

# Bluetooth Button

## 1 Introduction

### 1.1 About the Functionality

The Bluetooth button is a Bluetooth Low Energy (BLE) beacon, that has a button and can be used for wireless driver registration. For the registration, you have to double press the button.

### 1.2 Legal Information

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### 1.3 Compatibility

Bluetooth buttons are compatible with the following devices with the newest firmware version:

- HCV5
- LCV5
- Pro5

## 1.4 Contact Information

### General enquiries

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## 1.5 Document Changelog

Version	Date	Modification
1.0	2020-07-16	Initial draft.

## 1.6 Notations

The following notations are used in this document to highlight important information:

### **Bold text**

Used to indicate user interface elements or for emphasis.

### *Italic text*

Used to indicate items that belong to a list and can be selected.

### **Note**



Used to highlight important information or special conditions.

### **Tip**




Suggestions on how to proceed.

## 1.7 References

Datasheet: <https://doc.ruptela.lt/pages/viewpage.action?pageId=37683326>


## 2 Configuration



 This functionality requires the use of the advanced configurator and a smartphone.

### 2.1 Configuration through the App

Follow these steps to configure the Bluetooth button:

1. On your smartphone open **Google Play** (Android OS) or **App Store** (iOS) and download the **BeaconSET+** app.
2. Turn on the Bluetooth button by pressing and holding it for 5 seconds. The blue indication LED will glow continuously.
3. Open the app and it will automatically search for devices. Tap your Bluetooth button name to pair it.

 You can recognize your device by the MAC address on the back of the beacon.

 If the app cannot find your button, you can tap the  button to search again.

4. You will be required to enter the password (*Ruptela5* by default). Tap **Yes**.
5. The **General** window will appear. Tap your Bluetooth button slot, usually, it is **SLOT1**.
6. If required, modify the following values:

#### Adv Content

**UUID:** Set a unique Bluetooth button ID.

Default value: *E2C56DB5-DFFB-48D2-B060-D0F5A71096E0*.

**Major** and **Minor:** These values are not relevant for the driver registration.

#### Base params

**Adv Interval:** Set the advertising interval.

Default value: *900 ms*.

**RSSI @ 1m:** Set the power, which is used for the calibration and calculating the relative distance.

Default value: *-59 dBm*.

**Radio Txpower:** Set the transmission power.

Default value: *0 dBm*.

#### Trigger

Set the trigger type and the interval, at which the Bluetooth button starts advertising after the trigger.

Default value: *Enabled, Button double tap, 5 s*.

#### Advertisement parameter


You can enable this parameter to allow the Bluetooth button to always advertise, but we strongly do not recommend doing it, as beacon will consume much more energy and it will be vulnerable for cyber-attacks.

