

LANSITEC[®]

BLE Beacon configuration by Smartphone Using LightBlue

iPhone & Android



LightBlue® by Punch Through

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Applicable Products: Lansitec Bluetooth beacons and tags supporting LightBlue configuration

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This guide consolidates the common smartphone configuration workflow used across multiple Lansitec BLE beacon families. Product-specific parameters and GATT characteristics can vary by model and firmware.

1. Scope & Before You Start

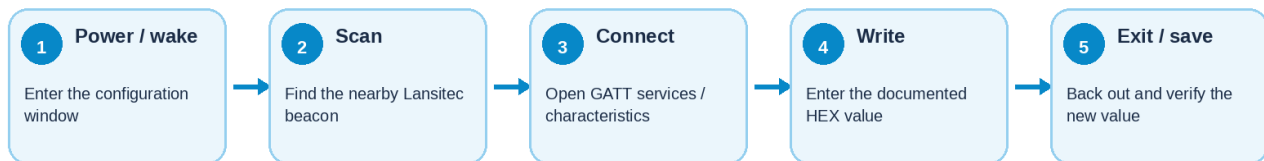
Use this guide to discover, connect to and configure supported Lansitec Bluetooth Low Energy beacons from a smartphone. The common workflow is the same on iPhone and Android, while device identification and the exact list of writable characteristics can differ by model.

Important - hexadecimal values

Lansitec beacon configuration parameters are generally entered in hexadecimal format. Do not write to an undocumented characteristic. Use the product-specific User Manual whenever a parameter or service differs from the examples in this guide.

1.1 What you need

- A compatible iPhone/iPad or Android phone with Bluetooth enabled.
- LightBlue® installed from the Apple App Store or Google Play.
- The beacon powered on and physically close to the phone during configuration.
- The model-specific values you want to program (for example UUID, Major, Minor, advertising interval and TX power).
- Where prompted by supported Lansitec beacon firmware, use configuration password 116321.



2. Install LightBlue & Connect to the Beacon

LightBlue is available for both iOS and Android and can scan, connect to, inspect, read and write BLE services and characteristics. Grant the Bluetooth / Nearby Devices permissions requested by the operating system; some Android versions may also request location permission for BLE scanning.

iPhone / iPad: [Apple App Store](#)

Android: [Google Play](#)

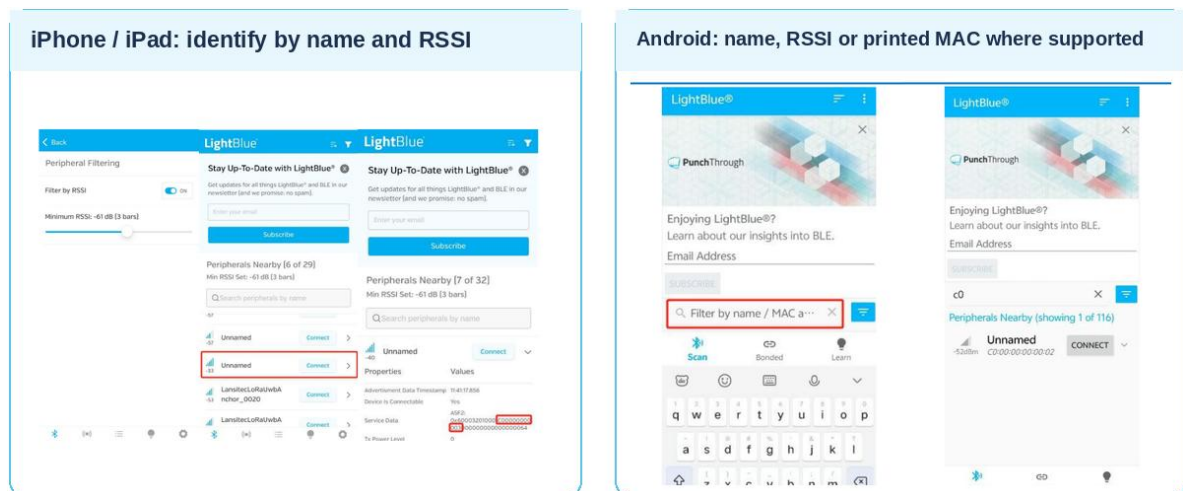
Official LightBlue guide: [Punch Through](#)

2.1 iPhone

- Power or wake the beacon. For models with a configuration window, start scanning immediately after power-up.
- Open LightBlue and scan for nearby peripherals. If several devices are visible, use the advertised name and the strongest RSSI to identify the beacon closest to the phone.
- Tap the corresponding beacon. If the firmware requests a password, enter 116321.

