



Troubleshooting

Wireless communication



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1. Silentwind APP versions

1.1 Android (Android 5 or newer)

- Lite Version – No MAC Address needed

<https://www.silentwindgenerator.com/en/download/#1525774759909-b0e91681-2fae800d-0013>

- Full version - MAC Address needed (limited to one controller only)

<https://play.google.com/store/apps/details?id=pt.dualtime.silentwind>

1.2 iOS (iOS8 or newer)

- Lite Version – No MAC Address needed

<https://appsto.re/pt/eYxwkb.i>

- APP Full version - MAC Address needed (limited to one controller only)

<https://itunes.apple.com/pt/app/silentwind-wireless-controller/id1220352460?mt=8>



Please check our download section at <https://www.silentwindgenerator.com/en/download/>

2. Bluetooth scanner APPs



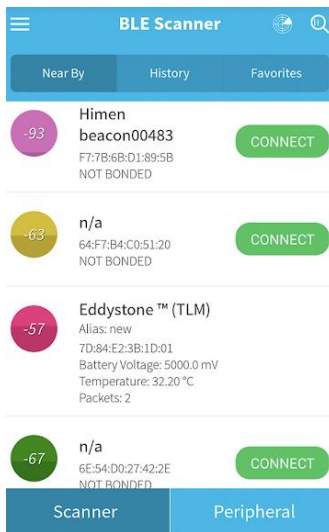
It's not mandatory for you to install these APPs.

They can be very helpful to track BT problems or to identify the MAC address if needed. These APPs are just an example. You can install equivalent BT scanners if you wish.

2.1 Android

These APPs can be downloaded at Google Play. Images taken from Google Play.

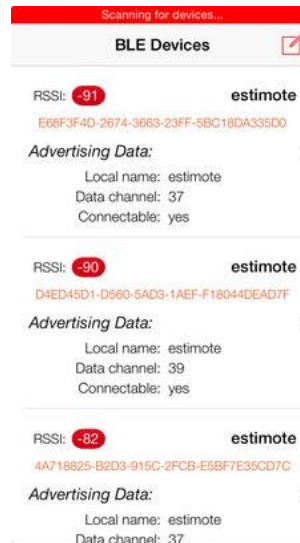
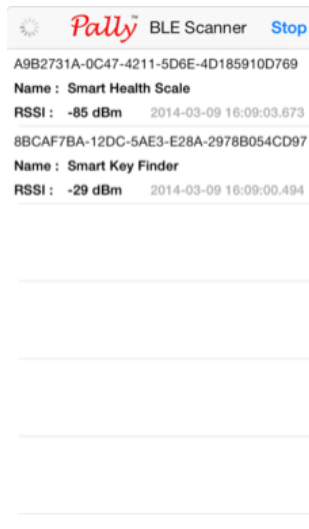
- [BLE Scanner](#)
- [Bluetooth LE Tool](#)



2.2 iOS

These APPs can be downloaded at Apple APP Store. Images taken from Apple APP Store.

- [BLE Scanner](#)
- [BLE Discovery](#)

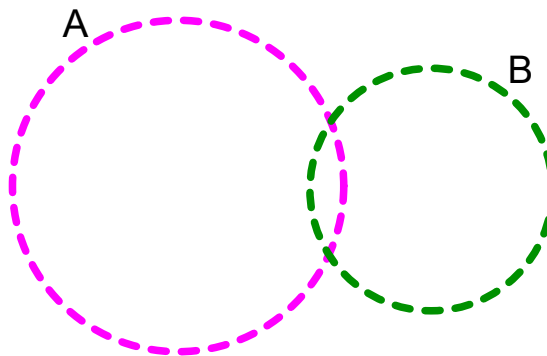


3. General information

3.1 BT Range

Bluetooth is a wireless technology standard for exchanging data over short distances. Our wireless module has a maximum of 10m range indoor (please read the following lines carefully) but the signal is subject to external interferences which decrease it significantly. Walls and other electric equipment's are the most common factors which have a negative impact on BT signal performance. Field tests show that the Hybrid Boost Rev.0 or on older models the BT range is between 1 to 5 meters. The Hybrid Boost Rev.1 model, it's up to 10m range.

Your BT receiver range can also affect the total Bluetooth signal as shown on the picture below:



Picture 1 - Equipment A and B Bluetooth range example

With the above picture it is easy to understand that to have a BT wireless communication there must be a coincident area and each equipment can contribute to it.



