

## Using your Stages Power meter with a smart trainer

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Whether you're forced indoors due to the weather or time-crunched and working out in odd hours, training indoors on a trainer can be an absolute necessity for athletes of all disciplines. When transitioning from outdoor to indoor training, it's just as critical to get reliable power numbers to make the best of your workout data. When using power measured from two very different sources, it's possible to see a discrepancy that makes it tough to train for your known power zones, as well as utilize features on your trainer like ERG mode.

We've compiled some recommendations to help eliminate the gap and avoid frustration in your indoor training. Whether you're using your trainer by itself or in conjunction with your Stages Power Meter, these tips will help optimize the experience so you can spend more time riding and less time messing around with technology.

**Calibrating your smart trainer**

**Recommended software programs**

**Pairing your power meter to your trainer**

## Calibrating your smart trainer

Most smart trainers utilize a roll down or spin down process to calculate the rolling resistance from which it will base the power numbers on. If you're using the power values from the trainer, it's important to keep these as accurate as possible in order to have comparable numbers to train to along side your outdoor training. When you're using both, any discrepancy between the two can make it difficult to do planned workouts in ERG mode that are based on your FTP.

The calibration process is meant to help take into account the variables on a trainer that are different than regular outdoor riding. When riding with a trainer that provides resistance against the tire, the tire heats up while riding, which increases the tire pressure. This change in tire pressure will change the rolling resistance of your rear wheel, which causes the values to drift and the calculated power values become inaccurate. The trainer's resistance unit itself will also create heat as you ride and most trainers do not have the ability to adjust for this heat without re-performing the calibration process. For these reasons, we recommend that you perform the spin down or roll down procedure after riding for 15-20 minutes. This can be done between your warm up and your workout as to not disrupt your training session. This should allow for any changes in heat and tire pressure to occur before the calibration process as to minimize the drift that can occur over the duration of the ride.

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## Recommended Software Programs

Currently, there are a few options that allow your direct power measurement to drive the resistance control on trainers that can function in ERG mode (based on % of FTP). With these software programs, you're able to get the most out of ERG mode by having the proper resistance added for your workout efforts. This will help you pace the effort to the same values as you've trained to outside and eliminate any mental adjustment you might have to make if you were experiencing a discrepancy between the two.

**Trainer Road** (<https://www.trainerroad.com/>): *PowerMatch*

*Requirements:*

*Windows version 2.7.2 or newer (may not be available on certain beta versions)*

*Mac version 2.7.4 or newer*

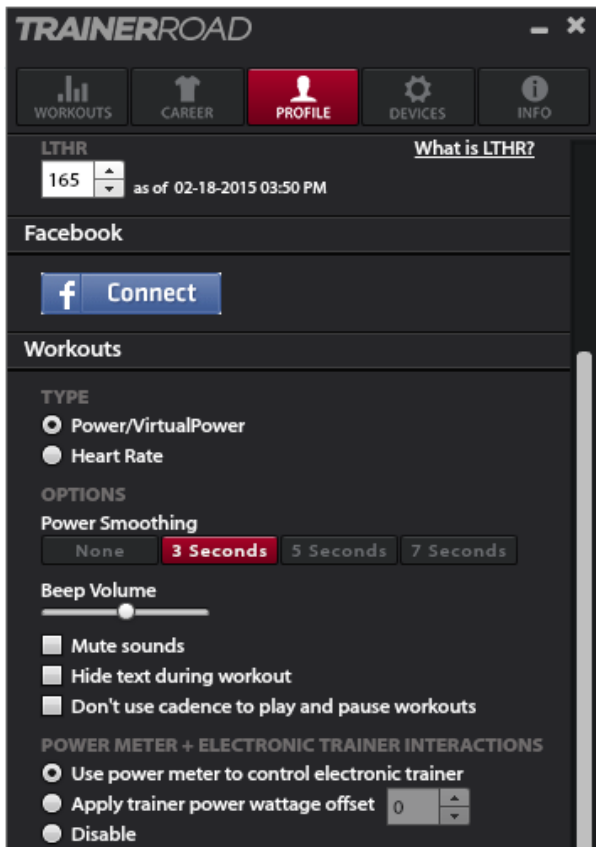
*iOS app version: 8.0 or newer*

By pairing both your power meter and your smart trainer to Trainer Road, the PowerMatch feature will take into consideration any difference between the power meter and the power trainer when adjusting the resistance in ERG mode. Trainer Road will record and display the power values from your Stages Power meter, while still driving the resistance levels on the trainer to adjust for your planned work out.

