



Wireless BLE Combo Door & Temperature Sensor

Door Status & Temperature Monitoring over BLE
Model: BTTS

Operating Guide



Quick Start

The Btracking BBTS is composed of 2 devices, 1) the rounded device is the Sensor for both temperature and door; 2) the Bar device is the Bar Magnet.

The Sensor reports Temperature and Door Condition (Open or Closed) on a regular basis (approx. every 30 seconds).

When the Door Magnet is proximate (within an inch or so) of the Sensor, it indicates as CLOSED. When it is further than an inch or so away from the Sensor, it indicates as OPEN. The Platform has a popup notice when the door status changes. Door status notifications by email can also be configured (for assistance ask us).

The Sensor is preconfigured and is **POWERED OFF** for shipping.

1) Power On the Sensor

Point a bright light (flashlight, cell phone flashlight, etc.) at the small circle (circled in BLUE in the image below) on the front of the Sensor (the round device) for several seconds until the LED on the opposite side of the device begins flashing RED to indicate the sensor is ON.



2) Mount Sensor and Bar Magnet

Position the Sensor (the round device) to the inside of the door near the edge. Position the Bar Magnet directly opposite such that when the door is closed the Sensor and Bar Magnet are within an inch or less of each other. TEST (CHECK PLATFORM DOOR STATUS) BEFORE PERMANENTLY AFFIXING!!!

Making Changes to the Configuration

Configurations can be changed via when you are next to the Sensor with your phone (BLE on) and our phone app. To make changes to the Sensor, please contact support@btracking.com for instructions to download the phone app and change the configuration.

About This Device

The Btracking BTTS is a compact, BLE-based combo sensor that monitors door open/close status and ambient temperature in real time. It uses solid-state sensors and a low-power microcontroller to collect readings and transmit them over Bluetooth Low Energy (BLE 5.1) to a paired Btracking tracker, which relays the data to the Btracking Platform on your phone or desktop.

Housed in a rugged, IP67-rated enclosure with a long-life non-replaceable battery, the BTTS is well suited to cold-chain transport and storage, trailers, cargo areas, equipment enclosures, and other asset-monitoring applications where reliable, low-maintenance sensing is required.

Compatible Btracking trackers

The BTTS pairs with many Btracking trackers with BLE, including the BP50 Plugin Tracker, BHY212B Hybrid Tracker, BS120 and BS130 Solar Tracker, and BSX100 SolarLock Tracker.

How It Works

The BTTS reports the current state of the door rather than a stored history of events. When a door-open event is detected, the sensor immediately begins a broadcast cycle and transmits the updated status continuously for 12 seconds, so nearby trackers reliably capture the change.

To prevent false triggers from vibration, quick impacts, or brief contact fluctuations, the sensor applies a preset 200 ms debounce filter before confirming any status change. This keeps reporting accurate and stable in real-world conditions.

Powering On the Sensor

Shine a strong light source (such as a flashlight) directly at the center of the sensor until the LED begins to blink. The sensor is now powered on. A front light sensor handles power-on; there is no external button.

Powering Off the Sensor

The sensor is powered off through a phone app and your BLE-enabled phone. If you need to power off the Sensor, contact support@Btrackin.com for instructions on downloading the phone app and powering off the Sensor.

Installation

Mount the sensor body on the fixed frame and the smaller magnet piece on the moving door or panel, aligned so the two pass close to each other when the door closes

Mounting Methods

- Polyurethane glue — for permanent installation on clean, dry surfaces.
- Screws — using the integrated mounting flanges.

Placement tips

Install in a restricted-access location that is protected from prolonged exposure to harsh conditions and not easily visible, to avoid tampering.

For best BLE reception, keep a clear line of sight between the sensor and the tracker and minimize metal obstructions between them.

Connecting to Your Btracking Tracker

Provisioning by Btracking and Making Changes

Btracking pre-pairs your BTTS to its tracker and preconfigures the device before shipping.

Sensor reporting interval, LED light, and other configurations can be changed via when you are next to the Sensor with your phone (BLE on) and our phone app. To make changes to the Sensor, please contact support@btracking.com for instructions to download the phone app and change the configuration.

To add sensors, contact support@btracking.com.

The BTTS is identified by a unique MAC address that is laser-engraved on the device, both as human-readable text and as a QR code. Pairing the sensor to a tracker links that MAC address to your account so readings appear on the platform.

