ANT+ 2.4G Wireless

Cadence / Speed Sensor

Cadence/Speed

User Manual

ver: 1.0

Holux Technology

www.holux.com

Content

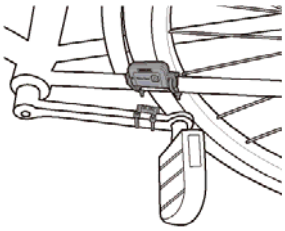
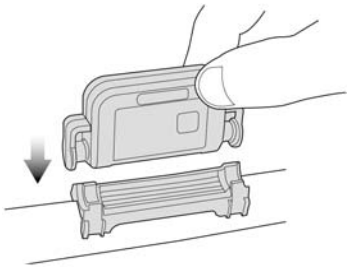
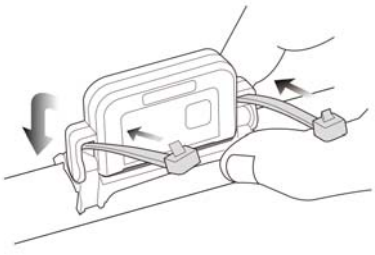
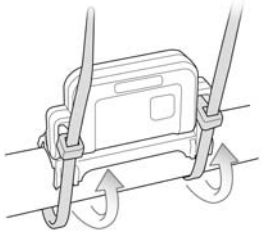
Cadence Sensor

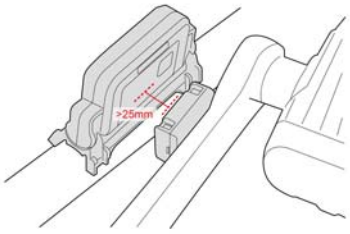
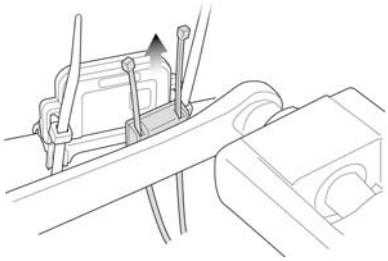
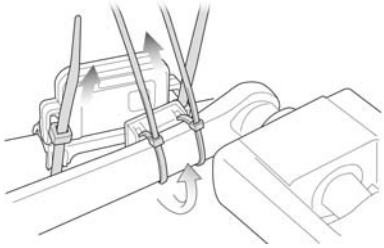
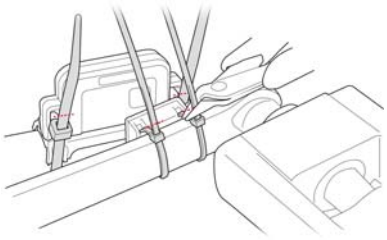
Cadence is the number of revolutions of the crank set per minute for cyclists.

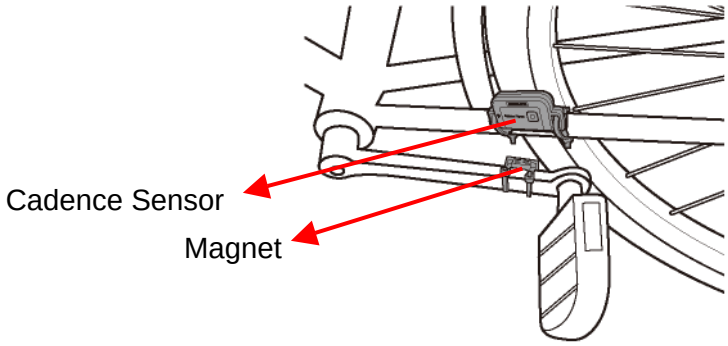
Installing Cadence Sensor

- The cadence comes in two parts, the cadence sensor itself and the magnet.
- Place the sensor on the chain stay. Rotate the crank to make sure the sensor will not touch the rotating crank. If the sensor touches the crank, move the sensor slightly upwards. Use the cable ties to secure the cadence sensor.
- Place the magnet on the crank. Use two cable ties to secure the magnet.
- The cadence sensor and the magnet should pass facing each other with no more than 25 millimeters between the two to transmit accurate data.

The details please reference for below:

The cadence comes in two parts, the cadence sensor itself and the magnet. The cadence sensor should be placed on the chain stay, and the magnet on the crank.	Place the rubber pad on the chain stay. Place the cadence sensor on the rubber pad.
	
Thread the two included cable ties (thicker ones) through the cadence sensor. Wind the cable ties to secure the cadence sensor onto the chain stay.	DO NOT pull the cable ties yet now. Leave the cable ties loose enough to be adjusted. The cable ties should be fixed only when the magnet is fixed. Continue to next step to fix the magnet.
	