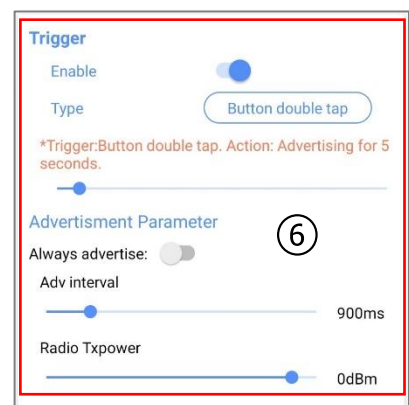
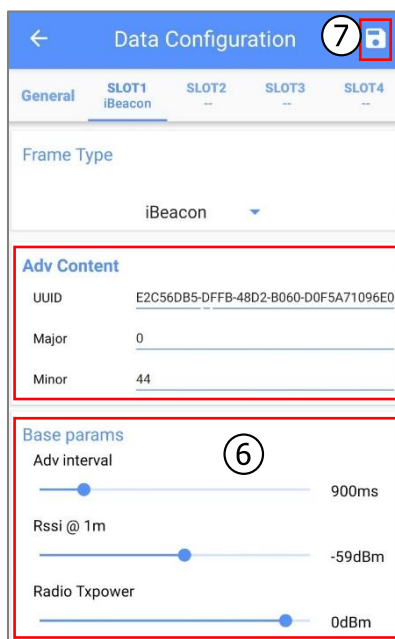
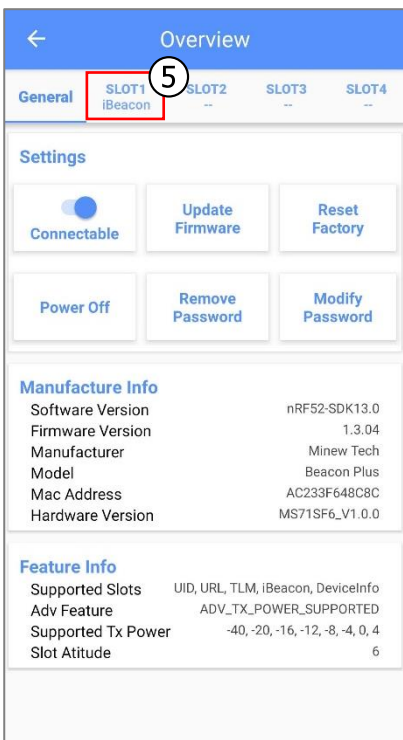
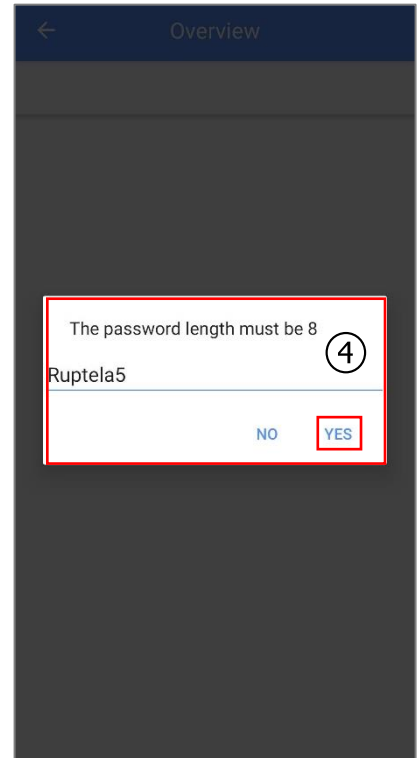
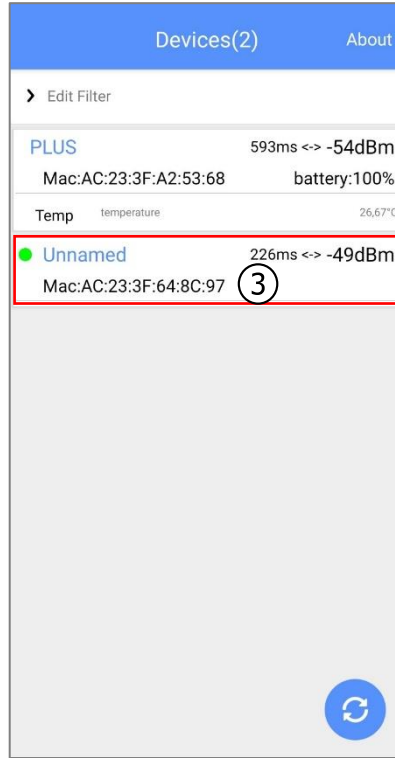
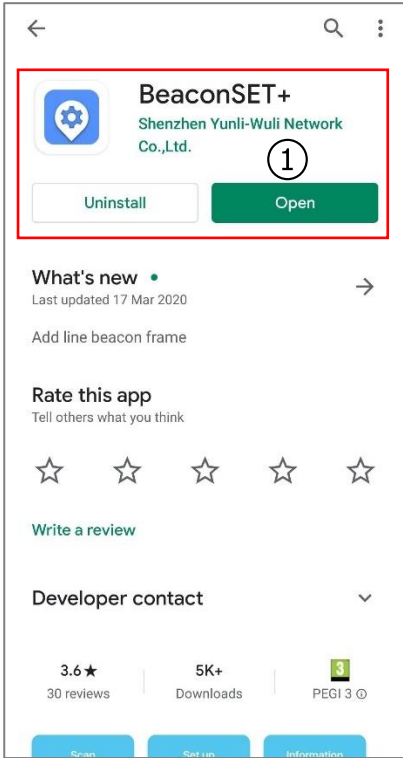


If the default trigger is used to start advertising, you must press the Bluetooth button twice.



Make sure that the **Radio Txpower** parameter and advertisement time are sufficient taking into account the mounting location of the tracking device and attenuation of the signal.

7. Tap the save icon .



## 2.2 Configuration through the Advanced Configurator



The configuration through the app should be completed before starting the configuration via the advanced configurator.

