



# PowerBeam™ Pro Electronic Trainer

User Guide



# INTRODUCTION



Congratulations! You've purchased the best electronic trainer available. With the CycleOps PowerBeam™ Pro Trainer, you'll be able to create personalized training sessions to meet all your goals.

Never before has it been this easy to simulate the conditions of a competition or event while in the comfort of your home. The CycleOps PowerBeam™ Pro's electronic resistance unit (ERU) wirelessly communicates with the CycleOps PowerBeam™ Pro computer to provide exactly the resistance you want. A target power based workout allows you to accurately control your exercise intensity. A slope based workout allows you to relive your favorite ride without leaving your home. Your workouts are automatically recorded and can be downloaded to your computer through CycleOps PowerAgent™ software (included with your CycleOps PowerBeam™ Pro), so you can create workouts and measure your progress.

This user guide will take you through setting up the CycleOps PowerBeam™ Pro and thoroughly explains how to use the CycleOps PowerBeam™ computer to create workouts that will give you an edge over the competition.

## Common Sense Precautions

Before starting any exercise program, consult with your physician or health professional. He or she can help establish the exercise frequency, intensity and time appropriate for your particular age and condition. If you have any pain or tightness in your chest, an irregular heartbeat, shortness of breath, feel faint, or have any discomfort while you exercise, STOP! Consult your physician before continuing. Failure to follow any of these safeguards may result in injury or serious health problems.

- Do not remove feet from pedals while cycling.
- Do not attempt to ride the bike at high RPM's or in a standing position until you have practiced at lower RPM's.
- Do not place fingers or any other objects into moving parts of the trainer or bicycle.
- Keep children and pets away from your bike and the trainer while in use. Do not allow children to ride on your bike.
- Never turn pedal crank arms by hand. To avoid entanglement and possible injury, do not expose hands or arms to the drive mechanism.
- Do not dismount from your bike until both the pedals and the rear wheel are at a complete STOP.

# Part 1: Setting Up Your CycleOps PowerBeam™ Pro



## 1.1: Parts Listing

Your CycleOps PowerBeam™ Pro trainer should come with all of the following components:

- Assembled CycleOps PowerBeam™ Pro Electronic Trainer resistance unit and frame (A)
- Cadence sensor with battery installed (B)
- Cadence sensor magnet with four (4) zip ties for cadence sensor (C)
- Resistance unit power supply (D)
- CycleOps skewer (E)
- CycleOps PowerBeam™ Pro computer (F) with three (3) AAA batteries (installed)
- CycleOps PowerBeam™ Pro computer handlebar mounting bracket (G)
- Heart rate strap (H)
- CD containing PowerAgent™ and Workout Creator software (I)
- *Race Day* training DVD (J)
- Warranty registration card (Not Shown) (you can also register your CycleOps trainer at [www.cycleops.com](http://www.cycleops.com))

*If you do not find all of these items in the box, please contact Saris customer service at 800-783-7257 (option 3).*

## 1.2: Trainer Assembly

To begin assembling your trainer, extend the legs as shown below, then set the trainer on a flat surface.



Turn the thumb wheel as shown below to level the frame.



Next, insert the resistance unit power cable into the resistance unit as shown below.



Plug the power supply into the wall outlet.

Use the zip ties to secure the cadence sensor to the non-drive-side chain-stay of your bicycle as shown below. Use additional zip ties to secure the magnet to the crank arm directly across from the cadence sensor. Be sure the magnet lines up with the line on the sensor and that the magnet is no more than 3mm from the sensor.



### 1.3: Attaching your Bike to the Trainer

The CycleOps PowerBeam™ Pro trainer is designed to be used with the provided skewer. Replace the skewer on the rear wheel of your bike with the one provided. Make sure the quick release handle is on the left side of the bicycle and faces upward.



Rotate the yellow skewer clamp knob clockwise to allow sufficient clearance for your skewer.



Pull the yellow cam lever down and rotate 90 degrees clockwise to unlatch the resistance unit. Pivot the resistance unit down to allow clearance for your rear wheel.

**CAUTION: In this position the resistance unit can move freely, keep fingers clear of moving parts.**

Latch the resistance unit in a down position by rotating the cam lever 90 degrees counter clockwise and push the cam lever against the resistance unit.



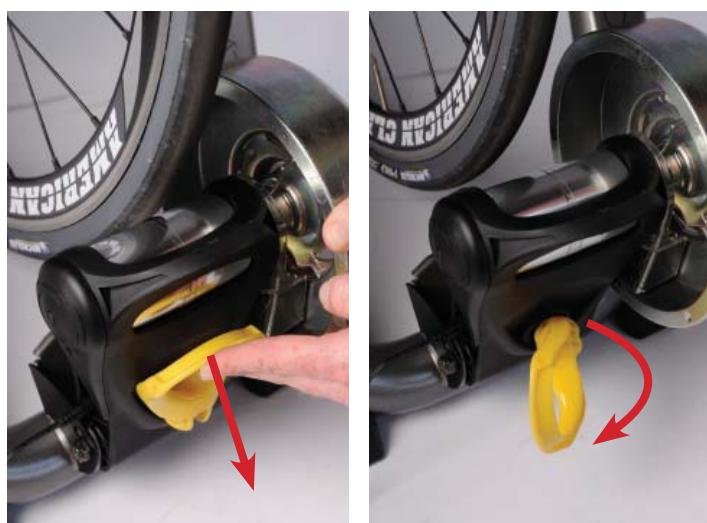
Lift your bike up by the seat post and insert the right side (drive side) of the skewer into the fixed cone on the corresponding side of the frame (as shown below).

Align the left side of the skewer with the adjustable cone, lining the notches in the cone up with the quick release handle/lever. Rotate the yellow skewer clamp knob as shown below to secure your rear wheel into the trainer. Securely tighten the knob until tightly in place.