Place the magnet on the inner side of the crank. Make sure the cadence sensor and the magnet pass facing each other with no more than 25 millimeters between the two.	Thread and wind the included two cable ties (thinner ones) to secure the magnet onto the crank. Once the rotation is assured and the position of the two is fixed, pull the cable ties to secure the magnet.

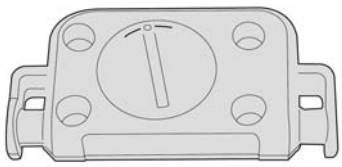
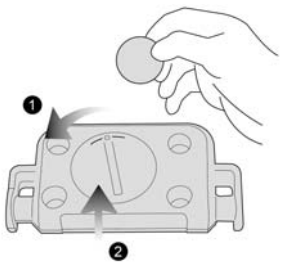
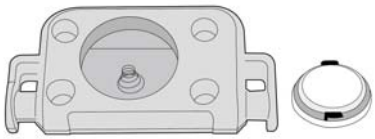
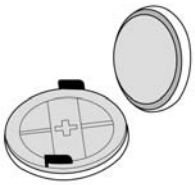
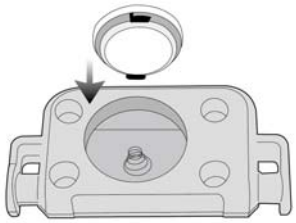
	
Pull the cable ties to fix the cadence sensor and the magnet.	Trim the cable ties if they hinder the rotation.
	



Note: There is a power button on the surface of the cadence sensor. Do not push it unless you want to reset it.

Replacing the Battery of Cadence Sensor

When the battery of the cadence sensor is drained, you can replace the battery by yourself. The coin cell battery cadence sensor is CR2032.

Place the cadence sensor with the coin cell lid facing up	Use a coin and align it with the groove of the lid. Twist the lid counter-clockwise until it is loose enough to be lifted from the edge.
	
Remove the lid	Replace the battery with positive side facing the lid.
	
Restore the lid by using a coin to twist it until it is into place.	
	

Cadence Spec.

Dimension	Cadence: 63.5X32.2X12.9mm Magnet: 26.0x20.0x10.0mm
Memory	RAM: 768B ROM: 16KB Flash
Wireless	Built-in 2.4GHz wireless Support ANT+ Sport Protocol 1 Mbps on-air date rate GFSK modulation 2.4G ISM band, 1 Mhz frequency resolution, 78 RF channels Up to 0 dBm output power Transmission distance: 6-7m (Max)
Battery	CR2032 Active voltage: 2-3V Active average power consumption: 3.7mA Sleep average power consumption: 3.9uA
Environment temperature	Operation: -10℃~ 60℃ Storage: -20 ℃~ 70 ℃

Speed Sensor

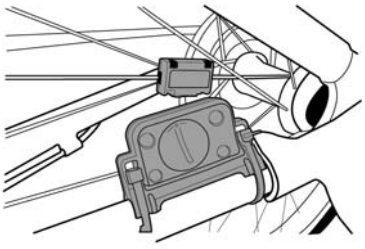
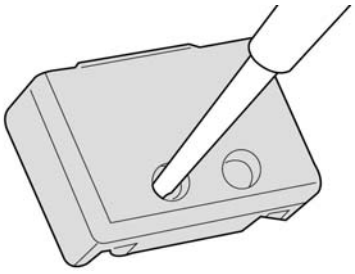
Speed is the number of distance of the wheels set per minute for cyclists.

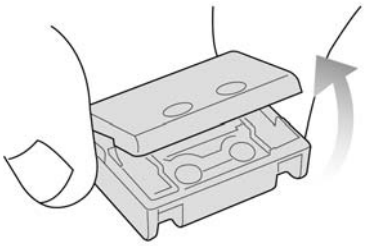
Installing Speed Sensor

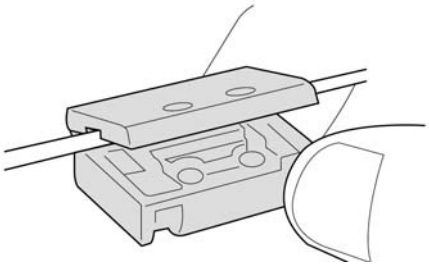
- The speed senor comes in two parts, the speed sensor itself and the magnet. You can choose to install the speed sensor/magnet to the fork/front wheel spoke or the chain stay/back wheel spoke of your bike as long as the magnet is at the same level of the speed sensor and the spacing of the two should not exceed 25 millimeters

- Use two cable ties to secure the speed sensor to the fork or chain stay of your bike.
- Attach the magnet to the wheel spoke. The magnet must be facing the speed sensor. For the spoke is too thin for the magnet to attach by cable ties, users should tighten the magnet screw instead of using cable ties.
- The magnet and speed sensor should pass facing each other with no more than 25 millimeters between the two to transmit accurate data.

