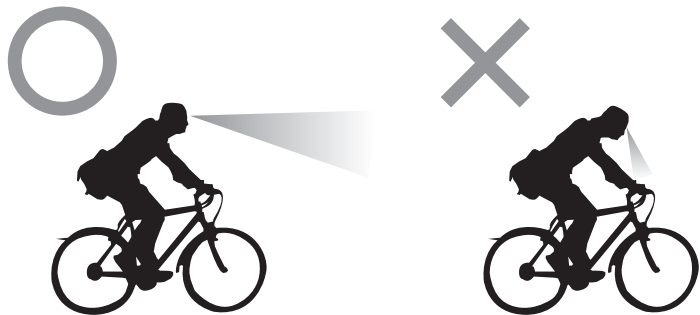**GIANT**

neos pro
neos pro+
DIGITAL WIRELESS COMPUTER
USER'S MANUAL

- English -

Content

Introduction
Thanks to purchase Giant Neos PRO computer, it is an ANT+ digital multi-function computer. It is compatible with all ANT+ sport transmission devices, including Giant RideSense which integrated in selected Giant bikes.
For your own safety, please do not stare at the computer screen while riding, it may cause a dangerous situation during the ride.
With digital ANT+ sport transmission, you can get the information from digital speed/ cadence sensor and digital heart rate belt. Please make sure you pair these sensors before start riding. With Stopwatch function, you can record your trip data in the computer and with PC-link docking upload/ download the data to Giant RideSync software for training analysis and management.
If you have any questions regarding this product, please visit our website at www.giant-bicycle.com or contact your local dealer. Enjoy the ride!

(Neos PRO+ ONLY)   (Neos PRO+ ONLY)
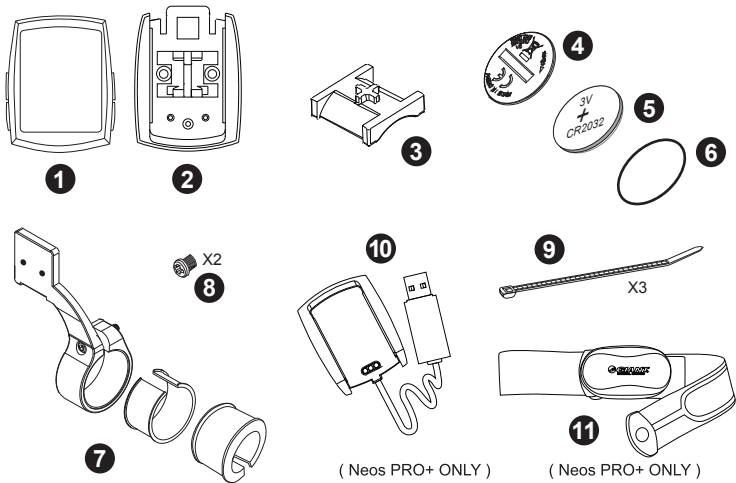
Unit / Parts
Neos PRO computer package contains 1 unit and 8 parts, Neos PRO+ computer package have additional PC-link docking and Heart Rate Belt.
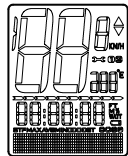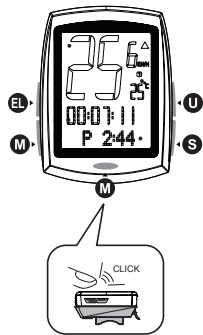1. Computer Unit
2. Base Mount
3. Rubber Pad
4. Battery Cap
5. CR2032 Battery
6. O-ring
7. Extended Mount + 2 x C-clamp pads (for ø31.8 and 29.7mm handle bar)
8. 2 x Screws for Extended Mount
9. Zip Tides x 3
10. PC-link Docking (Neos PRO+ Only)
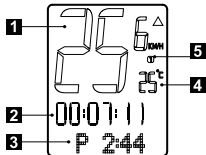11. Heart Rate Belt (Neos PRO+ Only)
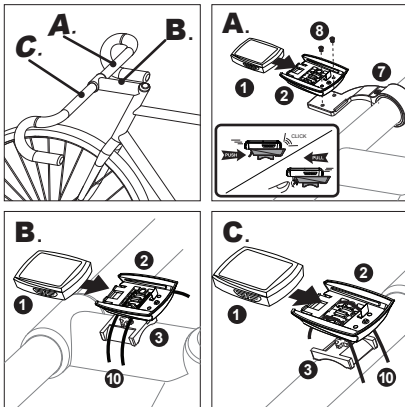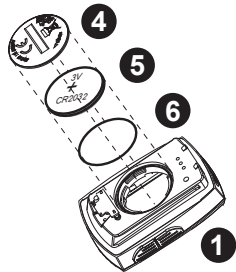
Installation
Install the battery and use a coin to open and close the battery cap.
Computer can be mounted in 3 different positions: (A) Extened Mount (B) Stem (C) Handle Bar.

