

FAQ's for Pioneer Power Meters

QA1 Do Pioneer Power Meters have Bluetooth transmission? Our newest SBT-Series pre-installed and kits support Bluetooth data transmission to Apps like Zwift and our Cyclo-Sphere Control App for set-up, maintenance as well as our Live Pedaling Viewer when the sensors are in Pedaling Monitor Mode.

QA2 What cranksets will support the SBT-Series Sensors? Shimano Dura-Ace R9100 and Ultegra R8000 cranks and arms are compatible with the SBT-Series Cranksets, Arms and Kits (sensor model # SGY-PM930H). Shimano Dura-Ace 9000 and Ultegra 6800 are ONLY compatible with the non-bluetooth SGY-Series Kits. (Sensor Model # SGY-PM910ZW/V/H).

QA3 Do I need to use the magnets provided with the power meter? The magnets are not required when the power meter is in it's default ANT+ Mode, you can install on the bike and pair it to any ANT+ compatible cycle computer as "power"; spin the crank to wake the sensors and the system is ready to pair and transmit power data. The magnets and the magnet calibration process are ONLY required when the power meter is switched to the Pedaling Monitor Mode and used with a Pioneer or Wahoo ELEMNT series cycle computer.

QA4 What is the Pedaling Monitor and Efficiency Display? When used with the Pioneer SGX-CA500, SGX-CA600, Wahoo ELEMNT, ELEMNT Bolt, and ELEMNT ROAM cycle computers, the "Power Meter" can be Mode switched into its "Pedaling Monitor" Mode. Mode switching can be done directly from the cycle computers or from the Pioneer Cyclo-Sphere Control App via Bluetooth (SBT Models). Switching to Pedaling Monitor Mode engages 3 additional strain gauges per crank arm (totaling 4) and raises the transmission frequency to 12x per revolution. Each sensor will now measure all of the forces on the crank arms and transmit the combinations of "positive" force and "negative" forces, 12 x per revolution, where they are represented as "Force Vectors" on the cycle computer. Pioneer's "Efficiency" metric is calculated by dividing the total amount of N forces (positive and negative) by only the positive N forces; physics, not an algorithm. Pioneer Cyclo-Sphere has after ride tools to analyze pedaling efficiency in comparison to a wide range of cycling metrics over a single ride or cycling career.

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QA5 What is the benefit of seeing these “Force Vectors” and the Efficiency Metric? In real time (while riding), the force vectors will show you the direction and amplitude of the forces being applied to the crank arm(s) clearly showing the rider where positive power is being produced but more importantly, where forces are “wasted” but valuable kilojoules. This “visual” cue along with the corresponding Efficiency number or avg. become additional power metrics that provide a powerful tool to maximize energy conservation and improve pedaling techniques for a wide variety of real world cycling scenarios. For post ride analysis, Pioneer’s Cyclo-Sphere website offers tools to view a riders Force Vector chart over time or distance and compare what their pedal stroke “looked like” and how Efficient the pedal stroke is relative to other ride metrics over the riders entire cycling career. Ie. During a section of high power, efficiency was lower this month, force vectors show an excessive amount of “wasted” force at the 6 o’clock position. Improving pedaling efficiency is intuitive and quickly becomes second nature.

QA6 How long is the battery life on the power meter? Pioneer has 180 hours of battery life. CR2032 batteries are easily replaced the with no additional service required. In the event that a battery expires on one leg during a ride, Pioneer has a unique feature that automatically doubles the "Live" side so you can still receive data from that ride event. When you return home and replace the battery, the power meter will return back to dual leg mode.

QA7 Does Pioneer's Power Meter work on 10 Speed Dura-Ace or Ultegra cranksets? Pioneer's Power Meters are only compatible with 11-speed Shimano Dura-Ace 9000 & R9100 and Ultegra 6800 and R8000 cranksets.

QA8 What is the warranty on Pioneer Power Meters? Pioneer has a 2-year limited parts and labor warranty on its cycle sports products.

QA9 If I purchase a Single Leg Power Meter or kit, can I ever upgrade to a Dual Leg power meter? Yes. Pioneer provides a very easy and value added upgrade to dual leg at a later date with the ‘Kit’ models. When adding the second side, the power meter will easily reconfigure as a dual leg power meter or pedaling monitor.

FAQ's for Pioneer Power Meter Kits

QA1 What cranksets and crank arms can Pioneer install power meter sensors on? SBT-Series Dual, Left, and Drive side sensors are ONLY compatible with Shimano Dura-Ace R9100 and Ultegra R8000 cranksets and arms. Our SGY-Series Dual, Left, and Drive side sensors are compatible with Shimano Dura-Ace 9000, Ultegra 6800, and Campagnolo Potenza 11 cranksets and arms. We can also install Left side SGY-Series sensors on Shimano 105, XTR Trail (M3020), XT (M8000) Mountain, Cannondale Si and SiSL2. SBT series offers Bluetooth while SGY Series is ANT+ only.

QA2 Can I install the power meter sensors in the kit myself? Due to the necessity for uniform weighted precision calibration and thermal compensation calibration requiring exact temperatures, timing, and final initialization, Pioneer's Centralized Installation Center in Torrance California is the only place that installation can be performed.

QA3 What is the process for sending my crankset to Pioneer? After purchasing your installation kit, pack your crankset or crank arm in the shipping box and complete the enclosed "Birth Certificate" which will provide Pioneer's Installation Center with your crank configuration, model of power meter, your return address and contact information. There is also an on-line Birth Certificate option @ **Powerisking.com/kit** which will provide **free 2 day shipping** to Pioneer, a work order reference number, and notifications updating you on the installation status. **IMPORTANT** – The power meter sensors are included in the kit, they will be needed for the installation, do not remove them.

QA4 How long does the Kit process take? All shipments go to Pioneer's Installation Center located in Torrance, CA. When it arrives, it will take 48 hours to complete the installation and calibration process. Pioneer will return the completed power meter crankset via second day return shipping. In-short, once it arrives at Pioneer's Installation Center, our goal is to have the completed power meter crankset back to you within 4 business days, if it arrives to us on a Monday, we strive to have it back to you by Friday.

QA5 Can I swap my chainrings? Yes, this is very common. Be sure the large ring has room for the drive side transmitter. The strain gauges are only on the crank arms and are not affected by chainring size or shape. When changing chainrings, do not damage the power meter's cable connecting the transmitter. Instructions on how to change chainrings can be found @ <https://www.pioneerelectronics.com/PUSA/Cycle+Sports/Power+Meter+kits/SBT-PM9100C#manuals>

Additional Support Resources:

www.PIONEERisKING.com

Installation Questions – Email: cycle-sports@pioneer-usa.com Installation Support:

1. Single Leg Power Meter with ANT+ Computers <https://www.youtube.com/watch?v=HC1G9iFuVIs>
2. Single Leg Power Meter with Pioneer Computer <https://www.youtube.com/watch?v=fNFCPBSImwk>
3. Dual Leg Power Meter with ANT+ Computers <https://www.youtube.com/watch?v=gnOup9Nq34>
4. Dual Leg Power Meter with Pioneer Computer <https://www.youtube.com/watch?v=NqVPvgd12CI>