The details please reference for below:

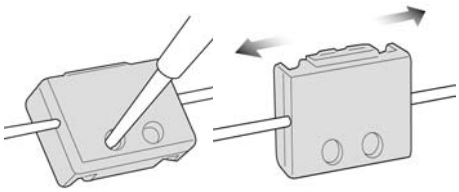
The speed sensor comes in two parts, the speed sensor itself and the magnet. The speed sensor should be placed on the chain stay and the magnet on the rear wheel spoke, the two should pass facing each other.	Unscrew the magnet to open it.
	
Open the magnet without separating the cases apart.	Attach the magnet to a spoke of the rear wheel by threading the spoke through the U-shaped indentation on both sides of the magnet.

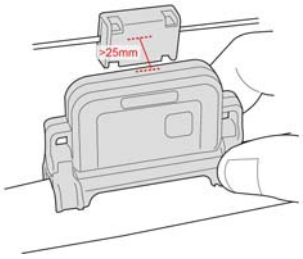




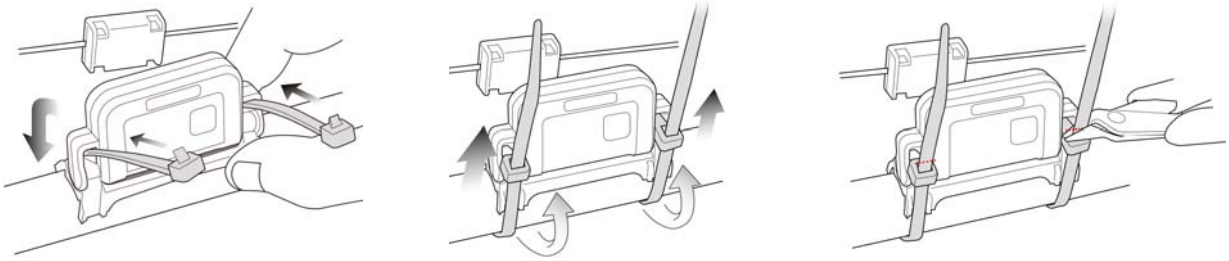
Close the magnet and screw it.
Do NOT secure the screw yet, leave the magnet loose enough to be adjusted until the speed sensor is fixed. Continue to fix the speed sensor.

Place the speed sensor on the inner side of a chain stay. Make sure the speed sensor and the magnet should pass facing each other with no more than 25 millimeters between the two.

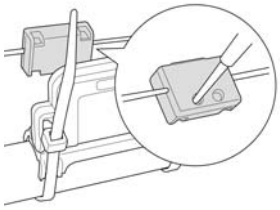


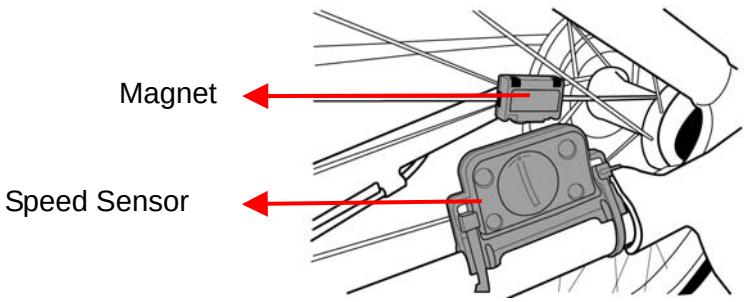


Thread and wind the included two cable ties (thicker ones) to secure the speed sensor onto the chain stay. Trim the cable ties if they hinder the rotation



Secure the speed sensor to make sure it is firmly attached to the spoke without moving upward or downward while cycling.





Note: There is a power button on the surface of the speed sensor. Do not push it unless you want to reset it.

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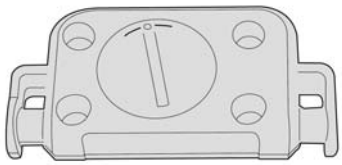
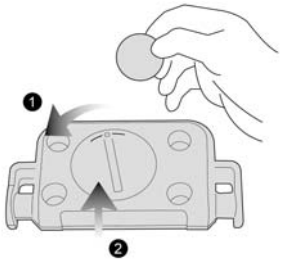
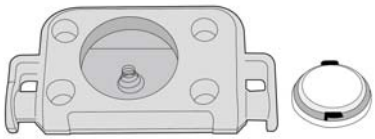
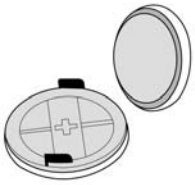
	
Remove the lid	Replace the battery with positive side facing the lid.
	
