

CINQO

INSTALLATION AND USER GUIDE



QUARQ
THINK FAST

Quarq Technology, Inc.
3100 1st Ave.
Spearfish, SD 57783
1-605-642-2226

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FCC Statement of Compliance:

Statement of Compliance for FCC and Industry Canada:

Quarq Technology, Inc.

Model#: Quarq CinQo

IC: 7716A-CNQ1

FCC ID: WAY-CNQ1

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

Warning: Any changes or modifications not expressly approved by Quarq could void the user's authority to operate this equipment.

"This device complies with Industry Canada and Part 15 of the FCC Rules. Operation is subject 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."

The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

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INSTALLATION

Magnet Installation

You must properly install the magnet in order for the CinQo to function.

It is easiest to install the magnet on your bike before installing the cranks.

The magnet is used to trip the reed switches, which are under the raised ring on the back of the CinQo. The reed switches must be tripped to wake the CinQo, monitor cadence and calculate power.

There are three ways to install the magnet for the CinQo: Adhesive Putty, BB Cup Mount or Cable Guide Mount. Read **Magnet Placement** on page 9 no matter what method you choose.



BB Cup Mount



Cable Guide Mount



Adhesive Putty

BB Cup Mount

Note: The BB Cup Mount works with English/BSA and Italian (threaded) bottom brackets. It does not work with frames that have bearings pressed into the bottom bracket.

1. Slide the BB Cup Mount over the threads of the drive-side bearing cup prior to threading the bottom bracket into the frame.
2. Make sure the magnet is facing to the outside.
3. It is best to have the magnet located in the 9 o'clock position when you snug up the bottom bracket. (Figures 1 & 2)

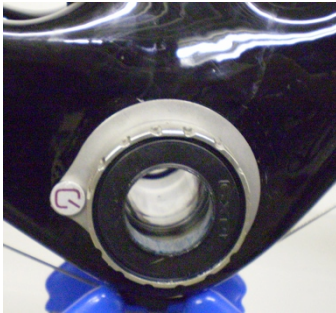


Figure 1

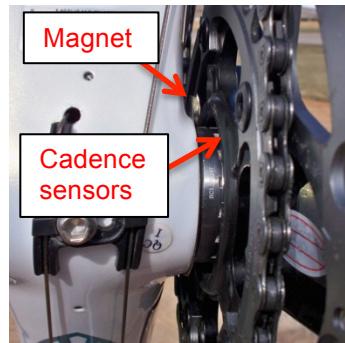


Figure 2

Cable Guide Mount

Note: The Cable Guide Mount (Figures 3 & 4) should only be used when the cable guide is fastened using a screw. Use Adhesive Putty if the cable guide is fastened using a rivet.

1. Remove the existing cranks.
2. Loosen the cable guide screw.
3. Slide the mount under the cable guide.
4. Tighten the screw.



Figure 3

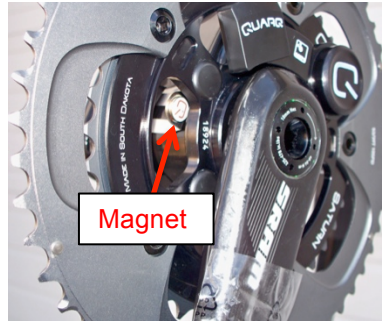


Figure 4

Adhesive Putty

You may want to experiment with a less permanent adhesive on the magnet first to ensure proper placement.

