INTRODUCTION

Thank you for your purchase of an Ascent computer! The Ascent Delta hr combines all the features of an advanced cycle computer with ECG accurate heart rate technology to create the ultimate training tool. The added convenience of wireless transmission makes installation simple.

COMPUTER FUNCTIONS

Current Speed
Displays current speed up to 62mph (99.9kmh). Accurate to 0.1mph or kmh. Current speed is always displayed in the top right corner of the screen.

Current Heart Rate
Provided the chest transmitter is being used, current heart rate is displayed in the top left corner of all display screens.

Modes
Press the MODE button to scroll through the Delta hr display screens in the following order:

Clock (CLOCK) Displays time of day in a 12 hour or 24 hour format.
Auto Ride Timer (AUTOTIME) Auto start/stop timer is activated by front wheel movement and records ride time up to 9:59:59.
Maximum Speed (MAXSPEED) Displays maximum speed attained during a ride, up to 62mph (9.99kmh).
Average Speed (AVGSPEED) Displays average speed up to 62mph (9.99kmh). Calculated using ride time and trip distance. Note, if either ride time or trip distance reach their maximum value (9:59:59, or 600 mi.) average speed can no longer be calculated correctly. “Err” will appear in the display screen until the ride time and trip distance values have been reset.
Trip Distance (TRIP) Displays distance traveled during current ride, up to 600 mi. (999.9 km).
Total Odometer (TOTALODO) Displays cumulative ride distance, up to 6200 mi. (9,999.9 km).
Maximum Heart Rate (MAXPULSE) Displays maximum heart rate attained since last reset. From 30bpm—240bpm.
Average Heart Rate (AVGPULSE) Displays average heart rate attained since last reset. From 30bpm—240bpm.

Calorie Counter (KCAL) Displays calories burned since last reset, up to 9999 Kcal.
Scan Allows hands free viewing of display screens. When activated, the scan feature scrolls through all nine display screens on a continuous loop, displaying the screens for five seconds each.

Additional Features:

Dual Wheel Settings
Two wheel size settings allow you to switch the computer between two bikes with different wheel sizes (e.g. your road bike and mountain bike), and keep track of your combined ride time and distance on both bikes. To select the desired wheel setting (“1” or “2”), press the blue button on the underside of the computer head.

Programmable Heart Rate Target Zone
Allows you to program upper and lower heart rate target zone limits to ensure the most efficient workout based on your specific fitness goals.

Delta HR
Wireless Cycle Computer with Heart Rate

Out of Zone Alarm
Visual and selectable audible alarm indicates when your heart rate rises above your target zone upper limit or falls below your target zone lower limit.

Low Battery Indicator
Indicates when batteries should be replaced.

PROGRAMMING THE COMPUTER

SETTING THE CALORIE COUNTER
The Delta hr uses weight and gender to calculate calories burned. In order for the calorie counter to provide an accurate measurement, you must enter your weight and gender.

STEP 1: Press the MODE button to advance to the Calorie (KCAL) display screen. Press and hold the SET button for 2 seconds to enter the personal settings screen.

STEP 2: Press the SET button to select gender, then press the MODE button to advance to the weight selection screen.

STEP 3: Press the SET button to select the desired weight scale (Kg or Lb). Then press the MODE button to advance to the weight input screen.

STEP 4: Press the SET button (or press and hold) to adjust the weight value. Press and hold the MODE button to set the value and exit the set-up mode.

SETTING THE CLOCK
The Delta hr is equipped with a digital clock that displays time of day in a 12 hour or 24 hour format.

STEP 1: Press the MODE button to advance to the Clock (CLOCK) display screen. Press and hold the SET button for 2 seconds to enter the clock setting screen.

STEP 2: “12H” or “24H” will flash in the upper row of the display. Press the SET button to select 12 hour or 24 hour mode. Press the MODE button to set your choice and advance to the hours setting.

STEP 3: The hours will flash. Press the SET button (or press and hold) to advance the hours. Press the MODE button to set the value and advance to the minutes setting.

STEP 4: Press the SET button (or press and hold) to advance the minutes. Press the MODE button to set the value and advance to the seconds setting.

STEP 5: Press the SET button to reset the seconds to “00”.

STEP 6: Press and hold the MODE button to exit the clock set-up screen and return to the Clock display screen.

