## Speed & Cadence Magnetless Sensor

The magnetless speed and cadence sensor uses an accelerometer instead of a magnet to measure Speed and Cadence values. It is equipped with ANT+ and BLE (4.2) protocols, which enables to connect with display devices or APP which uses the same protocols

When the battery is installed, the green light flashes to indicate when rotating the sensor or the red light flashes to indicate the sensor is in battery low.

\* Speed magnet-less sensor

Bike Speed and Cadence

**Magnetless Sensor** 



Magnetless sensor Pad Holder x

\* Cadence magnet-less sensor



Magnetless sensor Rubber Pad x1 Rubber Band x2 Battery x1

### • Using the Speed Magnetless Sensor

\*The magnet-less sensor should be installed on the front tire hub as shown on the picture below.

1. Put the pad holder in the groove of the sensor and put the bulge in the hole of sensor, encircle it around the hub, and attach it to the other side of the groove on the sensor.

2. Rotate the tire and make sure the sensor doesn't touch any part of the bike.

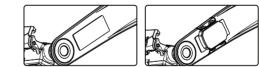


#### • Using the Cadence Magnetless Sensor

1. Place the pad on the crank, and then place the sensor on the pad.

2. Select the rubber band that best fit the crank arm.

- 3. Put the rubber band in the groove of the sensor, encircle it around the crank arm, and attach it to the other side of the groove on the sensor.
- 4. Rotate the crank arm and make sure the sensor doesn't touch any part of the bike or shoes.



Note: After installing the sensor, please make sure that the sensor and rubber ring do not rub against the shoes or bicycle during riding, so as to avoid damage or loss of the sensor during use.

### Pair With Your Device

The sensor is equipped with ANT+ and BLE (4.2) protocol to transfer data. Please make sure the device is equipped with the protocols above.

1. Prepare a compatible device. The distance between the device and sensor is within 3m. (Please have the device 10m away from other compatible sensors while pairing.)

2. Rotate the crank arm with the sensor attached, and pair the device by following instructions. (When rotating the sensor, it will flash green light. If it flashes red light or no reaction, please replace the battery and try it again)

## Care and Maintenance Instruction

1. Keep the sensor away from high voltage locations.

2. When the power is low, please replace with a new CR2032 type battery

## Product Specification

Connectivity	ANT+ and BLE4.2
Dimension	37.6mm*33.3mm*12.3mm
Weight	10g
Transmission Distance	3m
Light Indicator	Red. Green
Sleep Time	20 Minutes
Water Resistance	IPX6
Operating temperature	0~50°C
Battery	CR2032
Battery Life	240 Hours

\* Actual battervlife depends on using environment.

## **Battery Replacement**



To replace the battery, unscrew the back cover. Gently remove the battery and replace it with a new battery model CR2032.

The (+) side should be facing up.

\*NOTE: Losing O-ring may cause water leakage.

## ▶ FAQ (1)

1. Which APPs and GPS head-units are compatible with the sensor?

A: The sensor is compatible with all devices that support the BLE and ANT+ standard protocols, such as; Garmin, Bion, Bryton, iGPSPORT, Zwift, Onelap, Bkool, TACX, etc and many other virtual training software.

# 2. Why is the sensor not discovered by other equipment when it is not used for a long time?

A: In order to save power, the sensor will go to sleep when it detects no data for 20 minutes. Normal broadcasting will resume when the device is used.

#### 3. What is the indicator light meaning?

Before wake-up the device, the normal indicator light will be green for 10 seconds. If the indicator light is red, please replace the battery with a brand new battery. (The battery model is CR2032.) (If you are still unable to solve your problem, please contact online technical support)

# 4. Why can't the newly purchased sensor be found by other equipment?You should check;

1) Check the device is working normally.

2) Whether the software is compatible.

 Whether there are any inductive magnets causing interference.
When searching for the device using a GPS headunit, select the "speed" or "cadence" option, do don't select the "Speed/Cadence"(combined) option.

(If you are still unable to solve your problem, please contact online technical support).

## 5. Why does a GPS head unit connected to the speed sensor not display speed data?

This is because the head unit is set to prefer speed data from the GPS data. Therefore if you have not obtained a GPS position lock, there will be no speed data. Please change the settings of the head unit to prefer speed data from a speed sensor.

## 6. Why does a GPS head unit connected to the sensor but not display data?

Check whether the connection with the software is normal.
Whether there is an induction magnet left around.
If the battery is dead, replace it with a new one.
(If you are still unable to solve your problem, please contact online technical support).

#### 7. Is there any delay in the data of the sensor?

The sensor uses geomagnetic sensor measurement data, abandoning the traditional magnet sensing scheme - the installation is more convenient, but there is a certain delay in calculating the data, but the main reason for the data display delay is that the bicycle GPS head unit uses an averaging algorithm to smooth the data.

#### 8. How many hours can the sensor be used?

The battery life is about 240 hours (there will be differences due to the influence of temperature and use environment)

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