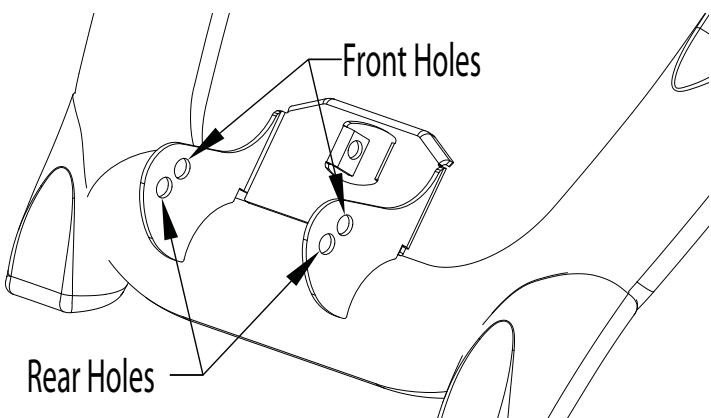
**Note:** Your bike does not need to be centered on the roller for it to function properly.

Pull the yellow cam lever down and rotate 90 degrees clockwise to unlatch the resistance unit. Push the resistance unit towards your rear wheel until the roller contacts the tire. Latch the resistance unit by rotating the cam lever 90 degrees counter clockwise, while holding the resistance unit. Compress the roller against the tire by pulling up on the cam lever as shown below.



The resistance unit should be tight enough to prevent the tire from slipping during accelerations. A small indentation will be seen in the tire when tightened properly. If slipping occurs, increase tire compression by relatching the resistance unit. Pull the yellow cam lever further down while performing the initial unlatching step.

**Note:** If the cam lever pops open while riding, move the resistance unit and mount it to the front bolt hole as shown below. Most tires will fit using either mounting hole. Larger tires including 29" MTB tires require mounting to the rear hole.



**Note:** Be certain your tires are inflated to their proper pressure. Knobby tires will cause noise and vibration. For best results, use a slick-tread tire. Note that any stationary trainer will increase the wear on your tires. Using harder rubber composed tires will improve their life.

**Note:** The CycleOps PowerBeam™ Pro trainer can be used without the CycleOps PowerBeam™ Pro computer. Simply plug the resistance unit in and it will provide a resistance curve similar to that of riding on a flat road.

## 1.4: Attaching the CycleOps PowerBeam™ Pro computer to your Bike

Attach the CycleOps PowerBeam™ Pro computer to your bike by placing the bracket over the handlebars as shown below. Attach the straps to secure the bracket to the handlebars.

The CycleOps Powerbeam™ Pro computer can be removed from the bracket by pushing it forward. Install the optional screw to the underside of the bracket to create a more permanent attachment.



## 1.5 Detaching your Bike from the Trainer

Pull the yellow cam lever down and rotate 90 degrees clockwise to unlatch the resistance unit. Pivot the resistance unit down to allow clearance for your rear wheel. Latch the resistance unit by rotating the cam lever 90 degrees counter clockwise and pushing up.

Hold your bike by the seatpost. Rotate the yellow skewer clamp knob counter clockwise to release your bike.

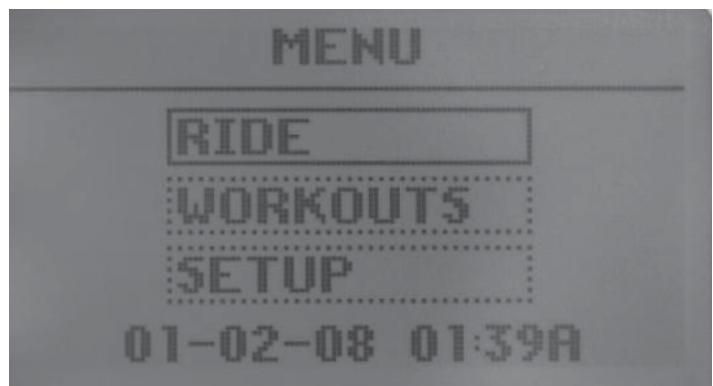


## Part 2: Navigating the CycleOps PowerBeam™ Pro computer

The CycleOps PowerBeam™ Pro computer enables you to track all aspects of your workout and customize them to your individual needs.

The CycleOps PowerBeam™ Pro computer features a display and four buttons. The mode button allows you to access a number of different functions within the display. The arrow buttons enable you to toggle up and down between functions or adjust the resistance level. The select button chooses the function.

To turn the CycleOps PowerBeam™ Pro on, push any button. The display then offers three different modes for you to choose. Use the arrow buttons to highlight the mode you want, and then press select to choose it. Each mode is described in-depth in its own section.

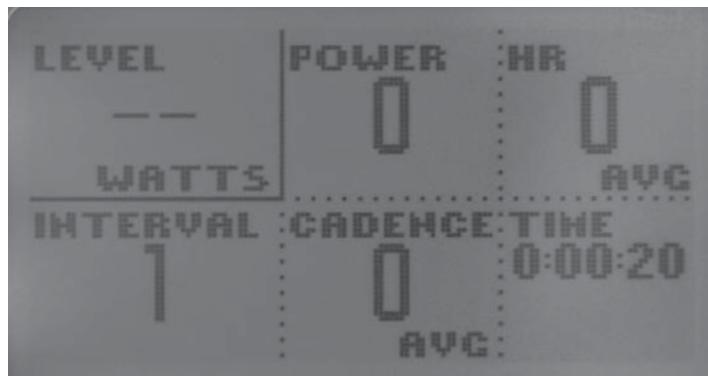


## Part 3: Ride Mode

Ride Mode allows you to set the individual levels of your workout while it's in progress. It does not follow a pre-programmed workout.

### 3.1: Ride Mode Display

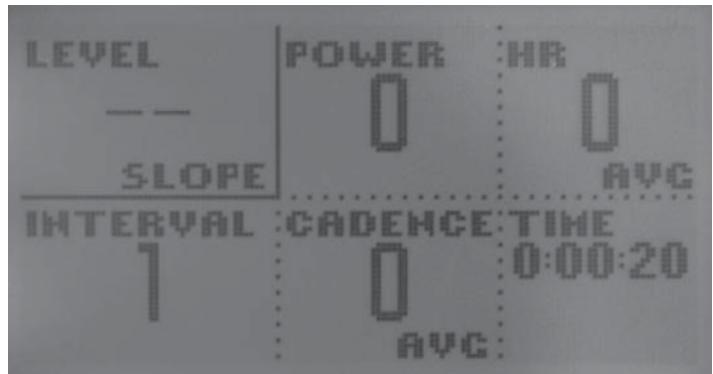
When you enter Ride Mode, the unit automatically finds the resistance unit and sensors. After a moment, the display will show a screen like the one below.



