

INTRODUCTION

Congratulations on having chosen the cycle computer with altimeter functions from ECHOWELL. The easy operation of your new Echo-a3 will let you enjoy much fun from riding. Please read this manual carefully before using the device to get familiar with the operation logic.

The altitude calculation of this cycle computer works by measuring the atmospheric pressure. Since the weather is changing, the altitude (converted from the air pressure measurement) for the same location may be variable at different times. However, if there's no rapid weather change, the altitude differences caused by the weather are limited and can be generally accepted. Do not use this computer as a specialized device for altitude measurement.

The altitude value shown in each Echo-a3 computer is pre-calibrated by the precise instrument at the factory before shipment. However, to get accurate basis altitude, we suggest that you calibrate the current altitude data before each ride. And the calibration of altitude for your Echo-a series is quite easy. (Refer to the content about button operation.) You may obtain the altitude information from topographic maps or the Internet. If you are unaware of your basis altitude or do not care about the home altitude, you may reset the altitude to zero before riding. In this way, the cyclist can still enjoy the fun of learning the accumulated altitude gains during the trip. The altitude data can be your reference for riding over the same hills or mountains next time.

There is a highly sensitive pressure sensor inside each Echo-a3 cycle computer, and there is a hole at the bottom of each main unit for measuring the pressure. You should always keep the hole clean to avoid incorrect measurement and must not poke a needle or any pointed article into it to avoid damage. The atmospheric pressure measured by the sensor will be converted into current altitude. After using your Echo-a3, you are sure to get a lot of fun from riding with it.

ENGLISH / ITALIANO / DEUTSCH / FRANÇAIS / ESPANÓL / NEDERLANDS



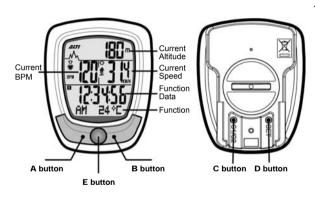
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BUTTON OPERATION



1. Data setting mode:

A button: Press for change or increase setting digital.

Hold 1's for auto increase.

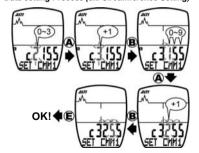
B button: Press for change setting digital.

C button: Press for quit data setting mode.

D button: No function.

E button: Press for enter next data setting mode.

Data setting Process (ex. Circumference Setting)





BUTTON OPERATION

2. Operating mode:

A button: Press for change function Group.

Hold 3's for data reset. (see figure at right)

B button: Press for change function mode.

C button: Press for enter/quit data setting mode.

D button: Press for select Bike1 or Bike2. E button: Press for turn on back-light 5's.

A button+B button: Hold 3's for enter altitude adjust mode.

3. Altitude adjust mode:

A button: Press for change or increase adjust digital.

B button: Press for change to next adjust digital.

A button +B button: Press for quick reset data to zero.

Hold 3's for quit altitude adjust mode. (20's auto quit altitude adjust mode without

Press any button).

A button: Press for change function Group. Hold 3's for data reset. ex. [SPEED] → MAX SPD. By pressing "YES", you will reset (to zero) the trip data in the following function groups: SPEED, PULSE, ALTI, and RPM.



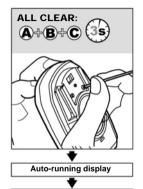
INITIATE THE MAIN UNIT

- Hold the **A** button, **B** button and **C** button simultaneously for 3 seconds to initiate the computer and clear all data.
- 2. The LCD segments will be tested automatically after the unit is initiated.
- 3. Press any Button to stop LCD test in order to set UNIT.
- 4. Press A button to choose"KG" or "Lb".(pound)
- 5. Press **E** buton to begin USER DATA SETTING.