Follow these steps to configure the Bluetooth button:

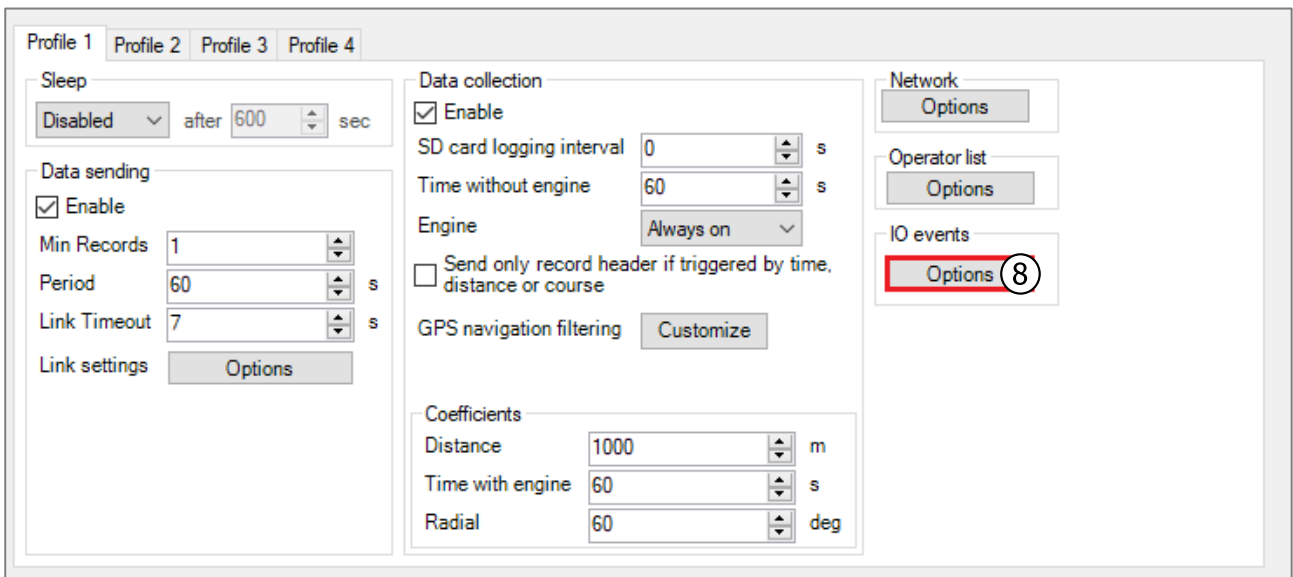
1. Open the advanced configurator. Select your tracking device.
2. Select the COM port to which your device is connected.
3. Click **Connect**.
4. Click **Options** in the **Driver registration** section to open the **Registration settings** window.

The screenshot shows the Advanced Configurator interface. The 'Global' section is highlighted with a red box and a circled '2' around 'COM3'. Below it, the 'Connect' button is highlighted with a red box and a circled '3'. In the 'Driver registration' section, the 'Options' button is highlighted with a red box and a circled '4'. In the 'Global' section, 'HCV5' is highlighted with a red box and a circled '1'.

