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## 1. Product overview

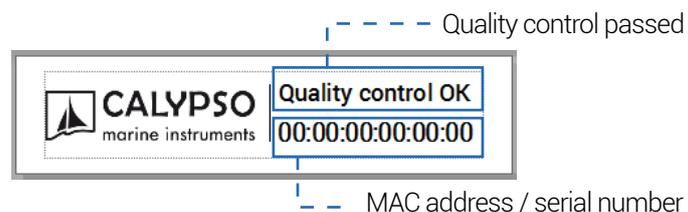
Congratulations, you are the owner of a brand new ULTRASONIC Wind Instrument and Data Logger. A wireless (BLE) and self-powered (solar) IPX8 pocket-sized ultrasonic anemometer, easy to install, simple to use and compatible with Ios and Android.



## 2. Package content

The package contains the following:

- Ultrasonic Portable Wind Instrument
- Serial number reference in the back of the packaging
- Quality control reference in the same place as the previous one (Both shown in the bottom image)



### 3. Technical specifications

Ultrasonic Portable model incorporates the following technical specifications:

#### 3.1. Dimensions

- Diameter: 70 mm
- Height: 57 mm



#### 3.2. Weight

- 135 grams

Either, dimensions and weight, make the Ultrasonic Portable a compact and easy to use product.

#### 3.3. Bluetooth

- Version: 4.1 or beyond
- Range: 50 m (open space)

The Ultrasonic Portable incorporates BLE technology (Bluetooth Low Energy).

BLE is the first open wireless communication technology, offering communication between mobile devices or computers and other smaller devices such as our new wind meter.

Compared to Classic Bluetooth, BLE is intended to provide considerably reduced power consumption and cost while maintaining a similar communication range.

#### Version

The BLE version is 4.1. It incorporates important developments for the user by facilitating the reconnection between their devices once they come out and re-enter the range of action.

#### Compatible devices

- You can use our product with the following devices:
- Compatible Bluetooth 4.0 Android devices, Android 4.3 or 4.4
  - iPhone 4S or beyond
  - iPad 3rd generation or beyond
  - Run the *Sailing Anemotracker App* to check compatibility and make sure your device is compatible.

#### Range

The coverage range is around 50 meters when it is an open space.

### 3. Technical specifications (continuation)

#### 3.4. Power

- Solar panel
- Internal battery
- Advanced power management
- Battery consumption
- Battery charge

This new product incorporates an innovative energy system. The assembly integrates a solar panel that feeds an internal battery.

#### Solar panel/Internal battery

The design has a solar panel in the upper part. This solar panel feeds a battery located in the interior of the product. - Thanks to the hermetic locking it is isolated from any type of external agent.



The useful life of the battery is 2100 charge/discharge cycles.

Battery life it should not be a concern. It has an autonomy with no sunlight of 1 year in sleep mode and ~30 days while measuring.

Besides, ULTRASONIC PORTABLE mounts a solar battery that should maintain the internal battery loaded, minimizing charge/discharge cycles.

#### Advanced Power management

The Ultrasonic device automatically manages power use, power storage and solar production. The built-in energy management system sets operation made to one of the followings modes, depending on battery status:

##### OFF MODE

- Battery level: 0% - 2,5%
- Safety level to prevent battery damage.
- It does not provide any information.
- Needs to be recharged.

##### SLEEP MODE

- Battery voltage: 2,5% - 10%
- It just provide advertising information (BLE signal).
- Needs to be recharged.

##### LOW POWER MODE

- Battery voltage: 10% - 20%
- It just allows you to get information at 1Hz. · Gyroscope and accelerometer sensors do not work.

##### NORMAL MODE

- Battery voltage: 20% - 100%

Every mode changes automatically depending on the voltaje of the battery.