When displaying your Stages Power meter values instead of the Kickr values, it may also be useful to enable "Power Smoothing" on your display. This will help smooth the values so you see a more steady output. A trainer, by design, will have a large amount of smoothing in the values that results in a very stable numbers, but doesn't pick up short accelerations and brief periods of letting off the pedals. By using your Stages Power meter values on the display and power smoothing, you can get the smooth values for easier pacing while recording the exact numbers in the file for the most accurate data collection.

**More info on Trainer Road PowerMatch** (<http://support.trainerroad.com/hc/en-us/articles/204631294-PowerMatch-Using-Power-Meters-with-Electronic-Trainers>) (external)

Note: This feature can be disabled at any time, under "Profile" in the Windows version or under the Device Settings in the iOS app.



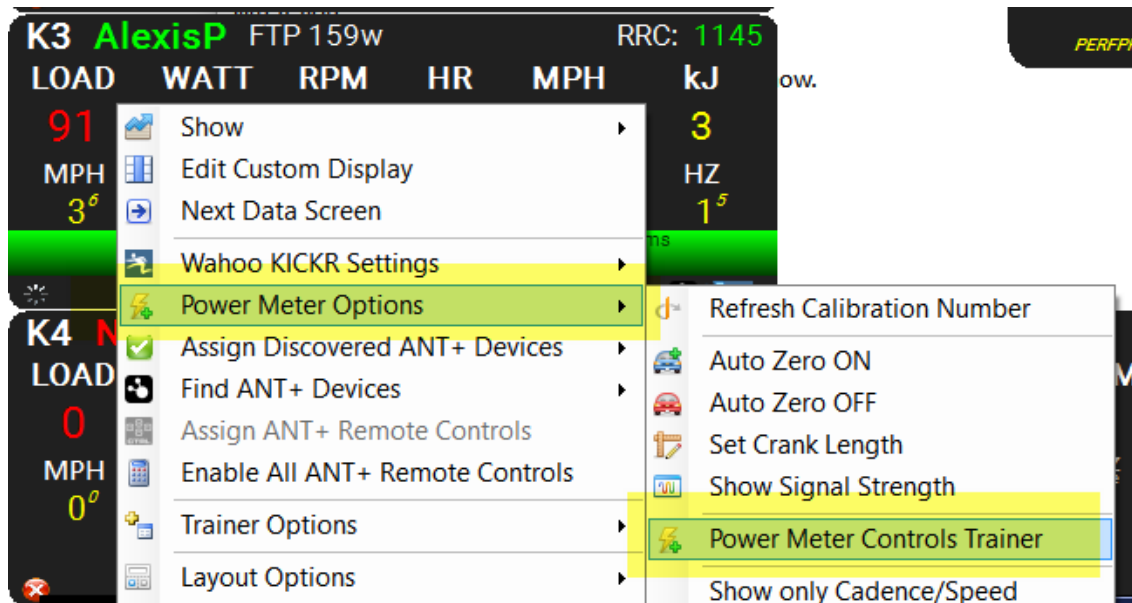
*Trainer Road settings (Windows version)*

### **PerfPRO Studio (<http://perfprostudio.com/default.aspx>).**

#### *Requirements:*

*PerfPRO Studio version 5.75.20 or newer (including beta versions)*

In PerfPRO Studio, once you've paired and assigned the power meter to the rider, you can enable the option to control the trainer's resistance based on the power meter readings. Right click on the rider display and go into Power Meter Options > Power Meter Controls Trainer. This will allow the trainer to adjust based on power meter values when doing workouts based on %FTP/ERG mode.



