Magene S3+

Magene S3+ Speed/Cadence Sensor User Manual

Model: S3+ | Brand: Magene

1. Introduction

The Magene S3+ is a versatile outdoor/indoor speed and cadence sensor designed for cycling. It utilizes both Bluetooth and ANT+ wireless technologies, making it compatible with a wide range of bike computers, smartwatches, and cycling applications such as Onelap, Wahoo Fitness, Zwift, and Strava. This manual provides detailed instructions for the setup, installation, operation, and maintenance of your S3+ sensor.

Figure 1: Magene S3+ Speed/Cadence Sensor

2. Package Contents

Upon opening the package, verify that all components are present:

- 1x Magene S3+ Sensor Unit
- 1x Flat Rubber Pad (for sensor mounting)
- 1x Small Rubber Elastic Ring (for crank arm mounting)
- 1x Large Rubber Elastic Ring (for hub mounting)
- 1x CR2032 Battery (pre-installed in sensor)
- User Manual (this document)

Figure 2: Standard parts included with the Magene S3+ sensor.

3. Setup

3.1 Battery Installation and Mode Switching

The Magene S3+ sensor comes with a pre-installed CR2032 battery. Before first use, you must remove the insulating sheet from the battery compartment. The sensor operates in two modes: Speed Mode and Cadence Mode. A single sensor can only operate in one mode at a time. To switch between modes, remove and re-install the battery.

- **Red Light:** Indicates Cadence Mode.
- **Green Light:** Indicates Speed Mode.

After re-installing the battery, observe the LED indicator. If it flashes red, the sensor is in Cadence Mode. If it flashes green, it is in Speed Mode. If the desired mode is not active, remove and re-insert the battery again until the correct color flashes.

Figure 3: Instructions for switching between Speed and Cadence modes by re-installing the battery.

Note: If you require both speed and cadence data simultaneously, two S3+ sensors are needed (one configured for speed, one for cadence).

4. Installation

The S3+ sensor can be installed on either the wheel hub (for speed) or the crank arm (for cadence).

4.1 Speed Sensor Installation (Green Light)

To install the sensor as a speed sensor:

1. Ensure the sensor is in Speed Mode (green light flashes).
2. Attach the flat rubber pad to the back of the sensor unit.
3. Securely fasten the sensor to the center of your bike's wheel hub using the large rubber elastic ring.
4. Turn the wheel to activate the sensor and ensure it can be detected by your device.

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Video 1: Magene S3+ Speed Sensor Installation Guide. This video demonstrates how to install the S3+ sensor on the wheel hub for speed tracking.

4.2 Cadence Sensor Installation (Red Light)

To install the sensor as a cadence sensor:

1. Ensure the sensor is in Cadence Mode (red light flashes).
2. Attach the flat rubber pad to the back of the sensor unit.
3. Securely fasten the sensor to the inside of your bike's crank arm using the small rubber elastic ring.
4. Turn the crank to activate the sensor and ensure it can be detected by your device.

Your browser does not support the video tag.

Video 2: Magene S3+ Cadence Sensor Installation Guide. This video demonstrates how to install the S3+ sensor on the crank arm for cadence tracking.

5. Operation and Connectivity

The Magene S3+ sensor supports both Bluetooth and ANT+ connectivity.

5.1 Connecting to a Smartphone App (Bluetooth)

To connect your S3+ sensor to a smartphone application (e.g., Onelap, Wahoo Fitness, Zwift, Strava):

1. Ensure the sensor is awake by spinning the wheel or crank arm (depending on its configured mode). The sensor will automatically enter a sleep state after 1 minute of inactivity to save power.
2. Open your preferred cycling application on your smartphone.
3. Navigate to the sensor pairing or device connection section within the app.
4. Search for the S3+ sensor within the app. **Do not attempt to pair the sensor directly through your phone's Bluetooth settings; it must be discovered and connected via the application itself.**
5. Select the Magene S3+ sensor from the list of available devices to establish a connection.

Note: When using Bluetooth, one sensor can only connect to one app or device concurrently.