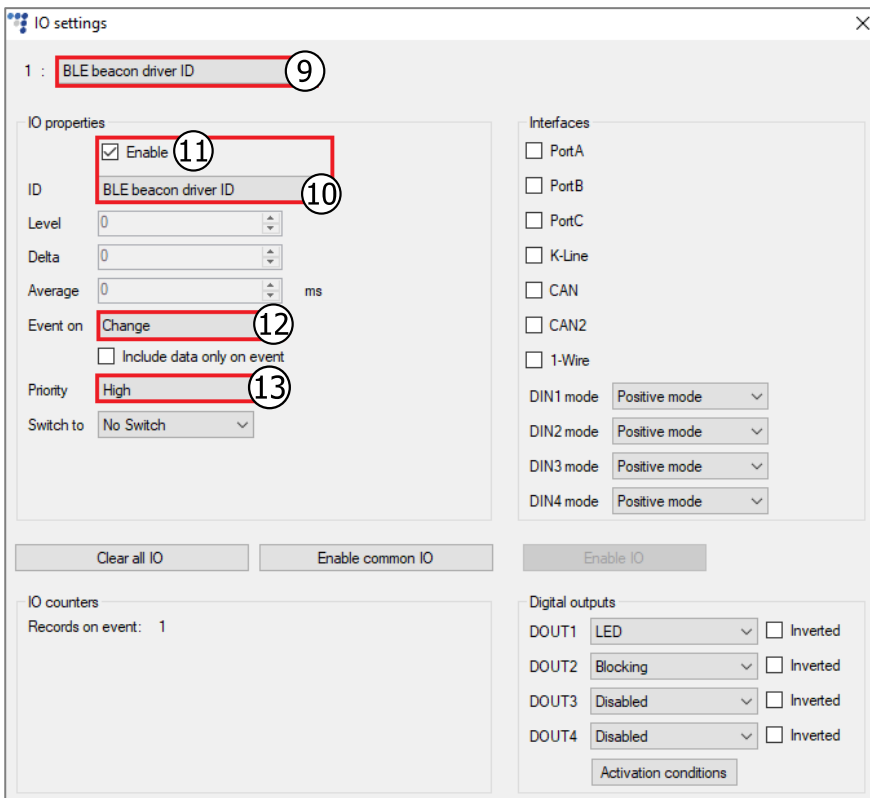
5. Select *Mandatory registration* in **Registration function**.
6. Select *BLE beacon* in **Registration source**.
7. Tick the **Only Authorized IDs** checkbox.

The screenshot shows the 'Registration settings' window. The 'Registration function' section has 'Mandatory registration' selected, highlighted with a red box and a circled '5'. The 'Registration source' section has 'BLE beacon' selected, highlighted with a red box and a circled '6'. The 'Only Authorized IDs' checkbox is checked, highlighted with a red box and a circled '7'. Other settings include 'Input' set to 'DIN3', 'Deregistration timeout, s' set to '300', 'Buzzer/LED duration, s' set to '2.0', and 'Alert duration, s' set to '0'. A 'Close' button is at the bottom.

- Close the **Registration settings** window click **Options** in the **IO events** section to open the **IO settings** window.



- Select an empty parameter slot.
- Select the *BLE beacon driver ID* parameter.
- Tick the **Enable** checkbox.
- Set the **Event on** to *Change*.
- Set the **Priority** on *High*.



14. Close the **IO events** window. Click **Options** in the **Authorized IDs** section to open the **Authorized IDs** window.

The screenshot shows the 'Global' settings window. The 'Authorized IDs' section is highlighted with a red box and a circled '14'. The 'Authorized IDs' section includes a checked 'Enable' checkbox and an 'Options' button. Other sections include 'Protocol' (UDP selected), 'APN settings', 'Connection settings', 'Authorized numbers', 'Eco-Drive' (checked), 'Wireless' (checked), 'Audio settings', 'Configuration Password', 'GNSS', 'Driver registration', 'Geofencing', 'Auto-geofencing', 'Offline Tracking', 'Towing detection', 'Impact detection', and 'Movement sensor sensitivity'.

