

# BT01 USER MANUAL



# Introduction

- BT01 is a Beacon with high accurate temperature sensor and BLE5.0. Collect temperature data ,broadcast through BLE, we can realize 24 hours real time monitoring by mobile phone APP or other BLE product. No need to change battery within 3 to 5 years.
- Can be used together with host, one host can match with 24 beacons .Upload data to the server through host. Accurate position to some extent.
- When using BT01 seperately, mobile APP is needed, You can get historical information of the device from APP, and judge the position by RSSI signal.
- It can be used to manage your logistics, supply chain, warehouses, yards, and enterprise assets.
- BT01 can save 4 days' data package (save one data package every 5 minutes), Data package includes Time+temperature+battery consumption

## Broadcasting information via Bluetooth:

- (1) MAC address of bluetooth beacon
- (2) Signal strength RSSI of bluetooth beacon (Signal strength when scanning the beacon)
- (3) Bluetooth version, battery voltage, temperature, boot times, bluetooth UUID
- (4) Default device name “B1”

## Factors on battery life of bluetooth beacon

The below factors will effect the battery life:working temperature;connectivity frequency of Bluetooth;data transmission times;frequency of LED light; transmitting power; broadcast time interval and battery capacity.

# Parameters:

Communication mode: BLE5.0

Broadcast power:8db

Broadcast frequency:5s

Transmission distance:Max 500m in open place

# Power on/off and LED light

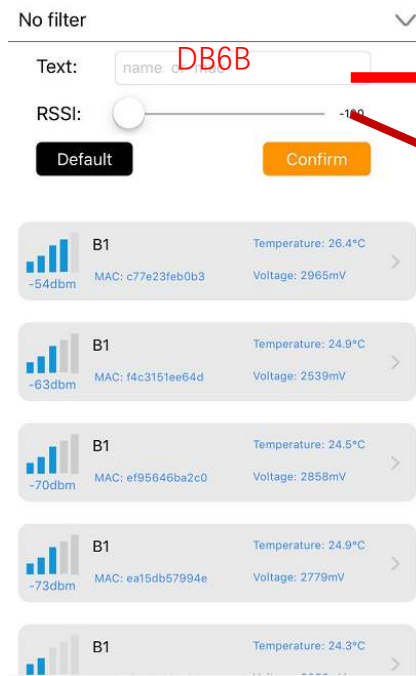
- How to power on:  
The device is OFF when shipment, press “Start” for 3 seconds, device is powered on, STB1 changes to the status of searchable and connectable, blue LED flashes 5 times, from fast to slow, stop flashing after one minute.
- How to power off:  
When device is ON, press “Stop” for 3 seconds, red LED fast flashes 3 times, device is powered off.
- Others:
  1. When device is ON, press “Start”, blue LED flashes once which means the device is working
  2. Device is ON, when connecting with APP, blue LED light flashes once which means connected successfully; When device disconnects with APP, red LED light flashes once.
  3. Device on the status of abnormal, red LED light fast flashes.
- When voltage below 2.5v, device can not work normally.

# BLE APP:



Open BLE of your mobile phone, Run Keelin\_Beacon APP (Download through official website or APPStore)

- You can scan the broadcast information of BT01 through Keelin\_Beacon, including temperature, voltage, Mac address, signal strength
- In Keelin\_Beacon app, You can search the device by signal strength, device name, mac address, check [Image 1](#)



1. Enter Part of MAC address of the device in (ie: DB6B of DB6BC9F591AC), Click OK, it will select the device with this MAC address automatically.
2. RSSI: signal strength of the device. The closer the device with the phone, the smaller for the number. You can select the right device according to this characteristics. -100db no selection.
3. There is only one MAC address for each device.

Image 1

- Device list, broadcasting information for each item, see [Image 2](#)