5.2 Connecting to a Bike Computer (ANT+/Bluetooth)

The S3+ sensor can also connect to bike computers that support ANT+ or Bluetooth protocols (e.g., Garmin, Bryton, iGPSPORT).

1. Ensure the sensor is awake by spinning the wheel or crank arm.
2. On your bike computer, go to the sensor pairing or add device menu.
3. Select to search for new sensors (Speed or Cadence, depending on your S3+ configuration).
4. Once detected, select the S3+ sensor to pair.

Note: When using ANT+, the sensor can be connected to multiple devices simultaneously.

Figure 4: The S3+ sensor supports both ANT+ and Bluetooth for broad compatibility.

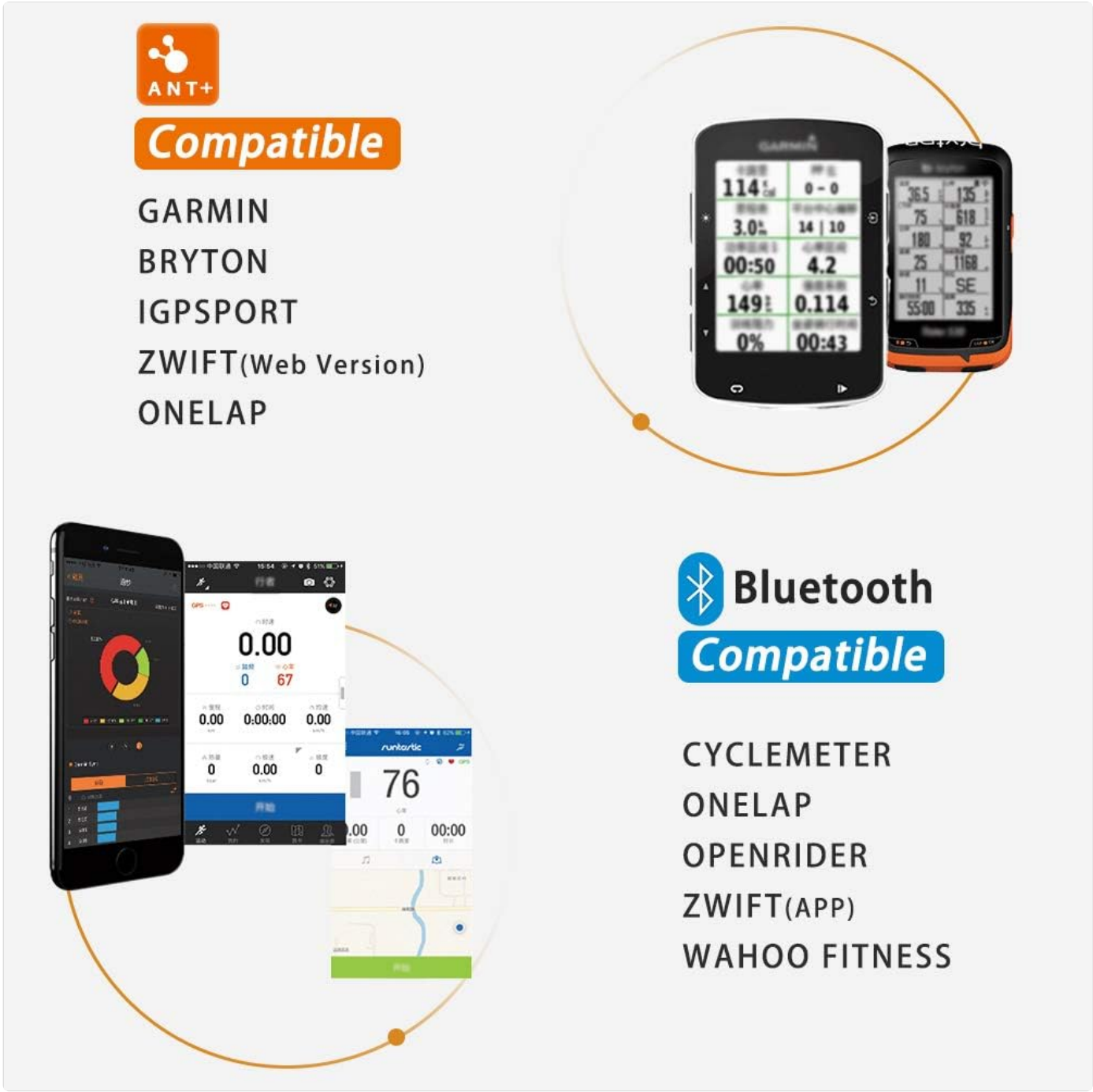


Figure 5: Examples of compatible devices and applications for the Magene S3+ sensor.

6. Maintenance

6.1 Battery Replacement

The S3+ sensor uses a standard CR2032 coin cell battery. When the battery is low, the sensor's performance may be affected, or it may stop transmitting data. To replace the battery:

1. Carefully twist open the battery compartment cover on the back of the sensor.
2. Remove the old CR2032 battery.
3. Insert a new CR2032 battery with the positive (+) side facing upwards.
