



Lightbug Zero & Pro User Manual

Due to software updates, your experience of the software interface (including but not limited to software features, user interfaces, and interaction experiences) may differ from the interface presented in this manual. The software interface is subject to change as we continuously work on providing you with the best experience!

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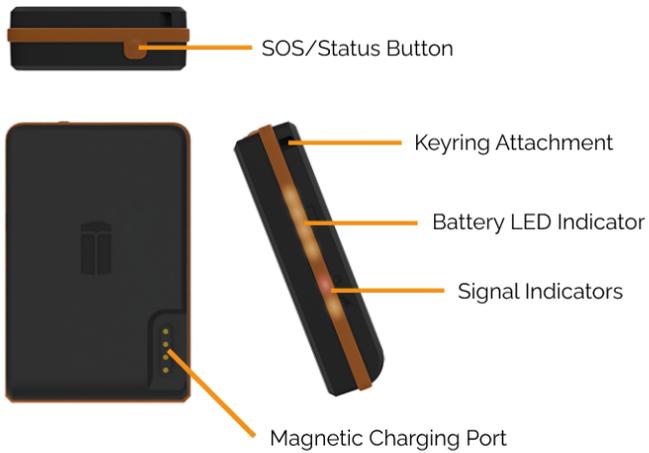
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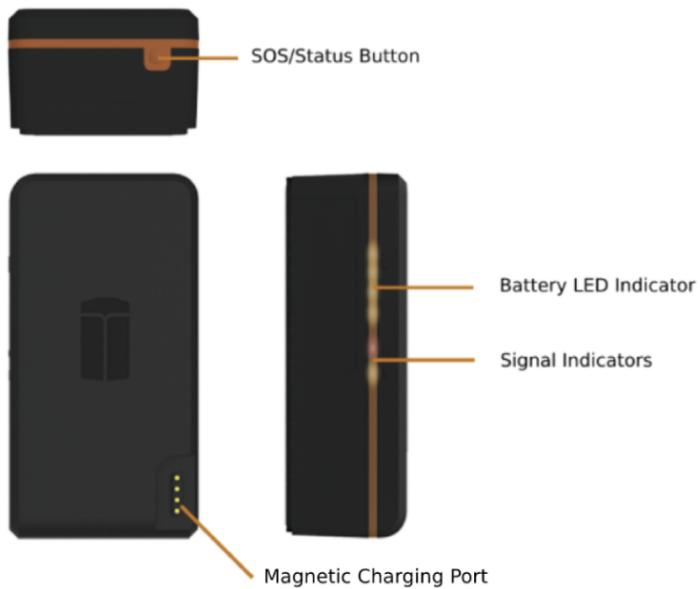
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Meet Lightbug

Lightbug Zero



Lightbug Pro



LED Indicators

The LEDs indicators can be found on the side of the Zero and Pro. The small icons above each of the indicators show what information they display.



Quick Button Press

Pressing the button the tracker for less than 1 second will display the following information (from left to right).

 Battery - this indicator shows the current charge of the tracker. 1-4 LEDs will glow solid orange:

1 LED – device is 0%-25% charged

2 LEDs – device is 25%-50% charged

3 LEDs – device is 50%-75% charged

4 LEDs – device is 75-100% charged



GPS signal* – this indicator shows whether GPS is detected. It glows solid orange when operational, but glows solid red when GPS is unavailable. It is normal for GPS to be unavailable when the tracker is indoors.



GSM signal* – this indicator shows the GSM signal strength. It glows solid orange when operational, but glows solid red when GSM is unavailable. GSM may not be available in areas with poor cell phone coverage.

*The signal indicators are for diagnostic purposes only.

Getting your tracker ready for initial use

Charging your tracker

You will need to charge your tracker as follows before initial use:

The Lightbug **Zero** needs to be charged for at least **3 hours**.

The Lightbug **Pro** needs to be charged for at least **5 hours**.

The Lightbug Zero and the Lightbug Pro can be charged using the included Charging Docks either via wall adapter or via USB port.

It is advisable to use an adapter plugged into a power socket rather than using a computer USB port or similar.

***Hint:** Our trackers support Quick Charging! With Quick Charge, you can fully charge a depleted Pro tracker in just 2.5 hours.*

When placing the tracker onto the charging dock you will hear a beep and the battery LEDs will light up.



While charging, the battery LEDs display the charge of the device like a power bank:

1st LED light blinking orange – the device is 0%-25% charged and charging

2nd LED light blinking orange – the device is 25%-50% charged and charging

3rd LED light blinking orange – the device is 50%-75% charged and charging

4th LED light blinking orange – the device is 75%-99% charged and is charging.

The battery LEDs will turn off once the device is fully charged.

Checking the Battery Status

When the device is not charging, press the button on the tracker for less than 1 second to display the current charge of the tracker. 1-4 of the battery LEDs will glow orange:

1 LED – device is 0%-25% charged

2 LEDs – device is 25%-50% charged

3 LEDs – device is 50%-75% charged

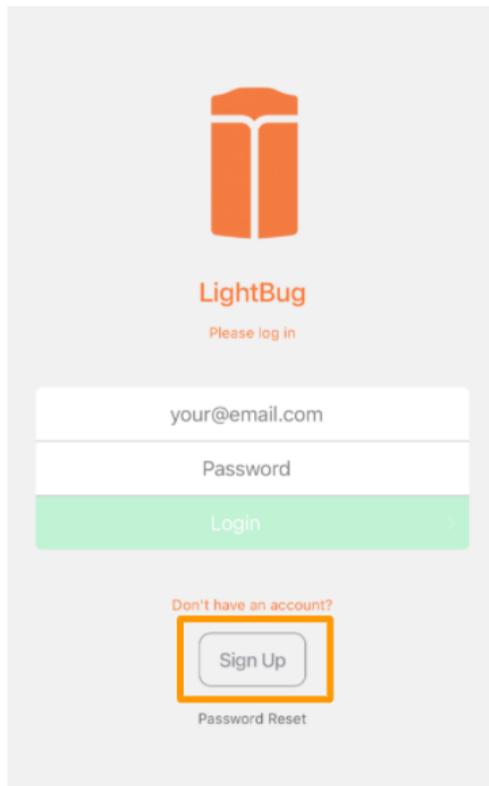
4 LEDs – device is 75%-100% charged

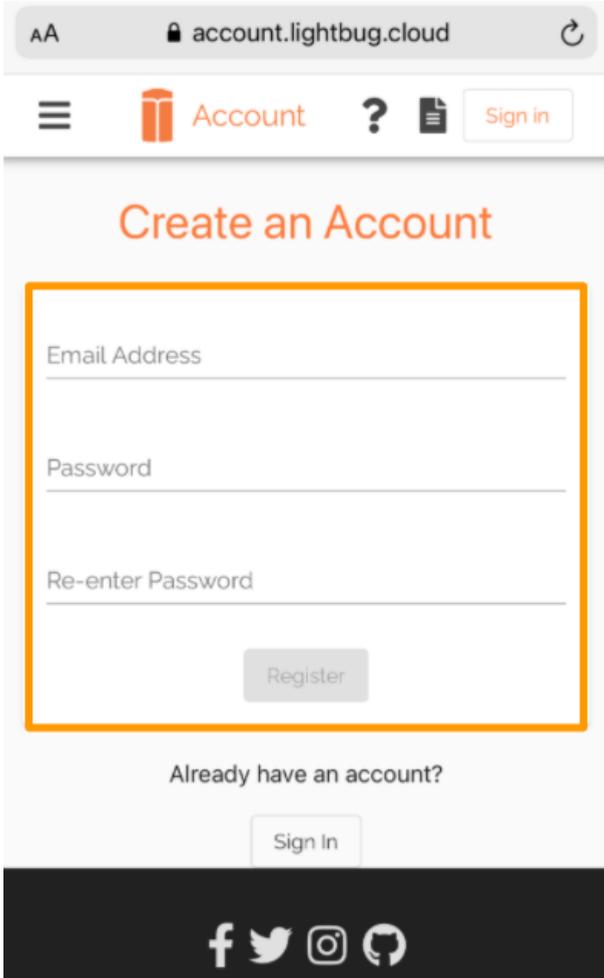
Activating your tracker

To activate your tracker, you will need to download the Lightbug App on your smartphone or visit our web portal: <https://lightbug.cloud/>

Creating an account:

Once you have downloaded the Lightbug App or visited our web portal, you will need to register an account if you do not already have one.





Linking your first tracker to your account:

After creating a new account, the Lightbug App or the web portal will guide you through the simple steps to link your tracker to your account.

Step 1: Entering Serial Numbers

Enter your tracker Serial Number. The serial number is on the back of the Lightbug Zero and on the side of the Lightbug Pro.

Hint: *If you have Bluetooth enabled while using the Lightbug App, it will automatically detect the device serial number and fill it in for you.*

Register your Device

Enter the serial number

The serial number is printed near the barcode on your device

If you have Bluetooth enabled, we'll try to fill this in automatically



Step 2: Setting up your Data Plan

Choose a plan for your device. If needed, you can change your plan later on.

Per Location Billing

Every time the device transmits (e.g. updates its position), a counter is incremented for your account. If you have multiple devices, they all add to your counter.

At the end of each month, you will receive a bill for your total usage.

Usage per device per month is capped to 300 updates to make sure your bill stays small.

There is also a minimum charge of 10 locations per bill to cover credit card processing fees.

For more information about the pay per location billing please visit [our website](#).

Standard Plan

The Standard plan offers up to 6 location updates per day with a fixed monthly fee.

Please note that the standard plan is not compatible with our motion detection feature.

Unlimited Plan

If you anticipate that the device will transmit very often, it may be more cost effective to select the Unlimited Plan.

You will be billed the stated price, no matter how many times the device transmits its location.

Select Plan for device

Per Location Billing - GBP

£0.00 every 1 month

🗨 Price per update £0.048, Max charge
£14.4/month

SELECT

Unlimited Yearly

£99.99 every 12 months

⚡ Unlimited update rate

SELECT

Unlimited Quarterly

£28.20 every 3 months

⚡ Unlimited update rate

SELECT

Unlimited Monthly

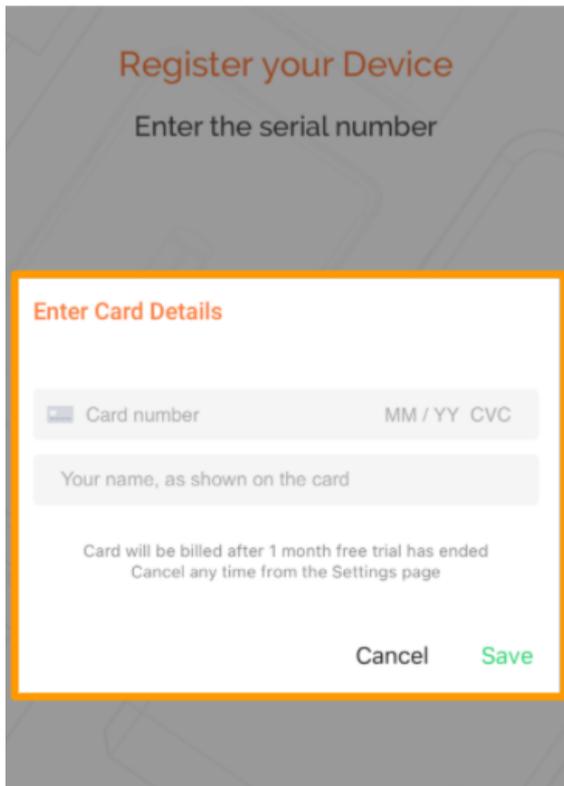
CLOSE

Step 3: Adding billing information

Add your billing information so that your tracker will remain active after your free trial period (300 free location credits, or 1 month of the Standard or Unlimited plan).

Caution: Your Lightbug tracker will not activate if you do not add your billing information.

You will not be charged until your free trial period is over.



The screenshot shows a mobile application interface for registering a device. The main heading is "Register your Device" in orange, with the instruction "Enter the serial number" below it. A white modal box titled "Enter Card Details" is overlaid on the screen. This modal contains a "Card number" field with a card icon and "MM / YY CVC" labels, a "Your name, as shown on the card" field, and a note: "Card will be billed after 1 month free trial has ended. Cancel any time from the Settings page". At the bottom of the modal are "Cancel" and "Save" buttons.

Adding more trackers to your account:

If you would like to add more trackers to the same account, you will need to be logged into the desired account and then follow the steps outlined in [this section](#) of the User Manual.

Pairing your Lightbug Tracker to your smartphone

Now that you have activated your tracker, you can pair it to your smartphone enabling features such as Bluetooth safe zone, tracker alarm and ranging functionality.