DETERMINING WHEEL SIZE
The Delta hr uses wheel circumference to calculate speed and distance. There are three methods for determining wheel circumference:

1. Select size from chart below (least accurate)
2. Measure wheel diameter (more accurate)
3. Perform roll-out test (most accurate)

1. Chart: Use the chart to find the circumference for your tire size, and enter this value in the computer (see “Programming Wheel Size”). The chart lists circumferences for some of the most popular tire sizes currently in use. These numbers are only estimates which may not precisely match the circumference of your wheel, due to variations in tire size between brands and models.

2. Measure: Measure your wheel diameter (including wheel and tire) in millimeters (1 inch = 25.4mm) and multiply by 3.1416. Enter this value in the computer (see “Programming Wheel Size”).

3. Roll-out Test: See Figure 1.

STEP 1: Stand your bicycle upright. With your tire inflated to its proper pressure, rotate your front wheel so that the valve is located at the bottom (6 o’clock position). Make a mark on the ground to indicate the valve location.

STEP 2: Roll the bicycle forward in a straight line for one complete wheel revolution, until the valve is again at the bottom (ideally, you should be on the bike). Make a mark on the ground to indicate the valve location.

STEP 3: Measure the distance between the marks in millimeters (1 inch = 25.4mm). This value is your wheel circumference. Enter this value in the computer (see “Programming Wheel Size”).

PROGRAMMING WHEEL SIZE & SELECTING MILES OR KILOMETERS
After determining wheel size by one of the three methods above, enter the value in the computer.

STEP 1: Press the MODE button to advance to the Odometer (TOTALODO) display screen. Press and hold the SET button for 2 seconds to enter the wheel size setting screen.

STEP 2: “KM/H” or “MPH” will flash. Press the SET button to select the desired speed scale (mph or kmh) and then press the MODE button to set your choice and advance to the wheel size setting.

STEP 3: The digit on the left side of the screen will flash. Press the SET button to adjust the value. Press the MODE button to set the value and advance to the next flashing digit.

STEP 4: Repeat this sequence until all digits have been set to the appropriate value.

STEP 5: Press and hold the MODE button to set the wheel size in memory and return to the Odometer display screen.

STEP 6: To program a second wheel size (if you plan to use the Delta hr on two bikes with different wheel sizes), depress the blue button on the back of the computer to activate the second wheel size. Then follow steps 1 through 5 above, to program the wheel size.

INSTALLATION

Wireless transmission makes installation simple. Begin by attaching the computer bracket to the handlebar.

STEP 1: Use the included zip-ties and shim pad (if necessary) to attach the bracket to the handlebar as shown in Figure 2. Tighten the zip-ties securely and trim off any excess length.

STEP 2: Attach the computer head to the bracket. Press the computer head into the bracket and rotate it clockwise to lock in place. See Figure 3. You should hear a “CLICK” when the computer is locked in place.

STEP 3: Using the included zip-ties, loosely mount the sensor (so that you can slide it around) to the fork blade on the same side of the bike as the handlebar bracket. See Figure 4. The Delta hr transmission range is 24” (60cm). The sensor must be mounted within 24” of the computer in order for the computer to receive the signal. We recommend mounting the sensor to the front (leading) edge of the fork blade to avoid problems should the sensor ever come into contact with the spokes.
Fig 6

2. Use your maximum heart rate (MHR) and fitness goals to select a target zone. The formula commonly used to determine maximum heart rate for most individuals is: MHR = 220 – Age. Target Zones:

<table>
<thead>
<tr>
<th>Zone</th>
<th>MHR Range</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>50% - 60% MHR</td>
<td>130 - 160</td>
<td>Exercise to warm up and increase endurance.</td>
</tr>
<tr>
<td>60% - 70% MHR</td>
<td>140 - 170</td>
<td>Exercise to burn fat and improve aerobic capacity.</td>
</tr>
<tr>
<td>70% - 80% MHR</td>
<td>150 - 180</td>
<td>Exercise to develop anaerobic capacity.</td>
</tr>
<tr>
<td>80% - 90% MHR</td>
<td>160 - 190</td>
<td>Exercise to increase aerobic capacity.</td>
</tr>
</tbody>
</table>

3. Target zone settings vary for each individual depending on age, personal fitness goals, existing medical conditions (high blood pressure, circulatory or respiratory problems, etc.) and personal physicians’ recommendations.

