PowerPod

PowerPod® Best Accuracy Out-and-Back Calibration Procedure
February 2017

This Supplement applies ONLY to PowerPod® power meters with firmware 6.21 or higher

1. PowerPod (PP) FW 6.21+ adds <u>optional</u> best-accuracy "Out-and-Back" (O&B) calibration
2. **You must have ANT+ or "Dual Band" ANT+/BLE speed sensors (not supplied) installed on your bike.** BLE-only speed and cadence sensors WILL NOT WORK with any PP power meter.
3. Most ANT+ speed or speed/cadence sensors *will* work with PowerPod, including Garmin "magnet-less" sensors, Wahoo Fitness Dual Band BLE/ANT+ sensors, and iBike sensors
4. Some ANT+ speed and speed/cadence sensors <u>do not work reliably</u> with PowerPod, including **Garmin GSC-10**, **Giant RideSense**, and **Velocomputer**
5. An ANT+ cadence sensor is *not required* with PP, but <u>is recommended</u> for best results

Customize PowerPod Settings and Enable Out-and-Back Calibration

1. Follow PowerPod Illustrated Instructions (provided separately) to install PP on your bike, pair PP to your ANT or ANT/BLE sensors, and pair PP to your bike computer
2. Install Isaac software on your PC or Mac: http://www.ibikesports.com/support/isaac-software-downloads/
3. Connect PowerPod to Isaac.
4. If necessary, update your PP to FW 6.21+ with Isaac command "Device/Check Online for FW update…"
5. From Isaac menu select the command "Device/Setup Newton…"
6. Follow the setup steps, **AND SELECT "BEST ACCURACY" IN THE FINAL SETUP STEP**.
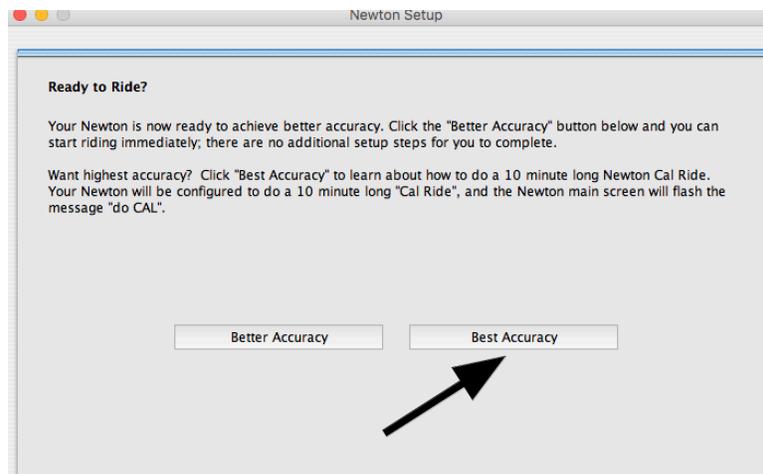
"Best Accuracy" out-and-back ("O&B") calibration ride

After selecting "Best Accuracy" is in Isaac, follow these steps (also refer to the illustration on next page) to perform an out-and-back (O&B) calibration ride

1. Make sure you've paired PP to your ANT+ sensor(s) and to your bike computer.
2. Attach PP to your bike and wake up your sensors.
3. Click PP button. The status light shows solid yellow (if not, see Troubleshooting)
4. With the status light showing solid yellow, start riding your bike. *After about 10 seconds of riding*, **the light changes to flashing red/green**.
5. For your O&B ride select a route where you can ride solo (NO DRAFTING ALLOWED!), where the winds aren't really gusty, and you aren't in a stream of heavy traffic.
6. Ride your bike to the place you've selected for your O&B ride*. While riding to your starting point your PP status light will flash red and green.*
7. When you've reached starting point of your O&B ride, STOP.
8. To start O&B calibration ride, click the PowerPod button. **The light will change from flashing red/green to flashing yellow**.
9. Now, ride for 5 minutes on the "out" portion of your ride. While riding the light will flash yellow and your bike computer **watts will start to climb slowly, from 1 to 50**. The wattage number indicates the % completion of the calibration ride (i.e. 25W means the O&B ride is 25% complete).
10. Your bike speed is not important, but DO NOT DRAFT DURING YOUR RIDE. Also, it's OK if you have to stop (say, at a stop sign).
11. After riding five minutes (the end of the "out" portion of the ride, denoted by "50W" on your bike computer), **the status light changes to solid red and watts no longer increase beyond 50W, (watts "stick" at 50W)**.
12. When it is safe to turn around, ***SLOW TO A COMPLETE STOP***. *Note: it's OK if you have to continue to ride with the watts stuck at "50W" before you find a safe place to stop and turn around*.
13. After coming to a complete stop**,** cross the road, turn around and then **ride back to your starting point along the same route.**
14. On the "back" portion of your ride the status light will change from solid red to flashing yellow and watts will slowly climb from 51W to 100W (51% to 100% completion).
15. On the return, you can ride fast or slow, and stop if needed, it makes no difference.
16. Near your starting point the O&B measurements will end and you will see "100W" (100% complete) on your bike computer. **The flashing yellow light will go out**.

