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# The WAA Wireless Antenna



The Green-GO WAA antenna is the connection point between the wireless beltpacks **WBPX** / **WBPXSP** and other Green-GO devices. Each antenna supports up to four simultaneous users with multiple antennas deployable in the same system to increase the number of wireless users and or extend the usable range for specified users.

Quick and easy fitment options are provided by means of a recessed female 3/4" thread and an included right-angled mounting bracket. Powered via PoE through the network cable connected to the devices Ethercon port or via the mini-B USB 2.0 port.

Green-GO wireless operates in the 1.9 GHz "DECT" spectrum, as default supporting up to 20 connections per 50-300 m area, depending on the availability and characteristics of a given RF environment.

## What's in the box?

The Green-GO WAA wireless antenna comes with the following package contents:

- 1 x Green-GO WAA wireless antenna
- 1 x Metal Bracket
- 1 x Printed quickstart guide

Optional Green-GO accessories

## Device overview

### Back panel



#### 1 PoE Powered 10/100 Mbps Neutrik EtherCON

The 10/100 Mbps Neutrik EtherCON serves as power input and connection to the local network.

#### 1 3/8" Tripod Socket

The metal 3/8" tripod socket enables flexible mounting with stands or clamps.

#### 1 Status LED

The RGB status LED informs the user about the current device and connection state.

#### 1 Button

The **Button** is primarily used to enable the over-the-air pairing mode.

#### 1 Mini-USB Port

The mini-USB port can act as an alternative power source. It enables operation without the use of a PoE network switch.

## The user interface

The user interface on the Green-GO WAA wireless antenna consists of only one **Button** and one status LED on the bottom of the device.

The primary use for the **Button** is to enable the over-the-air pairing mode. As a secondary function the button can be used to either clear the DECT module or start the device into **Boot Mode**.

## Pairing your belt packs

The Green-GO WAA wireless antenna connects over **DECT** to up to four **wireless belt packs**. As per the DECT specification, both connection partners need to authenticate against each other. This process is generally referred to as **pairing**.

With Green-GO 5 the configuration of your wireless DECT pairings has been redesigned. We now distinctly distinguish between **ad-hock over-the-air** pairings and **X-Pool** connections. These pairings are done in **pools**, each containing up to four wireless belt packs.

It is possible to have multiple pools of different types in one Green-GO system. However, all pools share the same DECT frequency space. Therefore the amount of possible connections is limited and influenced by the local environment.

**Tip:** Please check our [guidance](#) on how to estimate what is possible in your location.

The **ad-hock over-the-air pools** are configured and managed exclusively on the devices themselves. Meaning, adding or removing devices from the software is not possible. Also, roaming is **not supported** using this mode.

The X-Pool connections are **set up** by connecting the belt pack via USB to the **Green-GO Control** software and features roaming between up to 7 antennas.

**Attention:** This device documentation only covers the **ad-hock over-the-air pairings**. Please check out our [guide on Wireless connections](#) to learn more about the X-Pool pairings.

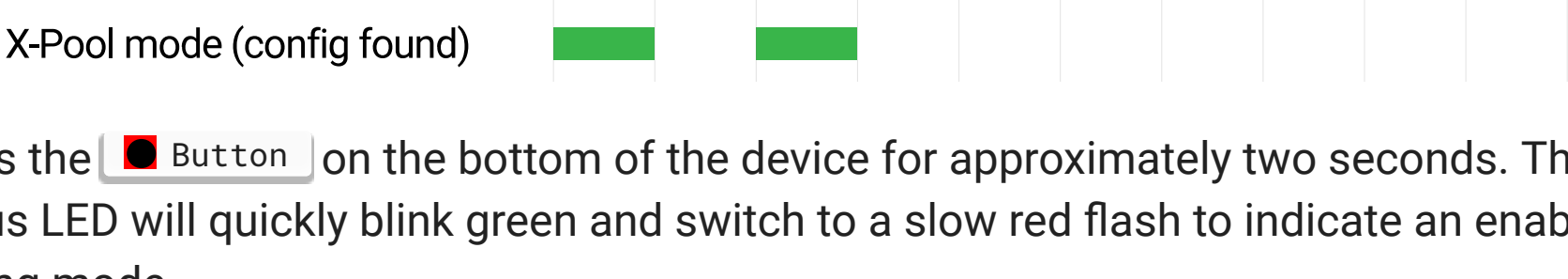
## Device preparations

It is advised to clear the DECT module of **all** involved devices before you start configuring your pairings. Clearing the module will remove all existing pairings and reset all active connections.