1. Clean the frame with the included alcohol pad prior to attaching the magnet.

Note how close the magnet is placed to the bottom bracket.
(Figures 5 & 6)

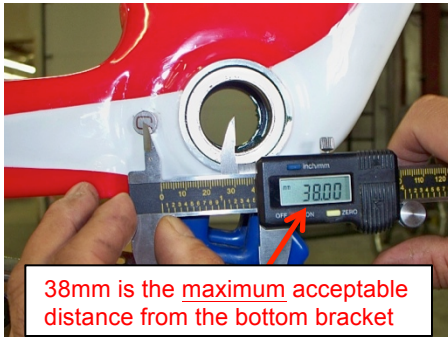


Figure 5

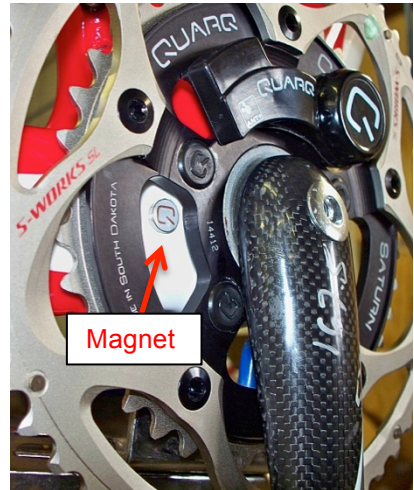


Figure 6

2. Knead both colors of adhesive putty with your fingers until you have a consistent color.

3. Use a $5/16$ ball-bearing (pea) size piece of putty to attach the magnet to the frame (Figure 7). On most frames, the magnet can be placed directly on the chain stay. Excess putty can be scraped away with a hobby knife.



Figure 7

The included adhesive putty is for a permanent attachment. You can also use, epoxy, hot glue or other suitable adhesives to attach the magnet.

Magnet Placement

The magnet should be in line with the cadence sensors and within $\frac{1}{4}$ inch (6-8 mm) of the sensors (Figure 8).

Depending on your frame, you may need to stack 2-3 magnets to achieve the optimal distance.

Do not allow the magnet to physically touch the CinQo.

Creativity may be needed on certain frames - the magnet may actually be best placed beside the raised ring.

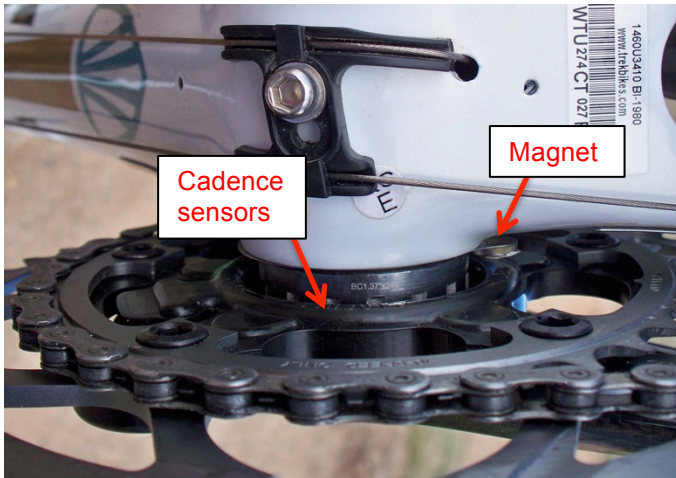


Figure 8

Crank Installation

To install the pre-assembled CinQo and crankset on your bike you need:

SRAM S975 or FSA Team Issue:

- A compatible bottom bracket wrench (if required)
- 8mm Allen Wrench

Rotor 3D:

- A compatible bottom bracket wrench (if required)
- 8mm Allen Wrench
- 5mm Allen Wrench

Install the crankset and bottom bracket assembly on your bike according to the manufacturer's instructions.

SET UP

Pairing

Before pairing your powermeter to a computer, make sure you are at least 30 feet (10 meters) from any other ANT+Sport sensors. This will keep you from accidentally pairing to another person's powermeter, speed sensor, etc.

Spin the crank backwards 2-3 times to wake it up. When awake, the CinQo will begin broadcasting ANT+Sport messages. The CinQo will shut off after a period of inactivity (about 10 minutes).

To pair the CinQo with an ANT+Sport computer, wake the CinQo and follow the instructions specific to your computer.