The screen is divided into six boxes, each of which tracks a different aspect of the workout. The active box is highlighted with solid lines. When a box is active, you can make adjustments to it by pressing select. Press the mode button to toggle between the six boxes. To return to the main menu (see Part 2), press and hold mode and select together for two seconds.

### 3.2: Level

The level is measured in one of two ways, slope or watts. Slope measures grade steepness of your simulated climb. Watts sets a target power output for you to meet. To switch between slope and watts, press the select button while the level box is highlighted.



You can choose a grade between 0 and 10 for the slope. The higher the number, the steeper the slope you're climbing. Use the arrow buttons with any box active to increase or decrease the slope.

While in slope mode, the trainer provides the resistance for the selected slope at whatever speed you're riding. The faster you pedal, the more resistance you'll need to overcome, just like riding up an actual hill. The resistance the CycleOps PowerBeam™

Pro simulates the power needed for a 176 lb. bike and rider to climb the slope on a road bike with slick tires. You can adjust the weight and the bike options using PowerAgent™ software.

While in watts mode, target power can be adjusted between 30 and 1000 watts in 10-watt increments. Use the arrow buttons with any box active to increase or decrease the number of watts.

The CycleOps PowerBeam™ Pro automatically adjusts the resistance to match the target power output. Power is a combination of speed and torque. Because of this, you experience less resistance the faster you pedal, keeping your power output at the desired level. This enables you to customize your workout to meet specific performance needs.

***Note: Not all power levels are available at all speeds. When the CycleOps PowerBeam™ Pro cannot add any more resistance, an up arrow is shown in the speed/cadence box to indicate you should speed up to achieve the target power. When the CycleOps PowerBeam™ Pro cannot remove any more resistance a down arrow is shown in the speed/cadence box to indicate you should slow down to achieve the target power.***

### 3.3: Power

The number displayed in the Power box in watts is the measurement of the power you are expending. Press select to view the average power in watts of your workout, and press it again to view your maximum wattage. Press it once more to display total kilojoules and once again to return to current power.

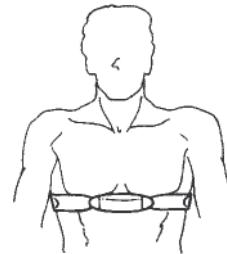
### 3.4: HR

HR displays your heart rate during the workout. You must be wearing the heart rate monitor strap for this box to function. Pressing select will enable you to see your average heart rate over the course of the workout. Pressing it again shows your maximum heart rate. Press it once more to return to current heart rate.

#### 3.4.1: Using the Heart Rate Monitor Strap

Before beginning your ride, place the strap on your

torso just below the pectoral muscles as shown in the picture below.

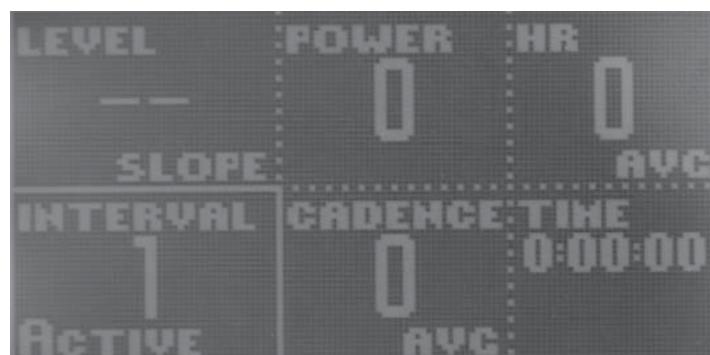


For best results, moisten the contacts. The monitor will communicate wirelessly with the CycleOps PowerBeam™ Pro computer while you ride. The CycleOps PowerBeam™ Pro computer automatically finds for your heart rate strap when a workout is entered. Once it is found, the data is displayed on the CycleOps PowerBeam™ Pro computer. If the strap is not found, the unit will time out and stop searching. If you attach your heart rate strap while a ride is in progress, exit and enter the ride to re-initiate the search.

***Note: When the battery is changed out in the heart rate strap, you will need to re-learn the device to the CycleOps PowerBeam™ Pro computer (see Section 5.5).***

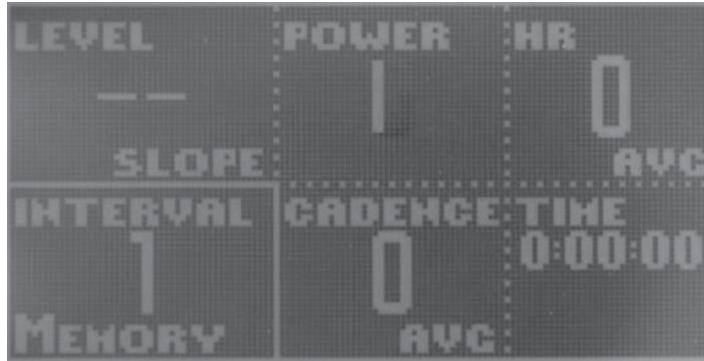
### 3.5: Interval

Your ride can be broken into sections called "intervals" by pressing and releasing the mode and select buttons at the same time. The interval box displays which section of the workout you are currently in. Press select while the interval box is highlighted to enter active interval mode. This causes the screen to darken and display information for the active interval only, as shown below. While in active interval mode, press mode to cycle between the six boxes on the screen. Press select to cycle through the parameters normally shown in that box. The values shown are only for the interval you're currently in.



Press select while the interval box is highlighted to go to the "interval memory" mode.

The screen remains dark, and you'll be able to check the results of previous intervals in your ride. The word, "memory," appears below the interval number to indicate you are in interval memory mode.



