



User's Guide

Congratulations on your purchase of the Aerobar Edge computerized training and racing device! You hold in your hands the most original and impactful triathlon and cycling training/ racing device since the power meter and heart rate monitor! This lightweight, aerodynamic, user-friendly device can enhance your racing results, optimize your training strategy, and insure your bike fit is ideal. Simply stated – it would be difficult to identify any device that will have a greater impact on your racing results than the Aerobar Edge.

Now let's get into the details that will allow you to make the most of your experience...

First – an **important SAFETY reminder**: The aero position is not always a safe riding position. Users of the Aerobar Edge agree to take responsibility for safe turns and cornering, as well as an implementation schedule that is conducive to the individual user's body, medical history, etc. Users should consult their Physician if there are any doubts about frequency, duration or other variables inherent in the use of the Aerobar Edge training tool. Use of the Aerobar Edge will encourage you to train and ride in aero but PLEASE BE SMART AND SAFE with both integration and safe turns and cornering. The user of the Aerobar Edge assumes all responsibility for choosing when to enter and maintain an aero position. Consult an expert bike fitter, coach or medical professional who can provide necessary guidance. Aero is a great position – but only when sustained safely. Please make safety your first priority when using the Aerobar Edge. Now that we've covered the safety side of things, let's get onto the fun stuff!

QUICKSTART Instructions (The following provides the summary of the basic steps involved. For more detailed instructions, please see down below. Thanks!)

Setup Steps

1. Register your account at www.AerobarEdge.com under "My Aerolab"
2. Download the Aerobar Edge app (either iPhone or Android available)
3. Open up your Aerobar Edge app and click "Settings" in the top right corner
4. Click "Registered" button and enter your Username and Password from your desktop account registration
5. Make sure the bluetooth setting for your phone is ON and push down moderately hard (about 5-10 lbs of pressure) on the circular pressure sensor to allow phone to detect your unit
6. Then click "Scan for Device" in your app
7. Once it's found (it will list your device Serial Number), then click the "Register" button down at the bottom to complete the linkage between your device and the app
8. While not required, it is MUCH easier to download your rides if you link your Garmin/Timex/Polar/Wahoo or other device to a Strava account. Strava is free and easy to use, and you can set up your account at www.Strava.com

Using the Aerobar Edge (once the above set-up steps are complete)

1. Install the velcro on the back side of the Aerobar Edge and on a flat, out of the way surface of your aerobars so it is securely connected to your aerobars. You do NOT need to be able to see the "aerohead" while riding. In fact, looking for a flashing light in sunshine can be a significant safety issue so we recommend placing it in a location where you won't be tempted to look at it when riding.
2. Then, to place the pressure sensor, remove the pad of your aerobar arm rest on the side of your non-dominant arm (ie, if Right handed, remove the left side) and position the pressure sensor in the location where your arm pressure will press down on the sensor when riding. You'll likely need to experiment with this positioning initially to get the best possible position. Then replace the pad over the top of the sensor.
3. Make sure any excess wire is positioned in such a way that you won't accidentally catch it with a hand, glove, etc.
4. Open up your Aerobar Edge App (make sure Bluetooth is on) and press on the sensor (hand or arm is fine - you're just wanting to signal the phone that you've activated the device). Glance at the LED light to be sure your pressure is activating the sensor.
5. Click upload and allow the app to upload any old or miscellaneous data on the device. You DO NOT NEED TO CARRY YOUR PHONE WITH YOU when using the Aerobar Edge. Simply upload shortly before starting and then put your phone away. You will then upload with your phone after the ride or race has ended.

6. Go ride or race while wearing your Garmin, Polar, Timex, Wahoo or other tracking device (knowing that you're about to learn some incredibly valuable information about your own tendencies out there that will make you faster in the future!)
7. Upon completion of your ride or race, grab your phone, open up the app, push on the sensor to activate the connection and UPLOAD. This will then store the data in "My Aerolab" until you get a chance to upload your Garmin/Polar/Timex/Wahoo or other device to your computer
8. Once you're back at your computer and you've uploaded your Garmin/Polar/Timex/Wahoo data into Strava (again - not required but MUCH simpler if you go this route), then you're ready to analyze your results!