Each CinQo has a unique sensor ID. Once your computer is paired it will remember the CinQo's sensor ID each time it is turned on.

The CinQo does not lose its sensor ID when the battery is replaced.

NOTE: You can find the CinQo's sensor ID inside the battery compartment underneath the battery. It will be 4 or 5 digits long.

Zeroing

The CinQo functions like a scale and must be zeroed from time to time.

You can zero the CinQo two ways: Auto Zero or Manual Zero.

Auto Zero

Spin the crank backwards for 4-5 complete revolutions. This may be done while coasting or stopped with one or both feet clipped or by hand.

Manual Zero

The CinQo may be zeroed manually by sending the “Calibrate” command from an ANT+Sport compatible bike computer. The CinQo will return the Zero Offset value to the computer, however, not all ANT+Sport computers will display the value. The Zero Offset will vary a little from day to day, but will typically be between – 500 and +500. Refer to your computer’s manual with for precise instructions.

The Manual Zero must be done with the cranks stationary, with no force on the pedals. It is best to use a consistent crank orientation each time when manual zeroing. We recommend putting the drive side crank arm down (6 o’clock position).

Best Practice

Best practice is to Manual Zero before you start each ride and Auto Zero throughout the ride when convenient if the temperature changes greatly.

Garmin Edge 800

Contact Quarq for the most recent recommended firmware version. You can check what firmware you currently have this way:

Menu → Settings → About Edge

To pair the CinQo:

Menu → Settings → Bike Settings → Bike Profiles → Bike 1 – current → ANT+Power → Rescan

“Power Meter Detected” will flash up on your screen when the units are paired.

To manually zero your CinQo:

Menu → Settings → Bike Settings → Bike Profiles → Bike 1 – current → ANT+Power → Calibrate

Garmin Edge 705

Contact Quarq for the most recent recommended firmware version. You can check what firmware you currently have this way:

Menu → Settings → System → About Edge

To pair the CinQo:

Menu → Settings → ANT+Sport → Accessories → Restart Scan

“Power Meter Detected” will flash up on your screen when the units are paired.

If the power meter is not detected at this point, make sure the “Power” box under “Bike Profile” is checked and repeat steps above:

Menu → Settings → Profile & Zones → Bike Profile → Check “Power Box”

Quarq recommends setting the Edge 705 to Record Data Points every second:

Menu → Settings → Data Recording → Record Data Points (Every Second)

To manually zero your CinQo:

Menu → Settings → ANT+Sport → Accessories → Calibrate Power

Garmin Edge 500

Contact Quarq for the most recent recommended firmware version. You can check what firmware you currently have this way:

Menu → Settings → About Edge

Note: To view the menu, you must press and hold the menu button until the menu pops up.

To pair the CinQo:

Menu → Settings → Bike Settings → Bike 1 → ANT+Power → Rescan

“Power Meter Detected” will flash up on your screen when the units are paired.

To manually zero your CinQo:

Menu → Settings → Bike Settings → Bike 1 → ANT+Power → Calibrate

Garmin Forerunner 310XT Watch

Contact Quarq for the most recent recommended firmware version. You can check what firmware you currently have this way:

Mode → Settings → About Forerunner

Note: You'll need to be in bike mode in order to pair and zero your CinQo (press and hold the mode button).

To pair the CinQo:

Mode → Bike Settings → Bike 1 → Ant+Power → Restart Scan

“Power Meter Detected” will flash up on your screen when the units are paired.

To manually zero your CinQo:

Mode → Bike Settings → Bike 1 → Ant+Power → Calibrate

CINQO AND CHAINRING ASSEMBLY

When reinstalling chainrings you must align the chainring tabs so they are in line with the crank arm. (Figure 9)

Torque the five chainring bolts to the manufacturer's recommended torque. Quarq uses **10 Nm** for aluminum bolts and **12 Nm** for steel bolts. **It is important to have all of the bolts tightened to the same torque.**



Figure 9

MAINTENANCE AND CARE

Battery Information

The CinQo is powered by a CR2450 coin cell battery.