While in "active interval" or "interval memory" mode, the power is always the power you're currently expending. Return to the normal ride screen by pressing select while the interval box is highlighted. You will return to your normal ride after you cycle through your intervals.

### 3.6: Cadence/Speed

"Cadence" displays the number of RPM's you're pedaling and is measured by the cadence sensor on your bicycle frame. You can press select to display the average cadence or maximum cadence.

This box can also be used to display your speed. Press select until you see "SPD MPH" or "SPD KPH." The CycleOps PowerBeam™ Pro computer now monitors your current speed in miles per hour/kilometers per hour. Pressing select again will measure your average speed, and pressing it one more time will give you your maximum speed. Press select once more to return to cadence.

#### 3.6.1 Using the Cadence Sensor

You must install the cadence sensor if you want to monitor your cadence during the ride. Refer to Part 1 for installation instructions. The cadence sensor will communicate wirelessly with the CycleOps PowerBeam™ Pro computer while you ride. The CycleOps PowerBeam™ Pro computer automatically finds your cadence sensor when a workout is entered. Once

it is found, the data is displayed on the CycleOps PowerBeam™ Pro computer. If none is found, the unit will time out and stop searching. If you attach your cadence sensor in the middle of a workout or ride, exit and enter the ride to re-initiate the search.

**Note:** When the battery is changed out in the cadence sensor, you will need to re-learn the device to the CycleOps PowerBeamTM computer (see Section 5.5).

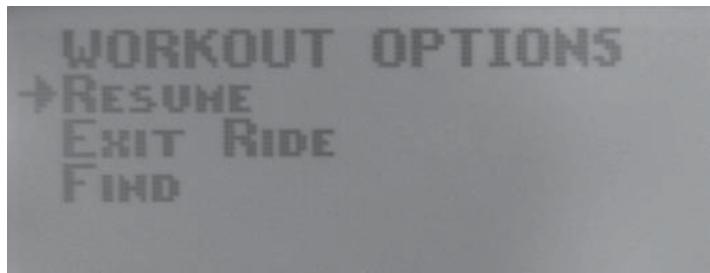
### 3.7: Time

This box displays your total ride time. You can also choose to display distance by pressing the select button.

### 3.8 Exiting a Ride

If you want to take a break, press and hold the mode and select buttons for two seconds. You will be taken to the "Ride Option" screen.

**Note:** Your ride data, including time and all average calculations, will be paused.



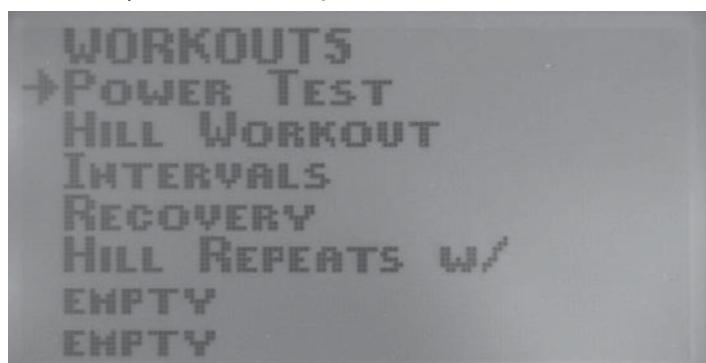
Press "Resume" to return to the ride. "Exit" leaves the ride and returns to the main menu. The current ride status, data, and time are saved and can be resumed from this point. "Find" returns to the ride and re-initiates the search for heart rate and cadence sensors.

## Part 4: Workout Mode

Workout Mode enables you to put together a program designed for your specific training needs. You can choose one of the pre-loaded workouts, or you can create your own customized workout with PowerAgent™ and upload it into the CycleOps PowerBeam™ Pro computer (see PowerAgent™ User Guide).

### 4.1 Choosing a Workout

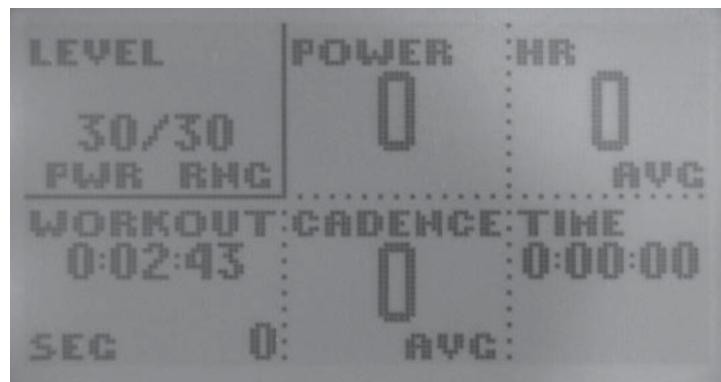
From the Main Menu, select "Workouts." You'll see a screen that offers a number of workouts, including any you have saved to the CycleOps PowerBeam™ Pro computer. Use the arrow buttons to highlight the workout you want, and press select to choose it.



You'll be taken to the Workout Mode screen. This screen displays similar information to the Ride Mode screen (see Part 3). Your workout will begin as soon as you start pedaling. It is divided into six boxes, each of which displays a different part of your workout. The active box is highlighted with solid lines around it. When a box is active, you can make adjustments to it or change what it displays. Use the mode button to toggle between boxes.

### 4.2: Level

Like in Ride Mode, this box displays the slope of the grade for the interval or its target power in watts. However, you cannot toggle between the two like you can in Ride Mode. Slope or watts is set when the workout is created. You can, however, increase or decrease the slope or the target power by using the arrow buttons.



### 4.3: Power

This box displays your current power output in watts. (See Section 3.3 for more detail).

### 4.4: HR

This box displays your current heart rate. (See Section 3.4 for more detail).

### 4.5: Workout

This box displays two things, a countdown to the next segment and the current segment number. The countdown displays either the time or distance, depending on how the workout was set up in PowerAgent™.

To skip ahead to the next segment in the workout, press and hold the mode and select buttons together for one second.