All Segments

CLICK

GENERAL OPERATION / DISPLAY
There are 4 main key in computer unit.
EL key: Manual key for backlight
M key: Operates the Mode functions, it also can be pressed on the bottom of unit when it is mounted.
S key: Operates the Sub Mode funtions in Mode display.
U key: Operates the Upper Mode functions.
1. Current Speed
Display the current speed in km/h or m/h.
2. Upper Mode
Press U key to display: Ride Time / Distance Travelled / Current Cadence (if paired) / Current Heart Rate (if paired) / Current Altitude / Current Power (if paired)
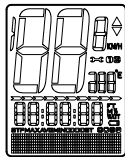**3. Mode**
Press M key to display: Clock / Ride Time/ Stopwatch / Distance Travelled / Current Cadence (if paired) / Current Heart Rate (if paired) / Current Altitude / Gradient % / Ave. Speed / Current Power (if paired) / Max. Temperature
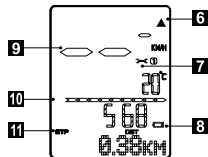**4. Current Temperature**
Display the current temperature in °C or °F.
5. Bike1 / Bike2
Indicate the display data for Bike1 or Bike2

All Segments

6. Pacer
The pace arrow shows the comparison between current speed and average speed. If the current speed is above or equal to average speed, the up arrow displays; if the current speed below the average speed, the down arrow appears.

7. Service Interval Reminder
In any mode, if Travelled Distance > 500km, it will appear to remind the user to maintain the bike. It is independent of trip distance & odometer. To turn off the icon by pressing the M Key for 2 seconds or it will turn off automatically after 50km.

8. Low Battery Indicator
In any mode, if battery < 2.7V, the low battery sign will display.
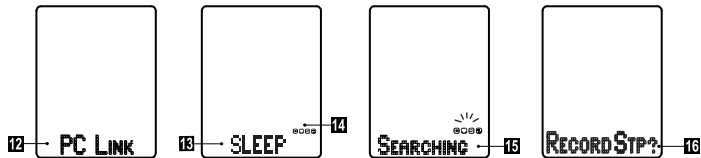
9.Sensor Sleep
If no speed sensor magnet is detected for more than 20 minutes, the current speed will display dash bars. If no cadence sensor magnet is detected more than 20 minutes, it will display dash bars in cadence mode. If no heart rate monitor is detected for more than 3 minutes, in heart rate mode, it will display dash bars.

10. % Distance Countdown Bar
Shows the percentage of whole pre-set countdown distance. It only works with Distance Countdown feature (see p.25-26)

11. Stopwatch Running & Data Recording
STP icon keeps blinking when the stopwatch is running and data is recording.

12. PC Link Mode
If the computer unit is placed into the USB cradle, it will enter the PC-link mode automatically for data upload & download.
13. Sleep Mode
The computer unit will turn to SLEEP mode after all sensors sleep more than 5 minutes.
**14. Paired Sensor Icons**
The sensors icons will display in the sleep mode if the sensor is paired previously. C: cadence sensor, Heart: Heart rate monitor, S: speed sensor, P: power meter. If the computer can't find the sensors, please make sure the sensor is reacting with magnet while pairing or it is not in sleep mode.
15. Searching
If the computer is not in the SLEEP mode, but on the mount, when you move the bike, the computer wil automatically start searching. The longest time for searching is 30 seconds, effective distance for transmission is within 1 meter.
16. Record Reminder
After searching, Record Reminder will show "Record STP?" (Record Stopwatch) to ask you want to record the trip data. Press M key to confirm it or press U key to decline it. To stop recording by pressing M key for 3sec or it will automatically stop after all sensors go sleep.
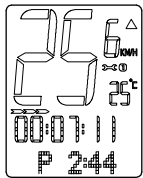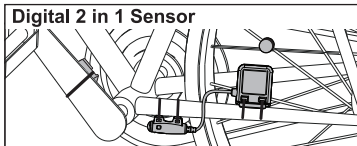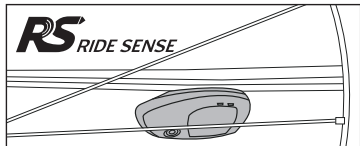
Digital 2 in 1 Sensor

Pairing

(if have heart rate belt)

