



# User Manual

## RCW-800WiFi

## User Guide

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## Chapter I Product Introduction

### 1.1 Overview

Coldwatch safety monitor of temperature & humidity RCW-800WiFi is a high-tech product based on networking technology. It is widely used in foodstuffs, catering, logistics and industries that require HACCP system certification. It can transmit data by WiFi to our cold-chain cloud platform. Users can view, manage and monitor data online remotely by browser or smart phone APP. It also has functions of alarm reminder via the platform and buzzer.

Coldwatch RCW-800WiFi has one temperature sensor and one humidity sensor. With a built-in rechargeable lithium battery, it can provide real-time data uploading and platform alarm service even in case of cold storage power outage.

### 1.2 Features and functions

- ◆ The probe has high sensitivity and reacts quickly.
- ◆ Keep running for at least 6 hours after power supply is disconnected.
- ◆ Set alarm threshold values and alarm reminder. The LED indicator will flash and buzzer will beep in case it is beyond the threshold values.
- ◆ Set uploading interval and control data records freely.
- ◆ Record 20000 points of data, with no data storage limit in server.
- ◆ Connect WiFi access point, collect data and upload real-time data to the cloud platform.
- ◆ Export data flexibly in multiple formats via the cloud platform.

## Chapter II Technical parameters

- ◆ Power supply: 5V/1A(DC);
- ◆ Temperature measuring range:  $-40\text{ }^{\circ}\text{C} \sim 80\text{ }^{\circ}\text{C}$  ;
- ◆ Temperature accuracy:  $\pm 0.5\text{ }^{\circ}\text{C}$  ( $-20\text{ }^{\circ}\text{C} \sim 40\text{ }^{\circ}\text{C}$  );  $\pm 1\text{ }^{\circ}\text{C}$  (others);
- ◆ Temperature resolution:  $0.1\text{ }^{\circ}\text{C}$  ;
- ◆ Temperature sensor type: NTC;
- ◆ Humidity measuring range: 10~95%RH;
- ◆ Humidity accuracy:  $\pm 5\%$ RH;
- ◆ Humidity resolution:  $0.1\%$ RH;
- ◆ Humidity sensor type: Honeywell;
- ◆ Data uploading interval: 1 min to 24 hours;
- ◆ Off-line record capacity: 20,000 points;
- ◆ Alarm output: LED indicator, buzzer, platform reminder;

# Coldwatch-Remote Temperature and Humidity Alarm Monitor

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RCW-800Wifi

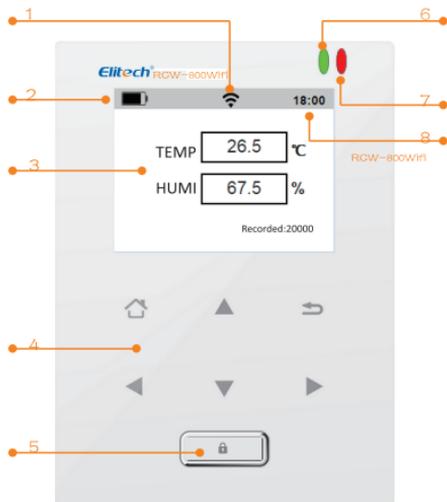
- ◆ Communication port: WiFi;
- ◆ Standby battery: 3.7V 1100mAH lithium battery.

## Chapter III Instructions for Use

### 3.1 Operating guide

#### 3.1.1 Product appearance:

|   |                    |
|---|--------------------|
| 1 | WiFi               |
| 2 | Battery level      |
| 3 | Display area       |
| 4 | Touch buttons      |
| 5 | Screen lock button |
| 6 | Power indicator    |
| 7 | Alarm indicator    |
| 8 | Current time       |



#### 3.1.2 Button description

##### 1) Touch buttons:

- ☰ : enter the menu and confirm what is selected.
- ▲ ▼ : shift up/down to select the desired item. The items can be displayed circularly.
- ◀ ▶ : shift left/right to modify parameters. The parameters can be displayed circularly.
- ⏪ : exit the current interface and return to last interface.