Pairing your tracker via BlueTooth

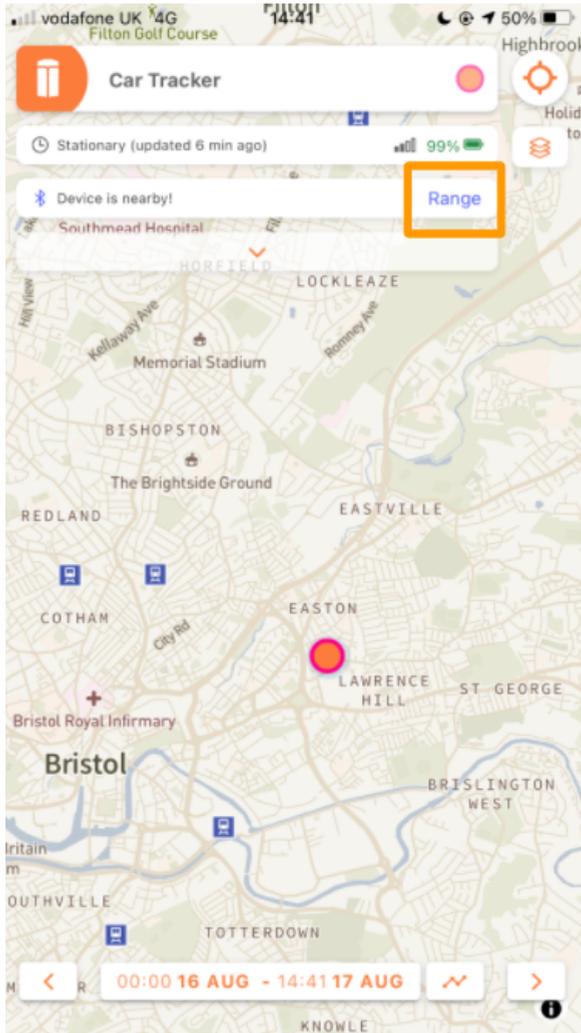
It is not possible to pair your tracker on the Lightbug web portal, you must install the Lightbug App to pair and use these features.

Your tracker should be at hand or close by. If your tracker is more than 40m away, pairing will be unsuccessful.

Step 1: Select the tracker

On the Map page of the Lightbug App press 'Range'

Note: *If you already have more than one tracker on your account, you will first need to select the tracker you would like to pair using the drop-down arrow.*

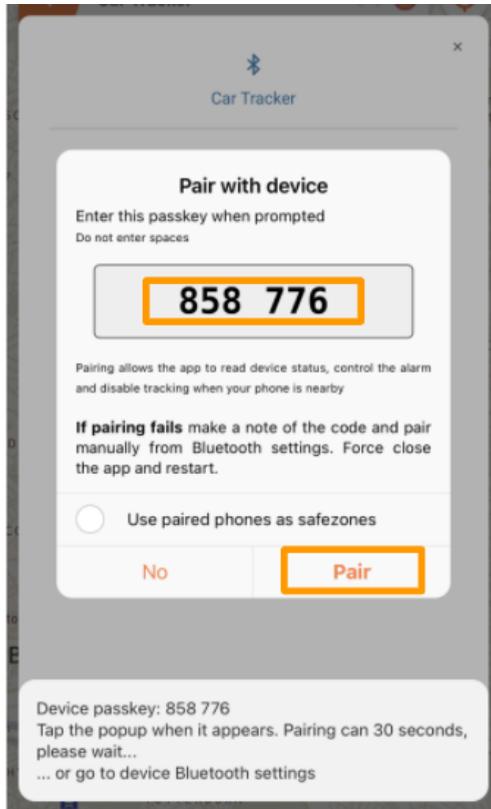


Step 2: Pair the tracker

A pop-up page will appear with details on how to pair the tracker to your smartphone.

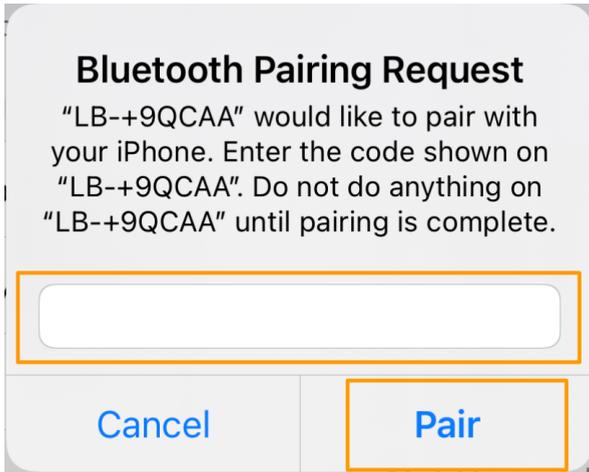
Make a note of the passkey, and select 'Use paired phone as safezones' if you would like to receive reduced location updates when the tracker is in range of your smartphone.

Press 'Pair'.

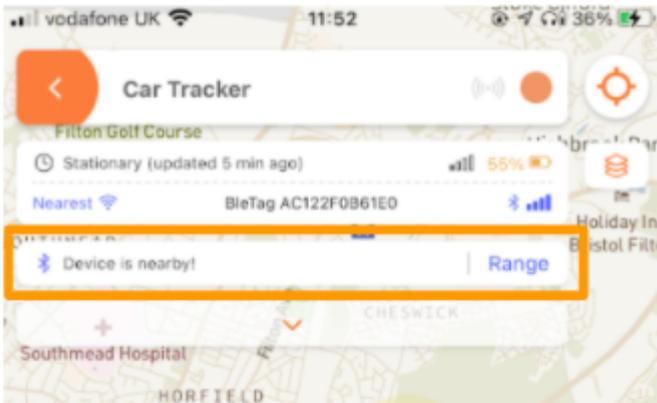


When prompted, enter the passkey and press 'Pair'

Note: Pairing can take 30 seconds. The pairing request will not show the tracker's serial number. Instead, it will show the tracker's Bluetooth name, which begins with 'LB' as shown below.



Your Lightbug GPS tracker is now paired to your smartphone as shown on the App.



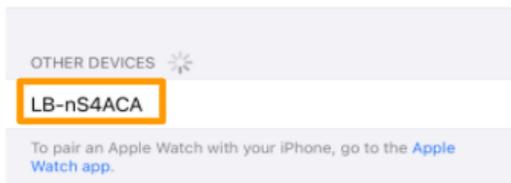
If Bluetooth pairing is unsuccessful

If your GPS tracker cannot pair to your smartphone, please follow the steps below to pair using your smartphone's Bluetooth settings.

Step 1: Smartphone's Bluetooth settings

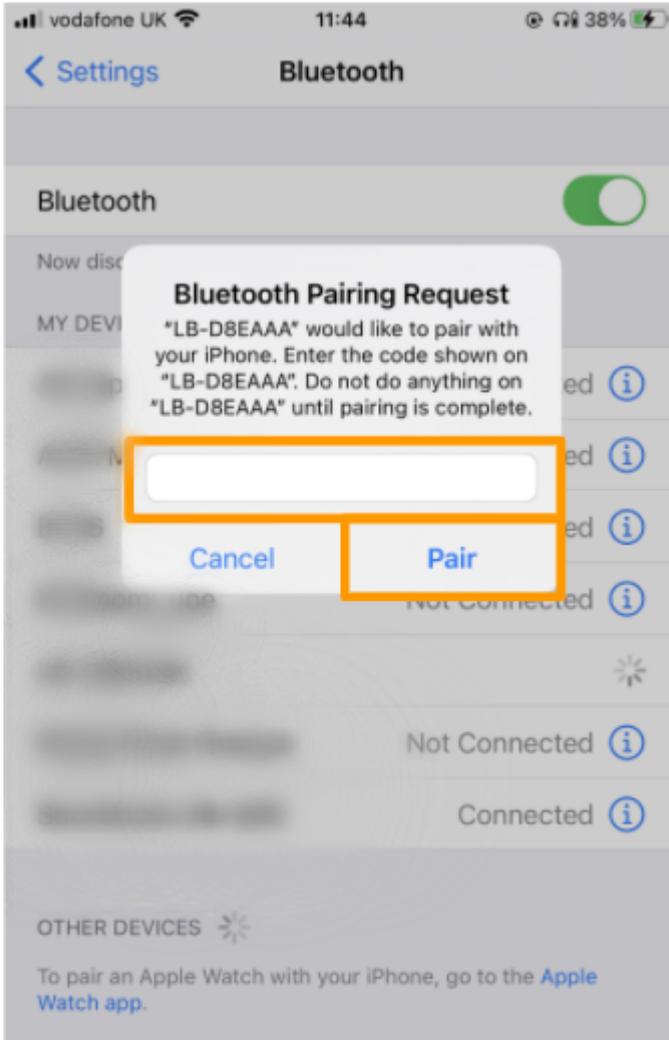
Keep the noted passkey, leave the Lightbug App and go to your smartphone's Bluetooth settings and select your tracker.

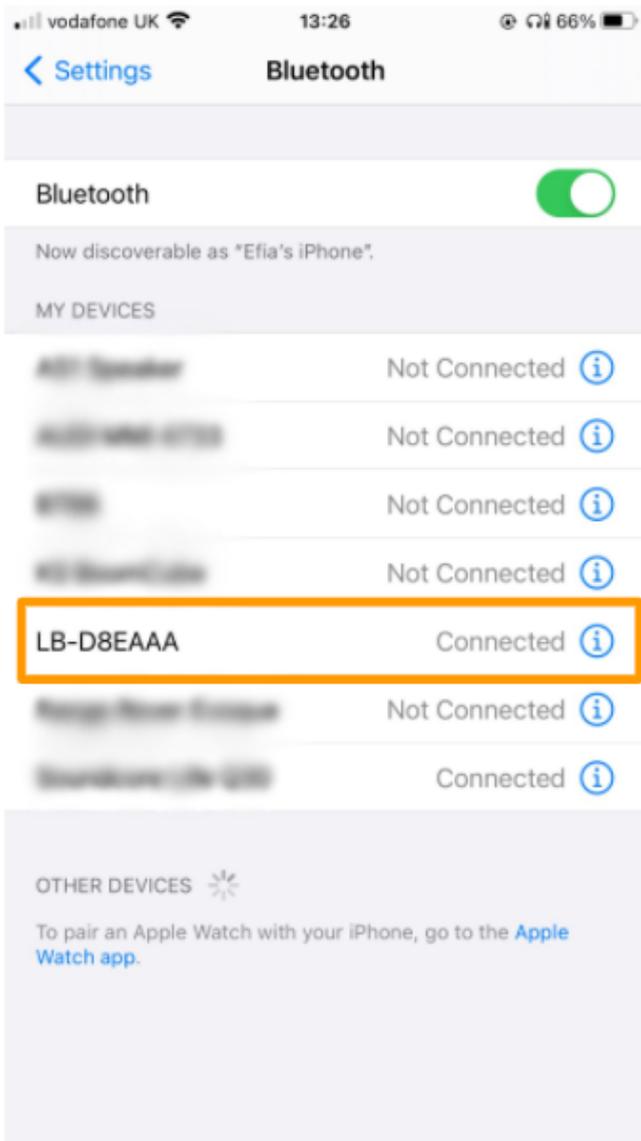
Hint: The device's name will start with 'LB'



Step 2: Pair the tracker

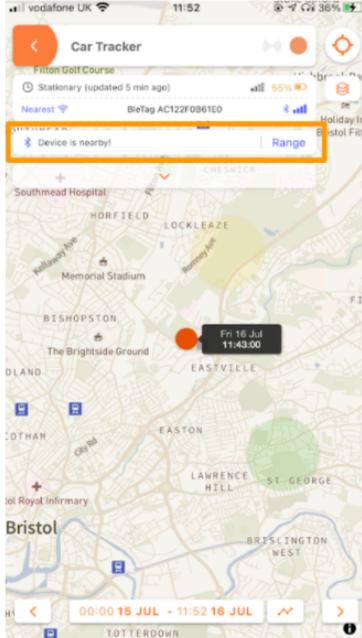
A pop-up page will appear, enter the noted passkey and press 'Pair'. The tracker will now show as connected on the Bluetooth settings page.





3. Restart the Lightbug App

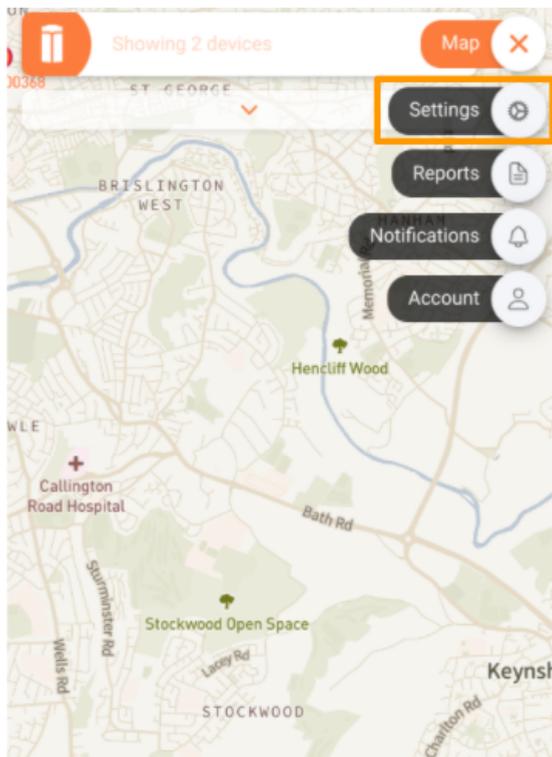
Force close the Lightbug App and restart. The tracker will now show as connected on the App.



If pairing is unsuccessful or is not working as it should, please unpair the tracker from your phone's bluetooth settings and try the steps again.