2.2 Android

- Enable Bluetooth and grant the permissions requested by LightBlue.
- Scan and select the corresponding Lansitec beacon by advertised name. On supported products whose MAC address is printed on the housing, the MAC address can be used to distinguish devices.
- Android can identify the beacon from its printed MAC address.



Examples from Lansitec beacon documentation: use the advertised name and RSSI; supported Android workflows can also use the MAC address printed on the housing.

If you cannot connect

Move the phone close to the beacon, power-cycle the beacon and scan again. Several Lansitec beacon profiles accept configuration only for a limited period after power-up.

3. Configure UUID, Major & Minor

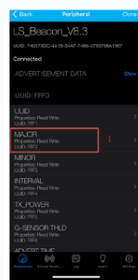
The most common iBeacon identifiers are UUID, Major and Minor. The exact characteristic UUIDs differ between firmware families, but the write sequence in LightBlue is consistent.

Parameter	Purpose	Typical use
UUID	128-bit iBeacon identifier	Groups beacons belonging to the same deployment or application.
Major	16-bit identifier	Commonly separates sites, zones, floors or asset groups.
Minor	16-bit identifier	Commonly identifies an individual beacon inside a Major group.

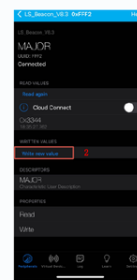
3.1 Write sequence

- Select the required characteristic (for example Major).
- Tap "Write new value".
- Enter the new value in hexadecimal format.
- Tap "Done", "Send" or the equivalent write control shown by the current LightBlue version.
- Return to the characteristic and verify the newly read value.
- Use Back to return to the Peripheral page and exit the configuration session. Some documented Lansitec beacon profiles require this exit sequence for the change to be retained.

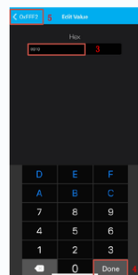
1 Select MAJOR



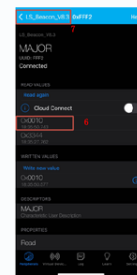
2 Tap Write new value



3 Enter the HEX value



4 Read back / verify



Example Major configuration sequence consolidated from the Lansitec B005 Bluetooth Beacon documentation. The same read/write/verify logic is used for other documented writable parameters.

LightBlue has been redesigned over time, so button positions and labels may change. Follow the service/characteristic names and the read/write properties rather than relying only on screen position.

4. Configure TX Power & Advertising Interval

TX power and advertising interval directly affect detection range, responsiveness and battery consumption. Use the values permitted by the product-specific Datasheet/User Manual.

4.1 TX power

The following mapping is used by the documented Lansitec beacon configuration profile. 0x06 corresponds to 0 dBm and is a common default. Some models or firmware revisions can expose a different maximum RF power.

HEX value	TX power
0x01	-20 dBm
0x02	-16 dBm
0x03	-12 dBm
0x04	-8 dBm
0x05	-4 dBm
0x06	0 dBm
0x07	+4 dBm

4.2 Advertising interval

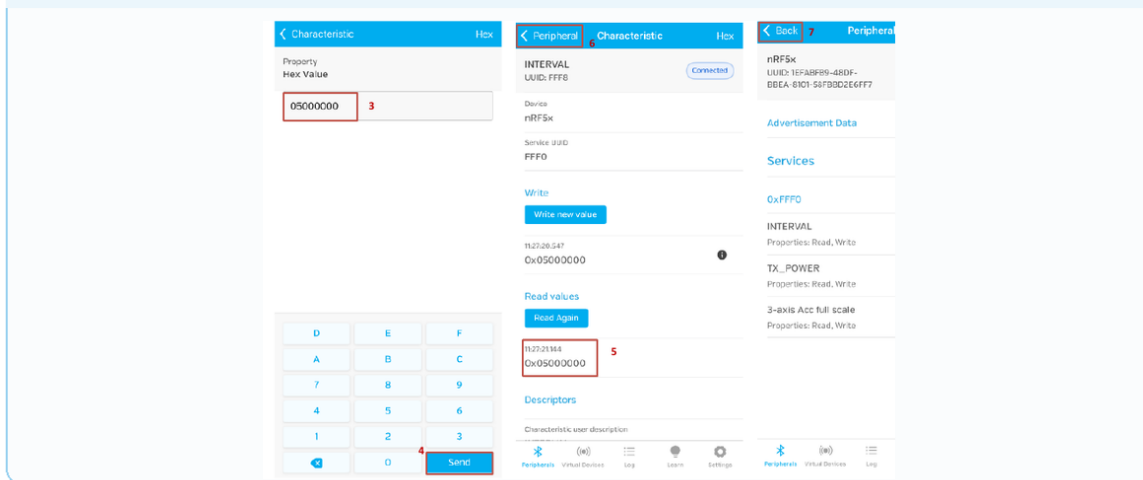
The common configuration profile encodes the interval in 100 ms steps. The examples below are taken from Lansitec beacon documentation; the maximum supported interval depends on the product/firmware.