Compatible Sensor
Neos PRO computer is compatible with all ANT+ 2.4G digital transmission device sensor, including Giant Ride Sense sensor in selected Giant bikes or 2 in 1 sensor in accessories. The sensor is not included in the package. Pair the sensor with computer unit before starting to ride.
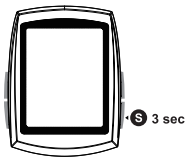
Pairing
Press M+S keys for 2 seconds to enter the pairing mode. Press U key to confirm and it will start pairing automatically. It will display paired with closest device, or press S or M key to release the pairing mode. The longest time for pairing is 1 minutes, effective distance for transmission is within 1 meter.
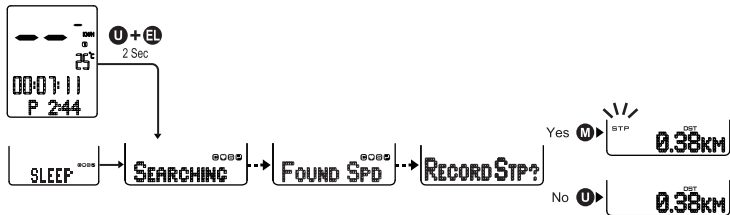
Reset Computer
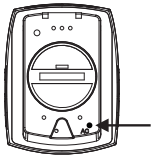
Reset Trip data

Searching
In Sleep mode, When bike is moving or press U+EL keys for 2 seconds, computer will start searching for paired devices. The longest time for searching is 30 seconds, effective distance for transmission is 1 meter.

Record Reminder
After searching, Record Reminder will show "Record STP?" (Record Stopwatch) to ask you if you want to record the trip data. Press M key to confirm it or press U key to decline it. To Stop STP recording by pressing M key for 3 seconds.
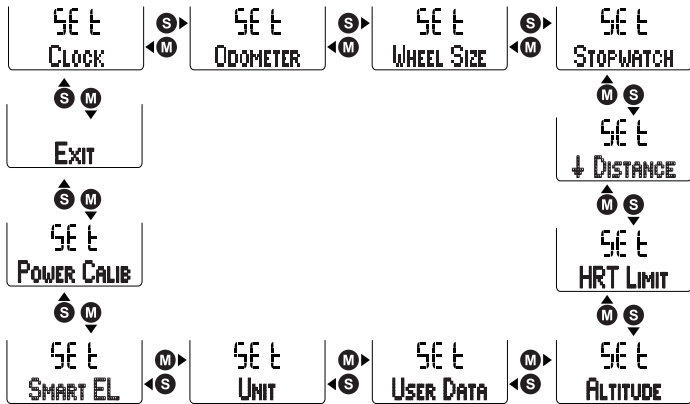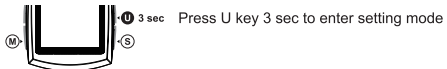
Reset Computer
When the computer is not working or the screen is blank after install the battery, press the AC button at back of unit to reset the computer back to original setting.

Reset Trip Data
In any mode, hold S key for 3 seconds, to reset all trip data.

Press U key 3 sec to enter setting mode

Enter Setting Mode

1. Press U key for 3 seconds to enter the setting modes. Select the parameter setting by pressing S or M key in sequence loop of Clock, Odometer, Wheel Size, Stopwatch, Countdown Distance, Heart Rate Limit, Altitude, User Data, Unit, Smart EL, Power Calibrate (if paired), and Exit. Press U key to enter particular parameter setting or return to previous mode in Exit.

2. When Stopwatch is running, the Stopwatch and User Data will not display in setting mode. Power Calibrate only shows when the power meter is paired.
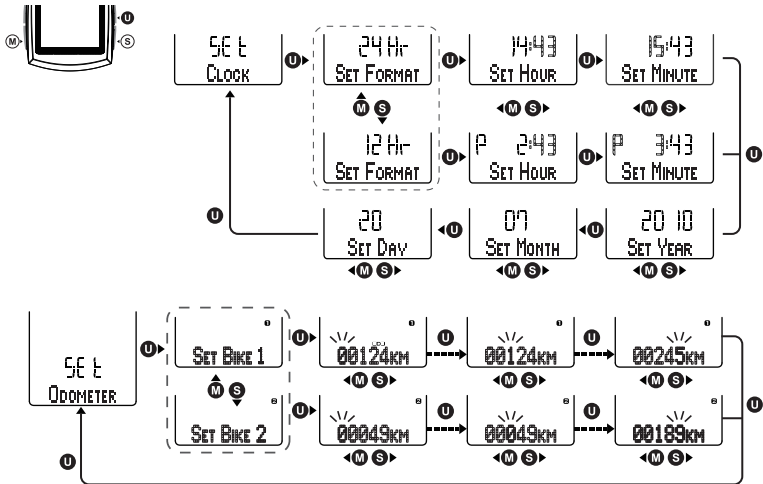
Set Clock
Select "CLOCK" in setting mode, and press U key to enter Clock setting. Follow the key flow diagram. Select 24 hours set or 12 hours set by pressing S or M key and confirm it by U key. Press S or M key to adjust the hour, minute, year, month and date and confirm it by U key. (Tips: press and hold S or M key will speed up the digital number setting).