Configuring your Lightbug Tracker using the setup wizard:

You can always change the settings on your tracker via the Settings tab:



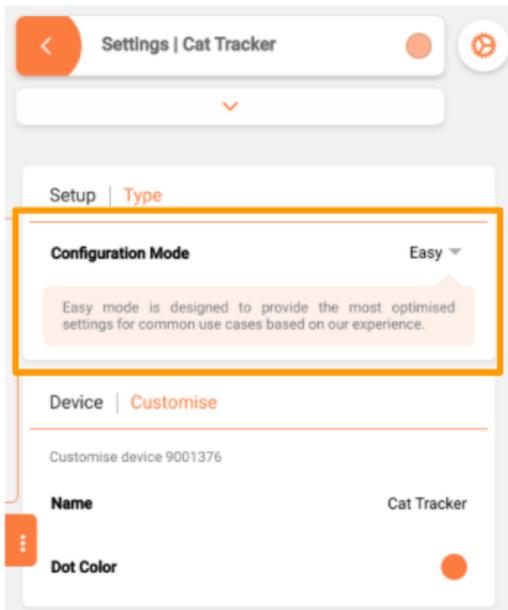
Configuration Mode

Select the configuration mode best suited to your needs.

1. [Easy Mode](#) - designed to provide the most optimised settings for common use cases.
2. [Flexible Mode](#) - designed to give you a little more control but is still easy to set up.
3. Advanced Mode - this mode is only recommended if you have spoken to our support team first. Advance mode set-up will not be covered in this manual. (Use at your own risk!)

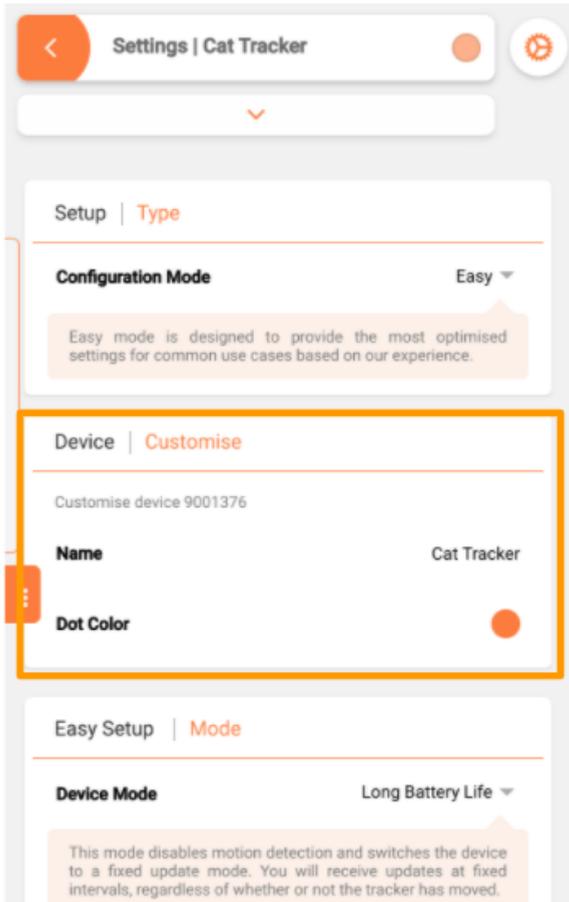
Easy Mode

Based on our experience, Easy Mode is designed to provide the most optimised settings for common use cases.



Step 1: Customise your device

Give your tracker a name and dot colour so you can quickly identify it if you have more than one tracker on the same account.



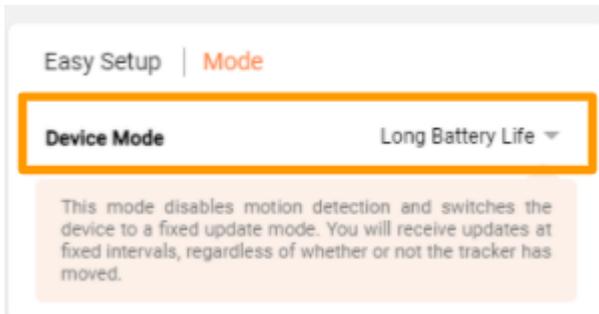
Step 2: Select the device mode

There are two device modes available in Easy Mode, you will need to pick the one best suited to your use case:

1) “Long Battery Life” - which disables motion detection and switches the device to a fixed update mode. You will receive updates at fixed intervals, regardless of whether the tracker has moved.

2) “Motion Tracking” - which enables motion detection on your device. It works great if you want to receive an alert when the tracker moves or if you need to see more refined information about where your tracker has been.

Caution: This mode uses more power and hence will cause a shorter battery life per charge.

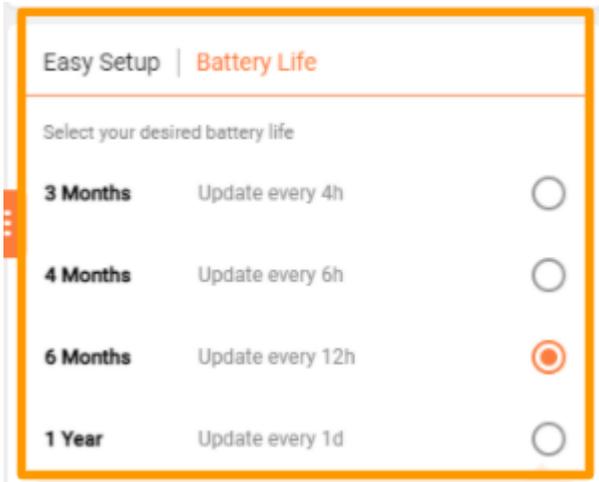


If you decide that the “Long Battery Life” mode is best for you, then follow the steps outlined below. If you would prefer the “Motion Tracking” mode, [skip to the specific steps](#) for that plan.

Easy Mode: Long Battery Life

This step allows you to configure how often you want the tracker to update its location based on your desired battery life.

Note: The battery life estimates may vary. Actual battery life may be significantly less than the mentioned values in poor signal areas.



Power Budgeting

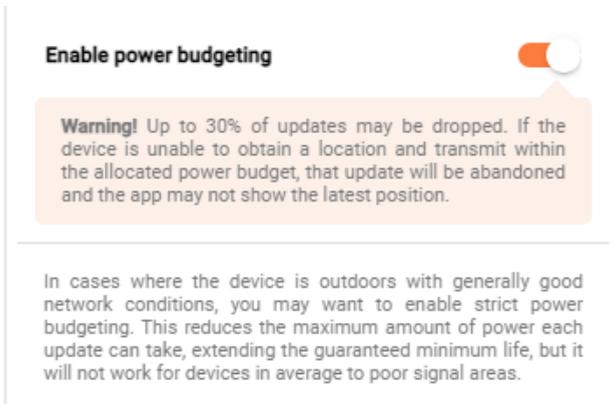
This feature is not mandatory but is helpful to guarantee a minimum battery life as it restricts the amount of power to be used when transmitting location updates, so if the conditions are not so great and the tracker has to use a lot of power to transmit, it will ignore the location update and try again later if the conditions are better.

Examples of when this will be useful are:

1. In very low signal areas, i.e. underground parking, rural areas.
2. If the tracker is in a metal container, i.e. delivery vehicle, cargo ship.

3. For any other scenario where the tracker uses too much time for a single transmission.

Caution: Up to 30% of updates may be dropped. If the device cannot obtain a location and transmit within the allocated power budget, that update will be abandoned and the app may not show the latest position.



Strict Budget

Where the device is outdoors with generally good network conditions, you may want to enable strict power budgeting. This reduces the maximum amount of power each update can take, extending the guaranteed minimum life, but it will not work for devices in average to poor signal areas.

Caution: Up to 80% of updates may be dropped with Strict Budget enabled.

Strict Budget



Warning! Up to 80% of updates may be dropped.

Note: *These settings are automatically saved and will be applied at the next location update. Alternatively, to apply the new settings immediately, press the button on your tracker for 3 seconds.*

Easy Mode: Motion Tracking

This step allows you to configure the desired update rate for when the device is moving and when stationary.

Hint: Longer intervals between location updates will increase battery life.

Easy Setup | Update Frequency

Select the desired update rate for when the device is moving

Update Rate 15 minutes ▾

When stationary, the device will automatically enter power-saving mode. In this mode, it will send periodic "beacon" updates to confirm it is still operational and download settings, if they have changed.

Beacon Rate 1 day ▾

Update Rate: This is the rate at which the tracker will send a location update when motion is detected.

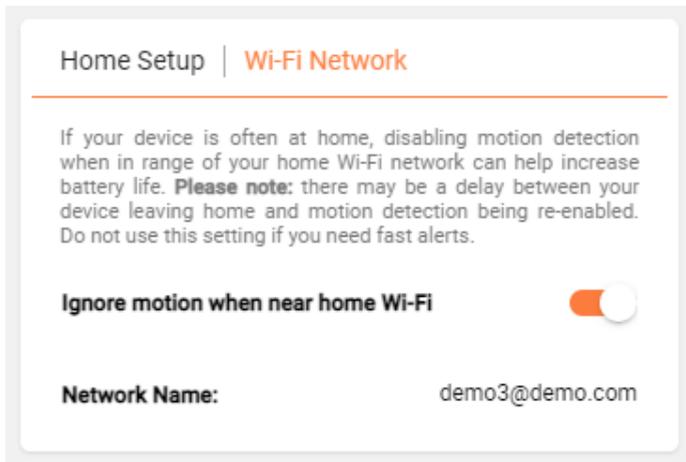
Beacon Rate: This is the rate at which the tracker will send a location update when no motion is detected. This is used to confirm that the tracker is operational and enables the tracker to download any setting changes or firmware updates.

Home Setup - Wifi Network

If your device is often at home, ignoring motion detection when in range of your home Wi-Fi network can help

increase battery life. All you need to do is enable this feature and input your network name.

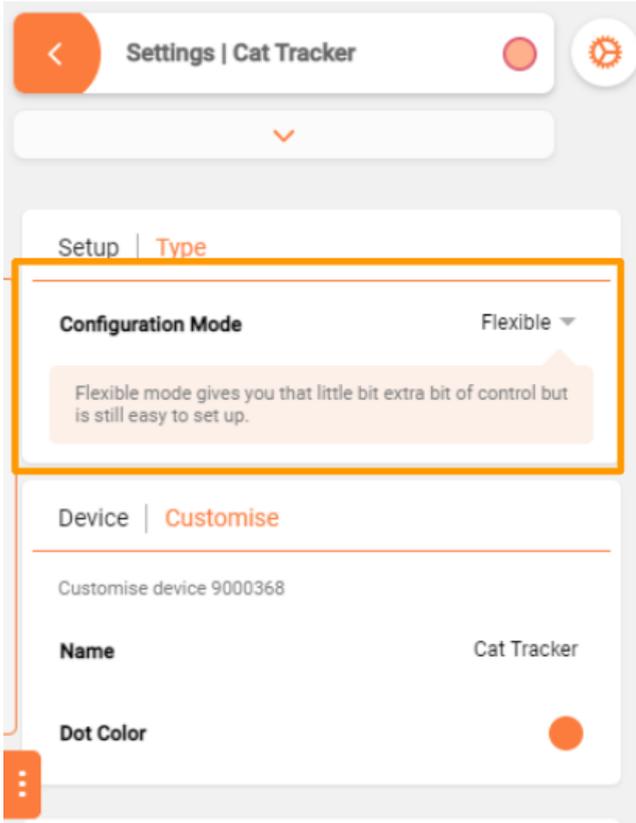
Caution: There may be a delay between your device leaving home and motion detection be re-enabled. Do not use this setting if you need fast alerts.



Note: These settings are automatically saved and will be applied at the next location update. Alternatively, to apply the new settings immediately, press the button on your tracker for 3 seconds.

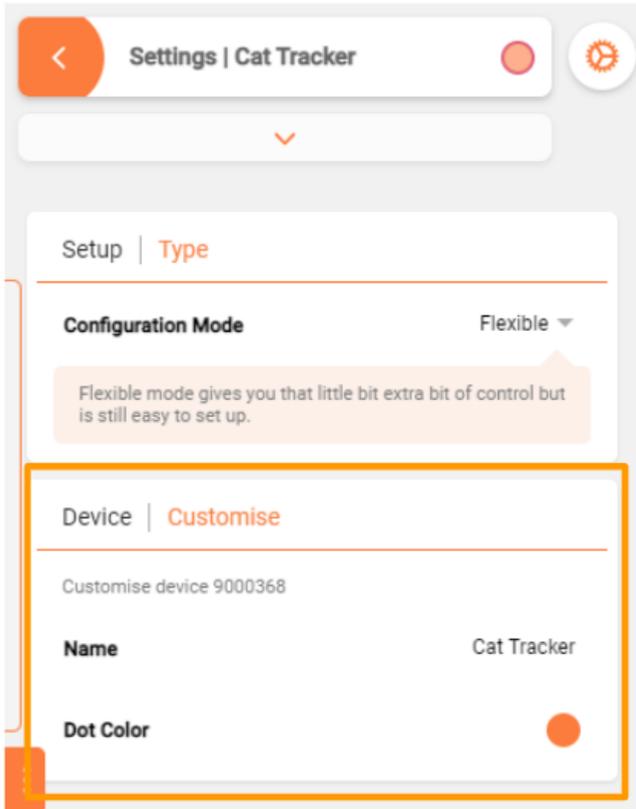
Flexible Mode

This mode gives you a little more flexibility with the settings but is still easy to set up.