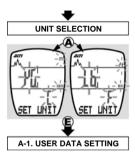
QUIT DATA SETTING MODE

It will automatically quit the data setting mode after 20 seconds without press any btton, or press C button



Press any button to enter Data setting mode

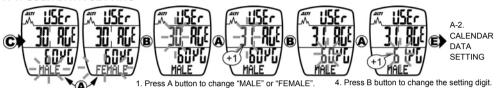
Data setting mode





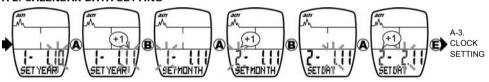


A-1. USER DATA SETTING



2. Press B button to change the setting digit.3. Press A button to increase the age by 1.

A-2. CALENDAR DATA SETTING



- 1. Press E button to begin CALENDAR DATA SETTING..
- 2. Press A button to increase the YEAR by 1.
- 3. Press B button to set MONTH.

4. Press A button to increase the MONTH by 1.

5. Press A button to increase the weight by 1.

- 5. Press B button to set DAY
- 6. Press A button to increase the DAY by 1.





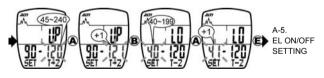
A-3. CLOCK SETTING



- 1. Press E button to begin CLOCK SETTING.
- 2. Press A button to select 12H or 24H.
- 3. Press B button to set HOUR.
- 4. Press A button to increase the HOUR by 1.

- 5. Press B button to set MINUTE.
- 6. Press A button to increase the MINUTE by 1.
- Press B button to set SECOND.
- 8. Press A button to reset the SECOND to 00.

A-4. TARGET ZONE SETTING



- Press E button to begin TARGET ZONE SETTING.
- Press A button to set UP target zone by increasing 1 for pressing each time.
 Target zone UP (upper limit) is within 45~240.
- 3. Press B button to set LO Target zone.
- Press A button to set LO Target zone by increasing 1 for pressing each time.
 Target zone LO (lower limit) is within 40~199.

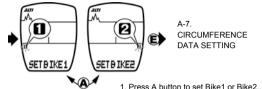




A-5. EL ON/OFF SETTING

A-6. BIKE1/BIKE2

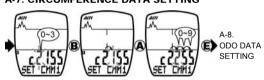




- 1. Press E button to change EL ON/OFF SETTING.
- 2. Press A button to ON or OFF the EL. (also see page EN21).

- 2. Press E button to set circumference.

A-7. CIRCUMFERENCE DATA SETTING

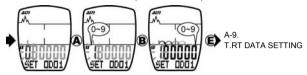


- 1. Press E button to begin CIRCUMFERENCE SETTING.
- 2. It shows the default value "c2155" (2155 mm). Measure your wheel circumference and refer to the Wheel Size Chart. (page. EN25)
- 3. Adjust the CIRCUMFERENCE value as instruction in DATA SETTING processes (page EN 2).





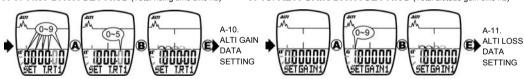
A-8. ODO DATA SETTING (Odometer bike1/2)



- Press E button to begin ODO SETTING.
 ODO Data setting range is 0~999999Km (Mile).
- Adjust the ODO as instruction in DATA SETTING processes.

A-9. T.RT DATA SETTING (Total riding time bike1/2)

A-10. ALTI GAIN DATA SETTING (Total altitude gain bike1/2)



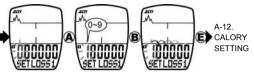
- Press E button to begin T.RT SETTING.
 T.RT Data setting range is 0000h00m~9999h59m.
- Adjust the T.RT as instruction in DATA SETTING processes.

- Press E button to begin ALTI GAIN SETTING. ALTI GAIN Data setting range is 0~999999m (ft).
- Adjust the ALTI GAIN as instruction in DATA SETTING processes.



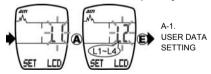


A-11. ALTI LOSS DATA SETTING (Total altitude loss bike1/2) A-12. CALORY DATA SETTING (Calory consumption bike1/2)



- Press E button to begin ALTI LOSS SETTING. ALTI LOSS Data setting range is 0~999999 m (ft).
- Adjust the ALTI LOSS as instruction in DATA SETTING processes.

A-13. LCD DATA SETTING (LCD Brightness setting)



- 1. Press E button to begin LCD SETTING.
- 2. Press A button to select level L1, L2, L3 or L4.