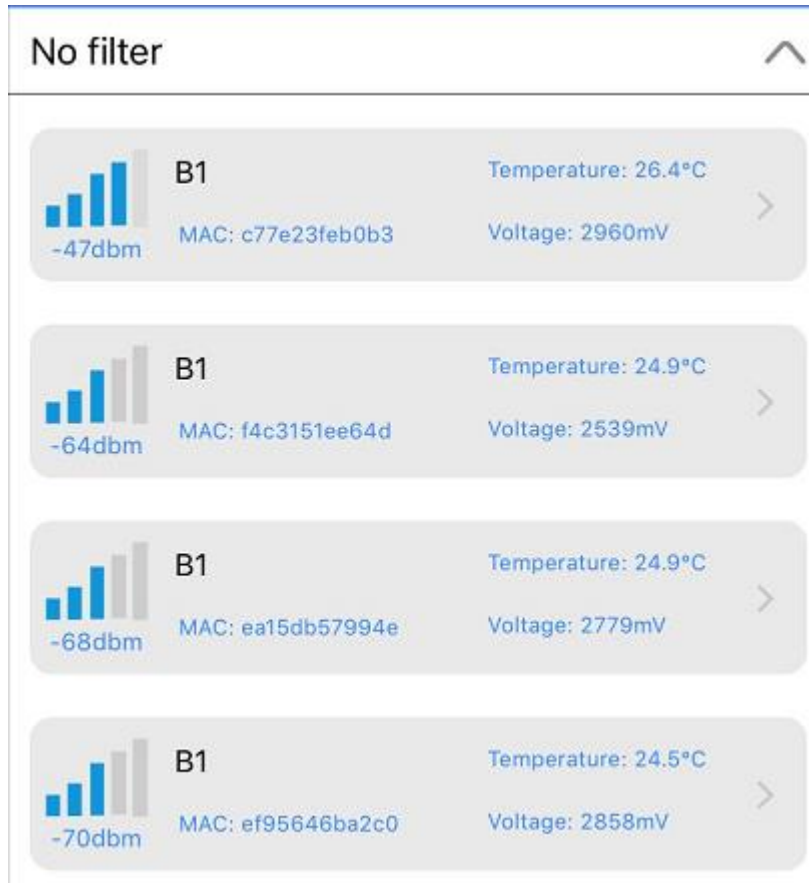



Image 2

1. Device name: B1
2. MAC: device address, only one address number
3.  signal strength (RSSI) ,the closer device with mobile phone app, the stronger signal is
4. Temperature:the temperature of broadcasting time
5. Voltage:Battery voltage of broadcasting time

- Choose the device and set up bluetooth connecting, and check the data for the device  
See Image 3, Image4

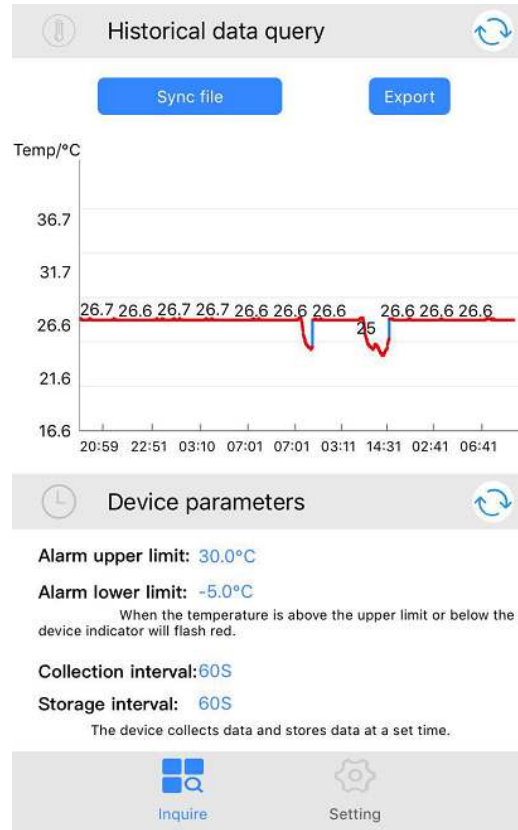


Image 3

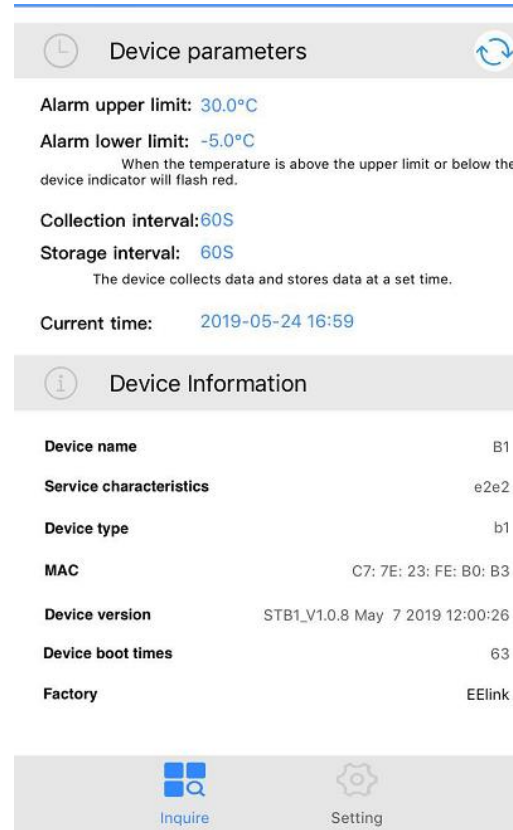


Image 4

- Historical data query: You can query the cached temperature data curve, Max to 1152 data. After synchronizing files, you can export the latest cached data table.
- Device parameters: current parameter values set by the device, upper and lower limits of the temperature alarm, collection interval, and time of the device.
- Device information



- On interface Image3 and Image4, Click setting to enter Image5, here to modify parameters of the device.