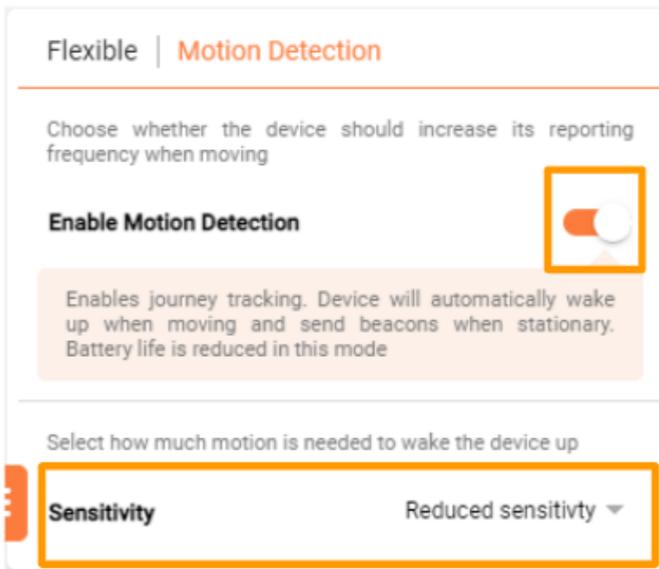
Step 1: Customise your device

Give your tracker a name and dot colour so you can quickly identify it if you have more than one tracker on the same account.



Step 2: Motion Detection

At this step, you can choose whether the device should increase its reporting frequency when moving. If enabled, you will have the option to adjust motion sensitivity. This will change how sensitive your Lightbug tracker is to motion.



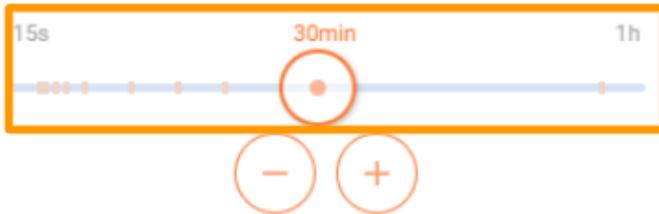
Motion Detection: Enabled

This step allows you to configure the desired update rate for when the device is moving and when stationary.

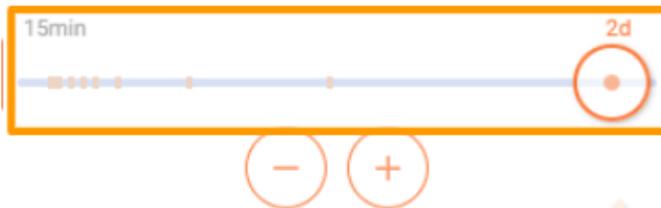
Hint: Longer intervals between location updates will increase battery life.

Flexible | Update Rate

Select the desired update rate for when the device is moving



Select a Beacon Interval



When stationary, the device will automatically enter power-saving mode. In this mode, it will send periodic "beacon" updates to confirm it is still operational.

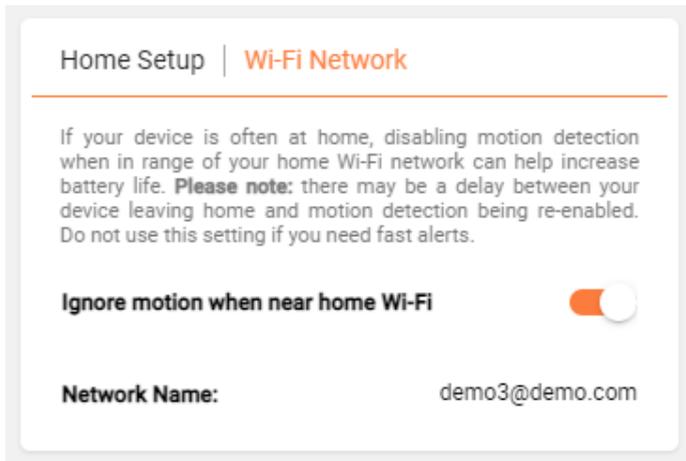
Update Rate: This is the rate at which the tracker will send a location update when motion is detected.

Beacon Rate: This is the rate at which the tracker will send a location update when no motion is detected. This is used to confirm that the tracker is operational and enables the tracker to download any setting changes or firmware updates.

Home Setup - Wi-fi Network

If your device is often at home, disabling motion detection when in range of your home Wi-Fi network can help increase battery life. All you need to do is enable this feature and input your network name.

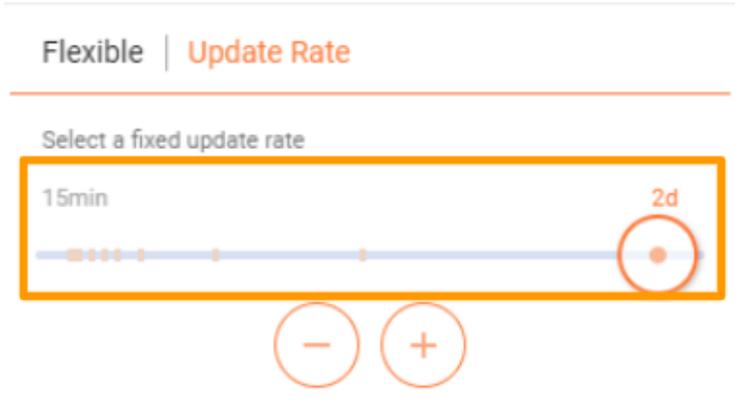
Caution: *There may be a delay between your device leaving home and motion detection be re-enabled. Do not use this setting if you need fast alerts.*



Note: *These settings are automatically saved and will be applied at the next location update. Alternatively, to apply the new settings immediately, press the button on your tracker for 3 seconds.*

Motion Detection: Disabled

This step allows you to configure how often you want the tracker to update. This will be a fixed location update rate.



Note: These settings are automatically saved and will be applied at the next location update. Alternatively, to apply the new settings immediately, press the button on your tracker for 3 seconds.

Using the Lightbug App and Web Portal

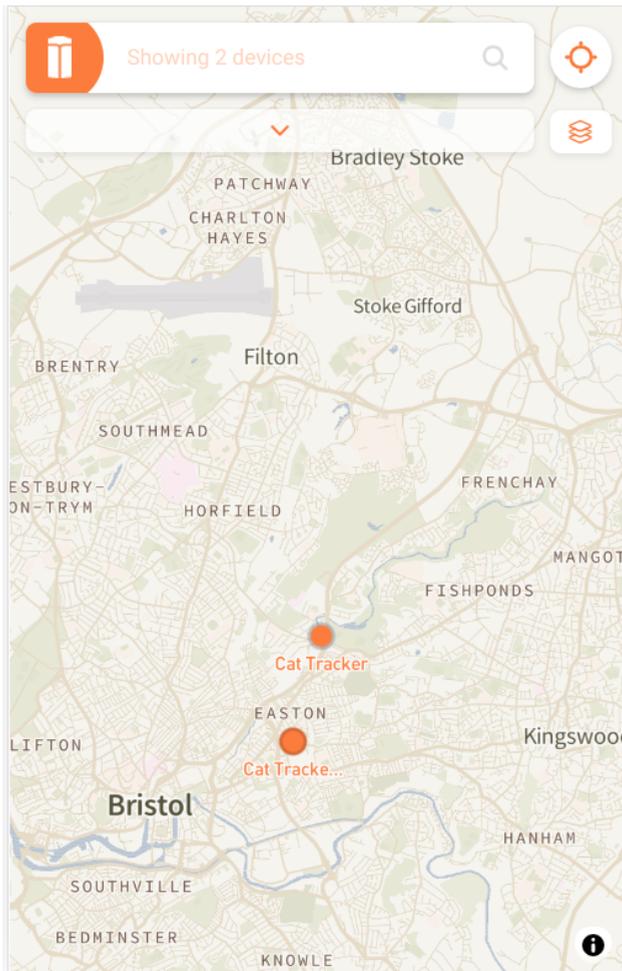
The Lightbug App is available for both Android and iOS devices. You can also access your account from any browser (including smartphone browsers) by visiting <https://lightbug.cloud/>

Caution: The web portal works and functions exactly as the Lightbug App, but you will only receive notifications to your phone if you have the App installed.

Further guidance and detailed step by step guides can be found on the [support page](#) of our website.

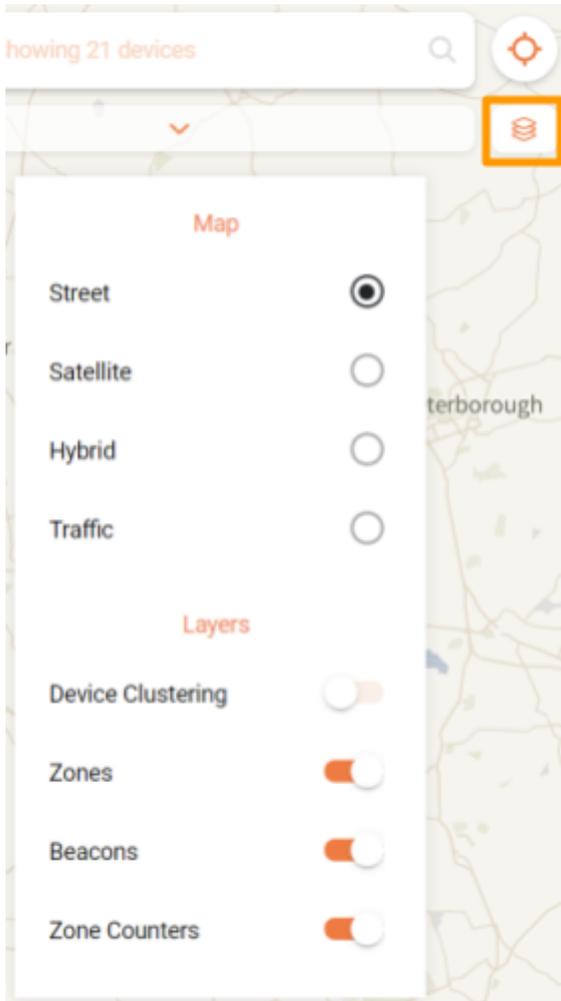
The Map

The app automatically opens to the Map page. Here you can see all your devices at their latest positions on the Map.



Map View Settings

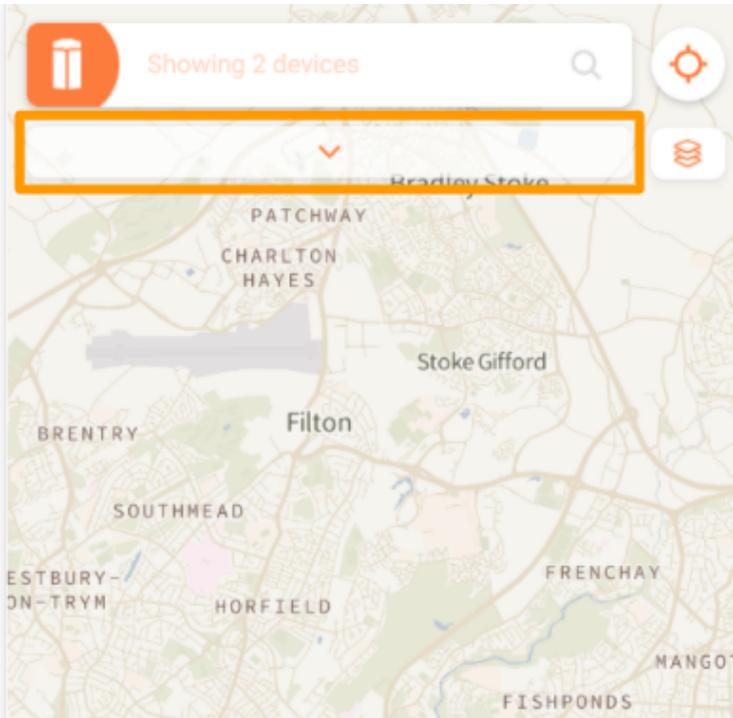
To change the Map view settings, click on the layer icon. Here you have different viewing options:

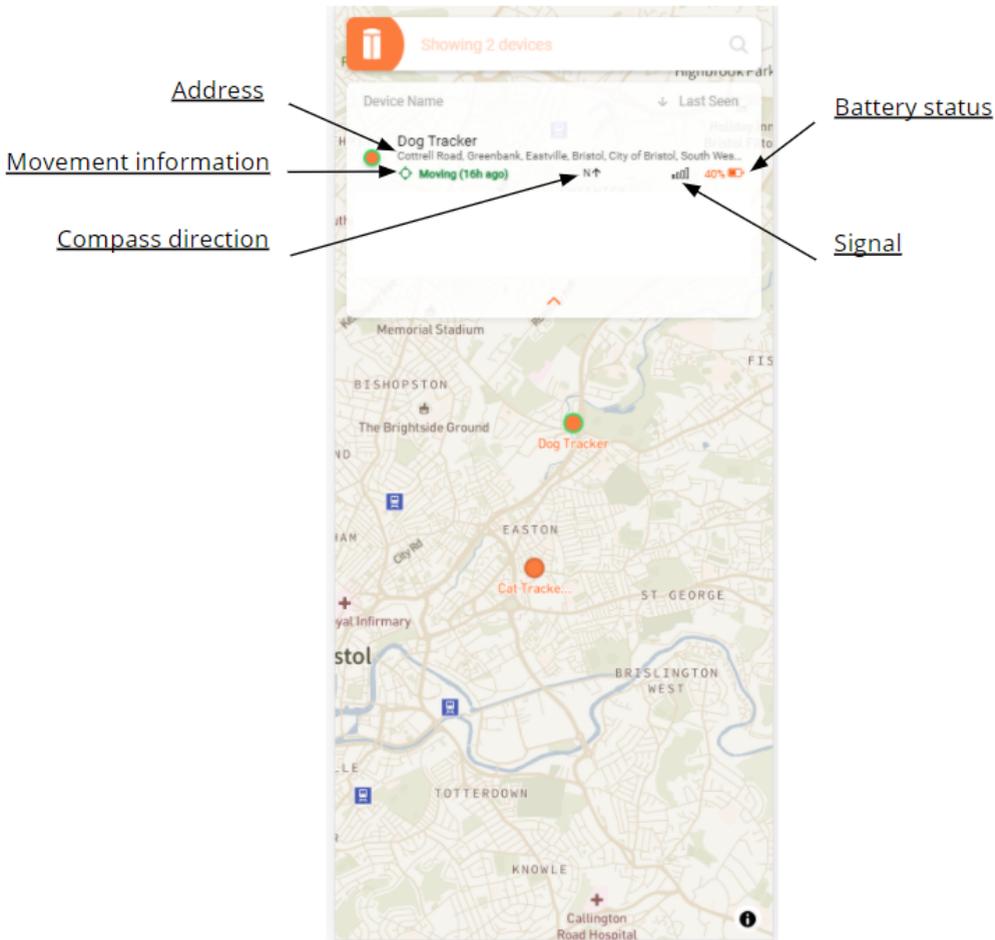


Getting a Quick Overview of Your Devices

If you would like a quick overview of the devices and their latest position details as well as their battery status, click the drop-down arrow.

