

Thank you for purchasing an MSW® Speed and Cadence Sensor!

At MSW® we believe that having essential accessories makes a good ride great.

▲ WARNING: Cycling can be dangerous. Bicycle products should be installed and serviced by a professional mechanic. Never modify your bicycle or accessories. Read and follow all product instructions and warnings including information on the manufacturer's website. Inspect your bicycle before every ride. Always wear a helmet.

For additional product and safety information go to: www.mswbike.com/safety.

COMPATIBILITY AND INTENDED USE

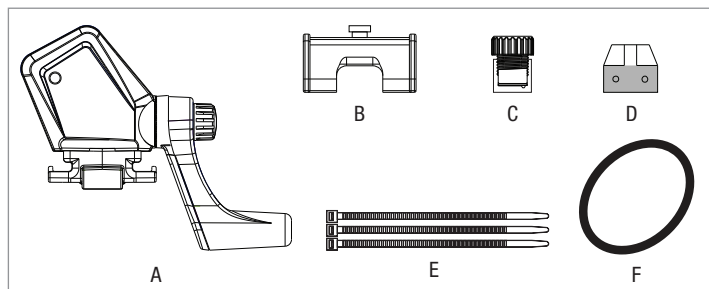
The MSW Speed and Cadence Sensor is compatible with 2.4g digital wireless cycling computers. They need to have the capability to accept speed and cadence data.



The MSW Miniac Speed and Cadence Sensor is intended for use on roads and paved trails as well as ASTM Condition 2 use. This includes smooth paved roads, unpaved and gravel roads, and trails with moderate grades where loss of contact with ground may occur but drops are less than 6" (15cm).

INCLUDED PARTS

Please check that all the following items have been included with the cycle computer before starting.



- | | |
|-----------------|-------------------|
| A. Sensor | D. Cadence magnet |
| B. Rubber shim | E. Zip ties |
| C. Wheel magnet | F. Rubber O-ring |

INSTALLATION

MOUNTING THE SENSOR

The sensor is mounted on the non-driveside chainstay, just behind the bottom bracket. The distance between the computer head unit at the handlebar and the sensor should not exceed 150cm.

The larger part of the sensor reads the cadence magnet to register cadence, etc. The adjustable arm of the sensor unit registers speed, distance, etc. The larger part of the sensor faces the front of the bike, and the adjustable arm faces the back and sits along the inside of the chainstay. Loosen the knurled dial in front of the adjustable arm to rotate it in the optimal position (fig. 1). Do not tighten it until the optimal position has been determined.

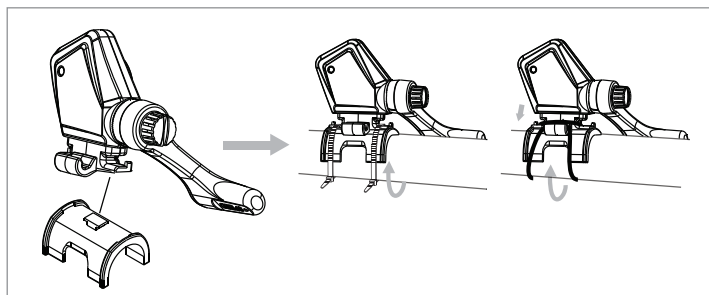


Figure 1

Place the included rubber pad between the sensor and the chainstay. The sensor is attached using two included zip ties, but do not fully tighten them until the wheel and cadence magnets are in place, and the adjustments that yield the best readings are made between the sensor, sensor arm, and the magnets (fig. 2).

The distance between the cadence magnet and the sensor, and between the rear wheel magnet and the sensor arm should not exceed 3mm.