- Press E button to begin CALORY SETTING. CALORY Data setting range is 0~999999kcal.
- Adjust the CALORY as instruction in DATA SETTING processes.



SETTING SHORT CUT



You can directly enter setting mode from these functions in [[] [H] total function group by pressing C button.

ODO

Odometer bike 1/2







ODO DATA SETTING EN 8

T.RT

Total riding time bike1/2







EN 8

ALTI GAIN

Trip altitude gain bike1/2









ALTI LOSS

Trip altitude loss bike1/2



A-11.

ALTI LOSS

DATA SETTING

EN 9



CALORY

Calory

consumption





A-12. CALORY DATA SETTING EN 9



(E)

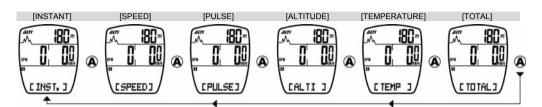


FUNCTION GROUP MAP

E IMS 7. J Instant function group	Speed function group	CPULSE 1 Heart Rate function group	CALTI 1 Altitude function group	TEMF 1 Temperature function group	E TO TAL 3 Total function group
AM E4°C 12/24H clock CALDRYYH Calory consumption per hour BPH X Current Heart Rate intensity APSIENT Current altitude ascent ADESSENT Current altitude descent DATE THU Calendar	AUG SPD Average speed bike 1/2 High SPD Maximum Speed bike 1/2 DISTINITE Trip distance bike 1/2 RIDETIME Riding time bike 1/2 DISTINITE OPETIME Riding time per day	AVIS BPH Averageg Heart Rate bike1/2 FFA* BPH Maximum Heart Rate bike1/2 BPH T-Z Heart Rate target zone setting I'H T-Z Time in target zone bike1/2 UVER T-Z Time over target zone bike1/2 CAIDTY Calory consumption bike1/2	AGA IN Trip allitude gain bike 1/2 LISS Trip allitude loss bike 1/2 MAXIMUM allitude bike 1/2 MAXIMUM allitude bike 1/2 MIN AL II Minimum allitude bike 1/2 MVS APSI Trip Average allitude ascent bike 1/2 HVS ADES Trip Maximum allitude descent bike 1/2 HAY ARSI Trip Maximum allitude ascent bike 1/2 HAY ARSI Trip Maximum allitude descent bike 1/2 HAY ARSI Trip Maximum allitude descent bike 1/2 HAY ALL IDAH Barometer	HAK TEHP Maximum temperature HIN TEHP Minimum temperature	Odometer bike 1/2 Odometer bike 1/2 Odometer bike 1/2 ITRT (1) Total diding time bike 1/2 ASA TIME 1 > 22 Total altitude gain bike 1/2 LOSS (1) Total altitude pain bike 1/2 Total adometer bike 1/2 Total adometer bike 1/2 ITRT 1 + 2 Total diding time bike 1/2 ASA TIME 2 Total diding time bike 1/2 LOSS (1) LOS

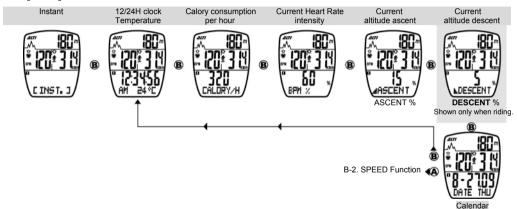






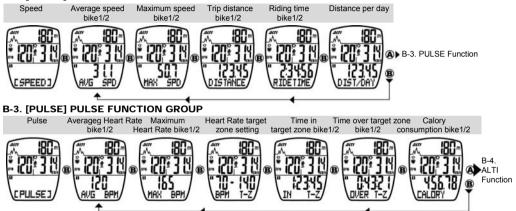


B-1. [INST.] INSTANT FUNCTION GROUP



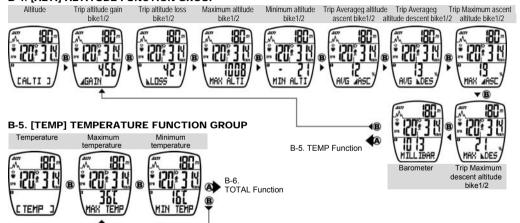


B-2. [SPEED] SPEED FUNCTION GROUP





B-4. [ALTI] ALTITUDE FUNCTION GROUP





B-6. [TOTAL] TOTAL FUNCTION GROUP



ex.

