

# TWIG Beacon

## Quick Guide

Manufacturer:  
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Due to differences in use, installation and hardware, all settings and functions may not be applicable to each device version.

### RADIO FREQUENCY (RF) ENERGY

Transmission frequencies and power for TST90EU device types in EU are listed in the table below.

Transmitter	TX frequency bands / MHz	Max power / dBm
SRD	869.675	5

For any further questions please contact Twig Com support at [support@twigcom.com](mailto:support@twigcom.com) or +358 40 510 5058.

## 1. Installation of beacons

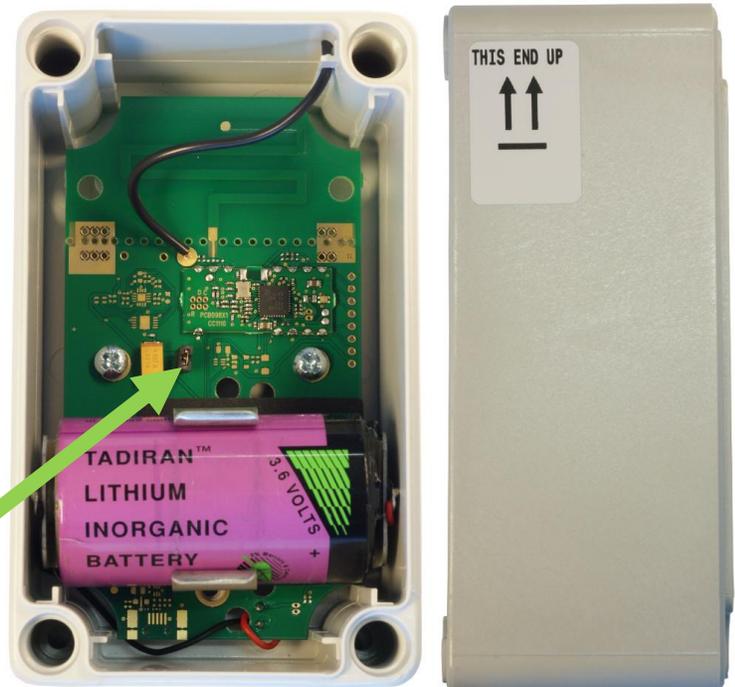
TWIG Beacon has integrated lithium primary battery giving typical 3-4 year operating time. The operating time can vary according to use and environment.

Mount the beacon to a suitable place based on desired radius for operation. There's a separate instruction leaflet for antenna pattern and directional antenna adjusting. Mounting of the beacon should not be done against metal wall or behind other metal materials as they are damping the signal and can even totally block them in certain directions.

If the beacon must be installed to metal wall, there should be used 25 mm thick non-metal spacer between beacon and the wall or install the beacon sideways. If the beacon has antenna 90-degrees tilted or has separate wire antenna it can be mounted directly to metal. However metal will damp signal towards back direction.

Device must be installed vertically like in the picture. Note! The battery direction should not be positive pole downwards in any installation because it will damage the battery.

Once the beacon is mounted to a desired position it can be turned on by inserting the jumper. Once the jumper is connected, the beacon is operational. The LED will blink on transmission interval. If the beacon is in configuration mode it will blink in 2 seconds interval with two colours.



## 2. Installing software and drivers

Connect TWIG Beacon wireless configuration adapter to your computer's USB port. Allow Windows to install drivers automatically.

Once drivers are loaded, run the program TWIG Beacon Configurator. Program will show each TWIG Beacon it can currently hear. Note that the location of the beacon configuration box containing similar transceiver as beacon, has significant effect. Do not place it on metal tables or close to metal shelves.

## 3. Data field descriptions

The order of the listed beacon devices can be adjusted by clicking the given name in the name field.

No = Position number to indicate how many beacons are "visible" to the configuration program.

Name= ID programmed to the unit. If no name is programmed the field will be empty. Maximal length is 8 characters.

Serial number is factory programmed non erasable ID.