Caution: Please note that this information is sent along with every location update, meaning if your last location update was 2 days ago, the battery status you are seeing is what it was 2 days ago.





Getting Device Information & Location History

You can get more information about the device by selecting it:

Information about the current location

2G/4G signal strength

Location History

Battery status

Note: The arrow button expands to show the location history of the selected tracker for the selected time period. This information includes addresses.

Caution: Battery level is sent along with every location update meaning if your last location update was 2 days ago, the battery status you are seeing is what it was 2 days ago!

Data and time range

Note: This enables you to set a time period for the location history you would like to see.

Data and Playback

Arrows

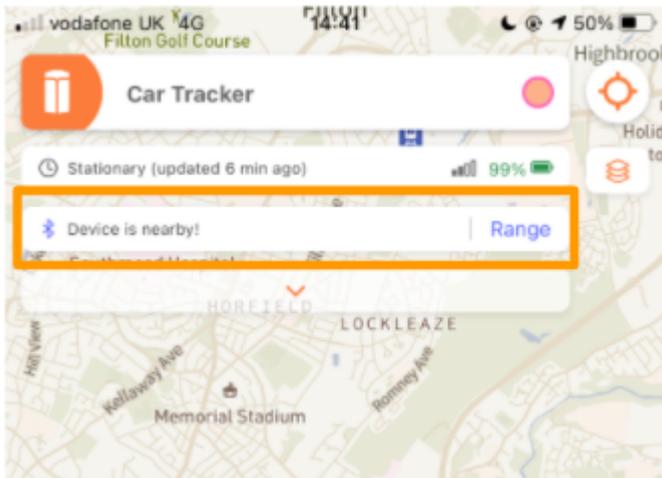
Note: the arrows will show you the movement of the device (the location points) -within the selected time period- on the map.

Note: This feature allows to look at a specific time and location data within the time period.



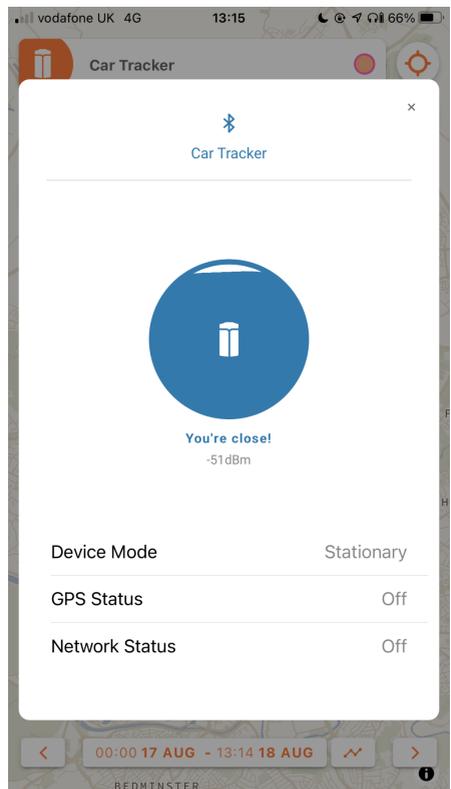
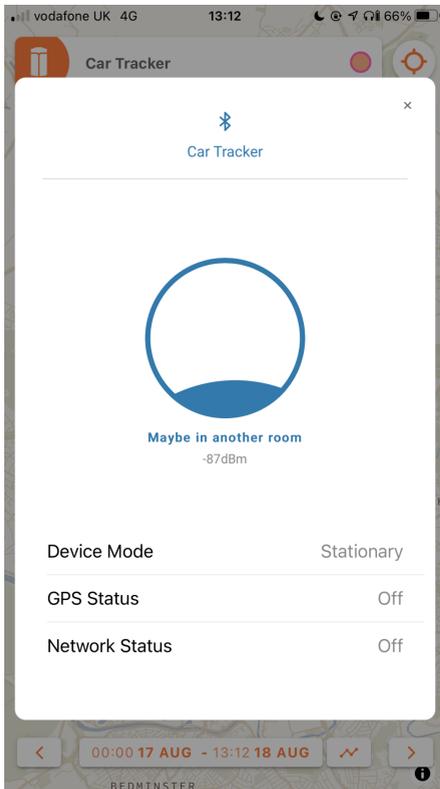
Bluetooth Ranging Functionality

If you have paired the tracker to your smartphone, you will also have the option to use the ranging functionality, a feature that helps you find your tracker if it has been misplaced. Press 'Range' to use it.



Note: To use this feature, the message must show as 'Device is nearby'. If the 'Device is not in range' (more than 40m away) it is possible to use the ranging feature to locate your device.

The blue circle will fill up with colour as you get closer to the tracker. We recommend slowly walking around and using the blue circle to get a better idea of where the tracker is.



Note: Bluetooth cannot be used to reliably yield a direction. It uses signal strength to determine if you are close or far from the tracker.

Device Information

The ranging functionality also displays additional tracker information, however, this information is rarely needed by the User. Our technical team may require this data in certain situations where the tracker is not communicating with our back end.

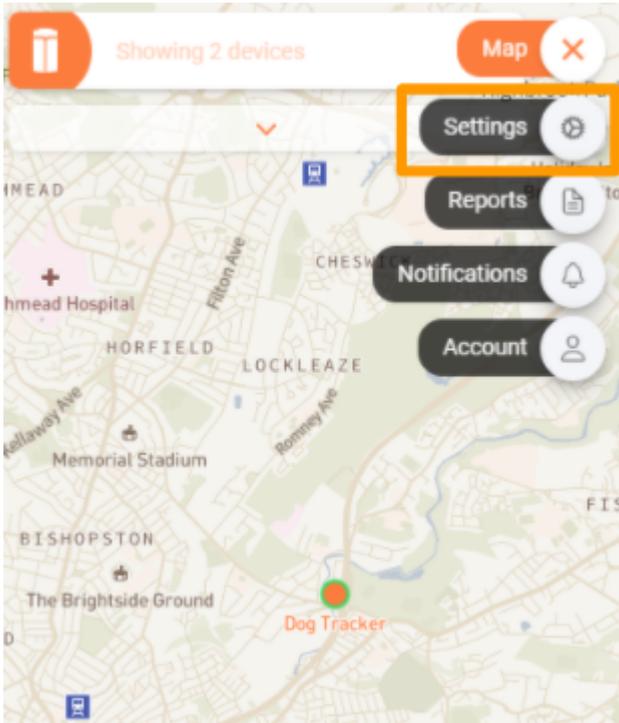
Device Mode: the motion status of the tracker. This will either show as 'stationary' or 'moving'.

GPS Status: whether the tracker is utilising GPS to determine the location. This will show as 'off', 'searching', 'locked in' or 'no signal'.

Network Status: whether the tracker is communicating via GSM (2G or 4G). This will show as 'off', 'searching', 'connected' or 'no signal'.

Settings

Within the Settings tab, you can update your tracker settings, create various types of notifications, create tags and update your billing information and data plan subscription.

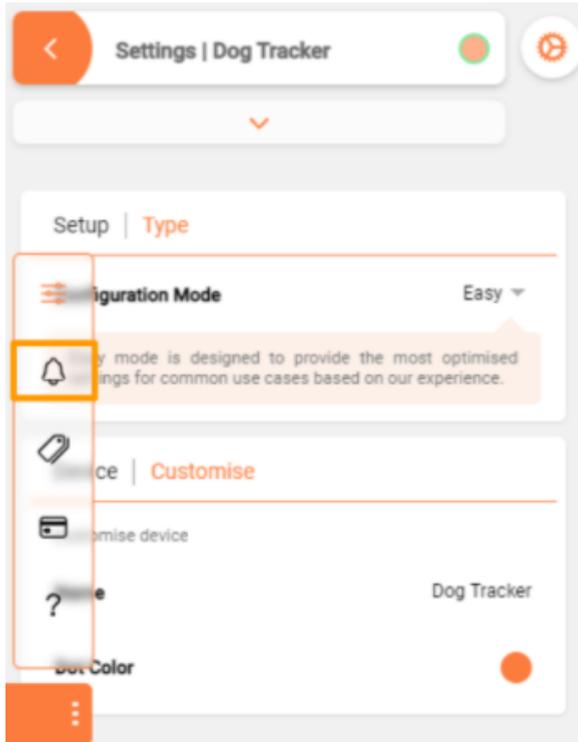


Configuration

The Configuration page will allow you to update your tracker's settings. You can find a step-by-step guide on how to update your tracker's settings on the [Configuration section](#) of this User Manual.

Notifications

The Notification page allows you to manage your alerts and notifications.



Notifications | Status

Low Battery (< 30%)



Notifications | Motion

Select when you would like to receive notifications

All new locations when moving



Device starts moving



Device stops moving



A fall is detected



Tampering is detecting



Notifications | Delivery

Delivery settings (email, push..) can be changed from the account page

Notification Delivery

[MY ACCOUNT](#)

Notifications | Zones

Zone alerts can be configured from the geofence editor

Status Alerts

Low Battery alert will trigger when the battery level reaches 30%. You can also trigger this when the battery level is 15%.

Motion

Enable and disable the motion alert types you would like notifications for:

All new locations when moving alert will trigger when new location updates are sent by the tracker, but only when there is motion.

Device starts moving alert will trigger when the device when a stationary tracker starts moving.

Device stops moving alert will trigger when a moving device becomes stationary.

A fall is detected alert will trigger when the tracker has been dropped.

Tampering is detected alert will trigger when possible device tampering is detected.

Delivery

To update how you are notified, you will need to go to the [Account tab](#). There you can enable mobile push notifications, email alerts and API push notifications.

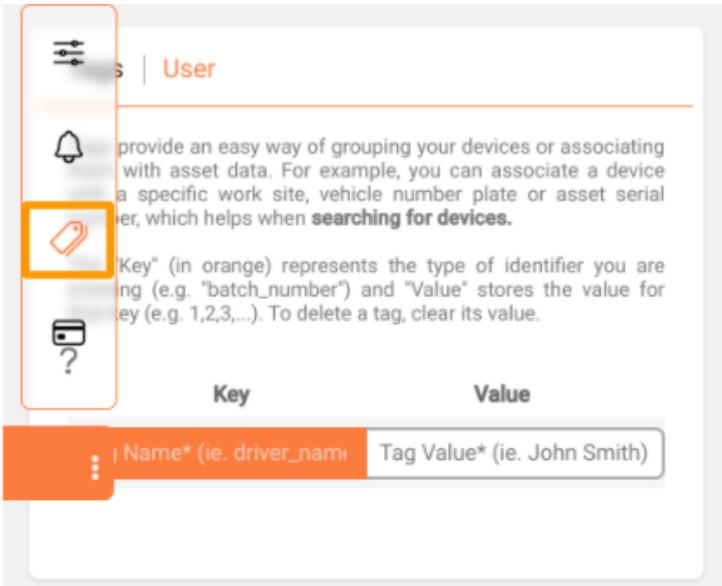
Zones

To set various geofencing alerts, you will need to go to the Geofence Editor Section in the [Account tab](#).

Note: A Geofence (sometimes called a GPS safe-zone) is a virtual border around a specific area. You can set up alerts for when your device enters/leaves this specific area.

Tags

This feature enables you to create tags for your trackers so that the tags appear on your device list, reports and help you with future searches.



Tags | User

Tags provide an easy way of grouping your devices or associating them with asset data. For example, you can associate a device with a specific work site, vehicle number plate or asset serial number, which helps when **searching for devices**.