000 (1)

Bike 1 Odometer

TRT (2)

Bike 2 Total Riding Time

'AI 1+2

Bike 1 + Bike 2 Calories





CIMST. I

Clock & Temperature: 12HR AM/PM or 24HR Clock / °C or °F

- 1. When the user sets the clock time in Data Setting Mode, there are two formats for option— 12H and 24H.
- 2. 12H means 12 hours, 24H means 24 hours.
- With this function, this computer will display the current temperature.

CALORY/H: Calories per hour

- Calculates the expended calories per hour based on the current heart rate
- Increasing or decreasing the heart rate intensity can control target calorie consumption.

 The consumption are the consumption and heart is found to accomplish the consumption and the consumption are the consumption are the consumption and the consumption are the consumption and the consumption are the consumption are the consumption and the consumption are the consumption and the consumption are the con
- 3. The range for calorie consumption per hour is from 0 to 3333 Kcal. BPM%: Current heart rate intensity

With this function, the computer will display the Current heart rate intensity during riding.

Calendar

- 1. Calendar from the year 2010 to 2099.
- 2. Day of week will display automatically while the date is input.
- Adjust the Calendar value as instruction in DATA SETTING processes page EN 5.

Current altitude ascent/descent

With this function, the computer will display the Current altitude ascent/ descent during riding.

C*S*PEED 3

SPEED: Current Speed

- The current speed is always shown on the middle display during riding.
- 2. The speed data are updated per second.
- For Bike 1, when you do not ride the bike for more than 4 seconds, the speed data will be reset to zero. For Bike 2, when you do not ride the bike for more than 2 seconds, the speed data will be reset to zero.

AVG SPD: Average Speed bike1/2

- With this function, the computer will display your average speed during riding.
- Whenever you reset the computer or change the battery, the average speed record will be cleared.
- 3. It'll display "0.0" if the riding time is below 6 seconds.
- It's updated every second on condition that the riding time is over 6 seconds
- The computer will automatically reset the following data to zero once the RIDETIME is over 100 hours or the DISTANCE is over 1000KM (or miles): RIDETIME (riding time), DISTANCE (trip distance), AVG SPD (average speed.)

MAX SPD: Maximum Speed bike1/2

- With this function, the computer will record the maximum speed you reach during riding.
- 2. Whenever you reset the computer or change the battery,





the maximum speed record will be cleared.

DISTANCE: Trip Distance bike1/2

- 1. DISTANCE refers to the accumulated distance during a trip.
- Whenever you reset the computer or change the battery, the trip distance record will be cleared.

RIDETIME: Riding Time bike1/2

- 1. RIDETIME refers to the accumulated riding time of a trip.
- Whenever you reset the computer or change the battery, the trip distance record will be cleared.
 - 3. The computer automatically starts measuring the riding time upon receipt of wheel signals. If you are riding your Bike 1, whenever you stop, the computer will continue to count the riding time for 4 more seconds to make sure there're no more wheel signals. If you are riding your Bike 2, the computer will count the riding time for 2 more seconds for the same reason. Regarding the riding time it over counts, the computer will automatically deduct it and show the correct riding time.

DIST/DAY: Distance per day

- With the DIST/DAY function, the computer accumulates the distance of your riding in one day.
- 2. The DIST/DAY data will be automatically cleared at 12:00:00 a.m. (or 0:00:00) per day.

CPULSET

PULSE: Heart Rate

Display the current heart rate (BPM) on left side of middle display.

AVG BPM: Average Heart Rate bike1/2

Calculate the average heart rate during exercise: using this value we can tell if the cardiopulmonary condition has improved for the same intensity of exercise.

MAX BPM: Maximum Heart Rate bike1/2

Monitors and records the maximum heart rate during exercise.