Unscrew the battery lid counter-clockwise. Do not pry on it. (Figure 10)

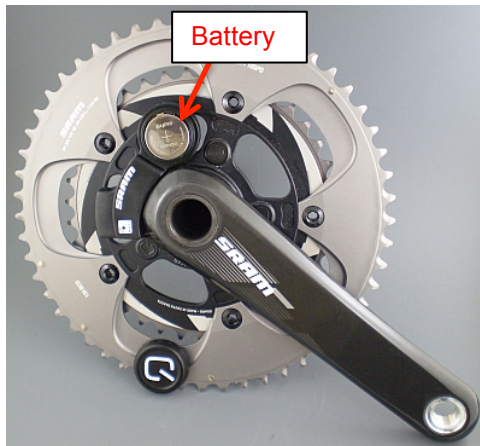


Figure 10

The CinQo automatically switches on when rotated and shuts off after about 10 minutes of inactivity. Under normal operating conditions the battery will last for about 500 hours of riding.

The CinQo battery can be replaced without any special tools. To replace the battery, unscrew the lid counter-clockwise. Do not try to pry the lid off. The battery should sit with the “+” facing out. Be sure to snug up the lid once the battery is replaced.

The CinQo will send a warning when the battery is low. However, not all ANT+Sport computers will display the message.

The CinQo retains its sensor ID throughout battery changes and will remain properly paired with your computer.

Cleaning

The CinQo is designed to be very durable, however, we recommend using soap and water. Avoid harsh chemicals and do not use a high-pressure washer.

TROUBLESHOOTING

Does Not Pair

- Check with Quarq for the recommended firmware version for your Garmin computer.
- Check the battery. The battery must be installed correctly (“+” out) and have sufficient charge. Check to make sure the battery contacts are free of corrosion.
- Check the magnet position. The magnet should be installed according to the instructions on pages 5-9. Once the cadence sensors have been activated, the CinQo will be transmitting messages and is ready to be paired.
- Make sure the proper pairing technique has been followed for your bike computer. The pairing process will vary by manufacturer. Refer to your bike computer’s instruction manual.

Cadence, But No Power

- Check the magnet position. The magnet should be installed according to the instructions on pages 5-9.
- Zero the CinQo using Auto Zero or Manual Zero. See page 12.
 - Contact Quarq customer support if the Manual Zero value is outside +/- 500.

High or Low Power Values

- Perform the Auto Zero or Manual Zero as described on page 12.
 - Contact Quarq customer support if the Manual Zero value is outside +/- 500.
- Remove third party cadence sensors. The CinQo delivers both power and cadence data to the bike computer.
- Inspect and clean the chainrings and CinQo interface. Re-assemble according to the instructions on page 17.

Data Drops

- Check the magnet position. The magnet should be installed according to the instructions on pages 5-9.
- Make sure the magnet is free of road grime.
- Check and replace the battery in the CinQo and/or bike computer.
- Check the CinQo's battery cap for cracks and ensure there is no moisture in the battery compartment.
- Carefully raise the battery contacts underneath the battery using your fingernail or a penknife to ensure proper contact.

Manual Zero (Calibration) Fails

- The drive-side crank arm should be at 6 o'clock, you must have no weight on the pedals and the cranks must be stationary.
- If you are using a Garmin bike computer with ANT+ heart rate enabled calibration will often be faster when you are wearing the heart rate monitor/strap. Turn off the ANT+ HRM function if you are not using a heart rate strap.



Newton, Resident Great Dane and Zoomies Specialist, with Quarq founder Jim Meyer.

WE ARE HERE TO HELP

thinkfast@quarq.us

1-800-660-6853



Quarq Technology, Inc.
3100 1st Ave.
Spearfish, SD 57783
1-605-642-2226