HEX value	Advertising interval
0x01000000	100 ms
0x02000000	200 ms
0x03000000	300 ms
0x04000000	400 ms
0x05000000	500 ms
0x64000000	10,000 ms (10 s)

Power trade-off

Shorter advertising intervals and higher TX power generally increase radio activity and reduce battery life. Choose the lowest TX power and longest interval that still meet the required detection performance.

Example: write and verify an advertising interval



Example interval write sequence from the Lansitec B005 3-Axis Beacon.

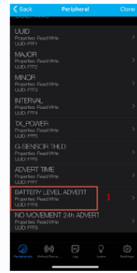
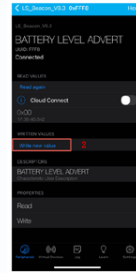
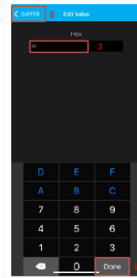
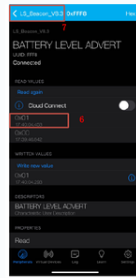
5. Optional & Model-Specific Parameters

Not every Lansitec beacon exposes the same optional characteristics. Configure only the parameters documented for the specific product and firmware.

5.1 Battery Level Advert

On supported beacon profiles, Battery Level Advert controls whether battery information is included in the advertising data.

Value	Meaning
00	Disabled
01	Enabled

1 Select Battery Level Advert**2 Tap Write new value****3 Enter 00 or 01****4 Read back / verify**

Battery Level Advert configuration example. The same read/write/verify flow applies to other documented switch parameters.

5.2 Other optional characteristics

- G-sensor threshold / motion threshold - available on supported accelerometer-equipped versions.
- Advert time / autonomous advertising behavior - available on selected firmware profiles.
- No Movement 24h Advert - available on selected motion-aware beacon profiles.
- 3-axis accelerometer full scale / interval - specific to B005 3-Axis firmware and similar documented variants.

6. Pre-Configuration, Remote Support & Troubleshooting

Lansitec technical support throughout the product lifecycle

Lansitec technical support is available from pre-configuration before shipment through deployment and later reconfiguration. Supported beacon parameters can be preprogrammed before shipment when agreed at order stage. Our team can also provide remote assistance during initial configuration, field deployment, troubleshooting and subsequent parameter changes. Contact us at contact@lansitec.com.

6.1 Troubleshooting

Symptom	Recommended action
Beacon is not listed	Confirm Bluetooth is enabled and permissions are granted. Move closer, refresh the scan and power-cycle the beacon if its configuration window may have expired.
Connected but configuration is read-only	If the model requests authentication, enter password 116321. Reconnect immediately after power-up if the documented configuration window is time-limited.
Several similar beacon names are visible	Use the strongest RSSI for the device nearest the phone. On supported Android workflows, use the MAC address printed on the product housing.
A value was written but did not persist	Use the write confirmation button, return to the characteristic to verify the read-back value, then exit using Back as described in the product manual.
Characteristic name is different	Do not write a guessed value. Check the exact product User Manual or contact Lansitec technical support.
Range or battery life changed after configuration	Review TX power and advertising interval. Higher power / faster advertising generally increases power consumption.

6.2 References & online resources

Official LightBlue user guide

Punch Through guide covering scanning, services/characteristics, reading, writing and BLE troubleshooting. [Open link](#)

Lansitec Documentation Center

Product-specific User Manuals, technical documents and calculators. [Open link](#)

Please note that the current LightBlue app may use a different visual layout from older screenshots.