##### 2) Screen lock button:

Press the screen lock button, the screen will light up or black out.

**3) On/Off button:**

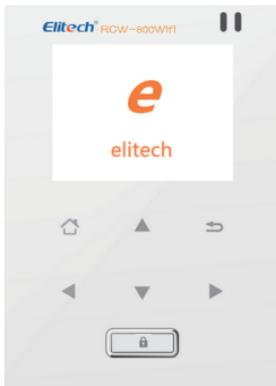
Slide the toggle switch to turn on/off the device.

**4) Reset button:**

Press the button for 4 seconds, the WiFi access point resets to factory default and users can reconnect the WiFi.

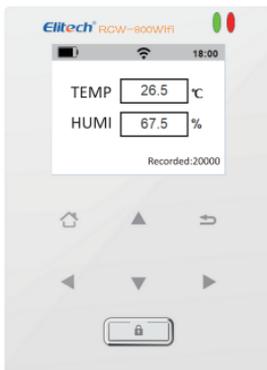
**3.1.3 Indicator instruction:**

- 1) Power indicator:** It is normally on (green) when external power supply is connected. It is off when powered by battery with no external power supply.
- 2) Alarm indicator:** It is off in normal status. It turns red and flashes once every one second in case of over limit alarm.

**3.1.4 interface instruction:****1) Start-up picture:**

On /Off:

- Slide the On/Off button on the back of the device, and the device is on and displays start-up picture. Slide the button again to power off the device.

**2) Main interface**

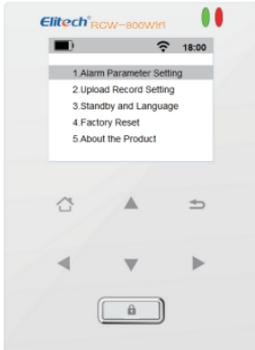
- When switched on, it skip the start-up picture and enters the main interface automatically.
- Press  to enter the main interface for parameter settings.

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## 3) Parameters settings interface



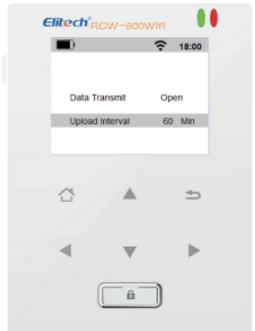
1. Press ▲ and ▼ to switch between menu items.
2. Press ⏠ to enter the interface of the selected menu item.
3. Press ↩ to return to the main interface.
4. There is no response to press ◀ or ▶.

## 4) Set alarm parameters:



1. Temperature alarm range:  $-40^{\circ}\text{C}$  ~  $70^{\circ}\text{C}$ ; humidity alarm range: 10%~95%.
2. Press ▲ and ▼ to switch between parameter items.
3. Press ◀ and ▶ to modify the parameter value of the selected item.
4. Press ↩ to save the parameter and return to parameter settings interface.

## 5) Data transmission:



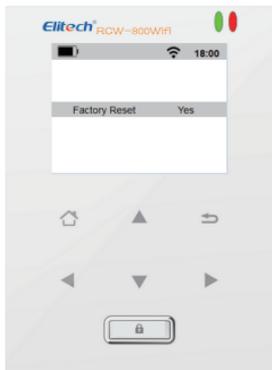
1. It includes two values, open and close. Default: open.
2. Date uploading interval: parameter range: 1~60 min. Default: 1 min. Log in the cloud platform to set the uploading interval if it is beyond 60 min. The maximum value is 24 hour. If the uploading interval value is set longer than 60 min, the interface will display 60 when it is modified by pressing the button.
3. Press ▲ and ▼ to switch between parameter items.
4. Press ◀ and ▶ to modify the parameter value of the selected item.
5. Press ↩ to save the parameter and return to parameter settings interface.
6. There is no response to press ⏠.

## 6) Screen standby and language selection



1. Select language: It includes two values: Chinese and English. Default: English.
2. Screen standby: Three modes are available: 1 min, 5 min and off.
3. Press ▲ and ▼ to switch between parameter items.
4. Press ◀ and ▶ to modify the parameter value of the selected item.
5. Press ⇐ to save the parameter and return to parameter settings interface.
6. There is no response to press ⏠.