**Note:** Interval functions are deactivated in Workout Mode.

### 4.6: Cadence

Cadence displays the number of RPM's you're pedaling. (See Section 3.6 for more detail).

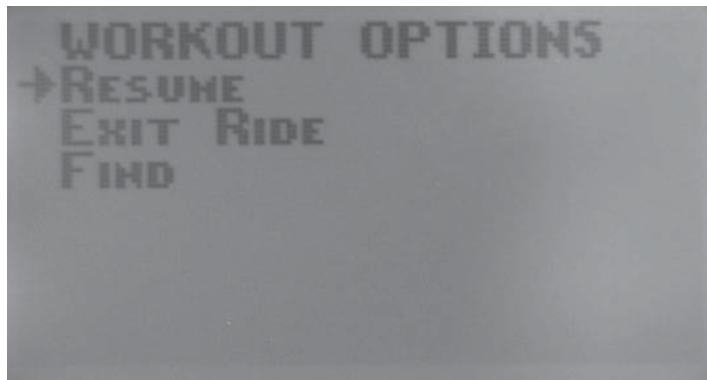
### 4.7: Time

This is the total elapsed time of your workout. (See Section 3.7 for more detail).

#### 4.8: Exiting a Workout

If you need to take a break, press and hold the mode and select buttons together for two seconds. You will be taken to the "Ride Options" screen.

Press "Resume" to return to the workout. "Exit" leaves the workout and returns to the main menu. The current workout status, data, and time are saved and can be resumed from this point. Note that only the last workout's status is saved and can be resumed. Other workouts must be started from the beginning of the workout. "Find" returns to the ride and re-initiates the search for heart rate and cadence sensors.

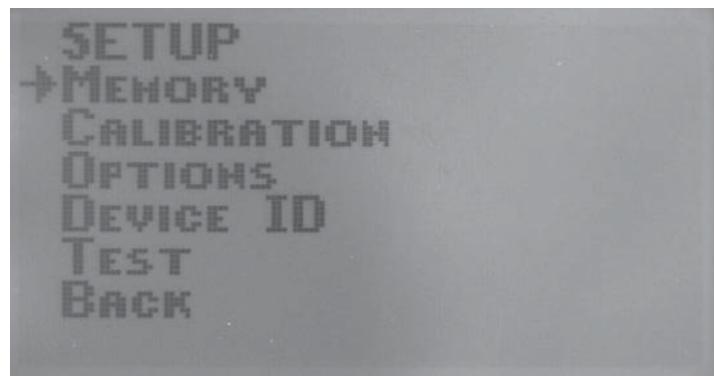


### Part 5: Setup Mode

Setup Mode enables you to set several options on the CycleOps PowerBeam™ Pro. You can calibrate your devices, work with memory, and change many other features of the system. Choose "Setup" from the Main Menu by using the arrow buttons to highlight it and then pressing select to enter Setup Mode.

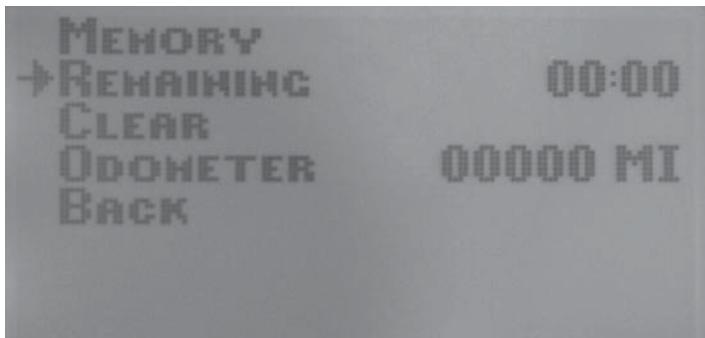
#### 5.1: Setup Screen

When you first enter Setup Mode, you will see a screen that presents you with several options. Use the arrow buttons to scroll down to the option you want and press select to choose it. Each option is explained in detail in the following sections.



#### 5.2: Memory

This option allows you to work with the available memory in your CycleOps PowerBeam™ Pro computer. There are two choices on this screen.



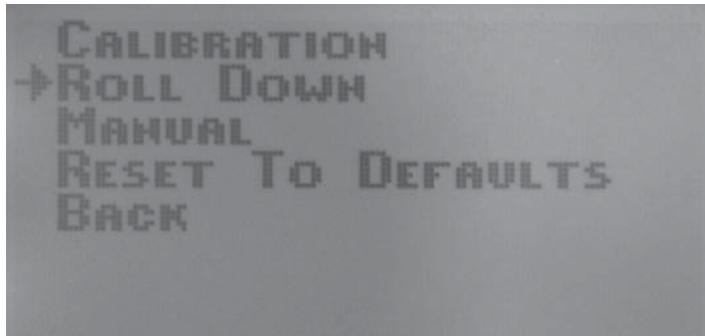
"Remaining" indicates how much space is left to store ride data. The CycleOps PowerBeam™ Pro comes with enough room to store about 15 hours of ride information. "Clear Ride Data" deletes all stored rides on the CycleOps PowerBeam™ Pro computer. Make sure you no longer need a ride or have downloaded it to your computer before choosing "Clear". Only the ride data is cleared; workouts uploaded from PowerAgent™, calibration information and odometer data are still stored.

"Odometer" displays the total number of miles (or kilometers) you have ridden on the CycleOps PowerBeam™ Pro trainer.

### 5.3 Calibration

The CycleOps PowerBeam™ Pro resistance unit is calibrated at the factory. This enables it to accurately measure power using similar technology to a power meter. Rolling resistance is calibrated into the each individual unit, but can vary depending on tire type, tire pressure, clamping pressure and other conditions. To obtain the most accurate results, follow the subsequent guidelines:

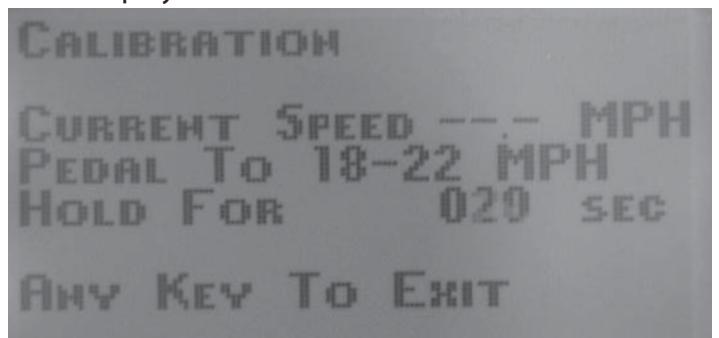
- Perform either the Roll Down Calibration or Manual Calibration described below.
- Inflate tires to the rated pressure.
- Attach the bicycle according to the instructions in this guide (see Section 1.3).



