

Power Meter



BASIC TROUBLESHOOTING

SRAM® LLC WARRANTY

EXTENT OF LIMITED WARRANTY

Except as otherwise set forth herein, SRAM warrants its products to be free from defects in materials or workmanship for a period of two years after original purchase. This warranty only applies to the original owner and is not transferable. Claims under this warranty must be made through the retailer where the bicycle or the SRAM component was purchased. Original proof of purchase is required. **Except as described herein, SRAM makes no other warranties, guaranties, or representations of any type (express or implied), and all warranties (including any implied warranties of reasonable care, merchantability, or fitness for a particular purpose) are hereby disclaimed.**

LOCAL LAW

This warranty statement gives the customer specific legal rights. The customer may also have other rights which vary from state to state (USA), from province to province (Canada), and from country to country elsewhere in the world.

To the extent that this warranty statement is inconsistent with the local law, this warranty shall be deemed modified to be consistent with such law, under such local law, certain disclaimers and limitations of this warranty statement may apply to the customer. For example, some states in the United States of America, as well as some governments outside of the United States (including provinces in Canada) may:

- a. Preclude the disclaimers and limitations of this warranty statement from limiting the statutory rights of the consumer (e.g. United Kingdom).
- b. Otherwise restrict the ability of a manufacturer to enforce such disclaimers or limitations.

For Australian customers:

This SRAM limited warranty is provided in Australia by SRAM LLC, 1000 W. Fulton Market, 4th Floor, Chicago, IL, 60607, USA. To make a warranty claim please contact the retailer from whom you purchased this SRAM product. Alternatively, you may make a claim by contacting SRAM Australia, 6 Marco Court, Rowville 3178, Australia. For valid claims SRAM will, at its option, either repair or replace your SRAM product. Any expenses incurred in making the warranty claim are your responsibility. The benefits given by this warranty are additional to other rights and remedies that you may have under laws relating to our products. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

LIMITATIONS OF LIABILITY

To the extent allowed by local law, except for the obligations specifically set forth in this warranty statement, in no event shall SRAM or its third party suppliers be liable for direct, indirect, special, incidental, or consequential damages.

LIMITATIONS OF WARRANTY

This warranty does not apply to products that have been incorrectly installed and/or adjusted according to the respective SRAM user manual. The SRAM user manuals can be found online at sram.com, rockshox.com, avidbike.com, truvativ.com, or zipp.com.

This warranty does not apply to damage to the product caused by a crash, impact, abuse of the product, non-compliance with manufacturers specifications of usage or any other circumstances in which the product has been subjected to forces or loads beyond its design.

This warranty does not apply when the product has been modified, including, but not limited to any attempt to open or repair any electronic and electronic related components, including the motor, controller, battery packs, wiring harnesses, switches, and chargers.

This warranty does not apply when the serial number or production code has been deliberately altered, defaced or removed.

This warranty does not apply to normal wear and tear. Wear and tear parts are subject to damage as a result of normal use, failure to service according to SRAM recommendations and/or riding or installation in conditions or applications other than recommended.

Wear and tear parts are identified as:

- | | | | |
|--------------------------------|-----------------------------------|--------------------------|----------------------|
| • Dust seals | • Stripped threads/bolts | • Handlebar grips | • Transmission gears |
| • Bushings | (aluminium, titanium, magnesium | • Shifter grips | • Spokes |
| • Air sealing o-rings | or steel) | • Jockey wheels | • Free hubs |
| • Glide rings | • Brake sleeves | • Disc brake rotors | • Aero bar pads |
| • Rubber moving parts | • Brake pads | • Wheel braking surfaces | • Corrosion |
| • Foam rings | • Chains | • Bottomout pads | • Tools |
| • Rear shock mounting hardware | • Sprockets | • Bearings | • Motors |
| and main seals | • Cassettes | • Bearing races | • Batteries |
| • Upper tubes (stanchions) | • Shifter and brake cables (inner | • Pawls | |
| | and outer) | | |

Notwithstanding anything else set forth herein, the battery pack and charger warranty does not include damage from power surges, use of improper charger, improper maintenance, or such other misuse.

This warranty shall not cover damages caused by the use of parts of different manufacturers.

This warranty shall not cover damages caused by the use of parts that are not compatible, suitable and/or authorised by SRAM for use with SRAM components.

This warranty shall not cover damages resulting from commercial (rental) use.



SAFETY FIRST!

We care about YOU. Please, always wear your safety glasses and protective gloves when servicing Quarq products.

Protect yourself! Wear your safety gear!