BPM T-Z: Heart Rate Target zone

With this function, the computer will display the target zone upper limit (UP) and lower limit (LO).

IN T-Z: Time In Target Zone bike1/2

Calculate and record the exercise time within the target zone.

OVER T-Z: Time Over Target Zone bike1/2

Calculate and record the exercise time over the target zone.

CALORY: Calory consumption bike1/2

- Calculates the calories expended for the whole exercise process, not only from exercise.
- Males expend more calories than females at the same heart rate, likewise, the female heart rate will be higher than male heart rate doing the same amount of exercise.
- Calories consumption will be affected by Heart rate, sexuality, weight and type of exercise.
- The unit for calories is Kcal.
- 5. The range is from 0 Kcal to 9999.99 Kcal.
- Calory will be calculated when the heart rate is equal or over 90bpm.





CALTI 3

ALTI: Current Altitude

- 1. The current altitude is always displayed on the upper display.
- To get accurate basis altitude, the cyclist should calibrate the altitude before each ride.
- The measurement is based on the principle that atmospheric pressure decreases as elevation increases.
- 4. The altitude is measured by means of the atmospheric pressure, so it's weather- dependent.
 5. Very separate the altitude data from a tracegraphic man as the
- You may obtain the altitude data from a topographic map or the Internet.
- The altitude of the altimeter is pre-calibrated by the precise instrument at the factory before shipment.

GAIN/LOSS: Trip altitude gain bike1/2 / Trip altitude loss bike1/2

- With this function, it displays the accumulated altitude gains during a trip.
- When you ride over uphill paths, the altimeter will accumulate the altitude gains. However, when you ride over downhill paths, the computer will accumulate the altitude loss. The altimeter always accumulates your altitude gains only.

MAX ALTI/MIN ALTI: Maximun altitude bike1-2 / Minimun altitude bike1-2

 With this function, the computer displays the maximum/minimum altitude you reach during a trip. The maximum/ minimum altitude record will be cleared after you reset the computer or change the battery.

AVG ASC/AVG DES: Trip AVG altitude ascent bike1/2 / Trip AVG altitude descent bike1/2

- With this function, the computer will display the average altitude asscent/decent during riding.
- Whenever you reset the computer or change the battery, the average altitude asscent/decent record will be cleared.

MAX ASC/MAX DES: Trip MAX altitude ascent bike1-2 /

Trip MAX altitude descent bike1-2

- With this function, the computer will record your maximum/minimum
- asscent/decent during riding.
- Whenever you reset the computer or change the battery, the maximum/minimum asscent/decent record for a trip will be cleared.

MILLIBAR: Barometer

- The altimeter is essentially a barometer, and millibar is a unit of atmospheric pressure. (e.g. Standard atmospheric pressure at sea level is about 1013 millibars.)
- The altimeter converts the millibar value of atmospheric pressure into the current altitude.
- Attention: There is a hole at the bottom of the main unit for measuring the air pressure. The hole for measurement should be always kept clean. Besides, do not poke anything into the hole to avoid damage.





ctemp j

TEMP: Temperature

Temperature would be automatically detected under this mode. You could choose either in °C or °F to display the temperature. This function would bring you the joy of riding outdoors.

MAX TEMP/MIN TEMP:

Maximum temperature / Minimum temperature

- With this function, the computer will display the Maximum temperature / Minimum temperature during riding.
- Whenever you reset the computer or change the battery, the Maximum temperature / Minimum temperature record will be cleared

CIDTALI

ODO<1>, ODO<2>: Odometer bike1/2

- The ODO 1, ODO 2 accumulates the total distance as long as the bike is running.
- The ODO 1, ODO 2 data can not be cleared to zero by Data Reset Operation.

T.RT<1>, T.RT<2>: Total Riding Time bike1/2

- With this function, the computer accumulates the total riding time of a bike.
- 2. The total riding time data cannot be cleared by the reset operation.

 ODO <1>+<2>: Total Odometer bike 1+2

ODO <1>+<2>: Total Odometer bike 1+2

 With this function, the computer accumulates the total distance of the two bikes you ride.