Set Odometer
Select "ODOMETER" in setting mode, and press U key to enter Odometer setting, Follow the key flow diagram. Press S or M key to select Bike1 or Bike2, and press U key to enter the odometer digits setting. Adjust the number in blinking digit by pressing S or M key, and press U key go to next digit. Press U to confirm the number in each digit and leave the Odometer setting mode.

Set Wheel Size

WHEEL CIRCUMFERENCE

a.
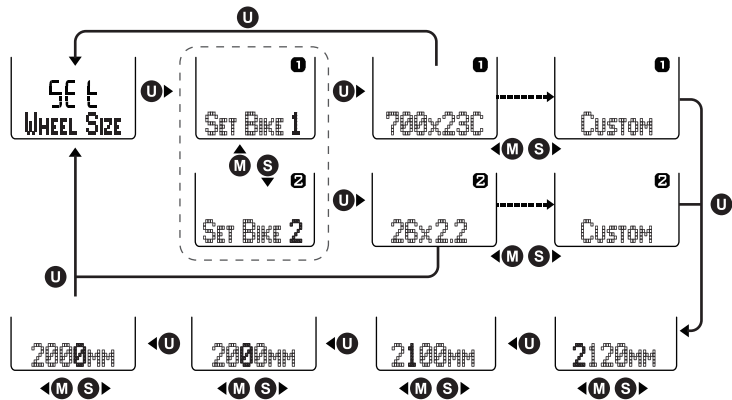
EASY CALIBARATION & CIRCUMFERENCE REFERENCE TABLE	
Tire Size	a. (mm)
700x20C	2086
700x23C	2096
700x25C	2105
700x28C	2136
700x32C	2155
700x35C	2168
700x38C	2180
600x23C	1930
26x1.5	2010
26x1.90	2045
26x1.95	2050
26x2.0	2055
26x2.1	2068
26x2.2	2075
Custom	0-3999

Set Wheel Size
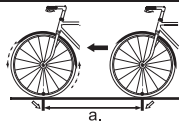
Select "WHEEL SIZE" in setting mode, and press U key to enter Wheel Size setting. Follow the key flow diagram. Press S or M key to select Bike1 or Bike2 and press U key to set the wheel size. Press S or M key to choosing the Tire Sizes or you can enter the wheel circumference in Custom option.
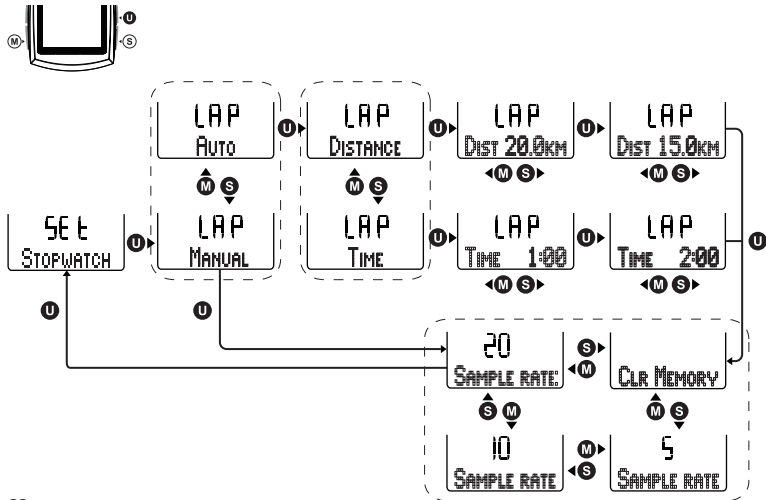
Set Stopwatch

Select "STOPWATCH" in setting mode, and press U key to enter Stopwatch setting. Follow the key flow diagram. Press S or M key to select lapping by Manual or Auto and press U key to enter the setting. In Manual Lap setting, select sample rate in 5, 10, 20 seconds to record the data or Clear Memory by pressing S or M key. Confirm it by the U key and return to the previous mode. In Auto Lap setting, select auto lapping by Distance or Time (hh:mm), and preset the lapping distance or lapping time. The lapping distance range is from 0.5 to 99.9km. The lapping time range is 1 minute (0:01) to 9 hours and 59 minutes (9:59). (Tips: press and hold S or M key will speed up the digital number setting).
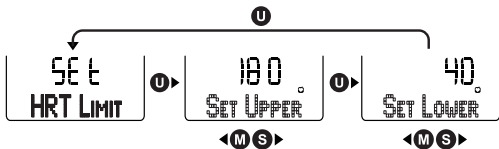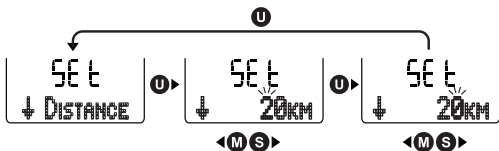
Set Countdown Distance

Select "↓Distance" in setting mode, and press U key to enter Countdown Distance setting. Follow the key flow diagram. Press S or M to adjust the number in different digit, and press U to confirm it. The preset range for countdown distance is 1 to 50km or 1 to 31 mile.