The "Key" (in orange) represents the type of identifier you are entering (e.g. "batch_number") and "Value" stores the value for that key (e.g. 1,2,3,...). To delete a tag, clear its value.

Key	Value
Tag Name* (ie. driver_)	Tag Value* (ie. John Sn)

Tags | Auto-Generated

These tags are auto-generated by the system. They are searchable but cannot be edited.

Key	Value
id	5801
state	Tracking
type	Zero4G
warning	<multiple-values>

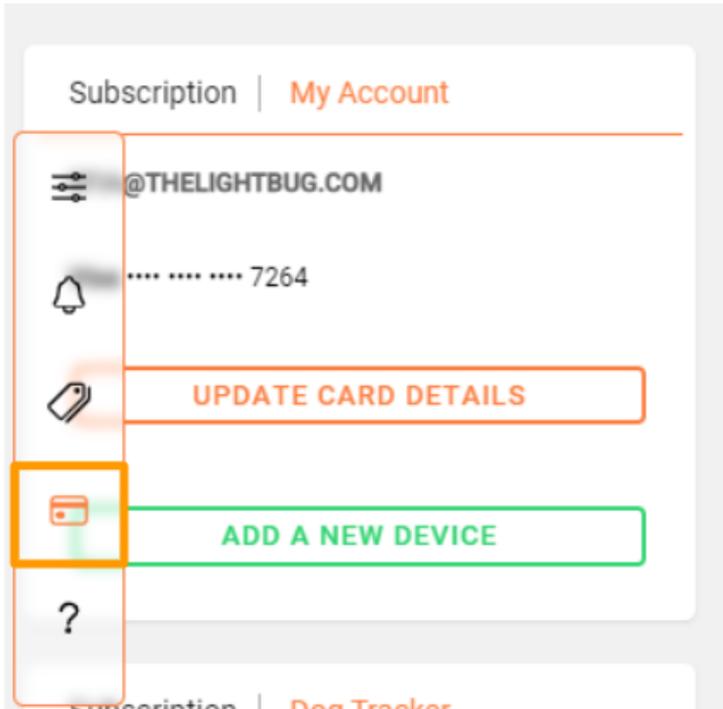
Give your tag a name and a value.

New boxes will appear as soon as you are done with each tag.

Here you will see a list of auto generated tags.

Data Plan

The Data Plan page allows you to manage your trackers, subscription and billing information.



Location Credits

If you have pre-purchased location credits, view how many location credits you have remaining. This section does not apply for those on the pay per location or the Unlimited plan.

Subscription | [My Account](#)

DEMO123488@DEMO.COM

570
Location Credits Remaining

Mastercard **** * 9386

[UPDATE CARD DETAILS](#)

Updating billing information

If you wish to update your billing details, you can do so here.

Subscription | [My Account](#)

DEMO123488@DEMO.COM

570
Location Credits Remaining

Mastercard **** * 9386

[UPDATE CARD DETAILS](#)

[ADD A NEW DEVICE](#)

Enter the card details of the account you now wish to be billed from. Remember to tap 'save' so that your new billing information is updated.

Enter Card Details

Card number MM / YY CVC

Your name, as shown on the card

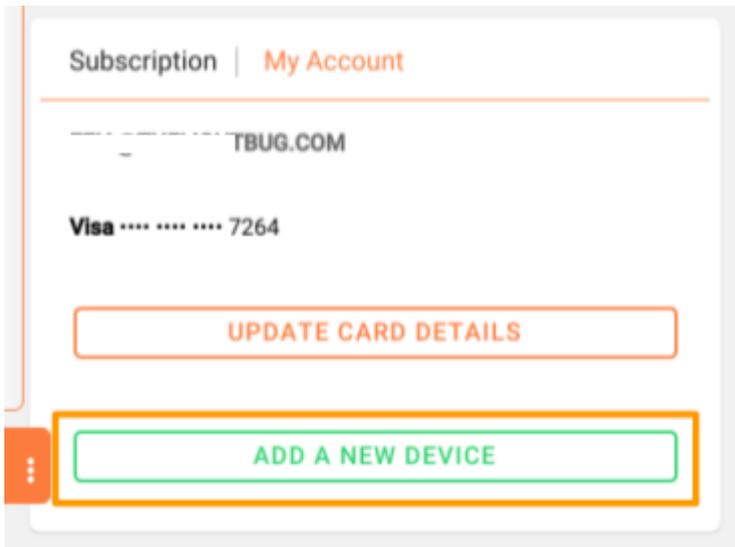
Card will be billed after 1 month free trial has ended
Cancel any time from the Settings page

CANCEL SAVE

Adding more trackers to your account

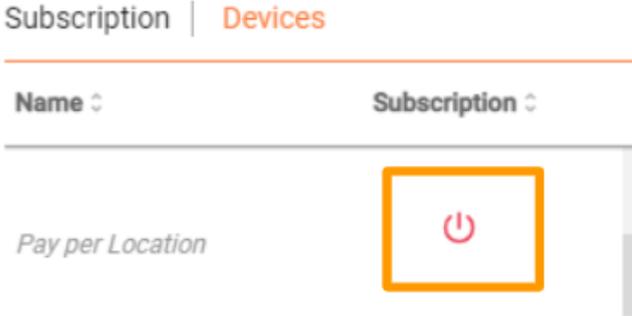
If you would like to add more trackers to the same account that you are logged in to, click on 'Add new device'.

Enter the serial number of the device and click 'Add'. If you would like to update the settings of this tracker, follow the steps outlined [here](#).

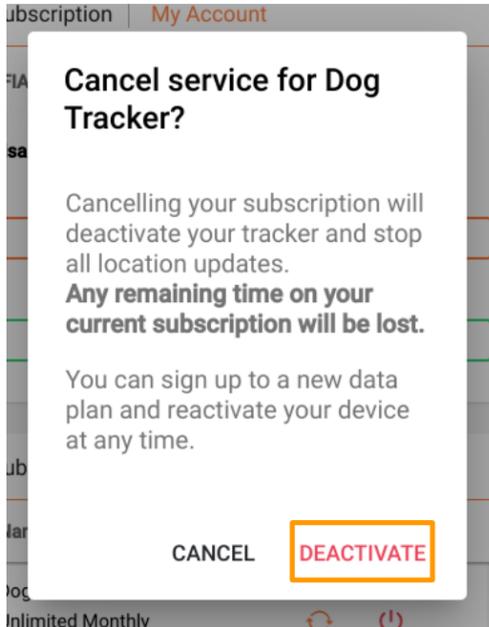


Deactivating your tracker

If you would like to stop any further billing, follow these simple steps:

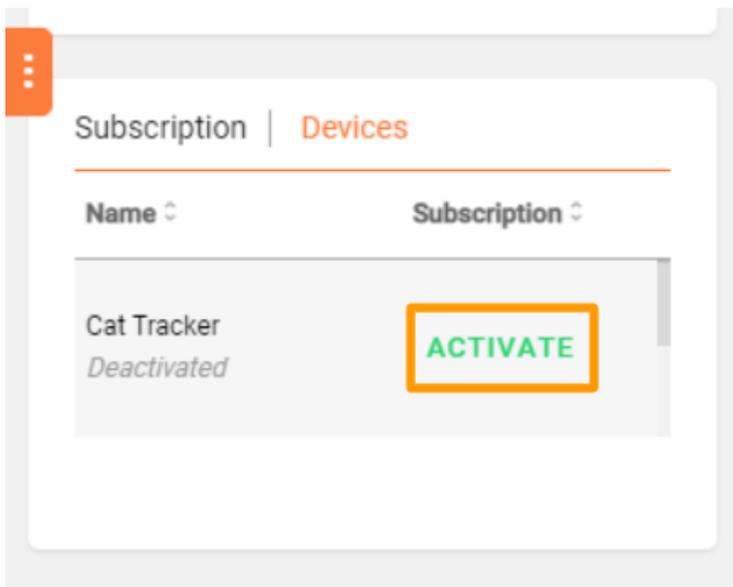


The pop-up will prompt you to confirm that you would like to cancel the service.



Reactivating your tracker

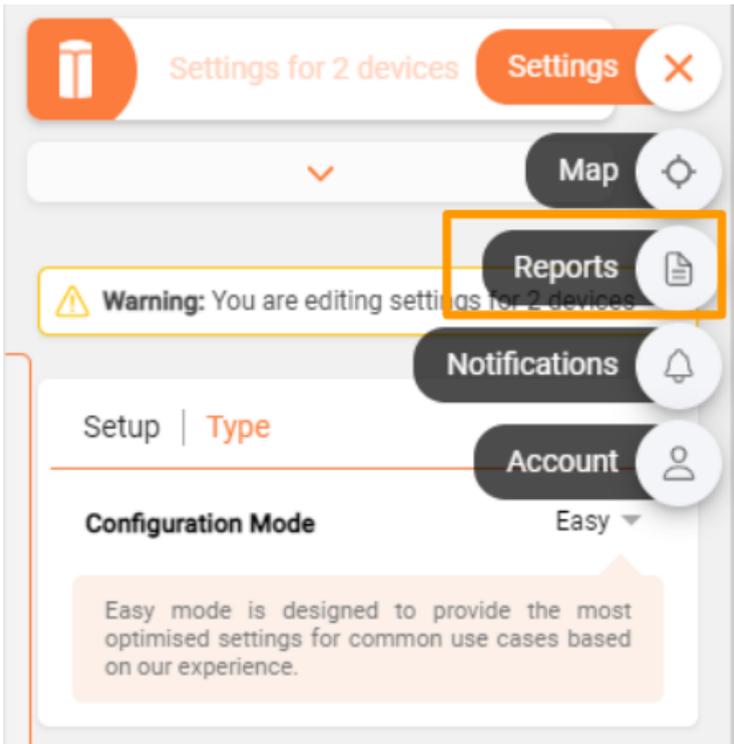
If you would like to reactivate your tracker, follow these simple steps:



You will see a list of billing plans. Select the plan that you would like the device to be on.

Reports

Reports are a great tool to get meaningful data from the location history. You can access the Reporting tab by clicking here:



General Reports

Below is a list of all the General Reports and the information each provides:

- 1) Status Report: This shows the latest information the Portal has on each tracker such as location, status and last connection.
- 2) Route Report: This report shows all the street addresses the tracker visited with the timestamps.
- 3) Trip Summary: This report shows the positions where the tracker has been stationary, the start and stop locations of every trip along with distance and speed.
- 4) Detailed Trip Report: This report shows all the street addresses the tracker visited grouped into trips and includes all the locations the tracker was stationary in and for how long. This report also includes speed and distance if the tracker has been on the move.
- 5) Distance Report: This shows the total distance travelled between two dates.

Note: *The distances are calculated as straight lines between each location update and may not accurately reflect actual distances travelled.*

- 6) Speeding Report: This report allows you to set the maximum speed for each tracker and display all the instances where the maximum speed has been exceeded.

Zone Reports

Below is a list of all the Zone Reports and the information each provides:

- 1) Zone Report - by time: This report shows the entry, exit, and the time spent in each zone sorted in chronological order
- 2) Specific Zone Report: This report shows the entry, exit and time spent in each zone, sorted by Zone name.
- 3) Live Zone Status: This report groups devices by currency zone or zone type.
- 4) Trip Count Report: This calculates the number of trips between two Zones defined by the user.

Vehicle Reports

Below is a list of all the Vehicle Reports and the information each provides:

Note: *These reports apply for vehicle-powered trackers only.*

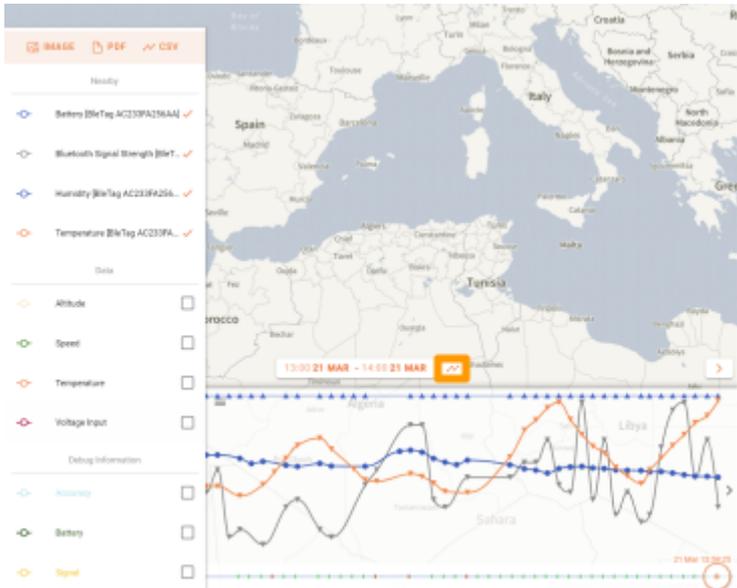
- 1) Vehicle Activity: This report shows a breakdown of the vehicles activity in the following 4 categories: Moving with the ignition on, moving with the ignition off, stationary with ignition on (idling) and stationary with ignition off.
- 2) Vehicle Summary: This is a summary report showing:
 - Number of trips
 - Total trip time and average
 - Total trip distance and average
 - Totals of: Ignition on time, idle time, off time and total distance travelled.
- 3) Vehicle Events: This report shows all the following events:
 - Ignition on/off
 - Moving or idling
 - Over speeding
 - Entering or leaving a Zone

Sensor Reports

Below is a list of all the Sensor Reports and the information each provides:

- 1) Temperature Report: This report shows temperature readings by time
- 2) Proximity Report: This report shows a log of proximity to other devices, based on Bluetooth signal.
- 3) Battery Performance Report: This shows the battery voltage over time and the number of points sent during a selected timeframe.