## 7) Reset to defaults



1. It includes two values: yes and no.
2. There is no response to press ▲ or ▼.
3. Press ◀ and ▶ to modify the parameter value of the selected item.
4. When the value is set to "yes", press ⏠ to pop up the interface "whether to reset to defaults". Press ⏠, the device will restart and reset to defaults. Press ⇐ to return to the interface of reset to defaults setting. When the value is set to "no", there is no response to press ⏠. Press ⇐ to return to the interface of reset to defaults setting.

## 8) About the device



1. Press ▲ and ▼ to switch between parameter items.
2. There is no response to press ◀ or ▶.
3. There is no response to press ⏠.
4. Press ⇐ to return to parameter settings interface.

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## 3.1.5 Connect WiFi:

1)When the device is used for the first time,

a)Use one PC with a WLAN card to search the SSID of the device (the WiFi name of the device) and click to connect. Use the administrative web page for configuration.

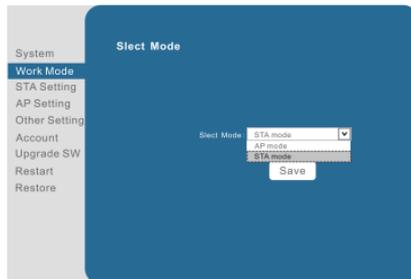
Default parameters are as follows:

| Parameter   | Default settings | Remarks   |
|-------------|------------------|---|
| SSID        | 800WIFI000000    | 00000X is the last five figures of the device ID. |
| IP address  | 192.168.2.1      |   |
| Subnet mask | 255.255.255.0    |   |
| User name   | admin            |   |
| User name   | admin            |   |

b)Open the browser and type in 192.168.2.1 in the address bar and enter. Type in correct user name and password in the dialog box that pops up and enter the administrative page.



c) Enter “mode setting” menu and modify the configuration as follows. Select “STA” and save.



- d) Enter “STA setting” menu and click “search”. Select the WLAN to be connected in the AP list, click “OK” and type in the password of the wireless router.

| S/N | SSID         | BSSID             | RSSI | Channel |
|-----|--------------|-------------------|------|---------|
| 0   | wuliwang     | 3C:45:0B:8D:5F:23 | 100  | 1       |
| 1   | DZ           | 8C:85:06:7D:5F:8E | 40   | 1       |
| 2   | 123456       | 7C:8B:0B:7D:5F:8E | 100  | 1       |
| 3   | Route_C      | 0C:25:5B:19:37:83 | 45   | 1       |
| 4   | 360          | 24:5:5B:13:57:7J  | 88   | 1       |
| 5   | 350WIFI_118  | A2:82:13:1B:8D:24 | 40   | 1       |
| 6   | YOUHANA      | 64:59:5A:15:24:7F | 49   | 1       |
| 7   | SFDSE        | 8C:8E:8E:10:8C:D7 | 25   | 1       |
| 8   | Xiaomi_TUDQU | 64:78:07:25:3E    | 40   | 1       |
| 9   | 2623         | 64:78:07:25:3E    | 15   | 6       |
| 10  | ATK_CRBE     | 68:25:93:9A:CF:BE | 100  | 6       |
| 11  | Apple        | EC:6A:8E:63:0E    | 147  | 7       |

- e) Enter “restart” menu after setting all the parameters, click “OK” to wait for the restart.