SETTING TARGET ZONE LIMITS

If you wish to exercise within a particular target zone and utilize the out of zone alarm to alert you when your heart rate rises above or falls below that zone, you must first set the upper and lower target zone limits. See “Using the Heart Rate Monitor” for more information about determining an appropriate target zone.

STEP 1: Press the MODE button to advance to the Maximum Heart Rate (MAXPULSE) display screen. Press and hold the SET button for 2 seconds to enter the target zone setting screen.

STEP 2: The target zone upper limit will flash. Press the SET button (or press and hold) to adjust the value (between 50bpm and 240bpm). Press the MODE button to set the value and advance to the target zone lower limit.

STEP 3: Press the SET button (or press and hold) to adjust the value (from the upper limit value minus 10bpm to 30bpm). Then press and hold the MODE button to return to the Max Heart Rate display screen.

STEP 4: To activate the audible out of zone alarm, press the SET button in any display screen. To turn off the alarm, press the SET button again. Please note, to prevent interference with the wireless signal, the alarm will only sound when there is no speed reading (no incoming data from the fork sensor).

OUT OF ZONE ALARM

The out of zone alarm indicates when your heart rate rises above your target zone upper limit or falls below your target zone lower limit. An up arrow to the left of your heart rate value indicates your current heart rate is above your preset target zone upper limit. A down arrow indicates your current heart rate is below your preset target zone lower limit.

To activate the audible out of zone alarm, press the SET button in any display screen. An alarm icon will appear in the display to indicate the alarm is activated.

PLEASE NOTE: To avoid signal interference, the audible alarm will sound only when the computer is not receiving data from the fork sensor (when the front wheel is not moving).

RESET DISPLAY SCREENS

All display screens (except Odometer) are reset simultaneously. Advance to the Auto Ride Timer (AUTOTIME) display screen. Press and hold the SET button for three seconds to reset all display screens to zero.

To reset all display screens including Odometer (TOTALODO) and reset all programmed settings (including gender, weight, clock and wheel size) you must remove the battery from the computer head. See “Battery Installation.”

MAINTENANCE

COMPUTER

If you notice a change in the display screen contrast, or if the figures become faint, it may be time to replace the computer battery. See “Battery Installation.” We recommend replacing the computer head and fork sensor batteries at the same time.

CHEST TRANSMITTER

To extend the life of the chest transmitter, avoid scratching the transmitter electrodes, or unnecessarily flexing or bending the strap.

FORK SENSOR

Periodically check the alignment of the wheel magnet and fork sensor and make sure that the space between the magnet and sensor is 5mm or less. Remove any signs of rust or corrosion from the magnet to ensure proper function.

CLEANING

The fork sensor, wheel magnet, handlebar bracket and chest transmitter can all be cleaned with mild soap and water. Do not use harsh abrasives or petroleum based cleaners to clean any of the components.

BATTERY INSTALLATION

LOW BATTERY INDICATOR

When the computer head or fork sensor batteries are low, the low battery icon will appear in the display screen. Make a note of any data you wish to record (such as odometer reading or wheel size settings) before replacing the batteries.

1. Chest Transmitter: Remove the screws from the battery cover on the back side of the transmitter and remove the cover. Remove the old battery and dispose of properly. Install a new CR2032 battery with the positive (+) pole facing up. Replace the cover and tighten the screws.

2. Computer Head: Insert a coin in the battery cover slot on the back side of the computer head and twist counterclockwise to remove. Remove the old battery and dispose of properly. Install a new CR2032 battery with the positive (+) pole facing up. Replace the cover and turn clockwise to tighten.

3. Fork Sensor: Insert a coin in the battery cover slot on the back side of the fork sensor and twist counterclockwise to remove. Remove the old battery and dispose of properly. Install a new CR2032 battery with the positive (+) pole facing up. Replace the cover and turn clockwise to tighten.

SPECIFICATIONS

Auto Ride Timer: 9 hours, 59 minutes, 59 seconds
Current Speed: Up to 62mph (99.9kmh)
Average Speed: Up to 62mph (99.9kmh)
Maximum Speed: Up to 62mph (99.9kmh)
Trip Distance: Up to 600 mi. (999.9km)
Odometer: Up to 6200 mi. (9999.9km)
Heart Rate Range: 30 bpm—240 bpm
Heart Rate Accuracy: +/- 1 bpm
Calories Burned: Up to 9999 Kcal