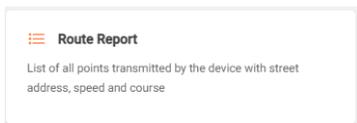
Note: You can also see a graphical representation of this data by clicking on this icon on the [Map tab](#):



Setting Up Automatic Report Delivery

Automatic reports can be emailed to you for all the devices on your account by following the steps below:

1. Choose the report type.



2. Click on the mail icon.



3. Enable automatic route reports and complete the required information. To save the automatic report delivery, click 'done'.

Scheduler

Route Report | **Delivery**

Automatic route reports for all devices on this acc...
Reports will be emailed to you daily

Email To demo@demo.com

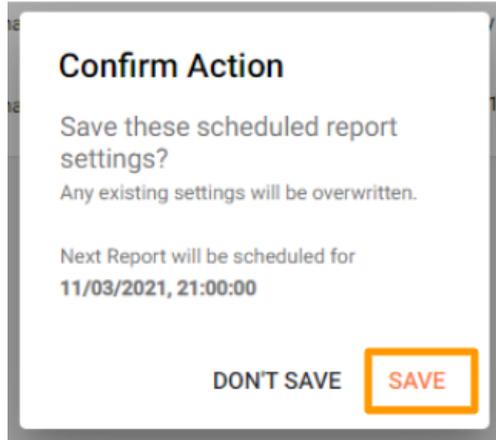
Email Subject Route Report

Email Frequency Daily ▾

Email Time 21:00

DONE

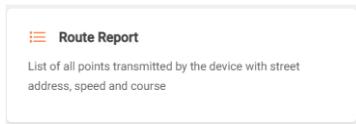
- 4) Confirm the details of the scheduled report delivery by clicking 'save'.



Exporting Reports

You can export Reports by following the steps below:

- 1) Choose the report type.



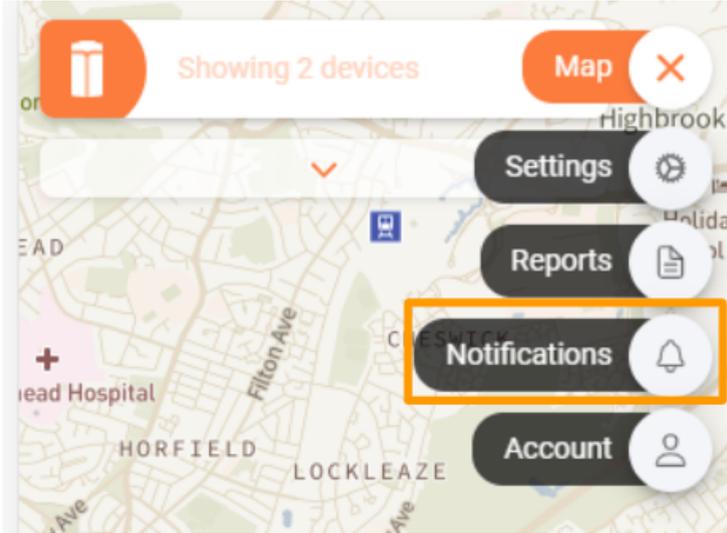
- 2) Click on the highlighted The report will download as an Excel file.



Time	Address	Distance	Speed	Battery
05:21:27 - 05:54:56 09 Mar	Block 2 Jaleeb Al Shoyoukh, Farwaniya, 85600, Kuwait	4.783km	10.3 kmh	3.80V

Notifications

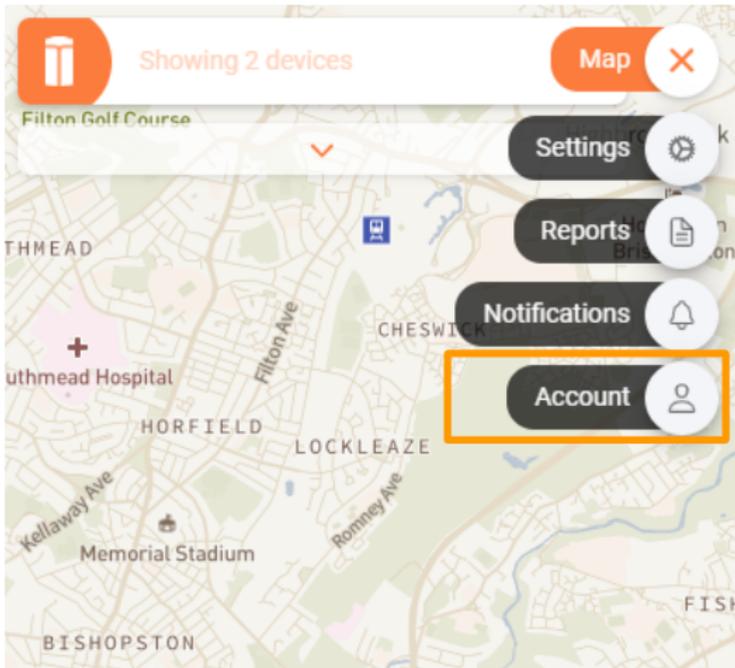
The notifications tab allows you to see a log of the notifications triggered within the selected dates and times. This also allows you to see notifications triggered by a specific tracker if you have it selected.



Account

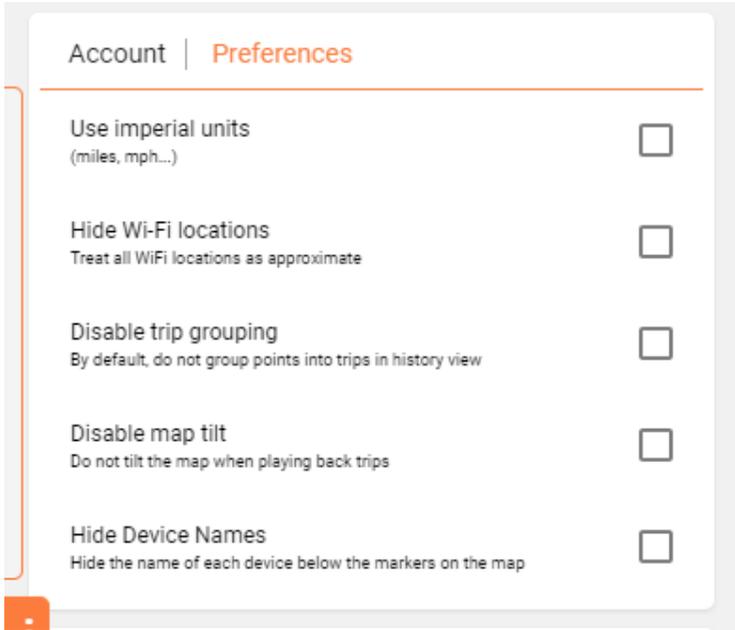
My Account

This tab allows you to set account preferences and change your password.



Preferences

Here you can control how things are displayed on your App and Portal.



List of Preferences and what they do

Use Imperial Units: Changes distance and speed units from kilometres to miles.

Show Google Maps Button: Allows you to to open the coordinates of a tracker on google maps for street view and navigation.

Hide Wi-Fi Locations: Hide the Wi-Fi-based locations that the tracker has collected. Please note this option is only available for certain trackers. This option will not stop the

tracker from sending these locations, it will only stop displaying them.

Disable Trip Grouping: When left unchecked, the portal will group the movement of the trackers into trips with start and stops. Trip grouping only works for very frequent location updates.

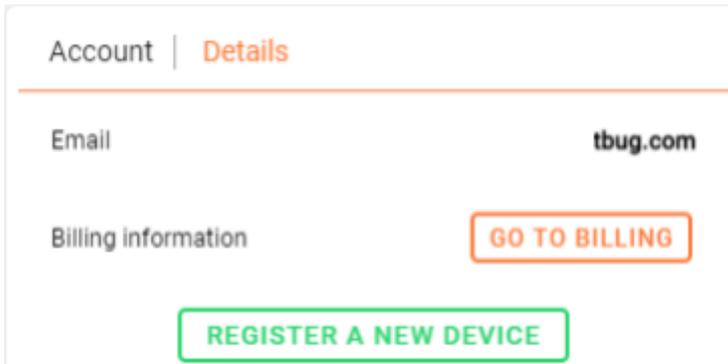
Disable Map Tilt: The Map will not tilt when playing back trips.

Hide Device Names: This will hide the name of each device below the markers on the Map.

Show last 24h exactly: When opening the Map, the default date and time selection will be the last 24 hours.

Show today only: When opening the Map, the default date and time selection will be today's data.

Details

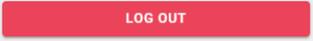


If you wish to update your email address, you will need to [contact us](#) directly.

To update your billing information, click . This will redirect you to the Settings page. You can find steps on how to update your billing information [here](#).

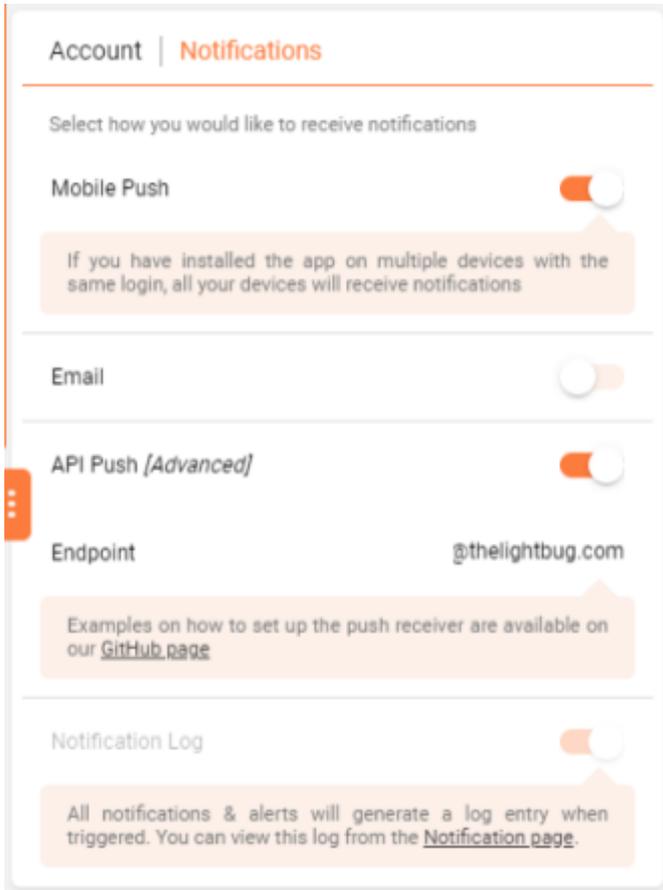
You can add a new device to your Lightbug account by clicking . You can find the steps to add a new device [here](#).

Log Out

 This will log you out of your account.

Notifications

Customise how you would like to be notified of alerts.

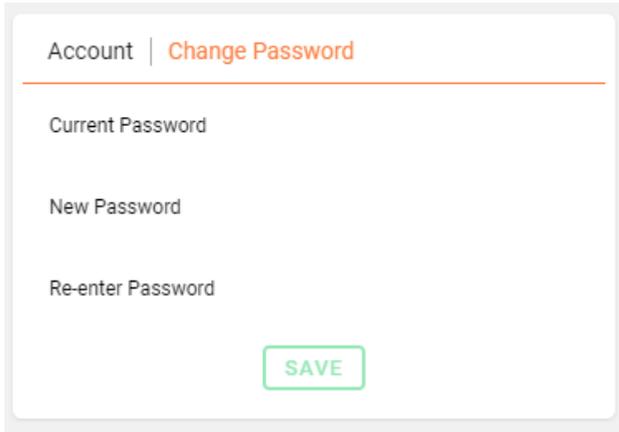


Enabling 'Mobile Push' will send alerts as notifications to your smartphone.

Caution: Mobile Push alerts do not work for the web portal. You will need to download the Lightbug App on your smartphone for this to work.

Enabling 'Email' will allow you to set which email you would like to receive the alerts on.

Notification Log means that the [Notification tab](#) will log all triggered notifications and alerts.

A screenshot of a web form titled "Change Password". The form is enclosed in a light gray border. At the top left, it says "Account | Change Password" with "Change Password" in orange. Below this is a horizontal orange line. The form contains three text input fields: "Current Password", "New Password", and "Re-enter Password". At the bottom right of the form is a green "SAVE" button with a white border.