The information about Bluetooth communications are widely available over the internet and can be easily accessed.

3.2 BT MAC Address

The Bluetooth Address is a unique identifier assigned to each Bluetooth device by the manufacturer and is usually displayed as a 6 bytes written in hexadecimal and separated by colons (example- 11:33:5A:4B:EA:FF).

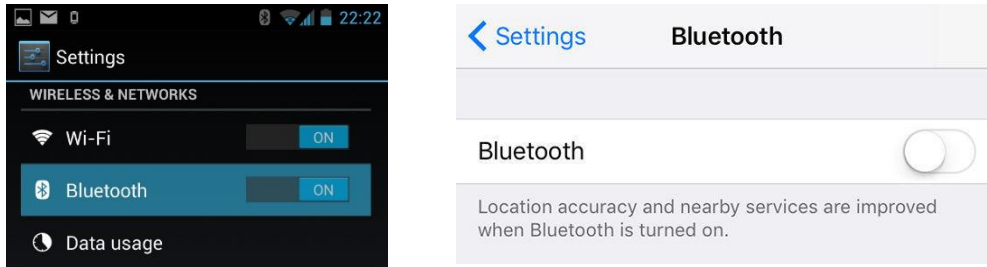
Silentwind delivers a A5 sheet with the MAC Address identification but it is always possible to find the ID by using a BT scanner Apps as mentioned on **Bluetooth scanner APPs** chapter.

4 Tracking the problems

4.1 First time installation

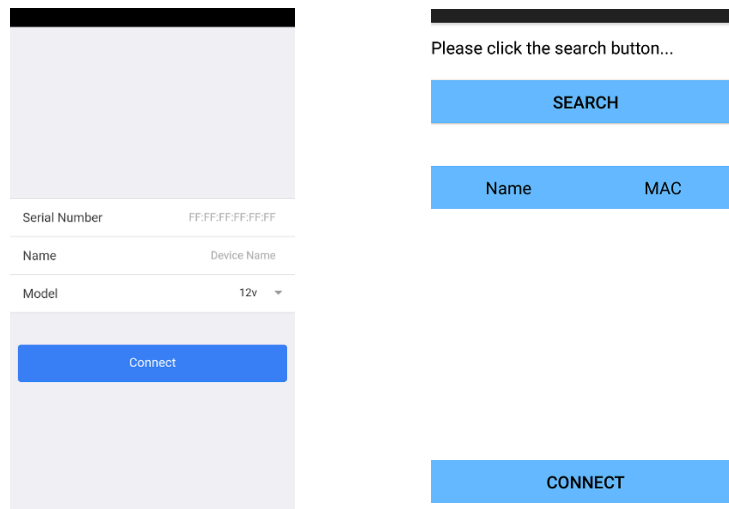
Please notice that smartphones or tablets Operating Systems might have different behaviors depending on its version. The following pictures will be used as an example.

- On your device, please verify if your Bluetooth is ON.



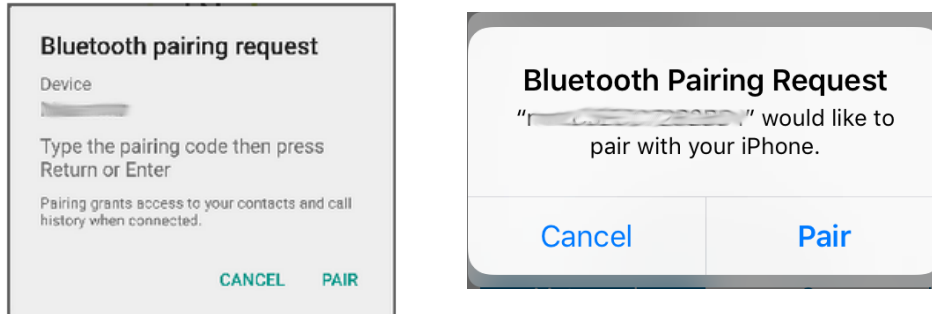
Picture 2 - Android and iOS Bluetooth ON/OFF examples

- Start your Silentwind APP.
- On the Full version App, please insert the device MAC Address and add a device custom name. Click on CONNECT.
- On the Lite version App click on SEARCH and choose the “win-power” device and then click on CONNECT.



