Pioneer Power Meter System Review

May 8, 2014 By dmunson

Leave a Comment

Ever since its debut in 2012, the Pioneer power meter system looked like a prototype. The zipped tied sensor unit, bottom bracket magnets and overly complicated install was a deal breaker for many. When Pioneer Cycle Sports invited Cycling Illustrated to be part of the press event at Bike Religion in Dana Point to evaluate their new dual-leg power meter and SGX-CA500 cycle computer, I was pleased to see these issues no longer present.

The crank set has six independent sensors, three on each side that measure a variety of torque data. The right side has the transmitter that is now bolted to the crank via the chainring bolts, no zip ties and is directly wired to the right side strain gage. Unlike most power meter systems the Pioneer transmitter has an easy to replace CR 2032 battery which lasts up to 120 hours. The left crank arm has a strain gauge with wireless transmitter which also has an easy user replaceable CR 2032 battery. The Pioneer transmitter uses Ant++ to transmit all the data to the Pioneer SGX-Ca500 cycle computer, but also has a switch underneath the cover to change it to Ant+ making it compatible with Garmin units.

The Pioneer power meter will be offered as complete crank sets with both Shimano Dura-Ace 9000 and Ultegra 6800 cranks available in more than 38 different configurations varying in assorted crank arm lengths and chain ring set-ups. Adding only 66 grams of weight to the original Shimano cranks, the Pioneer system will be one of the lightest crank-based meters and the only dual-leg power meter on the market.

The Pioneer power meter system measures force location, torque, force angle and force location at twelve different points, per leg along the circumference of each pedal stroke. The exclusive Force Vector display featured in the SGX-CA500 Cycle-Computer graphically communicates each leg's power output, pedaling efficiency, power loss, torque and force angle. The highly detailed and comprehensive performance analysis gives riders more knowledge of their riding techniques and can be used for routine ride sessions, training and coaching purposes.

Pioneer has two cycle computers to choose from. The SGX-CA 900 is larger with a color screen and with the introduction of the new power meter also comes the new SGX-CA 500 Cycle-Computer.

The lightweight display utilizes a 1.87-inch black and white LCD touch screen to provide a window of data including Pioneer's exclusive left and right force vector information. The robust computer can access and display left and right power output, pedaling stroke efficiency, power loss, force vector analysis, torque, cadence, heart rate, GPS positioning, speed, distance, elevation gain/loss, barometric pressure, ambient temperature, and more.

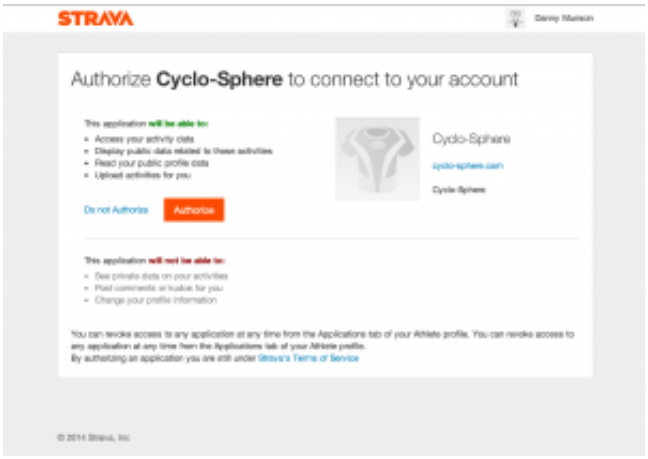
30 Day Test

After the media day ride, we came back to Bike Religion for a little Q&A session and with the limited time to get the computer set up properly could not really give an opinion one way or another. I decided to spend some time with the system to be able to write a more accurate review and after a 1000 miles or so I can say this is a great product.

First the negatives.

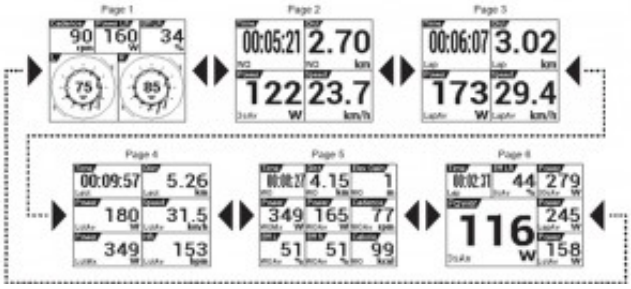
The touch screen is pretty tough to get used to. You swipe across the screen to get to the next screen, scroll through the menu or adjust brightness. Just a touch of the screen to select different items. Sounds easy enough, but the technique takes some time to learn. I found myself selecting something on the screen instead of swiping to the next screen. After having the unit for over a month I have it pretty wired. Also the back button takes you to the start of the menu, not back one spot which gets frustrating during setup.

