

# User Manual

## 1.1 Product Description

### 1.1.1 Remote Temperature Recording

The external temperature sensor measures the temperature, records and stores the measured temperature values automatically, and transmits them to the platform through GPRS/4G LTE realizing remote platform monitoring.



### 1.1.2 Application Scenarios

It can be used for real-time monitoring of warehousing and distribution of food, medicine, vaccine, blood, reagents, biological products, biological sample tissue and other items. The application scenarios include refrigerated trucks, incubators, cold rooms, cold packs, refrigerated cabinets, refrigerators, freezers and so on.

## 1.2 Product Features

- 1) IP66 protection, waterproof, shockproof and anti-collision to fit a variety of complex environments.
- 2) The product is small in size and can be placed directly in the incubator or on the outer wall of the box.
- 3) It can penetrate aluminum foil box and refrigerator freely, support breakpoint transmission, and acquire data anytime and anywhere.
- 4) The device supports sound and light alarms.


## 2.1 Product Charging


This device uses rechargeable lithium polymer battery and power indicator is in 3 grids . When the indicator is empty , the red light flashes every 5s, and the platform sends message of low battery alarm, indicating that it needs charging.

The charging procedure is as follows:

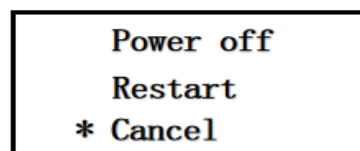
- 1) Connect the charger to the product for charging. When charging, the power indicator shows red and blue at the same time;
  - 2) After fully charged, the red light will be off and the blue light is always on;
- Note: Please use the charger supplied with the device to charge.




### 2.2.1 Power On

1) Press button  for 4 seconds, When the status indicator flashes green once, the screen displays, indicating it's powered on. If the status indicator flashes red once and there's no screen display, it means the battery is low. Please charge it.

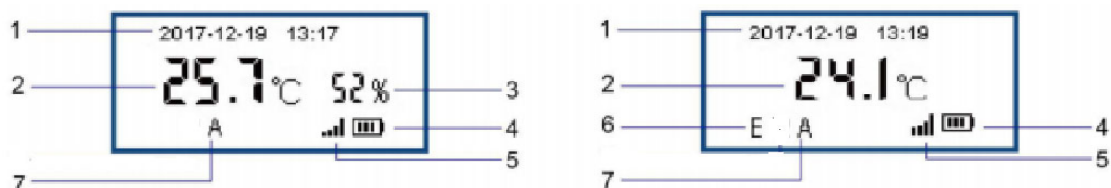
Remark: When the device is restarted, press the button  to enter the engineering mode , press the button according to the instructions until the engineering mode ends and enter “Power-off” state; Power it on and it can work normally.



### 2.2.2 Power Off



- 1) Short press any button, after activating the screen, press button  for 4 seconds, the screen displays “Power off”, “Restart” and “Cancel”. The sign “\*” points to the “Cancel” by default;
- 2) Short press  to switch the selection until “\*” points to the “shutdown”;
- 3) Short press power button  to confirm;
- 4) Power-off does not affect the stored data.

### 2.3 Screen Definition



- 1) Time display area;
- 2) Temperature display area;
- 3) Humidity display area;
- 4) Power display area ;
- 5) Mobile signal connection display ;

- 6) Probe: external probe display  $E$ , built-in probe does not display;
- 7) Alarm function: The device has sound and light alarms;  $A$  indicates that the alarm has been triggered and needs to be processed in time;

## 2.4 Device Information Query

After the screen is activated, short press menu button  $i$  to query the device's local configuration information.

<b>DEID: 71008888</b> <b>CUID: 0000</b> <b>CCID: 8987654321</b> <b>7787656666</b>	<b>CPLD: 60S</b> <b>UPLD: 120S</b> <b>RMIT: 0</b> <b>RCIT: 0</b>
<b>FW: 0.0.01</b>	<b>TA03: 2~8</b> <b>PA03: 3~7</b>




- 1) DEID: device MAC number;
- 2) CUID: customer code;
- 3) CCID: SIM card information;
- 4) CPLD: acquisition interval;
- 5) UPLD: upload interval;
- 6) RMIT: stored data, namely, data received by the device and not yet transmitted;
- 7) RCIT: recorded data, namely, all data generated after the recording function is turned on;
- 8) FW: software version;
- 9) TA00: the upper and lower temperature alarm interval of channel0;  
PA00: early warning temperature range;  
TA03: the upper and lower temperature alarm intervals of channel 3;  
PA03: early warning temperature range.

### 2.5.1 Alarms

If the device has set high and low temperature alarm values and exceeds the temperature range, it will send sound and light alarms.

### 2.5.2 Alarm Query

- 1) Switch the menu to the “Alarm Query” by long pressing the button  $i$ ;

2) Press the button  to confirm the menu selection “Alarm Query”, the screen will display the historical alarm records; short press button  to scroll through the last 10 history records; short press button  to exit the query.

## **2.6 USB Port**

This product is designed with a standard micro USB interface in the battery compartment for charging, upgrading firmware, and exporting PDF files.

## **2.7 Temp. Records Output**

The data recorded is saved in the device in PDF format;

Temperature data output method:

- A) Power on this device;
- B) Connect the device to the computer with the supplied USB data cable. Wait until “Removable Disk” appears in file manager and “PDF Loading” appears on the device; if the data is large, the output process will take long time. The computer may time out and display “unrecognizable device”. After “PDF Loading” disappears, re-plug the USB flash drive;
- C) Open “Removable Disk” and find the corresponding PDF file according to the file generation time. Open and copy the file as needed.
- D) The device can output the PDF file once a day; (when deleting the PDF file of the day, the PDF file can be exported again)
- E) 7680 sets of data can be exported in total, and data of the last 32 days can be exported if recording cycle is 6 minutes.

## **2.8 Attentions**

- 1. Do not soak the temperature and humidity sensors in the water;
- 2. Do not place it in an environment exceeding the operating temperature range;
- 3. Do not dismantle the device privately;
- 4. Do not place the device in the blind area of the mobile signal;
- 5. Charge the device once every three months to ensure battery life;
- 6. Deliver damaged rechargeable and wasted batteries to the designated battery collection point.

## FCC

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:  
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

### **\*RF warning for Mobile device:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.