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NOTICE

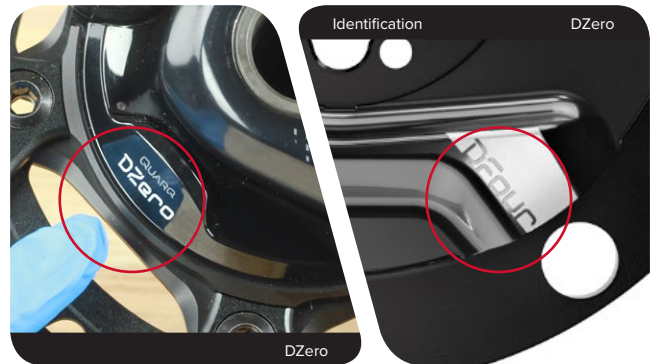


Identify the power meter platform before proceeding with any troubleshooting.

AXS Power Meter : The AXS logo is printed near the battery compartment.



DZero Power Meter : Model name printed on power meter as either DZero or DFour. DZero platform power meters include, but are not limited to DZero, DFour, and XX1 Eagle power meters.



All AXS and DZero platform power meters feature a green LED that blinks on: when the power meter turns on, and when a zero offset is performed (calibration).



Legacy Power Meter: All Legacy Platform power meters are found in the [Quarq product archive](#).

Legacy platform power meters include:

- Riken AL, Riken R, Elsa R and Elsa RS
- SRAM RED and SRAM XX1
- Specialized and Cannondale power meter spiders.

All Legacy platform power meters feature a red LED that blinks on: when the power meter turns on, and when a zero offset is performed (calibration).



Information contained in this publication is subject to change at any time without prior notice. For the latest technical information, please visit our website at www.quarq.com.

Your product's appearance may differ from the pictures/diagrams contained in this publication.

If the power meter is exhibiting any of the symptoms below, then perform the steps in this troubleshooting guide.

Battery & Battery Compartment Issues

- The power meter battery drains quicker than it should.
- LED light is on continuously. Power meter will not pair.

Firmware Related Issues

- LED light is continually flashing. Power meter will not pair to head unit.

Data Reporting & Pairing Issues

- Power meter will not calibrate (zero offset).
- There are gaps in cadence and power data.
- The power meter will not pair to the head unit.
- The power meter will pair to my head unit, but shows no cadence or power data.
- The power meter is reporting cadence but not power.

Power Measurement & Zero Offset Issues

- The power meter is giving very high or low power readings.
- The zero offset value is greater than +/-1500.
- The zero offset value is frequently changing by more than +/-50 points.

Parts, Tools, and Supplies

Parts

- CR2032 coin cell battery

Safety and Protection Supplies

- Apron
- Clean, lint-free rags
- Isopropyl alcohol
- Nitrile gloves
- Safety glasses

Lubricants and Fluids

- SRAM Butter grease

Common Tools

- 2 mm hex wrench
- 2 mm hex bit socket
- Flat blade screwdriver
- Needle-nose pliers or 2 coins
- T10 TORX® wrench
- T10 TORX bit socket
- Torque wrench

Battery Compartment Service

- 1 AXS Power Meters only:** Use your fingers to lift up the outer battery cover and remove.



- 2** Use your fingers to rotate the battery compartment lid counter-clockwise and remove the lid. Remove the battery and set it aside.

NOTICE

Do not use any tools to remove the battery lid. Tools can permanently damage the power meter making it inoperable.

⚠ WARNING

Consult the battery manufacturer for safe handling instructions. Keep the battery out of reach of children. Do not put the battery in your mouth. If ingested, seek medical attention immediately. Do not use sharp objects to remove batteries.



- 3 Loosen the battery compartment screw a 1/4 turn, then tighten the battery compartment screw.

Apply gentle pressure to the battery compartment as you tighten it.

NOTICE

If the battery compartment screw is not tight, the base of the battery compartment may not make a good connection with the spider, and cause an intermittent signal.



- 4 Lift the battery contact prongs upward.

NOTICE

If the battery contacts are flattened, the battery may move around the compartment, and cause an intermittent signal.



- 5 Check for proper battery height. Install a new CR2032 coin cell battery into the battery compartment, positive side facing outward. When the battery contact prongs are properly adjusted, the top of the battery will protrude above the lip of the battery compartment.

⚠ WARNING

Consult the battery manufacturer for safe handling instructions. Keep the battery out of reach of children. Do not put the battery in your mouth. If ingested, seek medical attention immediately. Do not use sharp objects to remove batteries.



- 6** Install the battery compartment lid until it is handtight. Watch for the LED to blink on; green for AXS and DZero power meters, and red for Legacy power meters.



- 7** **AXS Power Meters only:** Use your fingers to install the outer battery cover.



- 8** If the LED blinks on, connect the power meter to the SRAM AXS App, Qalvin BLE, or Qalvin Legacy and update the power meter firmware, if needed.

Perform a Manual Zero Offset according to the [power meter user manual's](#) instructions.