Analyzing Your Results

1. Go to www.AerobarEdge.com and log into "My Aerolab"
2. Manually upload your data file OR (easier option) click the Strava Upload button
3. Once uploaded, the ride/race will appear in your calendar
4. Click on the specific ride or race of interest and take a look at your results
5. The analytical options are extensive. You or your Coach, Health Care Provider or your Bike Fitter can look at everything from the percentage of time you were in aero to your "aero tendencies" (Do you bail out of aero after 20 minutes? Do you sit up every time you hit a 1% incline?). You can see how your speed, power, heart rate in aero compare to non-aero. You can compare ride to ride for improvements or even use the Aerobar Edge to lay out a gradual integration of aero positioning over time. When used to it's full potential, it is one of the most valuable devices available to triathletes and time trialists who want to get faster. Send us your stories of how you've used the Aerobar Edge and we'll share them!

As always, if you have questions, you can always reach us at Results@AerobarEdge.com!

Contents

1. Introduction to the AeroBar Edge
 - a. How it works
 - b. The technology involved
 - i. Bluetooth connection
2. Setting up your account and app
 - a. Registering your account
 - b. Setting up the app
 - c. Integrating with GPS and HR units
 - d. Using the Strava download option
3. Analyzing the data in ***My Aerolab***
 - a. Your personal Aeronalysis: Identifying your own Aero Tendencies
 - i. Heart Rate
 - ii. Speed
 - iii. Cadence
 - iv. Power
 - v. Time in Aero
 - vi. Incline Tendencies
4. Maximizing your training and racing outcomes
 - a. What to do with the data
 - b. Who can help you enhance results based on the analytics
5. Care and Maintenance
6. Frequently Asked Questions
7. Disclaimer

Introduction to the Aerobar Edge

- How it works:** The Aerobar Edge allows triathletes and cyclists to analyze and maximize their own personal aero position tendencies (aeranalysis) through the integration of a small, easy to install device with the user's GPS device. The Aerobar Edge keeps track of the time a rider is in the aero position by recording the input from a small pressure sensor placed under one of the aerobar pads. The recorded data is uploaded via Bluetooth and smart phone app to the user's online "My Aerolab" where the data is integrated with the output from a GPS device or cycling computer.
- Installation:** To install the Aerobar Edge, simply remove (un-velcro) the pad on the non-dominant side of your aerobars (ie, if you are "right handed" then remove the left pad) and place the pressure sensor under the pad and replace the pad over the top of the sensor. It is critical the sensor is placed in the location where your forearm provides the most pressure when riding in the aero position in order for the sensor to produce the most accurate results. Attach the arrowhead unit to the underside of the handlebars or arm pad using the included fastening tape. Be sure to place the arrowhead unit on the same side of your aerobars as the sensor without impeding your hand position when out of aero. **IMPORTANT:** be certain that the wire between the sensor and the arrowhead unit is not routed in a way that will limit your turning radius or impact steering ability. Any excess length of wire can be zip-tied to the handlebars if desired.
- The technology involved:** The device uses the time stamp tied to the clock on your smart phone to record your time in aero. The recorded data is easily uploaded to the analytics page on the Aerobaredge.com website. This allows the user to cross-reference data from their other devices (Garmin, Polar, Timex and others) either directly or via a simplified Strava upload option.
- Bluetooth connection:** The Aerobar Edge utilizes a Bluetooth connection between the device and the Aerobar Edge app on either an iOS or Android smart phone. This connection allows the user to determine the battery life of the arrowhead unit and upload recorded data to the app which automatically transmits the information to the online analytics section called My Aerolab at aerobaredge.com

Setting up your account and app

- 1. Registering your account:** The first step toward using the Aerobar Edge is to log onto www.AerobarEdge.com, click the “My Aerolab” tab and create an online Aerobar Edge account. This will allow the user to connect the app to the device in the next step.
- 2. Download the app:** Download the Aerobar Edge mobile app onto the iOS or Android based smart phone you will use most frequently to transmit the data recorded on the arrowhead unit.
- 3. Integrating with GPS and HR units:** Analytics from the Aerobar Edge integrate with the user’s other GPS devices, such as a Garmin unit. Every GPS device is different, and the more data collected by the device will allow a deeper level of analytics with the Aerobar Edge. Details on these analytics are provided below as an example.
- 4. Using the Strava download option:** For users that have previously set up a (free) Strava account at www.Strava.com, a simplified download of all GPS-based data is available with a single click. This is not a required element but is available for the convenience of the user if desired.