One other issue was the fact you could not upload directly to Strava. Thought this would be more of an issue, but was not. After upload to Cyclo-Sphere there is a “Download” button that would download the .fit file to your desktop. Just upload that file to Strava. I actually liked doing it that way because it was so much quicker then plugging it in and have Strava search through years of data. I know I should clear out my old rides, but who does that? Even that has gotten easier with a direct connect option now in Cyclo-Sphere.



Pretty small list of negatives.

Besides the touch screen being a little tough to get used to, the SGX-CA 500 Cycle-Computer has a lot of features packed into it. With five customizable pagesets, 6 screens per pageset and sixteen layout options to choose from, there is limitless possibilities to how you set up which data you want on your screen. Just a simple swipe across the screen takes you to page two and so on. Touch any square on the screen and it expands to full screen. Another touch and it is back to normal. Touch and hold a square and it takes you to a choice of options to set up a new metric for that square.



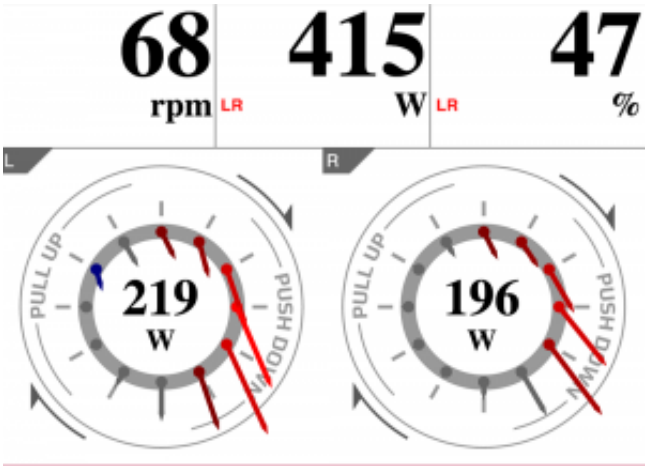
Calibration is very easy. Click the bottom left side button> click options> click zero Cal. You have to calibrate each side, but it is a very quick process. The 500 has a 6

calibration memory. It is recommended to calibrate at different altitudes and temps. in the beginning to let the computer learn and adjust to these changes in the future. Seems to work very well.

One of the features that was talked about during the presentation was the built in wifi. I thought it a bit of a gimmick, but after getting it set up is one of those things that would be tough to be without. After finishing a ride you hold the top right button to finalize the ride and upon walking into the house, “uploaded” appears on the screen. The only downside is since you don’t need to plug it into the computer anymore, you must remember to recharge it separately.

Pioneer has it’s own site, Cyclo-Sphere. From there you can analyze every aspect of your ride. Like the SGX-CA 500 Cycle-Computer, the options are pretty limitless on how you set up screen. Just click the “Add Window” button to add any number of charts or graphs.

While the force vector graphic is great to view on the Cyclo-Computer it is very interesting to view it in detail in Cyclo-Sphere. Seeing the dead spots and overall efficiency in the pedal stroke will be a real advantage with this system. While a 100% efficient pedal stroke is not realistic, it becomes quite obvious where you can improve.



Cyclo-Sphere is a little rough around the edges, but gets better every week. The direct link to Strava is a great new feature. One click and your ride is uploaded to Strava or you can even set it up to do it automatically on upload. Also they talked about a direct link up with Training Peaks in the near future.

There are many options out there now for power meters. The pioneer system isn't just another meter, but a whole new way of analyzing data. After seeing the passion the Pioneer team has for their product I only see a great product getting even better in the future and a major player in the power meter market.

Filed Under: News, Reviews

LEAVE A REPLY

Your email address will not be published. Required fields are marked *

Name *

Email *

Website

CAPTCHA Code

*

Comment

You may use these HTML tags and attributes: <a href="" title=""> <abbr title=""> <acronym title=""> <b> <blockquote cite=""> <cite> <code> <del datetime=""> <i> <q cite=""> <strike>

POST COMMENT

UPCOMING RACES

07/12/14
NCNCA in Watsonville at Watsonville Criterium

07/12/14
USA Cycling- NCC in Boise, ID at Andersen Banducci Twilight Criterium

07/12/14 - 07/13/14
SCNCA in San Diego at SCNCA Master Track Championships

07/13/14
SCNCA in Ontario at Ontario GP – Race #5

07/13/14
NCNCA in Los Altos Hills at Foothill College Circuit Race: "The Learning Curve"

MEMBERS

Newest | Active | Popular

danab449
registered 22 hours, 30 minutes ago

ATX77
registered 3 weeks, 4 days ago

scottkue
registered 3 weeks, 5 days ago

bumblebee
registered 1 month ago

CarlosHernandez
registered 1 month ago