAGE	Display	Page	display
PAGE 1: Battery level, current working status(record, stop,etc) upper/lower limit status, current temperature.	 "↑"：upper limit alarm occurs； "↓"：lower limit alarm occurs；	Page 2: Battery level, current working status, recording points	
PAGE 3：battery level, current working status, MAX. temperature.		PAGE 4：battery level, current working status, Min. temperature.	
Page 5：upper limit 1	 	Page 6: Setting temperature of upper limit 1	
Page 7：upper limit 2		Page 8: Setting temperature of upper limit 2	
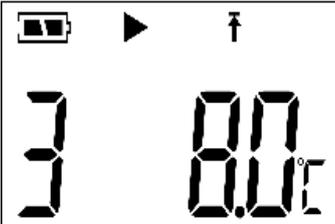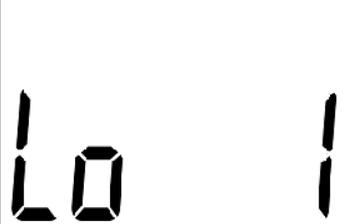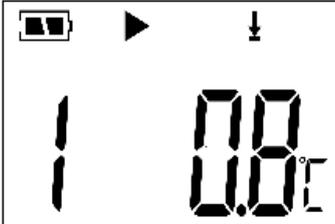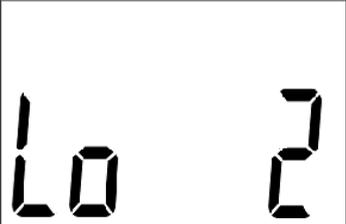
Page 9: upper limit 3	HIGH3	**Page 10: Setting temperature of upper limit 3**	3 8.0℃
Page 11: lower limit 1	Lo 1	**Page 12: Setting temperature of lower limit 1**	1 0.0℃
Page 13: lower limit 2	Lo 2	**Page 14: Setting temperature of lower limit 2**	2 -1.2℃