- Clamp the resistance unit to the rear tire according to the instructions in this guide (see Section 1.3).
- For mountain bicycles, use smooth tires. Knobby tires are noisy and contribute to inaccuracies.

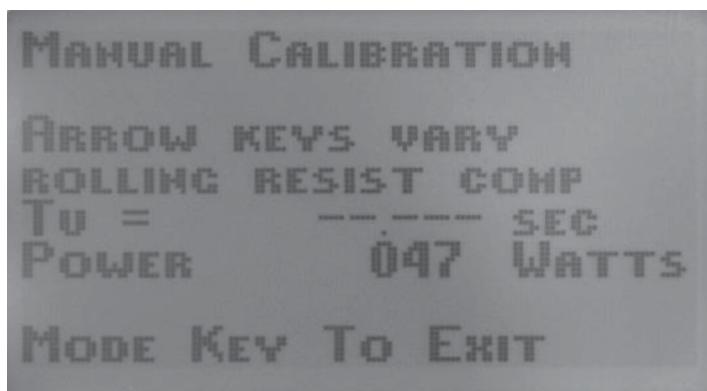
#### 5.3.1 Roll Down Calibration

1. Before entering the calibration routine, warm up the CycleOps PowerBeam™ Pro and tires by riding the system for five minutes.
2. From the main menu, choose Setup Mode.
3. From the setup menu, choose Calibration.
4. From the calibration menu, choose Roll Down Calibration.
5. The CycleOps PowerBeam™ Pro computer will instruct you to pedal to 18 mph. Your current speed is displayed as well.



6. Once at 18 mph, hold this speed for two minutes. A count down timer displays your remaining time.
7. After two minutes, immediately stop pedaling and allow the system to coast to a complete stop.
8. Do not touch or disturb the resistance unit while the system is coasting. Do not pedal while the system is coasting. Do not hit the brakes.
9. After the unit comes to a complete stop, the CycleOps PowerBeam™ Pro computer will display "Calibration Passed." If you do not wait the full two minutes or another issue occurs during calibration, the CycleOps PowerBeam™ Pro computer will display "Calibration Failed." If calibration fails, repeat the calibration. If it continues to fail, contact Saris Cycling Group.
10. The unique rolling resistance calibration is now incorporated into the factory calibration. This calibration will remain in the system until another calibration is performed.

### 5.3.2 Manual Calibration



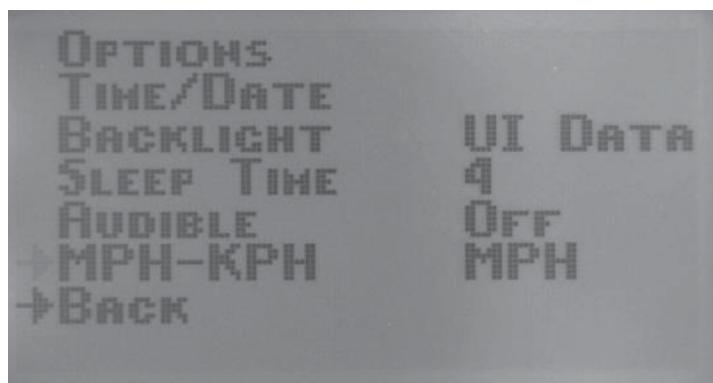
If you own a PowerTap power meter, you can perform a manual calibration to more accurately calibrate your CycleOps PowerBeam™ Pro trainer. Attach the power meter to your handlebars so you can read both the PowerTap CPU as well as the CycleOps PowerBeam™ computer.

1. Before entering the calibration routine, warm up the CycleOps PowerBeam™ Pro by riding the system for five minutes.
2. From the main menu, choose Setup Mode.
3. From the setup menu, choose Calibration.
4. From the calibration menu, choose Manual Calibration.
5. The CycleOps PowerBeam™ Pro computer displays the measured power using the current rolling resistance calibration. Pedal at a constant speed to stabilize the resistance. Target 20 mph.
6. Use the up and down arrow buttons to adjust the calibration until the displayed power matches your PowerTap CPU. Pressing the up arrow button will increase the measured power while pressing the down arrow button decreases the measured power.
7. When the two values match, press mode or select to exit the calibration.
8. The unique rolling resistance calibration is now incorporated into the factory calibration. This calibration will remain in the system until another calibration is performed.

Note: The Roll Down Calibration and the Manual Calibration adjust the same calibration values. Only the last calibration values are held in memory.

### 5.4: Options

This choice allows you to customize the CycleOps PowerBeam™ Pro computer display. Use the arrow buttons to scroll down to the option you desire and press select to choose it.



#### 5.4.1: Time/Date

This option allows you to set the time and date.

##### 5.4.1.1: 12-24 Clock

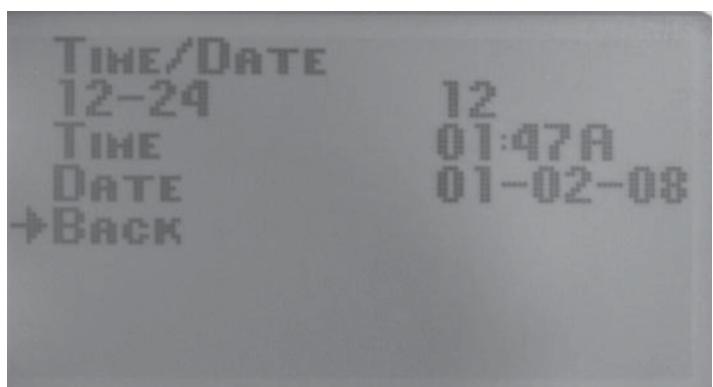
Choose between displaying a 12 or 24 hour clock.