Set Heart Rate Limit

Select "HRT Limit" in setting mode, and press U key to enter Heart Rate Limit setting. Follow the key flow diagram. Press S or M to adjust the Upper rate and Lower rate, and press U key to confirm it. The preset highest Upper limit is 240, the lowest Lower limit is 30. (Tips: press and hold S or M key will speed up the digital number setting).
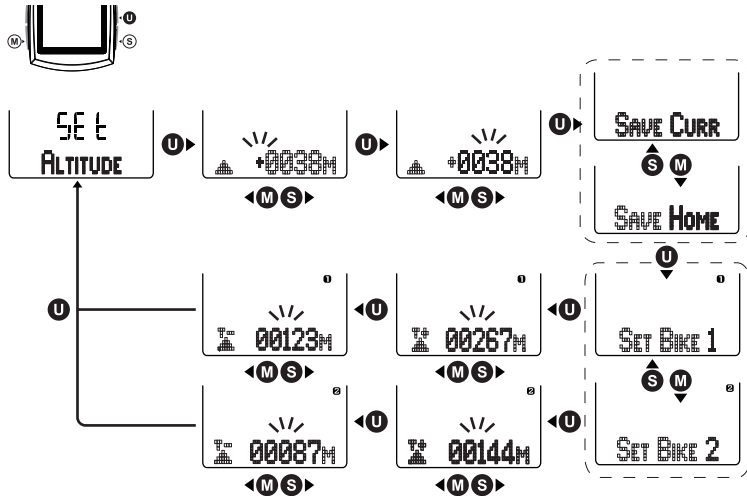
Set Altitude

Select "ALTITUDE" in setting mode, and press U key to enter Altitude setting. Follow the key flow diagram. Press S or M to adjust the altitude above (+) or below (-) horizontal line and the altitude height, and press U key to confirm it. Then you can save it as current altitude or set as home altitude. To set as home altitude, the display will show the height base on current altitude is 0. Then set the total altitude gain and loss of Bike1 and Bike2. For first time setting, the recommend value is 0. (Tips: press and hold S or M key will speed up the digital number setting)
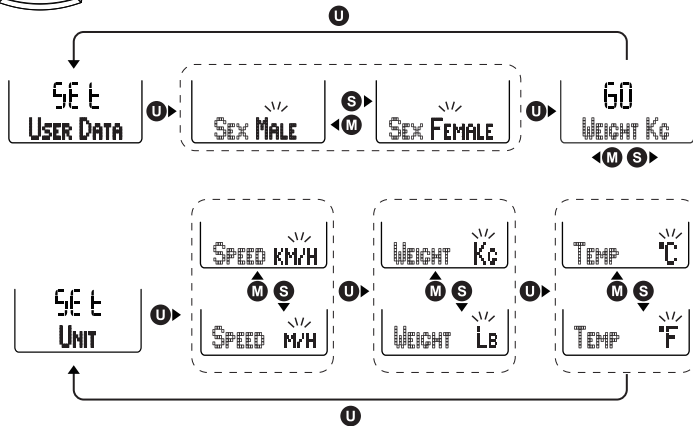
Set User Data
Select "USER DATA" in setting mode, and press U key to enter User Data setting. Follow the key flow diagram. Press S or M key to select Male or Female and press U key to set personal weight, the range is 20 ~ 220 kg or 44 ~ 485 lb. (Tips: press and hold S or M key will speed up the digital number setting).
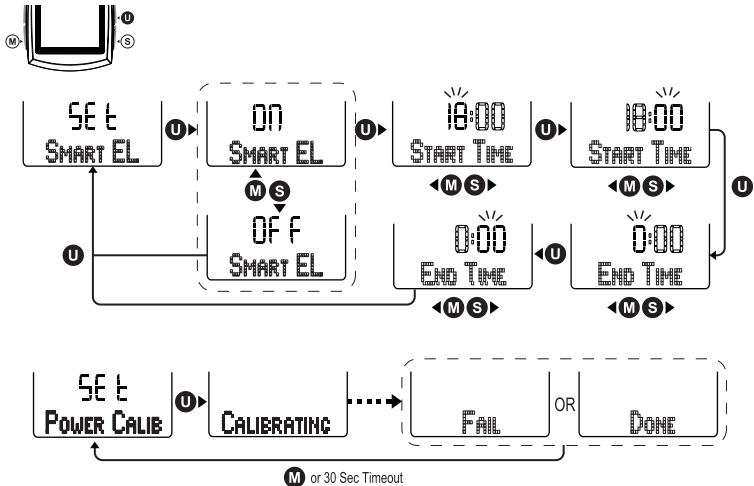
Set Unit
Select "UNIT" in setting mode, and press U key to enter Unit setting. Follow the key flow diagram. Press S or M key to select Speed in KM/H or M/H, Weight in KG or LB, and Temperature in °C or °F.