Analyzing the data in *My Aerolab*

1. **Your personal Aeronalysis:** Identifying and optimizing your own personal aero tendencies is easy with the online My Aerolab. Aeroanalysis can be reviewed for any aspects of data collected by the user's GPS device.
 - a. **Heart Rate** – Review how your heart rate varies in and out of the aero position.
 - b. **Speed** – Compare changes to speed in and out of the aero position over a similar course or ride segment.
 - c. **Cadence** – Many users don't think of this, but there are often differences in cadence when in an aero position vs. a non-aero position. Now you can identify these differences.
 - d. **Power** – Most cyclists believe their power in aero is not equal to their power when sitting up. Not surprisingly, studies show that the reason for this is that most of us spend far more time training in the upright vs. the aero position, causing this differential. Our power in aero is tied to time actually training in the aero position . Users can now accurately assess their personal aero tendencies, build (and effectively track) a plan for modifications over time, and significantly impact their aero position power safely and consistently. The outcome? Aero position power that can meet or even exceed upright position power (not to mention the immense aerodynamic benefits to speed).
 - e. **Time in Aero** – We (and our performance) are a reflection of our ongoing habits. The Aerobar Edge allows you to monitor both your total time and the length of your segments in the aero position. This information can then be utilized – potentially along with your coach or bike fitting specialist – to enhance performance over time.
 - f. **Incline Tendencies** – Use the graphs in My Aerolab to analyze specifically how incline affects the time you spend in aero. Do you “bail out” of the aero position everytime you hit a 1% incline? Or maybe you stick it out, but only for a moment or two? Each and every tendency tied to the aero position will come to life on your screen as you can analyze your personal patterns. This easy-to-read analysis then allows you to review progress and/or design your training to address the tendencies you identify.

Maximizing your training and racing outcomes

- 1. What to do with the data:** Once you've collected and analyzed your data, you can go to work enhancing your performance.. Research is clear that nothing effectively improves race results than consistently maintaining a (safe) aero position. Triathletes/cyclists have a tendency to overestimate their time in aero just like individuals tend to over-estimate their daily activity levels unless they measure it using a pedometer or similar device. Now riders can collect accurate data about their own performance and take steps to enhance that performance.
- 2. Who can help you enhance results based on the analytics:** While the Aerobar Edge can be utilized effectively by anyone, sometimes it's helpful to garner a little assistance from the experts. Consider reviewing your data with your Coach, Bike Fitting Specialist, Physical Therapist, Chiropractor, Physician or other healthcare provider to fully maximize your progression with the aero position and your outcomes.

Care and Maintenance: The Aerobar Edge requires very little special care/maintenance. Avoid leaving the device in a hot car and use care with the wiring. The device is water resistant but it is not waterproof. It is not designed to be sprayed or submerged.

Frequently Asked Questions

Do I need to carry my phone with me when using the Aerobar Edge?

- No. Definitely not. We knew users would want to use this device during races and not just during training. The arrowhead unit will store your data until you return to your car or home to and connect to your phone via Bluetooth. You do NOT need to carry your phone with you when using the Aerobar Edge.

Why is it suggested to place the pressure sensor under the non-dominant arm?

- The Aerobar Edge registers an aero position when the arm pressure is detected. Most riders will use their dominant arm to reach for a water bottle and we didn't want to have this show up as a non-aero position segment unless actually sitting up to drink.

Can't you cheat by placing your hand on the aero pads so the device thinks you're in aero when you're actually sitting up?

- Sure – you can cheat if that's your goal. Just as you can take a pedometer and shake it to look like you've walked thousands of steps when all you've really done is sit on the couch. But why? The goal of the Aerobar Edge is to improve performance, something you can count on if utilizing it as designed.

FCC Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subjected 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.

FCC Warning: Any changes or modifications to this device not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment

Industry Canada

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

RF Exposure Safety Information

In accordance with FCC requirements of human exposure to radio frequency fields, the radiating element shall be installed such that a minimum separation distance of 20cm is maintained between it and the general population. Proper use of this radio in accordance to the following guidelines will result in RF exposure that is below the FCC recommended limits.

Disclaimer:

The material in this manual is for informational purposes only. The products it describes are subject to change without prior notice due to the manufacturer's ongoing development program. Aerobar Edge, LLC makes no representation or warranties with respect to this manual or with respect to the products described herein.

Aerobar Edge, LLC shall not be liable for any damages, losses, costs or expenses, direct, indirect or incidental, consequential or special, arising out of, or related to the use of this material or the product described herein. User is responsible for determining when and for how long it is safe to maintain an aero position.

Patent Pending