- The sum of ODO 1 and ODO 2 equals ODO 1+2. (i.e. total distance of bikes 1 and 2)
- 3. The total odometer data cannot be cleared by the reset operation.

T.RT <1>+<2>: Total Riding Time bike1+2

- With this function, the computer accumulates the total riding time of the two bikes you ride.
- 2. The sum of T.RT 1 and T.RT 2 equals T.RT 1+2. (i.e. total riding time of bikes 1 and 2)
- 3. The accumulated total riding time of Bike 1 and Bike 2 cannot be cleared by the reset operation.

Speed pacer

- The pace arrow shows the comparison between the current speed and average speed.
- If the current speed is above or equal to the average speed, the upward arrow
 will flash on the display.
- On the contrary, if the current speed is below the average speed, the downward arrow ♥ will flicker.

Target Zone pacer

- The pace arrow shows the comparison between the current heart rate and average heart rate.
- On the contrary, if the current heart rate is below the average heart rate, the downward arrow \$\Psi\$ will flicker





EL BACK-LIGHT

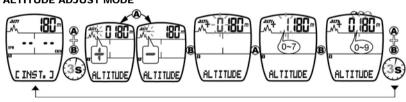
EL back-light

- The symbol " " will apper to indicate the EL back-light function is at working status.
- 2. The EL back-light will light 5 seconds after press E button.

BACK-LIGHT MODE EL LIGHT ON



ALTITUDE ADJUST MODE



- Under the unit of "m", the altitude adjustment range is within -499~ +7999.
- Under the unit of "ft", the altitude adjustment range is within -1599~ +25999





AND AS HOW TO START SPEED, AND HEART RATE MEASUREMENT? ■

Put the main unit on the bracket, and the main unit will auto start to measure the speed.

When it shows sleeping mode, you can pressing A button or B button or E button to wake it up and start to

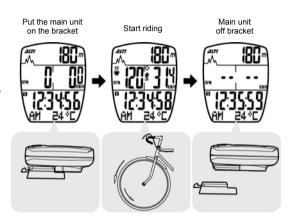
measure the speed.

For Heart Rate measurement, you need to put on the chest belt.

POWER AUTO ON/OFF

To preserve battery, this computer will automatically switch off and just displays "SLEEP" when it has not been used for about 15 minutes. The power will be turned on automatically in about 20 seconds by riding the bike or by pressing the button.

Sleep mode SLEEP





SPECIFICATIONS

Symbol	Function	Specifications		
C 1745 T. J	Instant function group			
AM 24°C	12/24H clock Current Temperature	1H:00M:00S-12H:59M:59S 0H:00M:00S-23H:59M:59S -10°C-60°C / 14°F-140°F		
CALORY/H	Calory consumption per	0-9999Kcal		
BPM X	Current HR intensity	0-100%		
ARSCENT	Current altitude ascent	0-99%		
w DESCENT	Current altitude descent	0-99%		
DATE THU	Calendar	MM:DD:YY week 2000-2099		
CSPEEDI	Speed fu	ınction group		
AVG SPD	Average speed bike1/2	0-199.9km/h / 0-120.0m/h		
MAX SPO	Maximum speed bike1/2	0-199.9km/h / 0-120.0m/h		
DISTANCE	Trip distance bike1/2	0-999.99km / mile		
RIDETIME	Riding time bike1/2	0H:00M:00S-99H:59M:59S		
DIST/DAY	Distance per day	0-999.99km / mile		
C TEMP 3	Temperature function group			
Max Temp	Maximum temperature	-10°C-60°C / 14°F-140°F		
MIH TEMP	Minimum temperature	-10°C-60°C / 14°F-140°F		