If the LED does **not** blink on and the power meter will not pair to a head unit or Qalvin, then perform the [Power Meter Reboot](#) steps or contact [Quarq customer support](#) or your Quarq dealer.

This completes the troubleshooting for the Battery Compartment service.

Power Meter Reboot

A power meter reboot drains voltage stored in the electronics, and resets the power meter operation.

- 1** **AXS Power Meters only:** Use your fingers to lift up the outer battery cover and remove the cover.



- 2** Use your fingers to rotate the battery compartment lid counter-clockwise and remove the lid. Remove the battery and set it aside.

NOTICE

Do not use any tools to remove the battery lid. Tools can permanently damage the power meter making it inoperable.

⚠️ WARNING

Consult the battery manufacturer for safe handling instructions. Keep the battery out of reach of children. Do not put the battery in your mouth. If ingested, seek medical attention immediately. Do not use sharp objects to remove batteries.



- 3 Use pliers to make contact on the battery compartment screw and the threads on the battery compartment at the same time. Hold the pliers in place 3-5 seconds, then remove.



Alternative method: Install two coins into the battery compartment. Install the battery compartment lid. Wait 3-5 seconds, then remove the battery compartment lid and coins.



NOTICE

The height of the coins must equal the height of the CR2032 battery. The reboot will not be successful if the coins used are not the same height as the battery.



- 4 Install a new CR2032 coin cell battery into the battery compartment, positive side facing outward.

⚠ WARNING

Keep the battery out of reach of children. Do not put the battery in your mouth. If ingested, seek medical attention immediately. Do not disassemble, damage, or puncture the battery. Consult the battery manufacturer for safe handling instructions.



- 5 Install the battery compartment lid until it is handtight. Watch for the LED to blink on; green for AXS and DZero power meters, and red for Legacy power meters.



- 6 **AXS Power Meters only:** Use your fingers to install the outer battery cover.



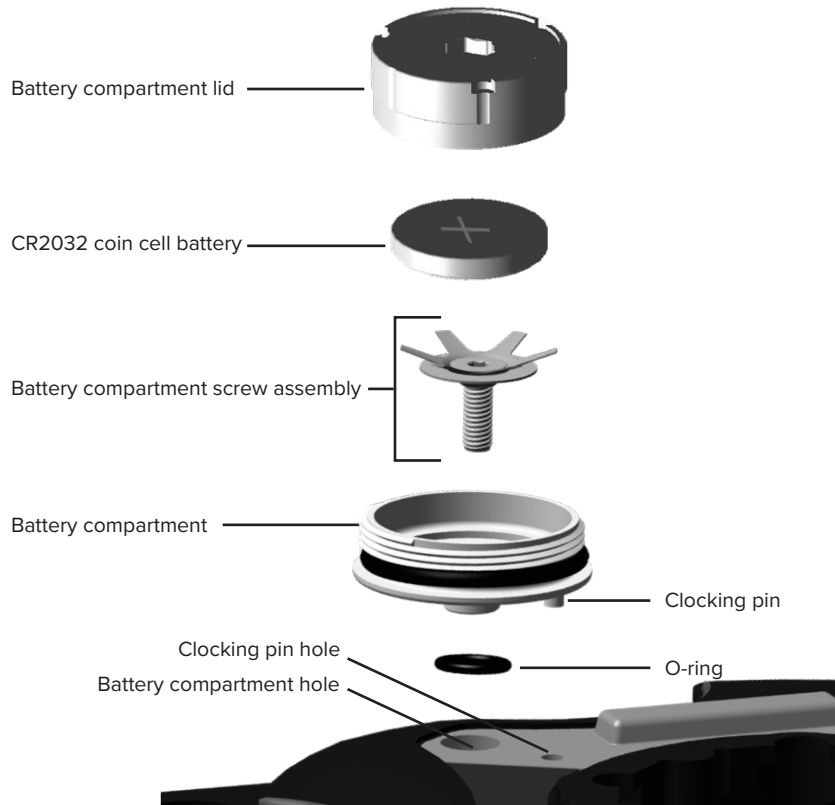
- 7 If the LED blinks on, connect the power meter to the SRAM AXS App, Qalvin BLE, or Qalvin Legacy and update the power meter firmware, if needed.

If the LED does **not** blink on and the power meter will not pair to a head unit, SRAM AXS App, or Qalvin:

AXS and DZero Power Meter: Contact [Quarq® customer support](#) or your Quarq® dealer.

Legacy Power Meter: Perform the [Spider Inspection](#) steps in the following section.

This completes the troubleshooting for the Power Meter Reboot service.