4. Close the battery compartment cover securely, ensuring a tight seal to maintain water resistance.

The battery life is approximately 500 hours of use.

6.2 Cleaning and Storage

The Magene S3+ sensor has an International Protection Rating of IP66, meaning it is dust-tight and protected against powerful

water jets. While it is water-resistant, it is not designed for submersion.

- Wipe the sensor clean with a soft, damp cloth after use.
- Avoid using abrasive cleaners or solvents.
- Store the sensor in a cool, dry place when not in use.

Figure 6: The S3+ sensor offers long battery life and IP66 water resistance.

7. Troubleshooting

- **Sensor Not Detected:**
  - Ensure the sensor is awake by spinning the wheel or crank arm.
  - Check if the battery insulating sheet has been removed.
  - Replace the battery if it's low or depleted.
  - For smartphone apps, ensure you are searching for the sensor within the app itself, not through the phone's general Bluetooth settings.

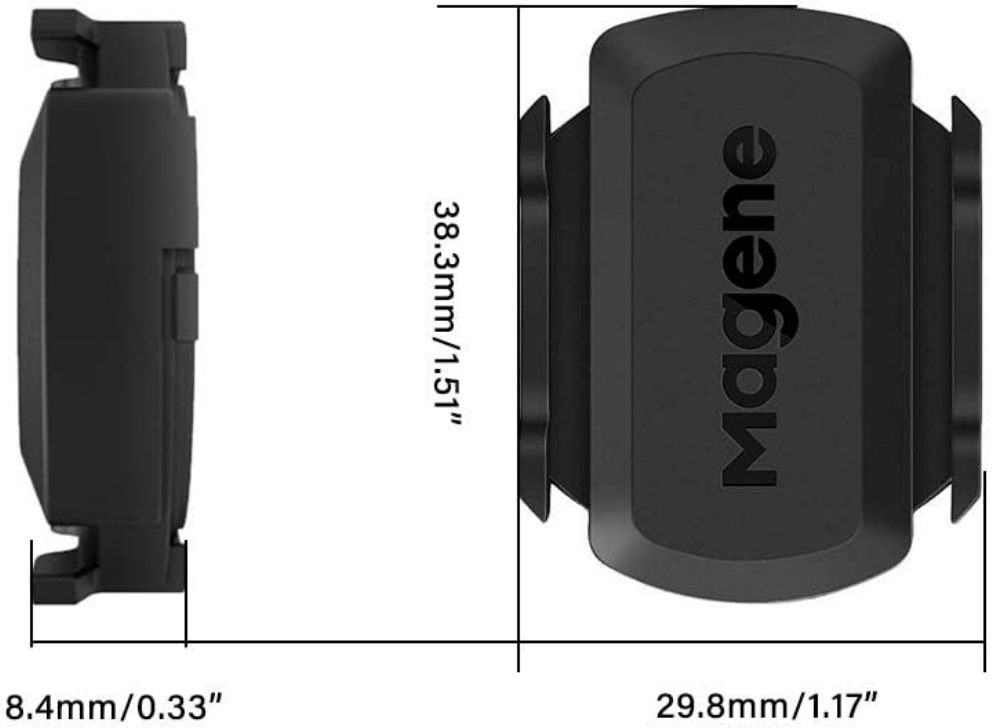
- Verify that the sensor is correctly installed and securely attached.