Your PP is now calibrated to Best Accuracy, and actual watts will appear on your screen.

Out and Back Calibration Ride

1. SOLID YELLOW light - ready to calibrate

2. ~10 seconds

3. for 5 minutes per each way

0w

4. STOP **5.** "Click" **6.** Start

100w

Done!

5 min

5 min

50w

STOP
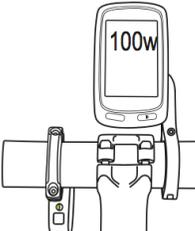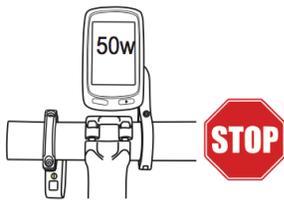
O&B Ride Troubleshooting

1. **I never see PP flashing red/green light**.   Answer: 1) Make sure you've installed FW 6.21 or above. 2) Use Isaac software "Device/Setup Newton/Best Accuracy" to enable the O&B ride mode. 3) Next, you must successfully pair your ANT+ speed/cadence sensor to PP. 4) Then, *after successful sensor pairing*, your PP light will show solid yellow for 20 minutes. 5) While the light is solid yellow, *start riding*. After a few seconds of riding the light will flash red/green.

2. **My PP is flashing red/green and I don't know why**. Answer: your PowerPod has been put into O&B calibration mode, and once you start riding your PP will flash red/green. Perform the O&B calibration ride (see illustration on page 3). Start at step 5—click the PP button to begin the O&B ride.

3. **I do not want to do an O&B ride, but I clicked the button while PP light was flashing red/green, and now the light flashes yellow**. Answer: Your PP has accidentally been put into O&B calibration mode, (by clicking the PP button while its light was flashing red/green). Abort the calibration mode with a press-hold the button for about 4 seconds, until the light changes to solid yellow. Release the button. Your light will show solid yellow.

4. **I want to do an O&B ride. My PP light is solid yellow but it does not change to flashing red/green when I start riding.** Answer: 1) Make sure you've completely followed troubleshooting point 1 above.   Your PP will in to O&B mode only after you have used Isaac software to set up the O&B mode, or you have successfully paired your PP to a DFPM.   2) While standing still spin the wheel of your bike; make sure that you see bike speed in your bike computer window. If you don't see bike speed, email technicalsupport@velocomp.com for next steps.

5. **I started my O&B calibration ride. The light flashes yellow but my watts don't climb to 50W after five minutes of riding.** Answer: your speed sensor is operating intermittently. Email technicalsupport@velocomp.com for next steps.

6. **On my O&B ride my watts climbed to 50W, and I then started riding back, but my watts reading remained "stuck" at 50W**. Answer: at the 50W point you **MUST** STOP, get off the bike, turn around, and THEN ride back. IF YOU DON'T STOP, THE WATTS WILL NOT INCREASE ABOVE 50W. If this error happens to you then will need to abort the cal ride (see point 2 above) and perform a new O&B ride. When you do your O&B cal ride again, make sure at the 50W mark (where PP light turns solid red) you **STOP, turn around, and then ride back**.