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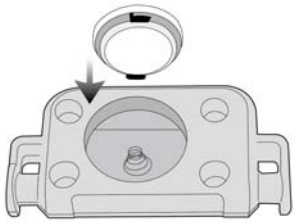
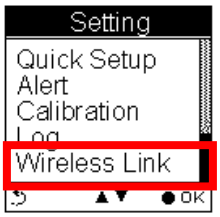
	

Speed Spec.

Dimension	Speed: 63.5X32.2X12.9mm Magnet: 26.0x20.0x10.0mm
Memory	RAM: 768B ROM: 16KB Flash
Wireless	Built-in 2.4GHz wireless Support ANT+ Sport Protocol 1 Mbps on-air date rate GFSK modulation 2.4G ISM band, 1 Mhz frequency resolution, 78 RF channels Up to 0 dBm output power Transmission distance: 6-7m (Max)
Battery	CR2032 Active voltage: 2-3V Active average power consumption: 3.7mA Sleep average power consumption: 3.9uA
Environment temperature	Operation: -10℃~ 60℃ Storage: -20 ℃~ 70 ℃

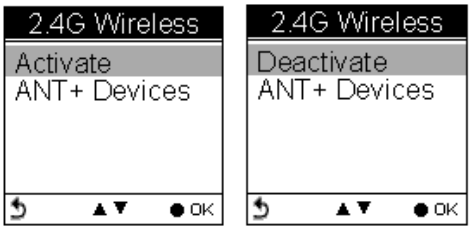
Wireless Link- GPSport 260

The GPSport 260 Pro is using ANT+ to collect and transfer sensor data. The three sport sensors supported are HRM, speed sensor and cadence.



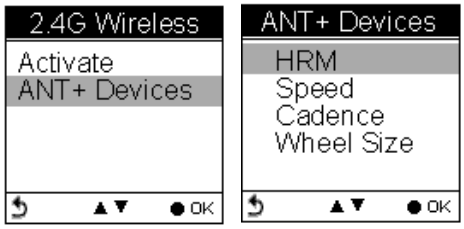
Activate Wireless Link

Users have to activate the GPSport 260 Pro wireless link before they connect the GPSport 260 Pro with sport sensors. If the wireless link is not yet activated, the setting menu displays "**Activate**" for selection, otherwise, "**Deactivate**" is displayed when the device is active.

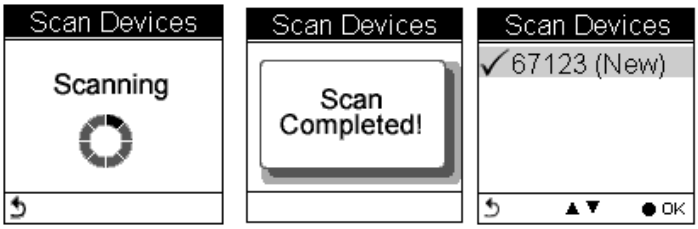


Scan Sensor

Select ANT+ Devices to select the sport sensor to connect.



The device will start scanning devices nearby. When completed, scanned devices are listed.

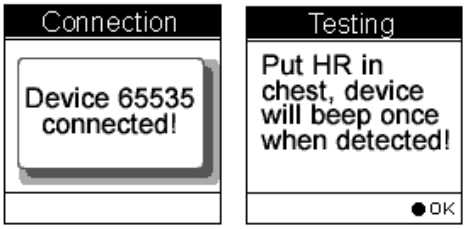


Connect and Detect

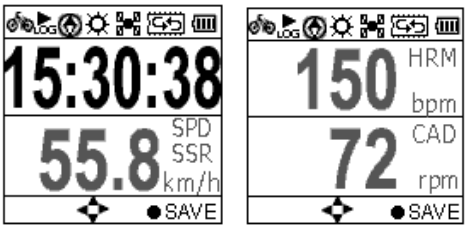
Move the Up/Down arrow to select the sensor to connect.

A warning message prompts to remind users to make sure the selected sensor is properly installed, for example, HRM should be well-strapped to your chest so that the GPSport 260 Pro can detect without

failure.



The GPSport 260 Pro can connect up to 3 sensors of different kinds at a time, namely, one HRM, one Speed sensor, and one Cadence sensor can be connected concurrently. If a sport device is detected, a screen appears as shown.



"FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

--Reorient or relocate the receiving antenna.
--Increase the separation between the equipment and receiver.
--Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
--Consult the dealer or an experienced radio/TV technician for help."

"RF exposure warning
·This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance. "

"CAUTION:
Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment."

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.