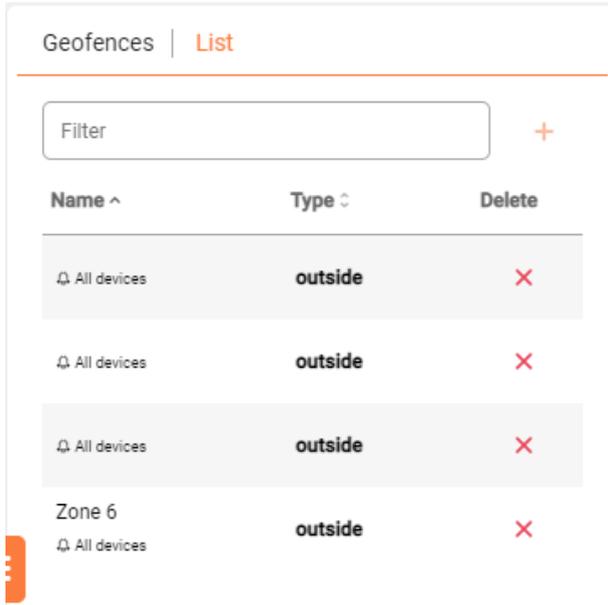
Change Account Password

Here you can change your password.

Note: *If you have forgotten your password or you are having any difficulty with this, please [contact us](#).*

Geofences

Here you can view, edit and delete all your geofence (also known as GPS safe-zones).



Name ^	Type ↕	Delete
 All devices	outside	
 All devices	outside	
 All devices	outside	
Zone 6	outside	
 All devices		

Create a Geofence

To create a new geofence, click on the  icon.

Configuration

Zone 5 | Configuration

Name Zone 5

Alert Generate Notifications When outside ▾

Additional Conditions Only trigger alert if... [EDIT CONDITIONS](#)

Zone Type Used for reporting safe

Notification Delivery Email / Push / ... [GO TO SETTINGS](#)

Name: Here you should choose the most appropriate name for your geofence. This name will be displayed on every notification you get for this alert.

Alert: You can choose to be notified/alerted when the device:

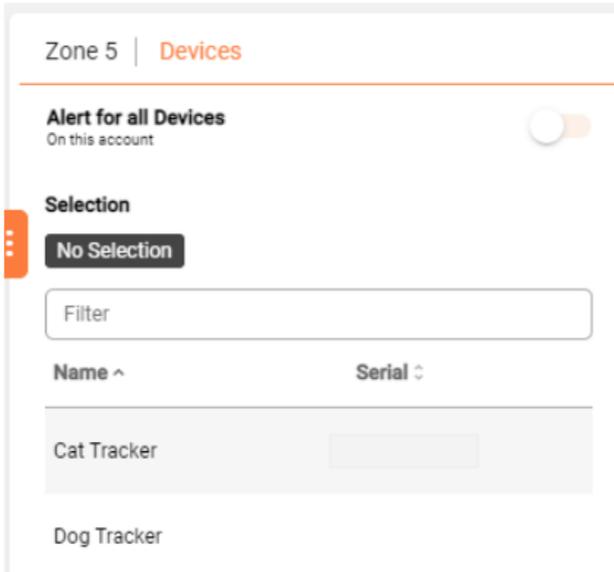
- Is outside the geofence
- Is inside the geofence
- Crosses the boundary of the geofence

Additional Conditions: You can add conditions where an alert will only be triggered if these conditions are met. These conditions include speed and time.

Notification Delivery: Choose how you like to be notified of the alert. This can be updated on the Settings page.

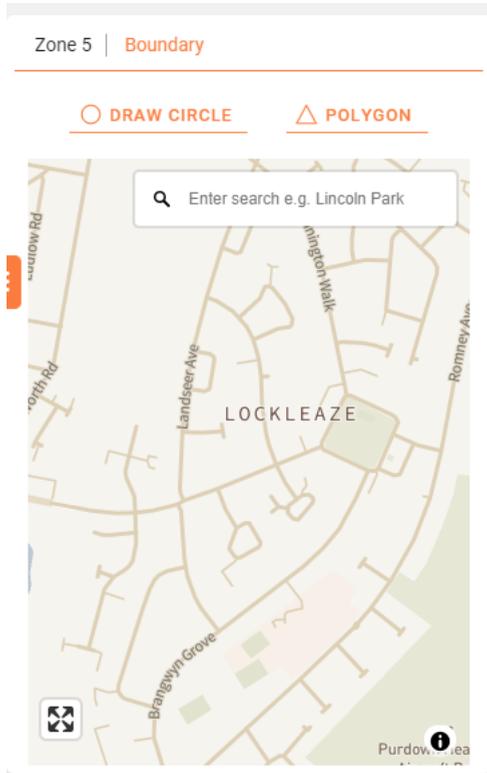
[GO TO SETTINGS](#)

Devices



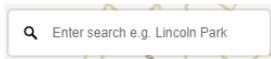
Here you can enable the alert for all devices on your account. Alternatively, you can enable the alert for specific trackers only by selecting the required tracker. This tracker will be added to the selection.

Boundary

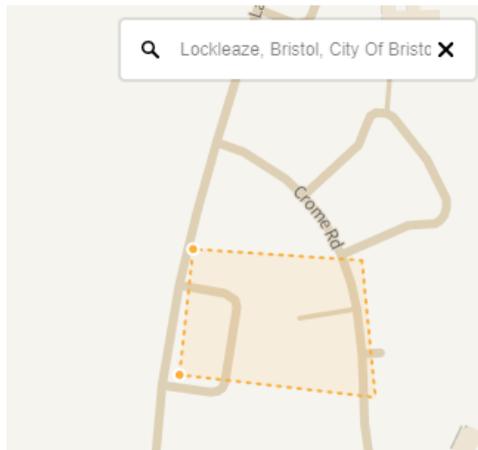
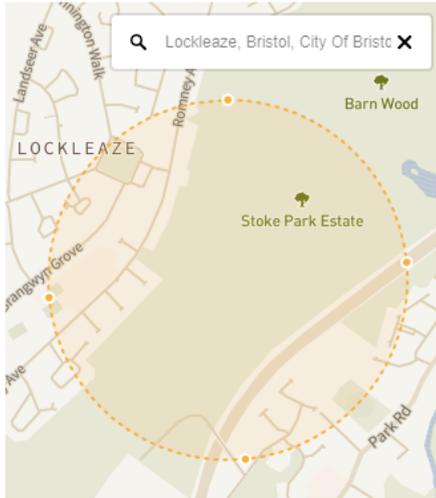


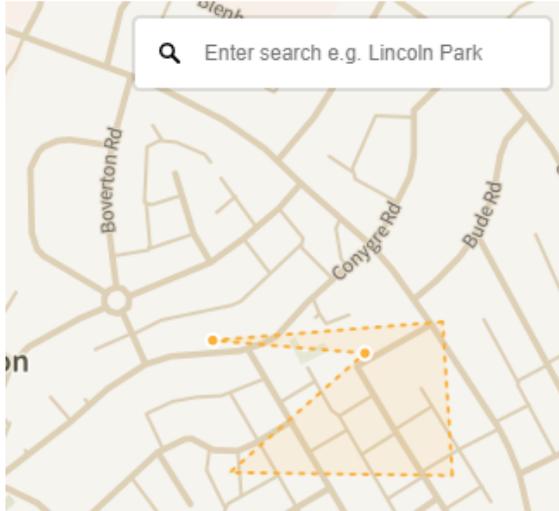
Here is where you create the geofence. Just follow the simple steps below:

1. Locate the area you would like the geofence to be. You can use the search bar to help you with this. The search bar is also capable of looking up an address or a current tracker location.

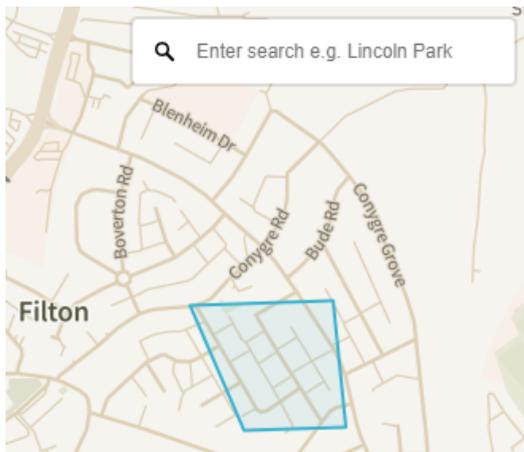


2. Choose the shape of geofence DRAW CIRCLE POLYGON
3. Tap the Map to add points and create your geofence. The safe zone can be a standard or custom irregular shape by joining up the points.





4. Click the first point in the geofence to confirm the shape. The geofence will turn blue to confirm that it is now saved.



Delete Geofence

If you wish to delete a geofence, click. 

Edit Geofence

Edit the geofence and make the needed changes by following the steps outlined above.

How Things Work Under the Hood

How the Location Technologies Work

Lightbug trackers utilise three location technologies in this order:

- 1) GNSS location: This is the most accurate location type and utilises satellites (4 different constellations: GPS, GLONASS, Galileo, Beidou for the best accuracy). It requires a direct line of sight with the sky to work. Meaning it will work best when outdoors or near windows that can see the sky. The accuracy is usually between 0.5 - 10 metres.
- 2) WPS (WiFi Positioning System) location: If GNSS fails the tracker will use any WiFi signals around to figure out its location. The accuracy is usually between 10 - 40 metres.
- 3) Cell tower triangulation: This is the least accurate location type but it is the last resort if everything else fails. The tracker will use GSM towers and triangulate to give you a location update that can have an accuracy of 200m - 2km.

Simple Troubleshooting

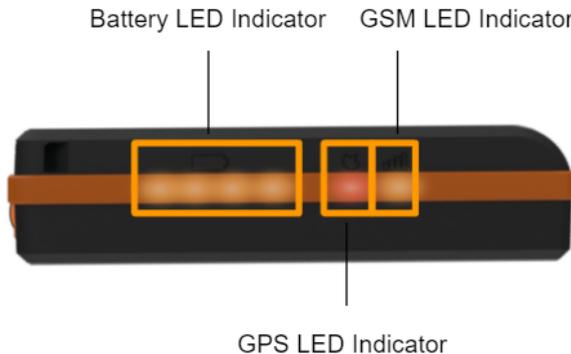
Button Presses

If, for whatever reason, your tracker is not responding or behaving as it should, you can reset the device by pressing and holding the button. This will not affect your saved settings.

How long you press and hold the button on your Lightbug tracker affects the actions performed.

Quick Button Press

Pressing the button for less than 1 second will display the following information on the LED indicators (from left to right).



 Battery - this indicator shows the current charge of the tracker. 1-4 LEDs will glow solid orange:

1 LED - device is 0%-25% charged

2 LEDs – device is 25%-50% charged

3 LEDs – device is 50%-75% charged

4 LEDs – device is 75-100% charged



GPS signal* – this indicator shows whether GPS is detected. It glows solid orange when operational, but glows solid red when GPS is unavailable. It is normal for GPS to be unavailable when the tracker is indoors.



GSM signal* – this indicator shows the GSM signal strength. It glows solid orange when operational, but glows solid red when GSM is unavailable. GSM may not be available in areas with poor cell phone coverage.

*The signal indicators are for diagnostic purposes only.

1-3 Second Button Press

Pressing and holding the button for 1-3 seconds will force a location update (this will update any pending settings, but not affect any saved settings). The battery LEDs will flash from left to right in a cycle, and you will hear a small beep.

15 Second Button Press

Pressing and holding the button for 15 seconds will force a hard reset (this will update any pending settings, but not affect any saved settings). This button press is recommended if you are facing network related performance issues. The battery LEDs may go blank for a second, but then will flash from left to right in a cycle, and you will hear a small beep.

Why are location updates not instant?

Generally, location updates are not instant as it takes time to get a GPS fix and if that fails, the other location technologies come into action. After the location data is collected, the tracker has to connect to the internet via the GSM network in order to send the location information.

Why is my tracker not transmitting?

Always give your tracker a couple of minutes to send a location update, and if that fails:

- Make sure you have an active data plan on your tracker
- Make sure your tracker is charged. Some battery drain might have occurred for a number of reasons
- Force a location update (hold tracker button for 3 seconds)
- Perform a reset (hold tracker button for 15 seconds)
- Ensure the tracker is in an area with good GSM coverage
- Place the tracker outside for 5 minutes after completing all the above

Why is my tracker giving inaccurate locations?

Location accuracy depends on several variables. Please refer to the [How the Location Technologies Work](#) section for more details on how these technologies work.

There are a few good practices that help improve the location accuracy of your tracker.

- Avoid surrounding your tracker with metals as they block GPS and GSM signals

- To allow for more GPS locations to occur, try to place your tracker somewhere with a good line of sight with the sky
- Try to place your tracker with the logo facing up
- Increase GPS timeout. Please refer to the manual configurations section and find out how to change the GPS settings
- Make sure you have the correct settings. You might need to tweak your advanced settings. If you are unsure, [please get in touch](#) and we will assist!

Why is my battery not lasting as long as advertised?

The advertised values are general guidelines. In reality, there are many variables that affect battery life, such as:

- Where the tracker is mounted: with a clear line of sight with the sky, the tracker will use less power per location update
- Is the tracker indoors? If the tracker is indoor, more power will be used as the tracker will try to look for a GPS fix before attempting to locate itself via WPS or GSM. Find out more about this under [the How the location technologies work](#) section
- Make sure you have [Wi-Fi](#) and [GPS Safe Zones](#) set up where applicable
- Motion sensitivity: maybe your tracker is sending more location updates than it should because the motion sensitivity is too high. This usually occurs when the tracker is stationary but still sending location updates. Reduce the motion sensitivity via your [flexible configurations page](#).
- You can always contact our support team [here](#).