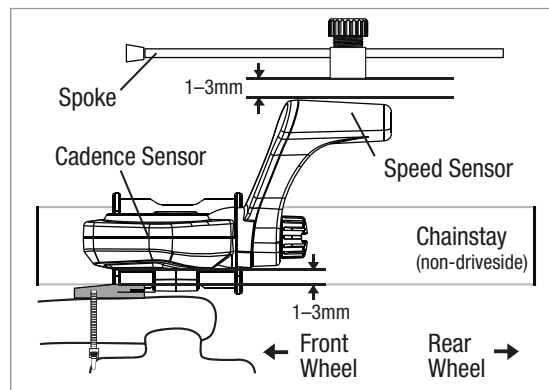


Figure 2

MOUNTING THE CRANK AND WHEEL MAGNETS

1. Place the cadence magnet on the inside of the crank arm 2 to 3cm up the arm from the pedal spindle and zip tie it in place.
2. Position the larger part of the sensor close enough to the crank arm that the required distance between it and the cadence magnet is achieved (fig. 3). Checking operation of the sensor is most easily done with the bike in a repair stand rather than doing it while riding.

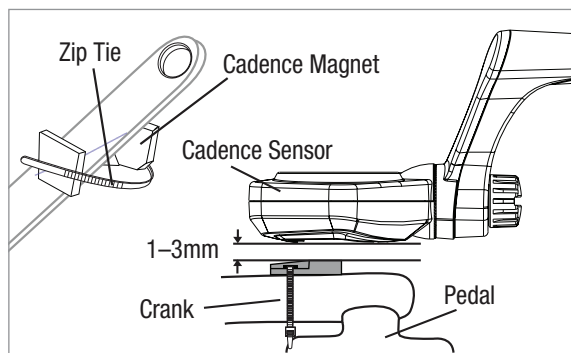


Figure 3

3. Using this sensor placement as a guide, position the wheel magnet in the approximate area that it will pass the sensor arm on the inside of the chainstay. The wheel magnet is tightened to the spoke by threading it into the magnet bracket that sits behind the spoke (fig. 4).

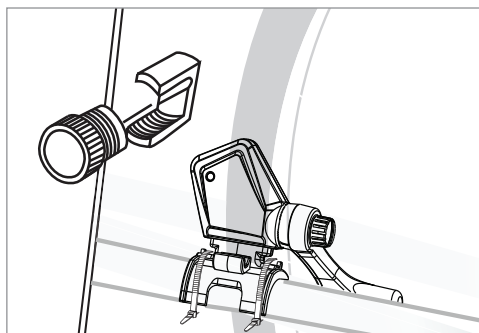


Figure 4

4. Holding the larger part of the sensor in place with one hand, rotate the arm of the sensor so that the required distance between it and the wheel magnet is achieved.

- Use two zip ties to tighten the sensor to the chainstay, and snip off the excess length.
- Make any final adjustments to the sensor arm to achieve the required distance between it and the wheel magnet, and tighten the knurled dial.

PAIRING THE MSW MINIAC DOUBLE WIRELESS COMPUTER WITH THE SENSOR

(For pairing with other compatible cycling computers reference manufacturer's instructions for that computer.)

In any mode, press the M and C buttons, and hold for six seconds, and then press C button. The computer will search for 30 seconds. If it is paired, it will show the ID and go back to the original page in 5 seconds. If it is not paired, check that the sensor and magnets are aligned; also check the battery (fig. 5).