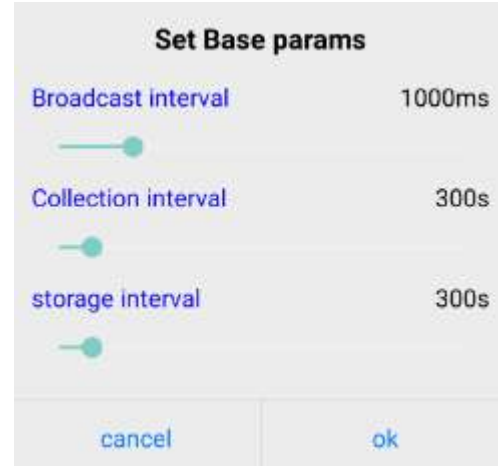
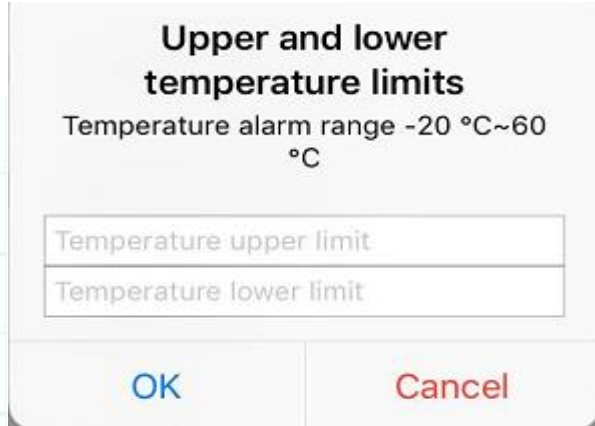
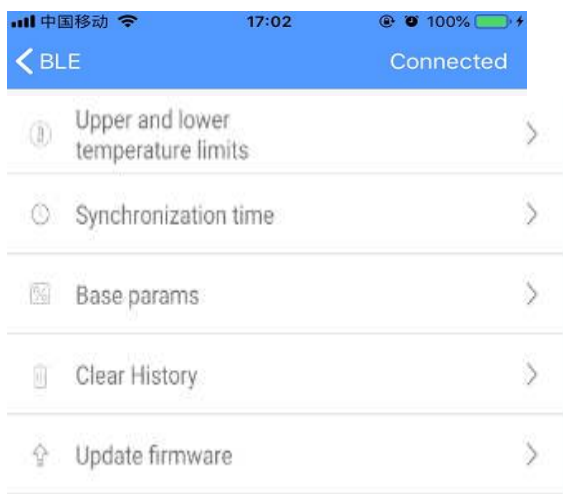


Image 5

- 1.Upper and lower limits of temperature: Set the upper and lower limits of the temperature alarm as shown above. When the temperature exceeds the limits, the device flashes red quickly.
- 2.Sync time: Synchronize the time of the phone with the time of the device.
3. Base params: As shown in the above picture, set collection interval of the device. It can store Max to 1152. If stored one data every 5 minutes, it can save 4 days of cached data.
- 4.Clear data: Clear all cached data. Restart counting.
5. Update firmware: When software is updated, you can synchronize to the latest software version through air upgrade.

- Export historical data, export data will be sent or stored in format of cvs. The file is named with exporting time.
- Android system data storage: file management / BleExcel / (device address) / export time. cvs
- Export data table, see [Image6](#)  
Data format: date time + temperature + battery voltage

| Time                | Temperature(°C) | Voltage(mV) |
|---------------------|-----------------|-------------|
| 2019-05-02 13:03:53 | 25.9            | 3046        |
| 2019-05-02 13:08:53 | 25.9            | 3045        |
| 2019-05-02 13:13:53 | 25.9            | 3045        |
| 2019-05-02 13:18:53 | 25.9            | 3047        |
| 2019-05-02 13:23:53 | 25.9            | 3048        |
| 2019-05-02 13:28:53 | 25.9            | 3041        |
| 2019-05-02 13:33:53 | 25.9            | 3046        |
| 2019-05-02 13:38:53 | 25.8            | 3043        |
| 2019-05-02 13:43:53 | 25.8            | 3046        |
| 2019-05-02 13:48:53 | 25.9            | 3047        |
| 2019-05-02 13:53:53 | 25.9            | 3047        |
| 2019-05-02 13:58:53 | 25.8            | 3047        |
| 2019-05-02 14:03:53 | 25.8            | 3044        |
| 2019-05-02 14:08:53 | 25.8            | 3047        |
| 2019-05-02 14:13:53 | 25.9            | 3042        |
| 2019-05-02 14:18:53 | 25.9            | 3043        |
| 2019-05-02 14:23:53 | 25.9            | 3044        |
| 2019-05-02 14:28:53 | 25.9            | 3045        |
| 2019-05-02 14:33:53 | 25.9            | 3043        |
| 2019-05-02 14:38:53 | 25.9            | 3045        |
| 2019-05-02 14:43:53 | 25.9            | 3043        |
| 2019-05-02 14:48:53 | 25.9            | 3046        |

Image 6