Symbol	Function	Function Specifications			
E PULSE I		Heart Rate function group			
AVG BPH	Averageg HR bi	ke1/2	40-240bpm		
MAX BPH	Maximum HR bi	ke1/2	40-240bpm		
BPM T-Z	HR target zone :	setting	UP:45-240bpm LOW:40-199bpm UP-LOW >=5		
IH T-2	Time in target zo	one bike1/2	0H:00M:00S-99H:59M:59S		
OVER T-2	Time over target	zone bike1/2	0H:00M:00S-99H:59M:59S		
CALDRY	Calory consump	tion bike1/2	0-9999.99Kcal		
CALTI I		Altitude function group			
aGA IN	Trip altitude gair	bike1/2	0-999999m / 0-999999ft		
ALD55	Trip altitude loss	bike1/2	0-999999m / 0-999999ft		
MAX ALT	Maximun altitude	e bike1/2	-499m-7999m /		
MIM ALTI	Minimun altitude	bike1/2	-499m-7999m /		
AVG WASC	Trip AVG altitud	e ascent bike1/2	0-99%		
AVG NDE:	Trip AVG altitud	e descent bike1/2	0-99%		
MAX JASC	Trip MAX altitud	e ascent bike1/2	0-99%		
MAK LDES	Trip MAX altitud	e descent bike1/2	0-99%		
MILL IBAR	Barometer		300~1100mbar		





SPECIFICATIONS

Symbol	Function	Specifications	
C TOTAL 3	Total function group		
000 (1) 000 (2)	Odometer bike1/2	0-999999km/mile	
TRT <1> TRT <2>	Total riding time bike1/2	00H:00M-9999H:59M	
WGAINKI> WGAINKE>	Total altitude gain bike1/2	0-999999m /	
ML055(1) ML055(2)	Total altitude loss bike1/2	0-999999m /	
CAL (1) CAL (2)	Total calory consumption bike1/2	0-999999 Kcal	
000 1+2	Total odometer bike1+2	0-1999999km/mile	
T.R.T 1+2	Total riding time bike1+2	00H:00M-19999H:59M	
⊿GA IN1+2	Total altitude gain bike1+bike2	0-1999999m /	
wL0551+2	Total altitude loss bike1+bike2	0-1999999m /	
CAL 1+2	Total calory consumption bike1+2	0-1999999 Kcal	

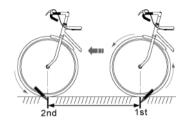
KM, METER, °C / MILE, FEET, °F
Age, Sex, Weight, Age: 5-99, Weight: 10-199KG, 30-499LB
MM:DD:YY week 2000-2099
1H:00M:00S-12H:59M:59S (12H) 0H:00M:00S-23H:59M:59S (24H)
UP 95~240 / LO 40~199
ON or OFF
Bike1 or Bike2
0~3999
0~99999
0:00-9999:59
0~99999
0~99999
0~99999
L1~L4





SPECIFICATIONS

WHEEL CIRCUMFERENCE MEASUREMENT



Precise Measurement

Roll the wheel until the valve stem is at lowest point to the ground. Then mark this first point on the ground. Get on the bicycle and have a helper push you until the valve stem returns to lowest point. Mark the second point on the ground. Measure the distance between the marks. Enter this value to set the wheel circumference.

POPULAR TIRES CIRCUMFERENCE REFERENCE TABLE

Tire Size	Circumference Number	Tire Size	Circumference Number
18 Inch	1436 mm	700C Tubular	2117 mm
20 Inch	1596	700x20C	2092
22 Inch	1759	700x23C	2112
24x1.75	1888	700x25C	2124
24 Inch	1916	700x28C	2136
24x 1 3/8	1942	700x32C	2155
26x1.40	1995	700x35C	2164
26x1.50	2030	700x38C	2174
26x1.75	2045	27.5 Inch	2193
26x1.95	2099	28 Inch (700B)	2234
26x2.1	2133	28.6 Inch	2281

Quick Table: Get a suitable circumference value from the table.