Set Smart EL (Backlight)
Select "Smart EL" in setting mode, and press U key to enter Smart EL setting. Follow the key flow diagram. Press S or M key to turn Smart EL function on or off, and press the U key to confirm it. To preset its function Start Time and End Time press S or M key to set hours and minutes and press U key to confirm it and go next step.

Power Calibration
Select "Power Calib" in setting mode, and press U key to start calibrating the power meter. When it is done, it will return to Set Power Calib display. If it fails, press M or after 30 seconds return to Set Power Calib display.

Clock

Ride Time

Stopwatch

Distance Travelled

Current Cadence
* Skip this mode if not yet paired

Max. Temperature

Current Heart Rate
* Skip this mode if not yet paired

Current Power
*Skip this mode if not yet paired

Ave. Speed

Gradient %

Current Altitude

Mode / Sub Mode Functions
In Mode display press M key to display Clock/ Ride Time/ Stopwatch/ Distance Travelled/ Current Altitude/ Gradient%/ Ave. Speed/ Current Power/ Max. Temperature, and press S key to display the Sub functions under the main Mode functions.

```
00:07:11
  P 2:44
```
Clock

```
00:07:11
 09-23-11
```
Date

```
08:07:42
 08:07:42
```
Ride Time

```
08:07:42
T 10:19:20
```
Total Bike1 Ride Time

```
08:07:42
T 18:27:02
```
Bike1+2 Ride Time

Clock / Date
Clock display in 12hrs / 24hrs set, press S key to display date (MM-DD-YY). It will return to Clock automatically after 3 seconds if S key is not pressed.

Ride Time
Ride Time / Total Bike1 Ride Time / Bike1+Bike2 Ride Time
Ride Time display the trip riding time, and press S key to display Total Bike1 trip ride time and Bike1+Bike2 ride time. It will return to Ride Time automatically after 3 seconds if S key is not pressed.

* If memory is full, inform user every minute for 1 sec.

* If battery is low, blinking "LOW BATT". Press any key to stop blinking.

Stopwatch Manual Lap

Reset & Start

Lap the timer

View Lap Data

Lap & Stop timer

Full Memory & Low Battery
If computer memory is full, the LCD will display "MEMORYFULL" 1 second every minute. If battery is low, the LCD will display "LOW BTT" blinking, press any key to stop the blinking.
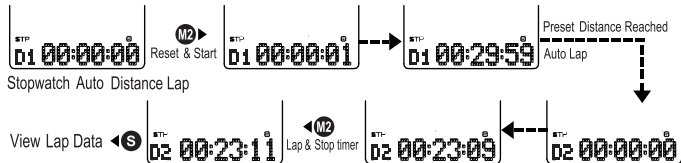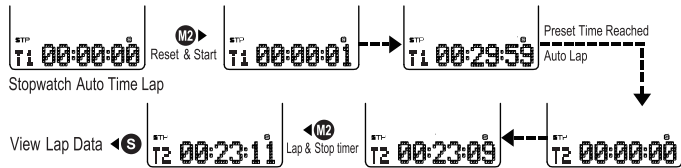
Pre-setting
Before using the stopwatch, pre-set the stopwatch to Manual / Auto Time / Auto Distance Mode (see p.23-24 Set Stopwatch)

Manual Stopwatch
In Manual mode, hold M key 2 seconds to reset and start the stopwatch. Press S key to lap and hold M key 2 seconds again to lap and stop stopwatch. View lap data individually by pressing S key.

Stopwatch

Stopwatch Auto Time Lap

View Lap Data

Stopwatch Auto Distance Lap

View Lap Data

Auto Time Stopwatch

In Auto Time mode, hold M key 2 seconds to reset and start the stopwatch. It will lap automatically when the preset time is reached. Stop the stopwatch by holding M key 2 seconds and press S key to view the individual lap data.
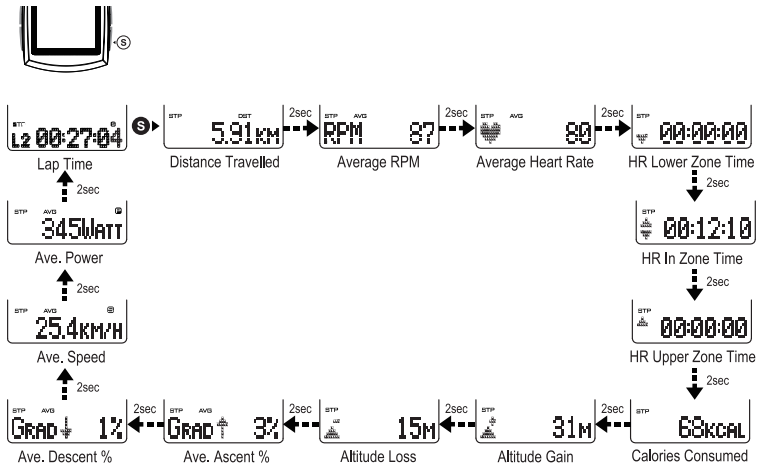
Auto Distance Stopwatch