##### 5.4.1.2: Time

Use the arrow buttons to increase or decrease the time. Use the select button to choose hours or minutes.

##### 5.4.1.3: Date

Use the arrow buttons to increase or decrease the date. Use the select button to step through the month, day or year.



##### 5.4.2: Backlight

This option enables you set when the display's backlight will come on. Use the arrow buttons to choose the option you like best and press select to choose it.

“UI Data” turns the backlight on when data is received from the resistance unit or when buttons are pressed on the CycleOps PowerBeam™ Pro computer. “UI” turns the backlight on only when buttons are pressed. “OFF” never turns backlight on. Note that your batteries will have a longer life when the backlight is used less.

#### 5.4.3 Sleep Time

This function allows you to set the amount of time the CycleOps PowerBeam™ Pro computer waits without any activity before it goes into power-saving sleep mode. Use the arrow buttons to increase or decrease the number of minutes and press select to choose it. Again, a shorter time before entering sleep mode results in increased battery life.

#### 5.4.4: MPH-KPH

This option allows you to choose how you would like the speed and distance displayed. You can choose English (miles and miles/hour) or metric (kilometers and kilometers/hour). Use the arrow buttons to highlight the units you prefer and press select to choose it.

### 5.5: Device ID

This option allows you to manually set which devices are paired to the CycleOps PowerBeam™ Pro computer. A unique number identifies which resistance unit, chest strap, and cadence sensor is currently paired with the CycleOps PowerBeam™ Pro computer. Use the arrow buttons to highlight the options and press select to choose it.

For each of the devices, (i.e., resistance unit, chest strap and cadence sensor) you can manually enter the ID number. Use the arrow buttons to enter the number and the select button to go to the next character. After the last character, the “learn” modes are displayed. With the learn mode flashing, press and hold select to perform the function. When a device is found, the unique ID is displayed.

There are two learn options for the chest strap and cadence sensor. Learn 1 is used when you have a new sensor or CycleOps PowerBeam™ Pro computer and there are no like sensors within a 30 foot radius. Learn 2 is used if there are other like devices in the area. Note this requires you to remove and re-insert

the battery in the sensor before activating the learn 2 process. After the battery is re-inserted there is only a 2 minute window to pair using learn 2.

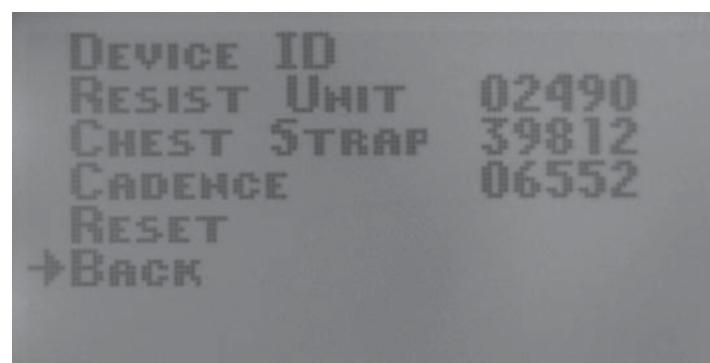
The resistance unit learn function has the same basic logic as above, but only offers learn 2 to avoid having two CycleOps PowerBeam™ Pro computers controlling a single resistance unit.

To pair a CycleOps PowerBeam™ Pro computer and resistance unit, simply use learn 2. The power to the resistance unit must be cycled by unplugging the unit from the electrical supply.

The CycleOps PowerBeam™ Pro computer also has an automatic learn 2 function for the resistance unit. When the “Resist Unit” ID is set to zeros (00000), the CycleOps PowerBeam™ Pro computer will automatically pair to the first available resistance unit after entering the ride or workout screen.

***Note: When the battery is removed and re-inserted in the heart rate strap or the cadence sensor, you must re-learn them to the CycleOps PowerBeam™ Pro computer. Changing the battery resets the strap.***

Pressing “Reset” will reset all the device IDs to zeros.



### 5.6: Test

This option allows you to perform tests on your CycleOps PowerBeam™ Pro unit to help determine operational status. Use the arrow buttons to scroll down to the option you desire and press select to choose it.

#### 5.6.1 About

This screen displays the version number for the firmware running on the CycleOps PowerBeam™ Pro computer and the Saris Cycling Group customer

service telephone number. Press any button to return to the Test menu.

#### 5.6.2 LCD Test

The LCD test performs a test of the CycleOps PowerBeam™ computer's LCD to demonstrate that each pixel on the screen can turn on and off. Press any button to return to the Test menu.

#### 5.6.3 Backlight

Choosing backlight will temporarily turn the backlight on. Press any button to return to the Test menu.

#### 5.6.4 Transmit Test

The transmit test performs a test of the CycleOps PowerBeam™ computer transmitter. Press any button to return to the Test menu.