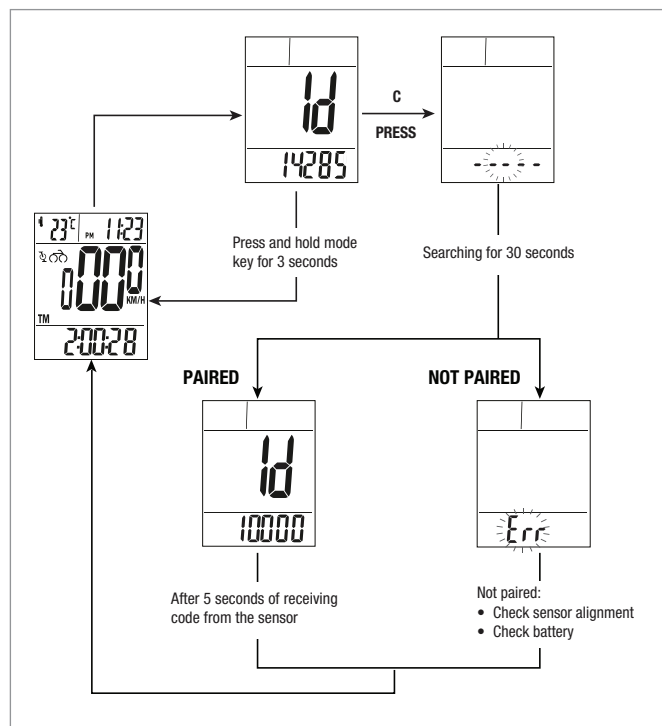


Figure 5

Test to make sure that the magnets are activating the sensor, and the computer head unit is registering the magnets as they pass the sensor.

MAINTENANCE

Check the position of sensor and magnet periodically. Rust or corrosion on the magnet may cause malfunction. The gap between magnet and sensor cannot exceed 3mm.

BATTERY REPLACEMENT

A red light on the sensor will appear when its battery is running low. Unscrew the back cover. The (+) side should be facing up. Gently remove the battery and replace it with a new battery model CR2032.

BATTERY WARNINGS

A coin-cell, lithium-ion battery is used in this device. If these guidelines are not followed, batteries may experience a shortened lifespan or may present a risk of damage to the device, fire, chemical burn, electrolyte leak, and/or injury.

- Do not leave the device exposed to a heat source or in a high-temperature location, such as in the sun in an unattended vehicle.
To prevent the possibility of damage, remove the device from the vehicle or store it out of direct sunlight, such as in the glove box
- Do not disassemble, modify, remanufacture, puncture or damage the device or batteries

- Do not immerse or expose the device or batteries to water or other liquids, fire, explosion, or other hazard
- Do not use a sharp object to remove the batteries
- Replaceable coin-cell batteries may contain perchlorate material. Special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate
- Only replace batteries with correct replacement batteries. Using other batteries presents a risk of fire or explosion
- Do not operate the device outside of the temperature ranges specified in these instructions
- Contact your local waste disposal department to dispose of batteries in accordance with applicable local laws and regulations

▲ WARNING:

- KEEP BATTERIES AWAY FROM CHILDREN
- NEVER PUT BATTERIES IN MOUTH. Swallowing can lead to chemical burns, perforation of soft tissue, and death. Severe burns can occur within two hours of ingestion. Seek medical attention immediately

LIMITED 2-YEAR WARRANTY

MSW warrants this new MSW product against defects in materials and workmanship for two (2) years from the original date of retail purchase by the consumer. This limited warranty is expressly limited to the repair or replacement of the original product, at the option of MSW, and is the sole remedy of the warranty. This limited warranty applies only to the original purchaser of the MSW product and is not transferable.

In no event shall MSW be liable for any loss, inconvenience or damage, whether direct, incidental or consequential or otherwise resulting from breach of any express or implied warranty or condition of merchantability, fitness for a particular purpose, or otherwise with respect to this product except as set forth herein. This warranty gives the consumer specific legal rights, and those rights and other rights may vary from state to state.

This warranty does not cover the following:

- Damage due to improper assembly or follow-up maintenance or lack of skill, competence or experience of the end user
- Products that have been modified, neglected, used in competition or for commercial purposes, misused or abused, involved in accidents or anything other than normal use
- Damage or deterioration to the surface finish, aesthetics or appearance of the MSW product
- Normal wear and tear
- Labor required to remove and/or refit and re-adjust the product within the bicycle assembly
- Installation of components, parts, or accessories not originally intended use with or compatible with MSW products

TO THE EXTENT NOT PROHIBITED BY LAW, THESE WARRANTIES ARE EXCLUSIVE AND THERE ARE NO OTHER EXPRESS OR IMPLIED WARRANTIES OR CONDITIONS INCLUDING WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

WARRANTY PROCESS

If you and your shop think your MSW product is worthy of a warranty inspection, please return the product to the original place of purchase, accompanied by a sales receipt.

For complete warranty information, visit www.mswbike.com/safety/warranty.