In Auto Distance mode, hold M key 2 seconds to reset and start the stopwatch. It will lap automatically when the preset distance is reached. Stop the stopwatch by holding M key 2 seconds and press S key to view the individual lap data.

View Lap Data
After stop Stopwatch, press S key to choose the lap and view the individual lap data. It shows every 2 seconds in sequence of loop: Lap Time, Distance Travelled, Average RPM, Average Heart Rate, HR Lower Zone Time, HR In Zone Time, HR Upper Zone Time, Calories Consumed, Altitude Gain, Altitude Loss, Average Ascent%, Average Descent%, Average Speed, and Average Power. Press S key to see the next Lap data or M key to leave the function.
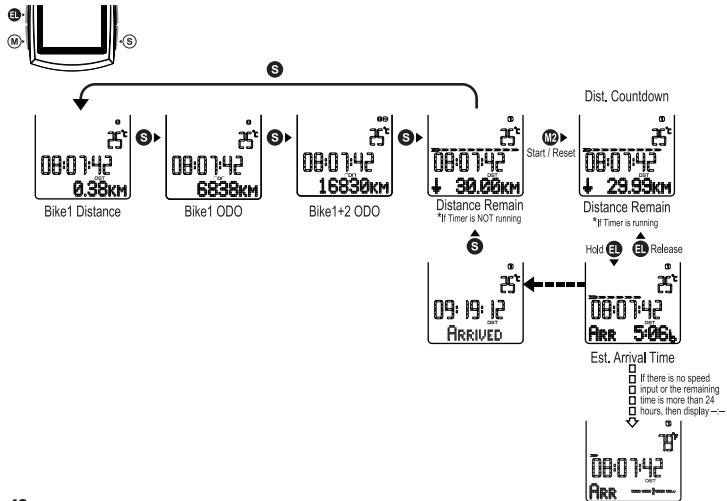
ODO
In Distance mode, press S key to display Bike1 ODO and Bike1+2 ODO. See distance countdown by pressing S key.

Distance Countdown
In Distance Countdown mode, hold M key to reset and start the timer. When the timer is running, hold EL key to see the estimated arrival time and release EL key to see the previous display. Upon arrival at destination, press S key to return the preset distance display. If there is no speed input or the remaining time is more than 24 hours, it will display --:--. Hold M key to stop distance countdown function.

Cadence / Heart Rate / Calories

00:07:11 RPM 88	00:07:11 RPM 83	00:07:11 RPM 98
Current Cadence	Ave. Cadence	Max. Cadence

00:07:11 86	00:07:11 88	00:07:11 116	00:07:11 00:00:00
Current Heart Rate	Ave. Heart Rate	Max. Heart Rate	HR Lower Zone Time

00:07:11 234KCAL	00:07:11 00:00:00	00:07:11 00:16:06
Calories Consumed	HR Upper Zone Time	HR In Zone Time

Cadence

In Current Cadence display, press S key to display Average Cadence and Maximum Cadence. It will return to Current Cadence automatically after 3 seconds if S key is not pressed.

Heart Rate / Calories

In Current Heart Rate to press S key to display Average Heart Rate, Maximum Heart Rate, Heart Rate Lower Zone Time, In Zone Time, Upper Zone Time, and Calories Consumed during trip. It will return to Current Heart Rate automatically after 3 seconds if S key is not pressed. When the heart rate is exceeds the Upper Limit or Lower Limit heart rate, the LCD display will flash as a warning.

Current Altitude   Max. Altitude   Altitude Gain   Altitude Loss

Bike1+2 Total Altitude Gain   Total Altitude Loss   Totoal Altitude Gain
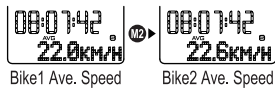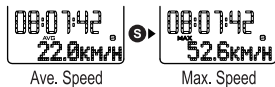
Current Altitude   Set as Home Altitude   Home Altitude

* As preset home altitude

Current Altitude / Set Home Altitude
In Current Altitude mode, hold M key 3 seconds to set current altitude as Home Altitude, and press U key to confirm it or press S key to return previous mode. To set current altitude as home, it will display same as Home Altitude.

