MTH100 User Manual V1.0

Learn how to set up your new BLE beacon

1. Features

* High sensitive temperature & humidity sensor
* 120*120px LCD display screen
* Bluetooth 5.0, broadcast longest to 500m
* Built-in 600mAh replaceable coin cell battery
* Waterproof IP65
* Long standby up to 2 years
* CSV data can be downloaded via USB
* Multiple alarms: temperature, humidity, vibration, tilt, low battery alarm
* GPS host connection via BLE

2.Specifications

Device Information	Model	MTH100
	Machine Net Weight	42g
	Dimensions	101mm(L) * 42mm(W) * 11.5mm(H)
	LCD Size	24.58mm X 24.58mm
	LCD Resolution	120*120px
Working Parameters	Battery Voltage	3 VDC
	Bluetooth Version	BLE5.0
	Temperature Measurement Range	-20℃~60℃
	Temperature Measurement Accuracy	± 0.2℃
	Humidity Measurement Range	0%～100% RH
	Humidity Measurement Accuracy	±2% RH
	Local Storage Capacity	Up to 100,000 sets of data

3. Product Structure

Indicator light

19:28

14.5°C
42.2%

log:016602

Left button

Right button

Temperature and humidity, optical sensor

Lanyard hole

4. Package Content

BLE Beacon	x 1
CR2450 Button Battery	x 1
Cover Slip	x 1
User Guide	x 1
Packing Box	x 1

5. Install The Battery

1. Use the pick to twist the battery cover towards OPEN

2. Insert the battery into the battery compartment in the direction shown in the figure

3. Cover the battery cover and tighten

Attention: This device does not have an on/off button, and it starts to work after installing the battery. If the machine is not used for a long time, please remove the battery.

6.Button Definition

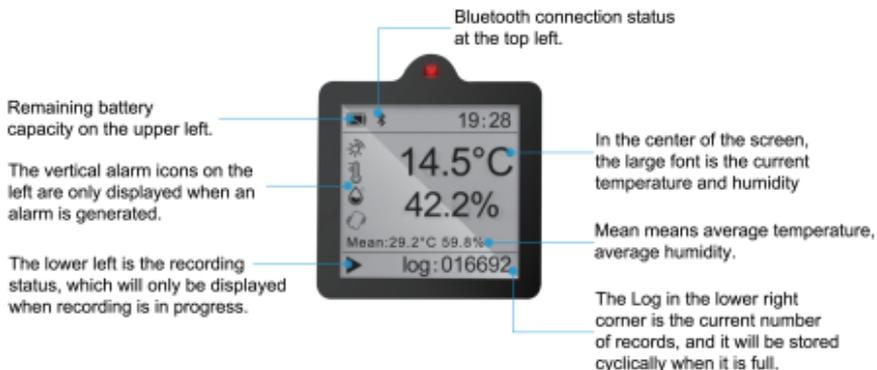Left Button: Page/Start recording/Mark

Right Button: Return / Stop recording

Left Button + Right Button: Turn On/Off Bluetooth

Operation	Inactive		Activated	
	Short Press	Long Press	Short Press	Long Press
Left Button	Menu Page	Start Recording	Menu Page	Start Recording
Right Button	Back to Main Menu	View QR Code	Back to Main Menu	View QR Code

7.Definition Of Indicator Lights

LED	Event	State
RED LED	Trigger an alarm	Blinks every 1 second
	Long press the "Start" button to MARK under recording status	Flash once

Bluetooth connection status at the top left.

Remaining battery capacity on the upper left.

The vertical alarm icons on the left are only displayed when an alarm is generated.

The lower left is the recording status, which will only be displayed when recording is in progress.

In the center of the screen, the large font is the current temperature and humidity

Mean means average temperature, average humidity.

The Log in the lower right corner is the current number of records, and it will be stored cyclically when it is full.

19:28
14.5°C
42.2%
Mean:29.2°C 59.8%
log:016692

a.Home screen overview

19:28
MAX:
35.6°C 80.8%
MIN:
-10°C   65.8%
log:016692

b.Historical data maximum and minimum

19:28
70.0°C 90.0°C
-20.0°C 00.0°C
log:016692

c.Upper and lower limit of alarm value

Battery icon

Data needs to be formatted

Temperature and humidity alarm upper limit

Temperature and humidity alarm lower limit

Light sensor alarm icon (display when the light sensor value exceeds the preset limit value)

Humidity alarm icon (display when the humidity value exceeds the preset limit value)

Temperature alarm icon (display temperature sensor value exceeds the preset limit value)

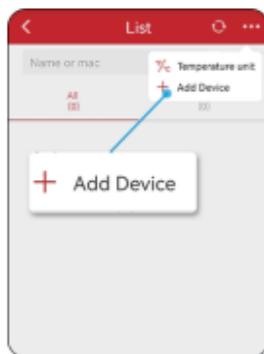Dynamic sensing warning icon (display during collision/tilt warning)

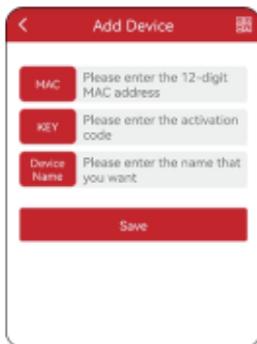Bluetooth broadcast icon

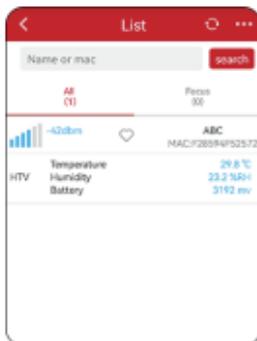Bluetooth host is connected

Local record icon

01.**01.**Click "Add Device" to start adding

02.**02.**Find and enter the corresponding MAC and KEY on the back label of the MST100 device, and name the setting by yourself

03.**03.**The device is added

NOTE ⚠️⚠️⚠️ :The device is connected to the mobile phone through Bluetooth, and various parameters of the device can be configured in the smartphone APP. Historical data can be queried in the APP.

11. SMS Commands For Host With Beacon

Command Type	Command Format	Explanation	Example
BLE	BLE,3,119,3000,60#	Enable both BLE scanning and advertising,the scanning interval is 119s,the advertising interval is 3000 s and the data will be updated per 60s	
	BLE,0#	Disable BLE	
WHITELIST	NLIST,,ENABLE#	When BLE Enable but NLIST DISABLE,the host device can scan all devices around it; When BLE Enable ant NLIST enable,the host device will just scan the bundled devices;	
	NLIST,Num,MAC#	Num:1-40,MAC:the MAC address of	NLIST,Num,C7:7E:23:FE:B0:B3#
	NLIST,Num?	Num: 1-40	NLIST,1?
	NLIST,Num#	Num: 1-40	NLIST,1#

12. Any Questions?

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