

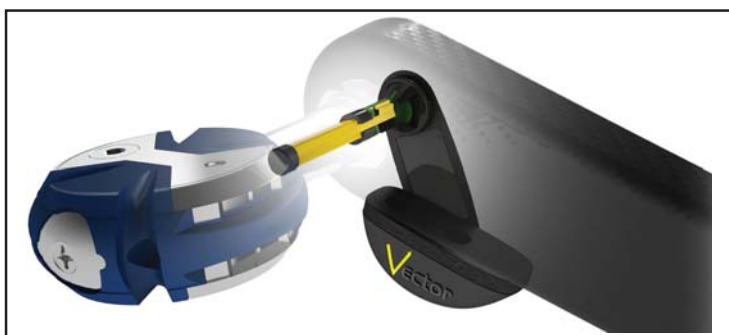


MetriGear



Vector - A New Power Meter

Vector is an embedded high-resolution force meter that calculates a cyclist's power by measuring force applied to the pedals. Our team is made of cyclists and technologists that wanted to minimize the compromises a cyclist faces when choosing a power meter and deliver the capability to easily use power anywhere, anytime - riding, training or racing.



Vector's sensors are embedded in the pedal spindle and measure forces throughout the entire pedal stroke.

Technology

At the heart of Vector is a custom-designed system with over 60 piezo-resistive strain gauges, accelerometers, and temperature sensors and an efficient electronics architecture that processes the forces that a cyclist applies to the pedals. The sensors and electronics are environmentally sealed within the pedal spindle and each unit is calibrated by MetriGear.

By detecting the microstrain that naturally occurs in the spindle as the cyclist pedals the bicycle, Vector uniquely measures force vectors - the magnitude and direction of the cyclist's pedaling effort. Vector measures these forces independently in each leg throughout the entire pedal stroke, collecting data at a rate of more than half a million samples per second. "Productive" force, "waste" force, the extent to which the cyclist pulls up, pulls across the top, pushes down, etc., Vector measures and collects it all.



Vector utilizes a patent pending force-sensing approach that is integrated into the hollow spindle of stock bicycle pedals. Based upon our experience as cyclists and feedback from the local cycling community, Vector was designed to deliver attributes that cyclists expressed as most important when evaluating a power meter:

- Accurate and Reliable: consistently report actual force
- Easy to Own: easy to set up and use, easy to transfer between bikes, low weight



Vector's sensors and electronics are entirely enclosed and sealed within the pedal spindle.

Vector Features

- Precise force measurement system implemented into the hole in each pedal spindle
- Implemented in stock pedals, requiring no modifications to pedal platform or spindle
- Independently measures forces in each leg, and reports total power (watts)
- Sensors and electronics are environmentally sealed inside pedal spindle
- Transferable between bikes – swap pedals and attach battery packs to cranks
- Accuracy of +/- 1.5% of actual force on pedals
- System precisely measures cadence, cadence sensor or magnet not required
- Less than 50 grams of total incremental weight (less than 25 grams/pedal)
- Communicates via ANT+ wireless protocol to ANT+ compatible head units
- Includes ANT+ PC dongle for Vector firmware updates/upgrades as available
- External rechargeable battery pack securely mounts on crank, with a charge indicator on the battery pack



Vector's battery pack fits a wide variety of cranks.



Vector's sensor system captures half a million samples per second.

Availability

Vector is designed to be integrated by MetriGear into select Speedplay® pedals and is targeted for availability in Q1 2010. To receive notifications when Vector is available for purchase, please visit www.metrigear.com and join our mailing list.

About MetriGear

MetriGear is a Silicon Valley-based company formed by athletes and technologists with a common desire to create solutions that change the game for improving performance at all levels of the sport. Measure and improve. We envision an entire range of solutions for various activities that help you reach your athletic fitness or performance goals.

Learn more at www.metrigear.com.



MetriGear, Inc. is a member of the ANT+ Alliance.



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