thermotrack.io

BLE Gateway Setup Manual

Wi-Fi configuration · multi-sensor registration · network troubleshooting

The thermotrack.io **BLE Gateway** is a dedicated always-on bridge that listens for nearby Bluetooth Low Energy sensors and forwards their readings to the cloud over Wi-Fi or Ethernet. Use a gateway for fixed installations — cold rooms, warehouses, pharmacies, server rooms — where you want 24/7 monitoring without relying on a phone. This manual covers powering up, Wi-Fi setup, registering multiple sensors, and resolving common network issues.

Do you even need a gateway? For vehicles and mobile assets, an Android phone running the thermotrack.io app works as a free gateway. The dedicated gateway is for *always-on, fixed* sites where no phone is present.

What's in the Box

- BLE Gateway unit
- USB-C power adapter (5 V) and cable
- Optional Ethernet cable
- Wall-mount bracket and screws
- Quick-reference card with the gateway's unique **Gateway ID** / QR code

1 Power-Up & Status LED

1. Place the gateway centrally — within ~30 m line-of-sight of the sensors it will cover, away from thick metal or freezer walls that block BLE.
2. Connect the USB-C power adapter. The gateway boots in 20–40 seconds.
3. Read the status LED:

LED	Meaning
Blinking amber	Booting / not yet configured — ready to pair to Wi-Fi.
Blinking blue	Setup / pairing mode (hotspot active).
Solid green	Online — connected to Wi-Fi and reaching the cloud.
Solid/blinking red	No network or no cloud connection — see Troubleshooting.

2 Wi-Fi Configuration

Configure the gateway from the thermotrack.io app (recommended) or via the built-in setup hotspot.

Option A — In-app setup (recommended)

1. Open the thermotrack.io app and go to **Devices** → **Add Gateway**.
2. Scan the QR code on the gateway's quick-reference card (or enter the Gateway ID manually).
3. When prompted, select your **2.4 GHz** Wi-Fi network and enter the password.
4. Wait for the LED to turn **solid green**. The gateway now appears as "Online".

Option B — Setup hotspot

1. Press and hold the **SETUP** button for 3 seconds until the LED blinks blue.
2. On your phone or laptop, join the temporary Wi-Fi network `thermotrack-setup-XXXX`.
3. A configuration page opens automatically (or browse to `192.168.4.1`).
4. Choose your Wi-Fi network, enter the password, and save. The gateway reboots and connects.

> **2.4 GHz only.** Like most IoT devices, the gateway connects to **2.4 GHz** Wi-Fi, not 5 GHz. On combined networks, ensure the 2.4 GHz band is enabled and reachable, or temporarily separate the SSIDs during setup. Wired Ethernet (if your unit has a port) skips Wi-Fi entirely — just plug in and it self-configures via DHCP.

3 Registering Multiple Sensors

One gateway can relay **many sensors** at once — there is no pairing limit beyond BLE range and density. Sensors do not "belong" to a gateway; any in-range gateway will pick them up, so overlapping coverage adds redundancy.

1. In the app, go to **Devices** → **Add Sensor**.
2. Scan each sensor's QR code or enter its Device ID to register it to your account.
3. Power on the sensor near the gateway; within a minute it appears with a live reading.
4. Name and locate each sensor (e.g. "Freezer 1", "Vaccine Fridge") and set its safe-range thresholds.
5. Repeat for all sensors. The gateway's detail screen lists every sensor it is currently hearing.

Coverage tips

- Keep sensors within ~30 m line-of-sight; walls, metal shelving and freezer doors shorten range.
- For large sites, deploy multiple gateways with overlapping zones rather than one distant unit.
- Mount the gateway high and in the open, not inside a metal cabinet or behind equipment.

4 Network Troubleshooting

Symptom	Likely cause & fix
LED won't leave amber / won't enter setup	Power-cycle the unit; hold SETUP 3 s to force pairing mode. Try a different USB power source.
Can't find the setup hotspot	Confirm the LED is blinking blue; refresh your Wi-Fi list; move closer to the gateway.
Wi-Fi credentials rejected	Re-check the password; ensure you selected the **2.4 GHz** SSID; avoid networks with captive-portal logins.

LED red — connected to Wi-Fi but offline	Firewall is blocking outbound traffic. Allow outbound **HTTPS (443)** and DNS to `*.thermotrack.io` / `*.opsassist.co`.
Gateway online but a sensor is missing	Sensor out of BLE range or battery low — move it closer, replace the battery, and confirm it's registered to your account.
Frequent drop-outs	Weak Wi-Fi signal at the gateway's location; relocate closer to the access point or add a second gateway.
Readings delayed / batched	Intermittent connectivity — the gateway buffers and backfills when the link returns; check signal strength.

Factory reset

To clear Wi-Fi settings and start over, hold the **SETUP** button for ~10 seconds until the LED flashes rapidly, then release. The gateway returns to first-boot state and re-enters pairing mode. Registered sensors stay on your account and re-attach automatically once the gateway is back online.

Quick Setup Checklist

- Gateway mounted high, central, and in the open
- Powered — LED progressed amber → (setup) → **solid green**
- Connected to a 2.4 GHz network (or Ethernet)
- Outbound HTTPS/443 allowed through the site firewall
- All sensors registered, named, and showing live readings
- Thresholds and alerts configured per sensor