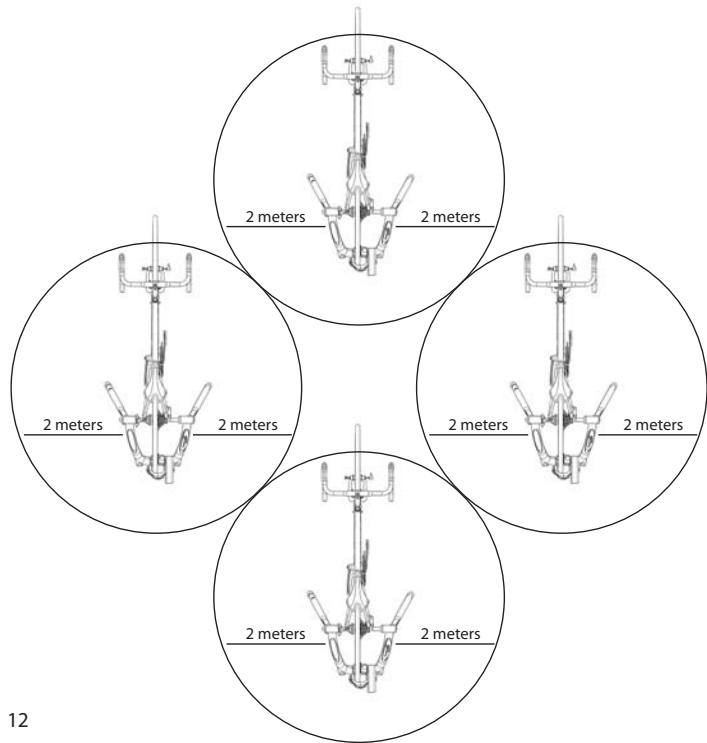
#### 5.6.5 ERU Data

Displays raw data coming from the resistance unit. "Roller Speed" displays the current rotational speed of the roller. The number displayed represents the number (R) of 32 microsecond counts for the latest roller rotation.  $11156/R$  converts the roller speed to miles per hour. "Raw Analog" displays the voltage on the strain gauge used to measure power. "ERU Version" displays the version number for the firmware running on the resistance unit.

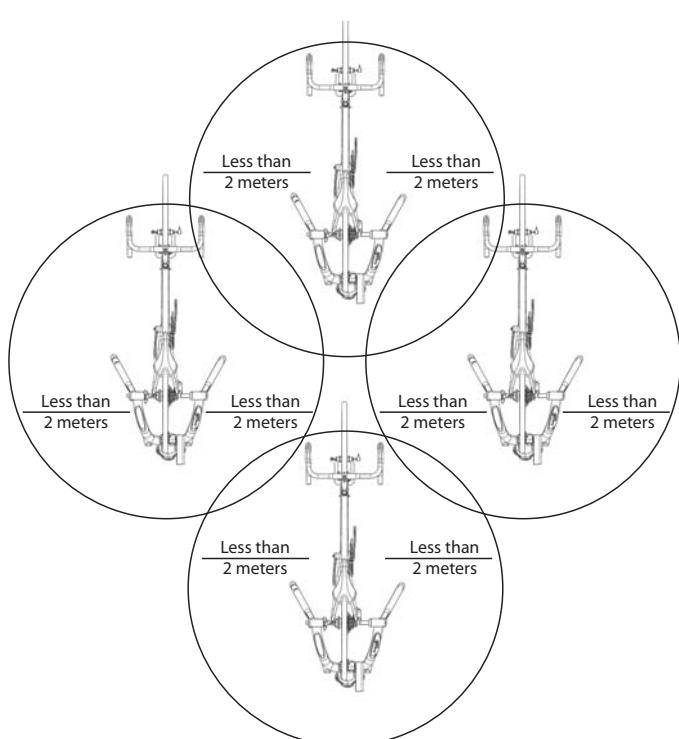
### Part 3: Using the CycleOps PowerBeam™ in a Group Environment

CycleOps utilizes ANT+ technology to ensure a robust and reliable connection between the various sensors used in our products. Sensors are defined as power meter sensors, heart rate strap sensors, cadence sensors, speed sensors, and controlled resistance sensors. However, there is a limit to the number of sensors that can operate in a given environment. Practically speaking, when riding by yourself or with others using less than 30 total ANT+ sensors you should see no more than a 1% loss in data due to communication errors in your sensors. However, in an environment with more than 30 total ANT+ sensors you may see an increase in communication errors.

Optimal Trainer Configuration for  
Wireless Communication in Group Environment



Undesirable Trainer Configuration for  
Wireless Communication in Group Environment



## **Warranty**

The CycleOps PowerBeam™ Pro is designed specifically for home use and as such carries the following warranty:

All Saris Cycling Group CycleOps PowerBeam™ Pro products are warranted to the original retail purchaser to be free from defects in materials and workmanship. Warranty coverage valid to the original purchaser only and proof of purchase will be required.

Residential Environment:

Frame: Lifetime

Electronics: 1 year

This warranty excludes wear items that need to be replaced due to normal wear and tear.

This warranty does not cover:

1. Normal wear and tear.
2. Any damage, failure or loss caused by accident, misuse, neglect, abuse, improper assembly, improper maintenance, or failure to follow instructions or warnings in Owner's Manual.
3. Use of products in a manner or environment for which they were not designed.

## **Procedures**

Warranty service will be performed by Saris Cycling Group or an authorized Saris Cycling Group Dealer. The original purchaser must provide proof of purchase. Service calls and/or transportation to and from the Authorized Saris Cycling Group Dealer are the responsibility of the purchaser.

1. Saris Cycling Group will have the option to repair or replace any product(s) which requires warranty service.
2. Saris Cycling Group will replace any unit that is structurally defective with a new unit or replace the unit with a unit of equal value.
3. In the event a product cannot be repaired, Saris Cycling Group will apply a limited credit reimbursement toward another CycleOps PowerBeam™ Pro Trainer product of equal or greater value.

## **Limitations**

The foregoing warranties are in lieu of and exclude all other warranties not expressly set forth herein, whether expressed or implied by operation of law or otherwise, including, but not limited to, warranties of merchantability or fitness for a particular purpose. Saris Cycling Group shall in no event be liable for incidental or consequential losses, damages or expenses in connection with its exercise products. Saris Cycling Group's liability hereunder is expressly limited to the replacement of goods not complying with this warranty or, at Saris Cycling Group election, to the repayment of an amount of the purchase price of the exercise product in question. Some states do not permit the exclusion or limitation of implied warranties or incidental or consequential damages, so the preceding limitations and exclusions may not apply to you.

## **Statement of Compliance for FCC and Industry Canada:**

Saris Cycling Group, Inc.  
Model #: ERUTT3  
Contains transmitter SL24TT3  
FCC ID:T8P-SL24TT3  
IC:6459A-SL24TT3

"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.

Changes or modifications to this device not expressly approved by the party responsible for compliance with FCC regulations (the manufacturer) could void the user's authority to operate the equipment.

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 normal 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.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit difference from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

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