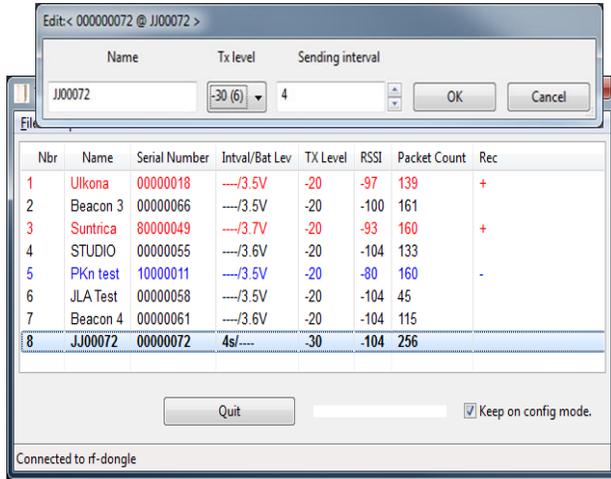
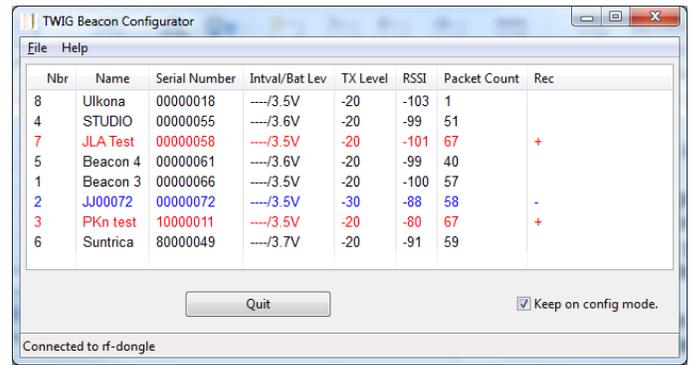
Interval is the programmed transmitting interval. Default value is 4 seconds. The interval is only shown in programming mode. Changing interval longer preserves battery but may result in loss of signal noticed by Protector in some cases.

Tx Level = The level of transmission programmed to the beacon. Default value is -20dBm

Rssi = The level of transmission the Configuration unit and also Protector can hear the beacon.

Packet Count = Number of received data packages

Rec = Data reception is displayed with plus (+) sign. (The minus (-) sign can be ignored).



When the beacon is in the configuration mode, the editor (see the picture on the left) pops up by clicking the beacon on the list.

When the “Keep on config mode” box is ticked, all beacons in configuration mode (marked in bold on the list) remain in the configuration mode 10 minutes also when outside the configurator coverage area.

When “Keep on config mode” box is not ticked, all beacons in configuration mode (marked in bold on the list) will remain in configuration mode for 10 minutes from start or last configuration.

If the device is not configured during the given time, the beacon must be restarted with the jumper in the main PCB.

## 4. Protocols & messaging

TWIG Beacon transfers its data via ISM band. The relevant data is being transferred to system backend via MPTP messaging. Please refer to TWIG MPTP v3.24 or later for details.

## 5. Safety & recycling

Usage: -20°C to +50°C  
Storage: -30°C to +70°C

Do not open the device or battery by yourself or pierce holes in it. Rough handling may break the circuitry inside the device. Do not drop, knock, twist or shake the device or its battery. Keep the device dry, liquids contain minerals which could corrode electronic circuits. If the device gets wet, turn it off and dry the device and the battery immediately. Put the device into an upright position and let it dry. It is recommended that a dealer or service personnel check that the device functions properly. Even though the device is waterproof, do not wet the device unnecessarily or immerse it in water. Protect the device from heat. High temperatures may shorten the life of the electronic devices, melt or warp plastics and damage batteries. Do not warm up the device or battery or use it near fire. Do not short-circuit the battery or battery contacts. Exposing the metal strips of the battery to a close contact with a metallic object, such as a coin, a clip or a set of keys can cause accidental short-circuiting and damage the battery. Use the battery only for the purpose it is intended. Clean the device with a soft cloth, dampened slightly with mild soapy water. Do not clean the device with harsh chemicals, solvents or other corrosive substances. Only allow service personnel authorised by the dealer to service the device. Recycle the batteries according to the country-specific regulations.