Picture 3 – Silentwind Full version App on the left and the Lite version App on the right

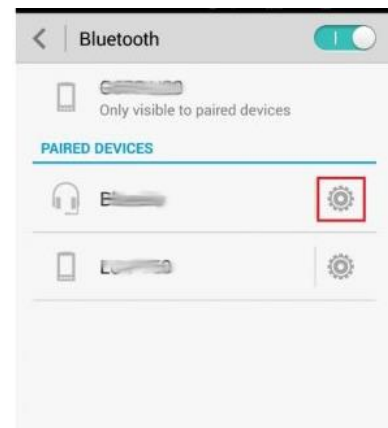
When bonding the BT for the first time the pairing request pop up might appear. You must allow the pairing request with your device but if you reject it, you must turn your BT OFF and then ON again and repeat the procedure and accept the pairing afterwards or you won't be able to establish the communication.



Picture 4 – Pairing request on Android and iOS examples

Sometimes you'll have to shut down the Siletwind APP and repeat the procedure to be able to establish communications. Please be sure that your smartphone allows the controller wireless communication. You can see the paired devices on your Bluetooth settings.

If your device is listed on the paired devices, you must be successful on using your Silentwind APP.



Unfortunately, configuring the Bluetooth connection for the first time can be tricky. If you fail to connect on the first try please repeat all the steps from the beginning. There are a lot of resources that might help you to solve communication problems which are common in all BT devices. You can check the following links:
<https://www.techlicious.com/how-to/how-to-fix-bluetooth-pairing-problems/>
<https://thewirecutter.com/blog/understanding-bluetooth-pairing-problems/>

4.2 It stopped working

If your Silentwind APP was working OK and now is not able to establish communications with your charge controller, please follow the instructions below.

- Make sure that your device Bluetooth is ON and your controllers is listed on the BT paired devices.
- Check if you get the charge controllers BT signal by using a BT Scanner App as mentioned at **Bluetooth scanner APPs** chapter.
- If you don't have the BT wireless signal from your charge controller, turn your charge controller OFF and ON again to restart it. (follow the instructions at How to restart your controller chapter below).

4.2.1 How to restart your controller

- Cover your Solar panels if available. Turn them OFF. Disconnect them from the Hybrid charge controller.
- Stop the wind generator by using the BRAKE function key at the controller.
- Please tie the blades with a rope to avoid them to rotate.
- Disconnect the three AC wind generator wires and shunt them together using a duct tape.



No energy must be produced from your wind generator and your solar panels when you disconnect the equipment. **If you do not follow this procedure, it will damage your controller!**

- After following the above instructions, it is safe to disconnect your batteries from your controller. After the controller turns OFF, wait for about 10 minutes to let it discharge completely.
 - Connect the batteries again.
 - Connect the solar panels.
 - Connect the Wind generator.
 - Uncover the panels and untie the wind generator.
 - Check if there is wireless signal by using the APPs mentioned at the **Bluetooth scanner APPs** chapter. Make sure that you are close to the charge controller (no more than 1m)
 - If your signal is not listed on the Wireless scanner APP's, please contact Silentwind.
 - If your wireless signal is listed, start your Silentwind APP.

 - If your Silentwind APP is not detecting the device BUT you do have the wireless signal on your smartphone or tablet, follow the bellow instructions.
 - Turn your BT OFF and ON, turn ON Discoverable mode also. If it was OFF, turn it ON and start the Silentwind App again.
- If all above is OK but you still are not able to connect, try to delete the previous paired installation from your list of paired BT devices on your cellphone or on your tablet. Start over again from the beginning.
- If everything fails, please contact Silentwind.

4 Silentwind help request contact

To speed up the help requests it's very important to send all necessary information right from the start.

Equipment's info:

The Wind Generator version, the controller's serial number (or model ID), the battery set (Gel, AGM, the Voltage, ...), if you are using PV panels, when you bought the equipment (to check the warranty), Smartphone or tablet OS version, Silentwind APP version, ...

Description:

A short problem description and any relevant information that can help to identify the root/cause.

If you have any questions or comments, do not hesitate to contact us:

Rulis Eléctrica Unip., Lda
Loteamento Industrial de Linhares, Lote 19
PT-4805-486 Santo Estevão de Briteiros / Guimarães
Portugal

Phone: 00351-253-572763

Fax: 00351-253-572764

E-mail: info@silentwindgenerator.com

Business Hours:

Monday to Friday: 8h00 to 17h00 GMT + 0:00