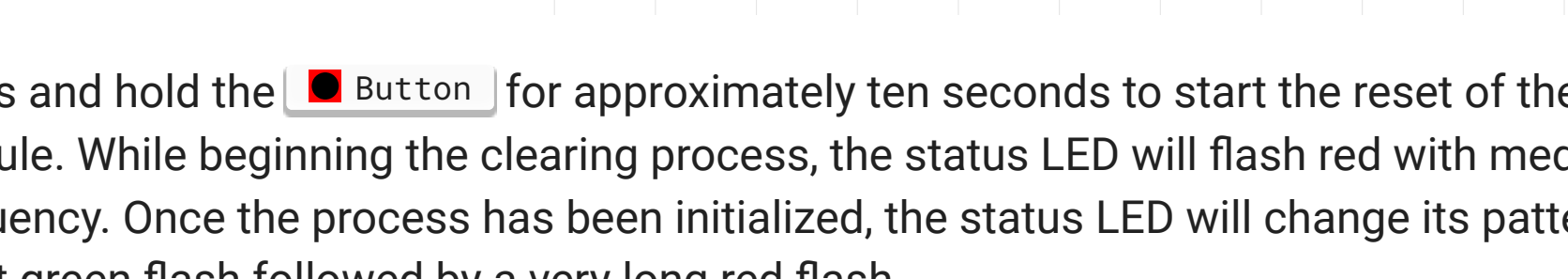
### Reset an antenna's DECT module

Please follow these steps to clear the DECT module of your **WAA antenna**:

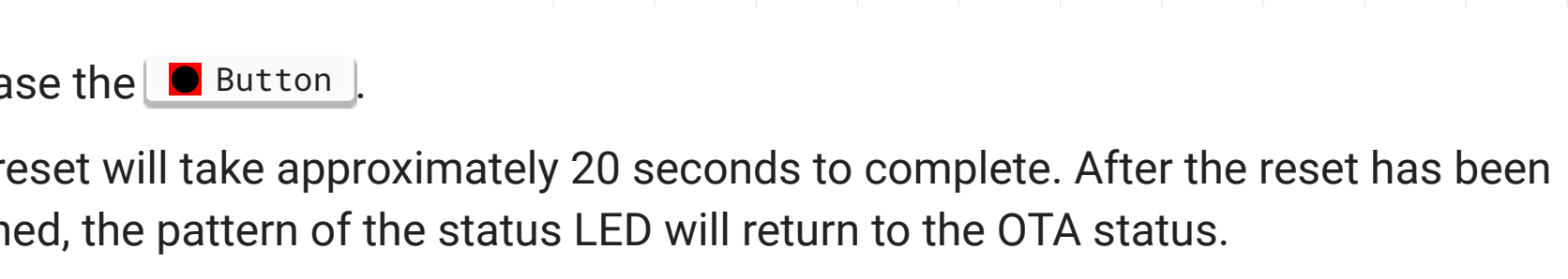
- When powered up, your WAA wireless antenna will indicate its current status with the status LED. The sequence shown below may be followed by a short red flash, indicating no configuration members could be found on the local network.



- Press the **Button** on the bottom of the device for approximately two seconds. The status LED will quickly blink green and switch to a slow red flash to indicate an enabled pairing mode.



- Press and hold the **Button** for approximately ten seconds to start the reset of the DECT module. While beginning the clearing process, the status LED will flash red with medium frequency. Once the process has been initialized, the status LED will change its pattern to a short green flash followed by a very long red flash.

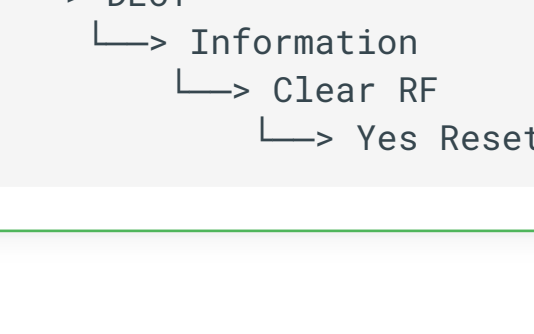


- Release the **Button**.
- The reset will take approximately 20 seconds to complete. After the reset has been finished, the pattern of the status LED will return to the OTA status.

### Reset a belt pack's DECT module

The DECT module of a **WBPX** or **WBPXSP** wireless belt pack can be cleared in the **DECT** setup menu. After the process has been initiated, a popup featuring the message **Program Wireless** is shown. The process is completed after the message disappears.