## 3.2 Guide for cloud platform

### 3.2.1 Platform registration

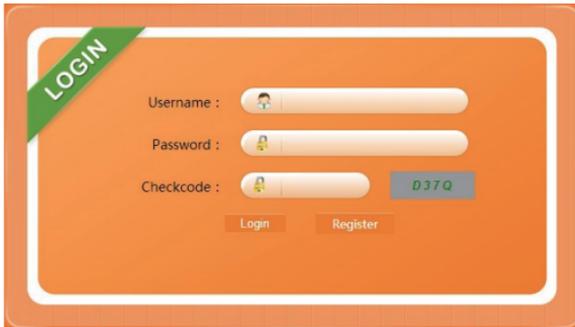
Please visit:

Step 1: Register account

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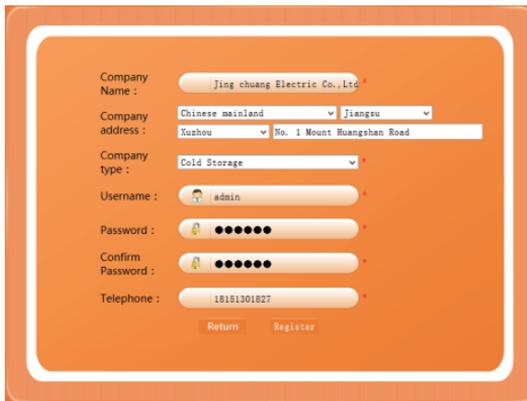
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A screenshot of the login page. It features a green diagonal banner in the top-left corner with the word "LOGIN" in white. The form has three input fields: "Username" with a person icon, "Password" with a key icon, and "Checkcode" with a key icon and a blue box containing the code "D37Q". Below the fields are two buttons: "Login" and "Register".

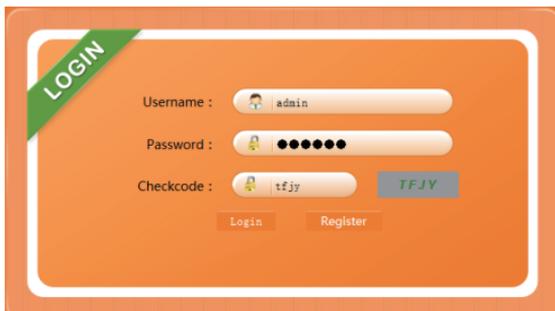
Step 2: Submit information



A screenshot of the registration page. It contains several fields: "Company Name" (Jing chuang Electric Co., Ltd.), "Company address" (with dropdowns for "Chinese mainland" and "Jiangsu", and a text field "Xuzhou No. 1 Mount Huangshan Road"), "Company type" (Cold Storage), "Username" (admin), "Password" (masked with dots), "Confirm Password" (masked with dots), and "Telephone" (18161301827). At the bottom are "Return" and "Register" buttons.

3.2.2

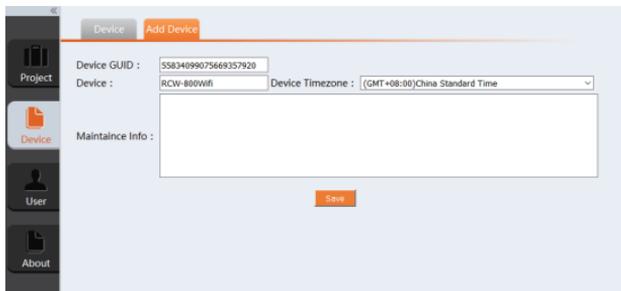
Step 3: Log in the platform



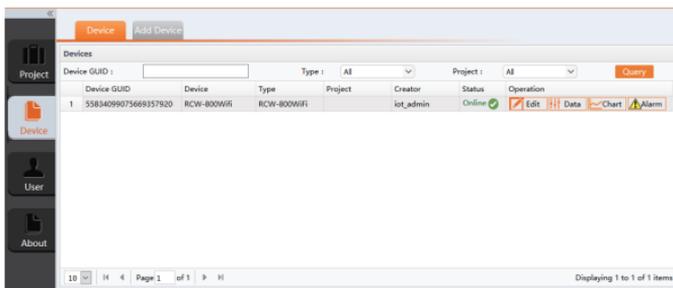
A screenshot of the login page, similar to the first one. It has a green diagonal banner with "LOGIN". The "Username" field contains "admin", the "Password" field is masked with dots, and the "Checkcode" field contains "tfjy" with a blue box showing "TFJY". "Login" and "Register" buttons are at the bottom.