Configuration & Settings

The following settings can be adjusted on the BTTS. Unless you manage your own configuration via the phone app, Btracking sets these for you based on your monitoring needs.

Setting	Description
Transmitted Power	BLE transmitting power (range -20 to +4 dBm; +4 dBm default).
Broadcast Cycle	How often the sensor broadcasts its information.
Save Record Interval	Interval for storing readings to onboard memory.
Temperature High Alarm	Sensor broadcasts an alarm when the high threshold is met.
Temperature Low Alarm	Sensor broadcasts an alarm when the low threshold is met.
Broadcast Type	BLE protocol: Eddystone (default), Beacon, or Eddystone UID.
LED	Turns the sensor status LED on or off.
Record Control	Starts or stops onboard data recording.
Clear Cache	Clears the stored data cache.
Reset Factory	Restores all sensor settings to factory defaults.
Shutdown	Powers the sensor off.

Signal Strength Reference

BLE signal strength (RSSI) indicates how reliably the tracker hears the sensor. Use this guide when positioning the sensor relative to the tracker:

RSSI (dBm)	Quality
-20 to -70	Perfect signal
-70 to -85	Good signal
-85 to -94	Bad signal — reposition if possible
Below -94	Review installation — move sensor closer or clear obstructions

Data Logging

The BTTS can log readings to internal memory for later retrieval, which is useful when a tracker is briefly out of range.

- Recording is enabled through the sensor settings (Record Control / Start Record).
- By default the sensor saves a reading every 180 seconds; this is adjustable from 60 to 600 seconds.
- Up to 10,000 records can be stored. When memory is full, the oldest data is overwritten first.

Product Specifications

General

Ingress Protection	IP67
Dimensions	59.9 × 40.0 × 14.6 mm (2.36 × 1.57 × 0.57 in)
Weight	23 g (0.81 oz)
Battery	Non-replaceable CR2477 (1000 mAh)
Operating Temperature	−30 °C to +80 °C (−22 °F to 176 °F)
Temperature Accuracy	±0.2 °C (0–60 °C); long-term drift typ. < 0.02 °C/yr
Probe Length	2 m + 5 cm standard (1, 5, 10, 15 m optional)
Door Switch Debounce	200 ms (preset)
Installation Methods	Polyurethane glue, screws, or zip tie

Wireless

Bluetooth	BLE 5.1
Band	ISM, 2.4000–2.4835 GHz
Output Power	−20 to +4 dBm
Transmission Range	Up to 200 m (656 ft) open field at +4 dBm
Broadcast Protocols	Eddystone (default), Eddystone UID, Beacon

Battery Life (typical, @ 25 °C)

Battery life depends on broadcast interval and transmit power. Representative figures:

Configuration	Approx. Life
10 s interval, 0 dBm, door sensor on	~1450 days
5 s interval, 0 dBm, door sensor on	~1150 days
10 s interval, 4 dBm, door sensor on	~1200 days
5 s interval, 4 dBm, door sensor on	~950 days

Battery

The BTTS uses a sealed, non-replaceable coin-cell battery — it is not rechargeable and should never be opened. When the battery reaches end of life, recycle the unit in accordance with local regulations and contact Btracking for a replacement.

Quick Troubleshooting

If a sensor stops reporting to the platform, verify the tracker is online and within BLE range, confirm the sensor is still powered on, and check the signal strength guidance above. For persistent issues, contact support@btracking.com.

Safety Information

- Do not disassemble the device. If the case is damaged, take it out of service.
- All wireless devices can generate interference that may affect nearby equipment.
- Installation should be carried out by qualified personnel and the device securely fixed as described above.
- Install in a location protected from prolonged exposure to adverse environmental conditions.
- Do not dispose of the device with household waste; send it to an appropriate collection point at end of life.

Warranty

The standard warranty for this product is 12 months from the date of purchase. If you plan to store the device for an extended period, keep it in a cool, dry place away from direct sunlight and extreme temperatures. The BTTS battery is non-rechargeable, so no periodic charging is required.

Regulatory Information

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.

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.

FCC Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. It should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

ISED Canada

This device complies with Innovation, Science and Economic Development Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device

may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. The minimum distance from the body to use the device is 20 cm.

Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement. La distance minimale du corps pour utiliser l'appareil est de 20 cm.