15. Enter the UUIDs of your Bluetooth buttons into the list.

**i** UUIDs can also be uploaded from a **.csv** file.

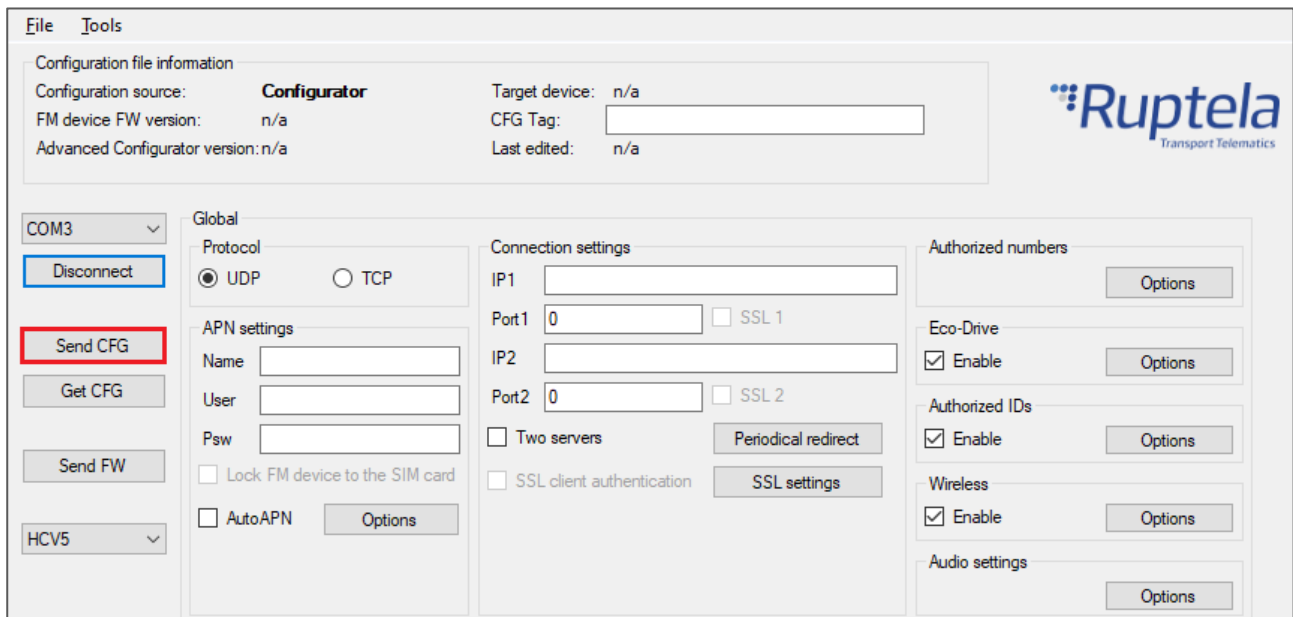
The screenshot shows the 'Authorized IDs' window. It features a table with columns for 'iButton / RFID (1-Wire) / BLE beacon', 'RFID (RS232)', and 'Smartphone / Magnetic card'. The first two columns are further divided into 'HEX' and 'Decimal' sub-columns. The first two rows of the table are highlighted in red and have a circled '15' next to them. The first row contains the UUID 'E2C56DB5DFFB48D2B06D0F5A71096E0' in the 'HEX' column and '301430634720785502900797850325926057696' in the 'Decimal' column. The second row contains 'D3F589FDD98873254ABC7878CECF89789' in the 'HEX' column and '281742018643122303142178595192039839625' in the 'Decimal' column. The 'Smartphone / Magnetic card' column is currently empty. The window also includes a 'Remove all' button, a note about wireless registration, and 'Import.csv' and 'Export.csv' buttons at the bottom.

	iButton / RFID (1-Wire) / BLE beacon	RFID (RS232)	Smartphone / Magnetic card
	HEX	Decimal	ASCII
1	E2C56DB5DFFB48D2B06D0F5A71096E0	301430634720785502900797850325926057696	
2	D3F589FDD98873254ABC7878CECF89789	281742018643122303142178595192039839625	
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

**i** For more information about driver registration please read the [Driver Registration Manual](#).

## 2.3 Finishing the Configuration

To finish the configuration, close the **Authorized IDs** window. Click **Send CFG** to send the configuration to the device.



The screenshot displays the Ruptela configuration software interface. At the top, there is a 'Configuration file information' section with fields for 'Configuration source' (set to 'Configurator'), 'Target device' (n/a), 'FM device FW version' (n/a), 'CFG Tag' (empty), 'Advanced Configurator version' (n/a), and 'Last edited' (n/a). The Ruptela logo is visible in the top right corner.

The main interface is divided into several sections:

- Global:** Includes a 'COM3' dropdown menu, a 'Disconnect' button, a 'Send CFG' button (highlighted with a red border), a 'Get CFG' button, a 'Send FW' button, and an 'HCV5' dropdown menu.
- Protocol:** Radio buttons for 'UDP' (selected) and 'TCP'.
- APN settings:** Fields for 'Name', 'User', and 'Psw', with checkboxes for 'Lock FM device to the SIM card' and 'AutoAPN' (with an 'Options' button).
- Connection settings:** Fields for 'IP1', 'Port1' (0), 'IP2', and 'Port2' (0), with checkboxes for 'SSL 1', 'SSL 2', 'Two servers', and 'SSL client authentication'. It also includes buttons for 'Periodical redirect' and 'SSL settings'.
- Authorized numbers:** A section with an 'Options' button.
- Eco-Drive:** A checkbox for 'Enable' (checked) with an 'Options' button.
- Authorized IDs:** A checkbox for 'Enable' (checked) with an 'Options' button.
- Wireless:** A checkbox for 'Enable' (checked) with an 'Options' button.
- Audio settings:** A section with an 'Options' button.