### 3.2.3 Add devices in the platform

Step 4: Add device ID in the platform (Device ID is labeled in the left side and can be viewed on “About the device” interface.)



Step 5: After adding devices, in the status column, it displays the status of “online activated”, then click “Edit” to set the device parameters.



### 3.2.4 Device parameter setting in platform

Step 6: Set the time of the device and synchronize the time.



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Step 7: Set record interval—If the device keeps offline for a long time (for example, no credit in SIM card), it is suggested setting a long record interval in order to record data in a long term.

The screenshot shows the 'Edit Device' page with the following fields and options:

- Device GUID: 55834099075669357920
- Type: RCW-800Wifi
- Device: RCW-800Wifi
- Device Timezone: [GMT+08:00]China Standard Time
- Maintenance Info: (empty text area)
- Buttons: Save, Set time, Set record interval (highlighted), Set probe name, Set probe parameter
- Device GUID: 55834099075669357920
- Hours: 0Hours
- Minutes: 15Minutes
- Seconds: 60second
- Buttons: Set, Save

Step 8: Set probe name

The screenshot shows the 'Edit Device' page with the following fields and options:

- Device GUID: 55834099075669357920
- Type: RCW-800Wifi
- Device: RCW-800Wifi
- Device Timezone: [GMT+08:00]China Standard Time
- Maintenance Info: (empty text area)
- Buttons: Save, Set time, Set record interval, Set probe name (highlighted), Set probe parameter
- Device GUID: 55834099075669357920
- Sensor1: P1
- Sensor2: P2
- Buttons: Set, Save

Step 9: Set probe parameters

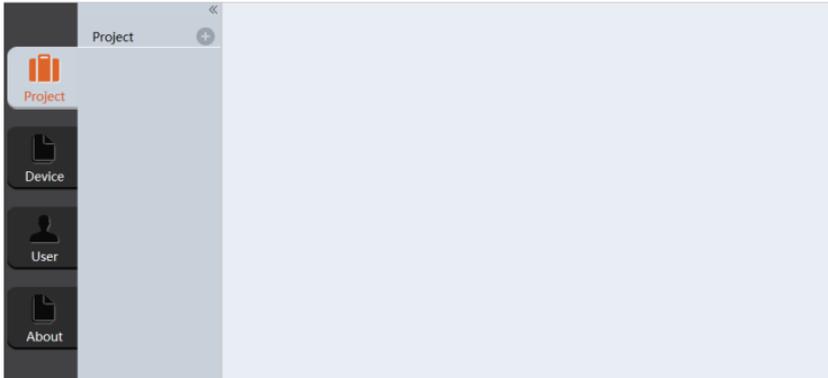
1. Set upper/lower limit of probes
2. Modify the deviation of temperature and humidity. This function is only available for administrator. For common users, it is invisible.
3. Alarm delay time; unit is minute.
4. After finishing setting, check “Enable” and then click “SET” to finish probe settings.

The screenshot shows the 'Edit Device' page with the following fields and options:

- Device GUID: 55834099075669357920
- Type: RCW-800Wifi
- Device: RCW-800Wifi
- Device Timezone: [GMT+08:00]China Standard Time
- Maintenance Info: (empty text area)
- Buttons: Save, Set time, Set record interval, Set probe name, Set probe parameter (highlighted)
- Device GUID: 55834099075669357920
- Sensor1 Type: Temperature °C
- Upper limit: 80.0
- Lower limit: -20.0
- Correction value: 0.0
- Alarm Delay Time: 5Minutes
- Enable: OFF
- Buttons: Set, Save
- Sensor2 Type: Humidity %RH
- Upper limit: 80.0
- Lower limit: 10.0
- Correction value: 0.0
- Alarm Delay Time: 5Minutes
- Enable: OFF
- Buttons: Set, Save