Ascent %   Ave.Ascent %   Ave. Descent %   Max. Ascent %   Max Descent %

Ave. Speed   Max. Speed

Bike1 Ave. Speed   Bike2 Ave. Speed

Ascent%

In Ascent% Mode, press S key to display in sequence of Average Ascent%, Average Descent%, Maximum Ascent%, and Maximum Descent%. It will return to Ascent% automatically after 3 seconds if S key is not pressed.

Average / Maximum Speed

In Average Speed Mode, press S key to display Max Speed. It will return to Average Speed automatically after 3 seconds if S key is not pressed.

Bike1 / Bike2

Under Average Speed mode, hold M key to swap Bike1 / Bike2. If the stopwatch is running, it can't be swapped between Bike1 and Bike2.

Current Power   Ave. Power   Max. Power

Max. Temperature   Min. Temperature
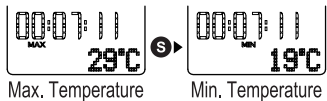
Power
In Current Power display, press S key to display Average Power and Maximum Power. It will return to Current Power automatically after 3 seconds if S key is not pressed.

Temperature
In Maximum Temperature Mode, press S key to display Minimum Temperature. It will return to Max. Temperature Mode if S key is not pressed.

Trouble Shooting

Problem	Possible Cause	Solution
No LCD display	Battery is dead	Replace battery
	Battery is installed in wrong position	Install battery in correct position
	Computer is in shipping mode	Press the AC button which is located on the back side of the computer once after install the battery.
No Current Speed / Cadence display	Magnet is misaligned or too far away	Readjust the magnet and sensor position
	Not paired yet	Pair the Sensor
LCD display is blinking	Heart rate monitor visual alarm is On, current heart rate exceeds the upper/ lower heart rate limit	Re-setting the heart rate limits (upper/ lower heart rate limit)

Problem	Possible Cause	Solution
Erratic Data	Magnet is misaligned or too far away	Readjust the magnet and sensor position
	Sensor battery is low battery	Replace the sensor battery
Heart rate belt does not pair	Heart Rate Monitor needs to be reset	Take the battery out from the belt, discharge the belt by reversing the battery upside down and insert into the battery compartment for 2 seconds, then take the battery out and insert it back to the battery compartment with correct polarity and do the pairing again.
Display ▬ ▬	Sensor is sleep	Wake up the speed/ cadence sensor with magnets connecting or wake up heart rate monitor with wearing the heart rate belt on chest

Technical Specification

Current Speed	199.9Km/h or m/h	2nd Wheel size	0-3999mm
Average Speed	199.9Km/h or m/h	Time (12/24hr)	12/24
Maximum Speed	199.9Km/h or m/h	Auto sleep	10 min
Distance 1	999.99 km or m	Current Heart rate	30-240 bpm
Distance 2	999.99 km or m	Average Heart rate	240 bpm
ODO 1	99999 km or m	Maximum Heart rate	240 bpm
ODO2	99999 km or m	Duration below/within/over HR limit	19:59:59 (HH:MM:SS)
ODO 1+2	199999 km or m	Calorie	9999 kcal
Ride time 1	19:59:59 (HH:MM:SS)	Stopwatch	9:59:59 (H:MM:SS) 19 Laps x 9:59:59
Ride time 2	19:59:59 (HH:MM:SS)	Auto Lap (Time/Distance)	(T 9:59:59 / D 99 km)
Total Ride time 1	99:59 (HH:MM)	Current Altitude	-381 m ~ 6000 m
Total Ride time 2	99:59 (HH:MM)	Home Altitude storage	-381 m ~ 6000 m
Total Ride time 1+2	199:59 (HH:MM)	Altitude gain/loss	9999 m

Maximum Altitude	6000 m	Minimum Temperature	-20 ~ +60 ℃
Total Altitude gain/loss for bike 1 or 2	99999 m	Easy Calibration	14 + custom
Total Altitude gain for bike 1 + 2	199999 m	Cadence	30 ~ 240 rpm
% gradient	+/-20%	Average Cadence	30 ~ 240 rpm
Average ascent %	+/-20%	Maximum Cadence	30 ~ 240 rpm
Average descent %	+/-20%	Low battery indication	2.7V
Maximum ascent %	+/-20%	Smart backlight	6:00pm~12:00am(default)
Maximum descent %	+/-20%	Distance countdown	1~50km
Current Power	9999 Watt	Dimension:	42.5(W)x52(H)x16(T)
Max. Power	9999 Watt	Weight:	38g
Min. Power	9999 Watt	Battery Operation Life:	10 month (1 hr/day usage)
Current Temperature (C/F)	-20 ~ +60 ℃		
Maximum Temperature	-20 ~ +60 ℃		