- **Incorrect Mode (Speed/Cadence):**
  - Remove and re-install the battery to switch modes. Observe the LED color (Red for Cadence, Green for Speed).
- **Bluetooth Connection Issues:**
  - Remember that a single sensor can only connect to one Bluetooth device/app at a time. Disconnect from other devices if necessary.
  - Ensure your smartphone's Bluetooth is enabled.
- **Sensor Enters Sleep Mode Too Quickly:**
  - The S3+ sensor automatically enters sleep mode after 1 minute of being stationary to conserve power. This is normal behavior. Simply start moving the wheel or crank to wake it up.

8. Specifications

Model Name	S3+
Sensor Type	Speed Sensor, Cadence Sensor (Dual Mode)
Connectivity	Bluetooth, ANT+
Battery Type	CR2032 Lithium Manganese Dioxide
Battery Life	Approx. 500 hours
Dimensions (LxWxH)	1.17" x 0.33" x 1.51" (29.8mm x 8.4mm x 38.3mm)
Weight	9 Grams
Waterproof Rating	IP66
Operating Temperature	-68°F to 122°F (-20°C to 50°C)

Product Details



Model: S3+	Name: Cadence & Speed Dual Mode Sensor
Sensor: Geomagnetic Sensor	The Highest Detection Speed: 700c 110km/h
Battery: CR2032 Battery	Wireless interface: Bluetooth Smart, ANT+
Volume: 8.4*29.8*38.3 mm	Operating Temperature: –68°F∽122°F

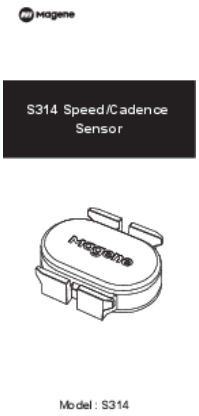
Figure 7: Detailed dimensions and specifications of the Magene S3+ sensor.

9. Warranty and Support

For warranty information and customer support, please refer to the official Magene website or contact the seller directly. Keep your purchase receipt as proof of purchase for any warranty claims.
Official Magene Store: Magene Amazon Store

Related Documents - S3+

	Magene S3+ Bike Speed and Cadence 2-in-1 Sensor | Manual & Specifications Get detailed information on the Magene S3+ dual-mode bike sensor. Learn about installation, setup, features, FAQs, and specifications for speed and cadence tracking via Bluetooth and ANT+.

	[Magene S314 Speed/Cadence Sensor: Installation, Pairing & User Guide] Comprehensive user manual for the Magene S314 Speed/Cadence Sensor. Learn how to install, pair, replace the battery, and troubleshoot common issues. Supports Bluetooth and ANT+ for cycling training.
	[Magene C406 Smart GPS Bike Computer User Manual and Guide] Comprehensive guide to the Magene C406 Smart GPS Bike Computer, covering installation, setup, features, sensor connection, app integration, and warranty information.
Magene	[Magene C606 GPS Bike Computer: User Manual, Installation, and Specifications] Comprehensive guide for the Magene C606 GPS Bike Computer, covering installation, charging, setup with the OnelapFit app, technical specifications, warranty information, and safety warnings.
	[Magene S3+ Speed and Cadence Sensor User Manual] User manual for the Magene S3+ Speed and Cadence Sensor, detailing installation, operation, connectivity, and troubleshooting for cycling enthusiasts.
	[Magene C406 Smart GPS Bike Computer Installation and User Guide] Comprehensive guide for installing and using the Magene C406 Smart GPS Bike Computer, including app connection, sensor pairing, data syncing, and warranty information.