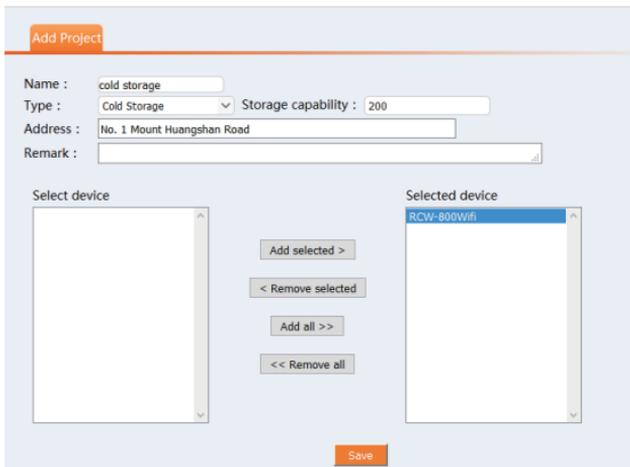
### 3.2.5 Create project in platform

#### Step 13: Create project



#### Step 14: Edit project information

1. Edit the name of project, the type of project, and storage volume (cold storage volume).
  2. It displays all added devices in the column of "Select devices". Select certain device (such as medical cold storage shown in the following figure), and click "Add" button, then it will appear in the column of "selected devices". Click "Save" to finish project creating.
- In the figure below, it has created a medicine project, which uses medical cold storage device.



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## 3.2.6 Browse project function

Step 15: Device overview—display device list in the format of squares.

The screenshot shows the 'Monitor' tab selected. Below the navigation tabs, there is a 'Refresh in 5 minutes' checkbox. A white box displays the following information:

- GUID: [55834099075669357920](#)
- Device: RCW-800Wifi
- Type: RCW-800WiFi
- Creator: iot\_admin
- Status: Online ✔ Active
- Record Time: 12/29/2015 16:06:35

Below this information, two data points are shown in blue boxes:

- P1: 22.4°C
- P2: 36.1%RH

Step 16: Project information—display the basic project information and alarm list information.

The screenshot shows the 'Project' tab selected. Under the 'Base info' section, the following information is displayed:

|          |              |                     |                            |
|----------|--------------|---------------------|----------------------------|
| Name:    | Cold Storage | Address:            | No. 1 Mount Huangshan Road |
| Type:    | Cold Storage | Storage capability: | 200                        |
| Creator: | iot_admin    | Creation time:      | 12/29/2015 15:49:40        |
| Remark:  |              |                     |                            |

At the bottom of the section, there are 'Modify' and 'Delete' buttons.

Step 17: Data record—display the recorded data and diagram of the device.

The screenshot shows the 'Devices' tab selected. At the top, there are search filters: 'Device GUID', 'Type' (set to 'All'), and 'Project' (set to 'Cold Storage'). A 'Query' button is on the right. Below the filters is a table with the following data:

| Device GUID            | Device      | Type        | Project      | Creator   | Status                                      | Operation  |
|------------------------|-------------|-------------|--------------|-----------|---|--|
| 1 55834099075669357920 | RCW-800Wifi | RCW-800WiFi | Cold Storage | iot_admin | Online <span style="color: green;">✔</span> | <a href="#">Data</a> <a href="#">Chart</a> <a href="#">Alarm</a> |

At the bottom, there is a pagination bar showing 'Page 1 of 1' and 'Displaying 1 to 1 of 1 items'.

## **Chapter IV Notice**

1. Only one PC with WLAN card can be used to connect the hotspot when setting WiFi hotspot. It is not allowed to use two or more PC to set.
2. If the hotspot cannot be connected, please close the antivirus software.
3. Try to keep the site spacious to reduce barrier that may weaken the signal.

## **Chapter V Accessories**

- One RCW\_800WiFi
- One temperature-humidity sensor
- One power adapter (5V/1A)
- One user manual

# *Elite of technology*

Address: No. 1 HuangshanRd, Tongshan economic development zone,  
Xuzhou, Jiangsu, China  
Tel: 0516-86306508 Fax: 4008875666-982200  
Service hotline: 400-067-5966 URL: [www.e-elitech.com](http://www.e-elitech.com)  
ISO9001:2008 ISO14001:2004 OHSAS18001:2011 ISO/TS16949:2009