Parts, Tools, and Supplies

Parts

- CR2032 coin cell battery

Safety and Protection Supplies

- Apron
- Clean, lint-free rags
- Isopropyl alcohol
- Nitrile gloves
- Safety glasses

Lubricants and Fluids

- SRAM® Butter grease

Common Tools

- 2 mm hex wrench
- 2 mm hex bit socket
- Flat blade screwdriver
- T10 TORX® wrench
- T10 TORX bit socket
- Torque wrench

NOTICE



The following section, *Spider Inspection*, should **only** be performed on a Legacy power meter. Do **NOT** perform the spider inspection service on an AXS or DZero platform power meter. AXS platform power meters have a AXS logo next to the battery compartment. DZero platform power meters include, but are not limited to DZero, DFour, and XX1 Eagle power meters. If you remove the battery compartment on an AXS or DZero platform power meter, you will damage the unit and void the warranty.



- 1 Use your fingers to rotate the battery lid counter-clockwise and remove the lid. Remove the battery and set aside.

WARNING

Consult the battery manufacturer for safe handling instructions. Keep the battery out of reach of children. Do not put the battery in your mouth. If ingested, seek medical attention immediately. Do not use sharp objects to remove batteries.

NOTICE

Do not use any tool to remove the battery lid. Tools can permanently damage the power meter making it inoperable. The lid should be loosened by hand.



- 2 Remove the battery compartment screw. Remove the battery compartment screw assembly and battery compartment, and set them aside.

NOTICE

Do **NOT** remove the battery compartment on an AXS or DZero platform power meter, you will damage the unit and void the warranty. The AXS and DZero platform power meter has a green LED blink on when awake. Do **not** proceed if a green LED blinks on. A Legacy power meter has a red LED blink on when the power meter is awake.



3 Remove the o-ring between the battery compartment and the spider.



4 Inspect the clocking pin hole under the battery compartment location for damage, such as gouging or scarring.



If damage to the clocking pin hole is present, the power meter will require inspection by Quarq. Contact [Quarq customer support](#) or your Quarq dealer.

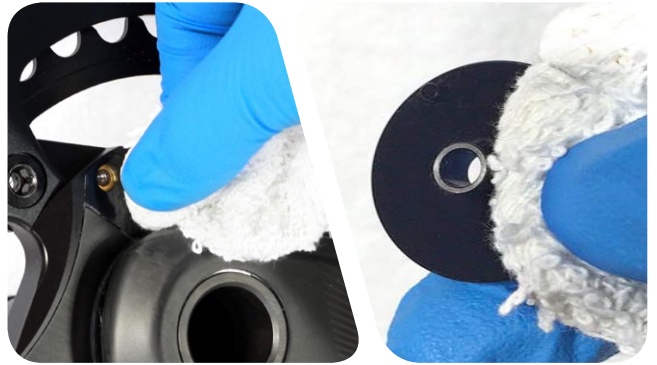


5 Inspect the battery compartment clocking pin for damage. If the clocking pin is worn down or broken, contact [Quarq customer support](#) or your Quarq dealer.



Battery Compartment Installation (Legacy Power Meters Only)

- 1 Spray isopropyl alcohol on the battery compartment and spider and clean them with a rag.



- 2 Apply SRAM Butter grease to the o-ring and install it onto the base of the battery compartment.



- 3 Install the battery compartment onto the spider lens. Slowly rotate the battery compartment until you feel the clocking pin enter the hole on the spider. Rotate the compartment back and forth to verify it is fully seated.

NOTICE

Failure to seat the clocking pin into the hole will prevent the power meter from working properly and/or cause damage to the spider.



- 4 Use your fingers to install the battery compartment screw assembly. Tighten the battery compartment screw.

Apply gentle pressure to the battery compartment as you tighten it to prevent the clocking pin from becoming unseated.



- 5 Lift the battery contact prongs upward.

⚠ WARNING

Keep the battery out of reach of children. Do not put the battery in your mouth. If ingested, seek medical attention immediately. Do not disassemble, damage, or puncture the battery. Consult the battery manufacturer for safe handling instructions.

NOTICE

If the battery contacts are flattened, the battery may move around the compartment and cause an intermittent signal.



Flat blade screwdriver

- 6 Check for proper battery height. Install a new CR2032 coin cell battery into the battery compartment, positive side facing outward. When the battery contact prongs are properly adjusted, the top of the battery will protrude above the lip of the battery compartment.



- 7 Install the battery compartment lid until it is handtight. Watch for the red LED to blink on.



- 8 If the LED blinks on, connect the power meter to [Qalvin Legacy](#) and update the power meter firmware, if needed. If the LED does **not** blink on and the power meter will not pair to a head unit or Qalvin, then perform the [Power Meter Reboot](#) steps or contact [Quarq customer support](#) or your Quarq dealer.

- 9 Perform a Manual Zero Offset according to the [power meter user manual's](#) instructions.

This completes the troubleshooting for the Legacy Power Meter Spider Inspection service.

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