*PerfPRO Studio Power Meter Options menu*

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## Pairing your Stages Power meter to your trainer

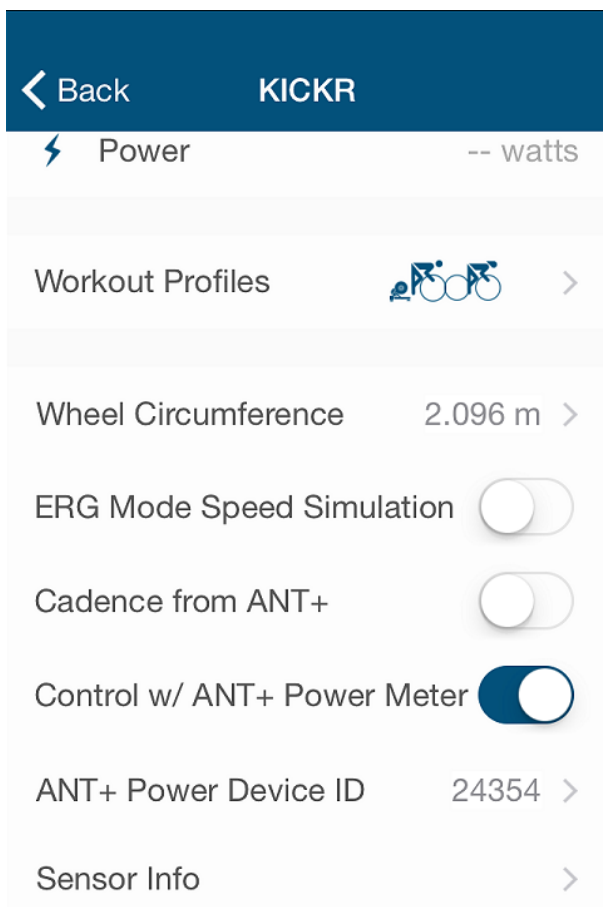
Some smart trainers have the option to pair your power meter directly to the trainer to drive the resistance, which eliminates any delta between your resistance setting on your trainer and your actual power measurement. We recommend this option if your trainer has this ability.

### **Wahoo Kickr**

*Requirements:*

**Wahoo Fitness iOS app** (<https://itunes.apple.com/us/app/wahoo-fitness-bluetooth-powered/id391599899?mt=8&ign-mpt=uo%3D4>),  
version 5.7.5

*Kickr firmware version 1.3.32 or higher*



*KICKR settings menu (Wahoo Fitness iOS App)*

#### Steps:

1. Using the Wahoo iOS app, pair your Kickr via Bluetooth under Sensors
2. Select the Kickr from the sensor menu
3. Enable "Control w/ ANT+ Power Meter" from the options.
4. Below this option, enter your Stages Power meter's ANT+ ID (from the silver sticker on the backside of the crank) under "ANT+ Power Device ID"

Once this is enabled, the Kickr trainer is able to pair to your power meter and read the power values. From these values, it will adjust the resistance in ERG mode.

#### **Tacx Bushido**

##### *Requirements:*

Bushido computer firmware version 0.5.13 ([Software Update Info](http://www.tacx.com/service/software-updates/bushido) (<http://www.tacx.com/service/software-updates/bushido>))

Bushido computer menu: Settings > Ext.Sensor > Power Output Sensor > Connect. The Bushido computer will search for the power meter, so make sure your Stages Power meter is active and no other power meters are within proximity before selecting connect.

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#### **Additional Questions?**

If you are having any other problems or need help with any other issues regarding using your Stages Power meter indoors, please **open up a support ticket with Stages Cycling** (<http://support.stagescycling.com/support/tickets/new>) or **Stages Cycling Europe** (<http://support.stagescycling.eu/support/tickets/new>), with some details on your issue (brand of trainer, program/software, etc) and we will be happy to help.

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