BATTERY CHANGE

Main Unit Battery Change **Chest Belt Battery Change Speed Transmitter Battery Change** - COIN Test battery Battery cap COIN CR2032 OMMINIMO = Battery cap CINST. 1 Cap **CHRITITIE** CR2032 CR2032



TROUBLE SHOOTING

PROBLEM	CHECK ITEMS	REMEDY
Main unit No display	Is the battery dead? Is there incorrect battery installation?	Replace the battery. Be sure that the positive pole of the battery is facing the battery cap.
Speed not displayed or wrong displayed	Is the computer in the setting mode? Are the magnet and the Sensor/Transmitter in the correct position? Is the gap between both parts correct? Is the wheel circumference setting correct? Is the sensing distance between the main unit and the sensor too long? Is the battery for the sensor nearly exhausted? Is there any strong interference source nearby?	Refer to the setting procedures to finish the setting. Refer to the installation manual and correct the positions and gap. Refer to "Wheel Circumference Measurement and Setting" and enter a correct value. Refer to the installation manual and adjust the distance between the main unit and the sensor or adjust the angle of the sensor. Replace the battery with a new one. Stay away from the strong interference source.
Irregular display		Refer to "Data Setting Mode" and initiate the computer again.
LCD is black	Did you expose the main unit to the direct sunlight for a long time when it was not in use?	Put the main unit in the shade to let it return to normal state.
Display is slow	Is the temperature below 0°C (32°F)?	Unit will return to normal state when the temperature rises.
Low-battery symbol is blinking		Replace the battery in the main unit with a new one.
Altitude not displayed or wrong displayed	Did you calibrate the altitude before riding? Is the hole for measuring the air pressure on the bottom of the main unit clean?	Refer to "Overview of Button Operation" and calibrate the altitude before each ride. Always keep the hole for measuring the air pressure clean. Do not poke anything into the hole to avoid damage.



PRECAUTIONS

- 1. Watch the road. Don't pay much attention to your cycle computer functions during riding to avoid accidents.
- 2. Don't expose the main unit to direct sunlight for a long time while you're not riding with it. Never disassemble the device or the accessories.
- Don't poke a needle or any pointed article into the hole on the bottom of the main unit. To poke anything into the hole may damage the pressure sensor inside the device.
- Check the positions of the sensor and magnet, and check the gap between both parts regularly. Make sure they are always in normal condition.
- 5. Use a dry or slightly damp cloth to clean the computer when necessary. Do not use thinner, alcohol or benzine to clean the product.
- 6. Do not operate the computer under water though it's waterproof. Note there are sensitive components inside the main unit.
- 7. Be alert to the sudden weather change during long-distance riding to avoid danger. And sudden change in temperature may cause a temporary incorrect altitude display.
- 8. Take care of your chest belt. Wash the chest belt by suds, then flush out with water. Let it dry it naturally, avoiding putting the chest belt under the environment of high temperature or touching the corrosive as strong acid or alkalis material.
- 9. Wetting the skin, where will contact the conductive area of the chest belt will improve the conduction and get more stable signal.
- 10. The physical condition of individual might effect the intensity of measured signal.
- 11. Avoiding using the computer close to trolley car, tram stop, transformer, electric substation and high-tension distribution line etc. Because the radio signal will be affected under the environment as high voltage and strong magnetic field.
- 12.To ensure your safty, please use the chest belt for heart rate function under a doctor or coach's direction if you have one of the following conditions:
 - 12-1. Cardiopulmonary disease.
 - 12-2. Obesity.
 - 12-3. No exercise for an extended period of time.





Operating Temperature $0^{\circ}\text{C} - 50^{\circ}\text{C} (32^{\circ}\text{F} - 122^{\circ}\text{F})$ Storage Temperature: $-10^{\circ}\text{C} - 60^{\circ}\text{C} (14^{\circ}\text{F} - 140^{\circ}\text{F})$

Sensor & Transmitter: No-contact magnet sensor with wireless transmitter

Suitable Fork Sizes: 12 mm - 50 mm (0.5" - 2.0")

Battery Operating Life: CR2032 in Main Unit: About 6 months (based on the average riding time of 1.5 hours per day)

CR2032 in Speed Transmitter Around 24000 km (15000 miles)

CR2032 in Chest Belt Average 1300 hours. (You can change the battery by yourself.)

Operating temperature: 0°C~50°C (32°F~122°F)

Dimensions & Weight Main Unit 46 x 57.3 x 19.7 mm, 37.15 g

Speed transmitter 35.8 x 34.8 x 12.8mm/ 13.9g Chest Belt 300 x 30 x 12.5mm/ 44.2g