#### Setup Menu Guide



## Configure an OTA pairing

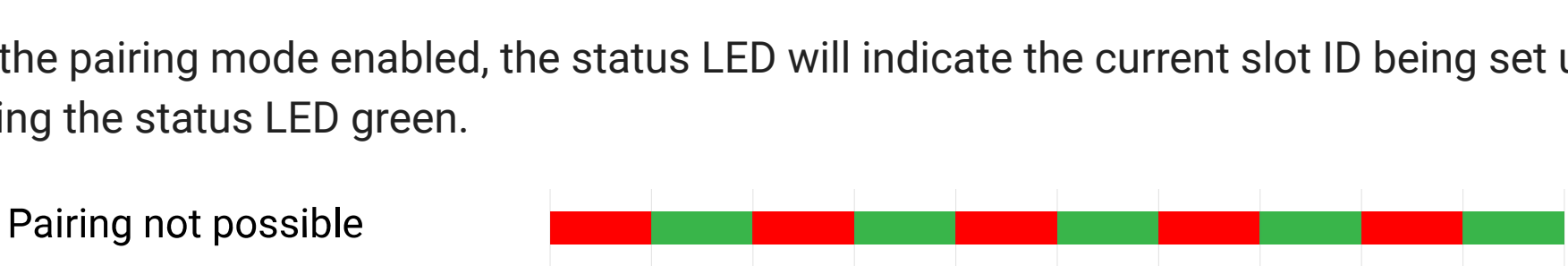
The pairing of devices is done in sequence, meaning you can only pair one device at a time.

**Notice:** The over-the-air pairing method doesn't allow deleting or overriding single pairings. The only way to clear a pairing on an antenna is by **resetting its DECT module**; this, in turn, disconnects all connected devices and removes all pairings.

## Enable pairing mode on the antenna

Before you can pair a wireless device, you need to enable the pairing mode on the **Green-GO WAA wireless antenna**. You do this by pressing the **Button** for approximately two seconds.

The status LED will quickly blink green five times and switch to a slow red flash to indicate an enabled pairing mode.



With the pairing mode enabled, the status LED will indicate the current slot ID being set up by flashing the status LED green.



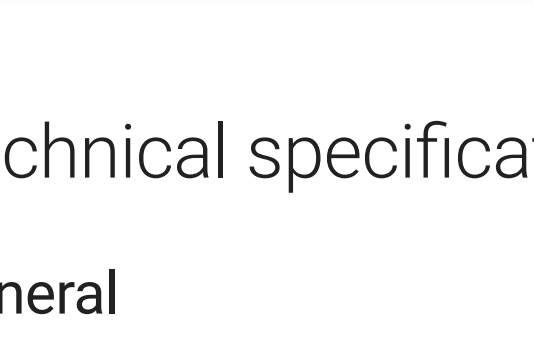
An antenna with all four available slots occupied or configured in X-Pool mode will refuse to enter pairing mode and indicate this by a medium alternating red/green flash.

## Pair the belt pack

Next, you can start the pairing on the wireless belt pack by navigating to the **DECT** setup menu. Here, you can start the pairing by selecting **Pair Antenna**. If this entry is missing, the belt pack is already connected to an antenna - in this case, you should **reset the DECT module**.

A popup on the belt pack will inform the user about the pairing status.

#### Setup Menu Guide



## Technical specifications

### General

Connectors :	1 x Neutrik RJ45 etherCON (10/100 Mbps), 1 x miniUSB
User controls:	1 x <b>Button</b>
Mounting:	1 x 3/4" thread, 1 x 90° mounting bracket
Power inputs:	<i>Power over Ethernet:</i> IEEE 802.3af 48-56 Vdc <i>USB (optional):</i> 5 Vdc
Power usage:	2,5 Watt <i>typical</i> , 4,5 Watt <i>max</i>
Dimensions (H/W/D):	41 x 95 x 119 mm
Weight:	218 g
Environmental:	<i>Ambient temperature:</i> 0° – +55° C

### Wireless

#### DECT

Supported standards:	EU-DECT (CAT-iq V2.0, V3.0 partly), DECT 6.0 (North America), J-DECT (Japan)
Certification:	ETSI (EU-DECT, compliant with ETSI 300 444 and ETSI 301 406) FCC (DECT 6.0) MIC (J-DECT pre-certified)
Frequency spectrum:	1870 MHz – 1930 MHz
Receiver sensitivity:	< -93 dBm
Transceiver output power:	<i>EU:</i> 23 dBm (1881 - 1897 MHz) <i>USA:</i> 20 dBm (1921 - 1928 MHz) <i>Japan:</i> 23 dBm (1895 - 1903 MHz)

## Downloads

### Firmware

- [Latest firmware \(ZIP archive\)](#)
- [Firmware archive](#)

### Other

- [Technical drawings \(ZIP archive\)](#)
- [CE-Certificate \(PDF\)](#)