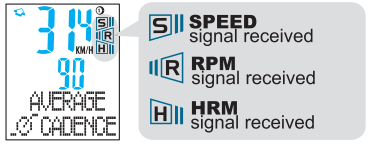
Sensor pairing

When you have all the bracket, transmitters, and accessories installed, you need to do the pairing and coded signal testing between computer and transmitters.

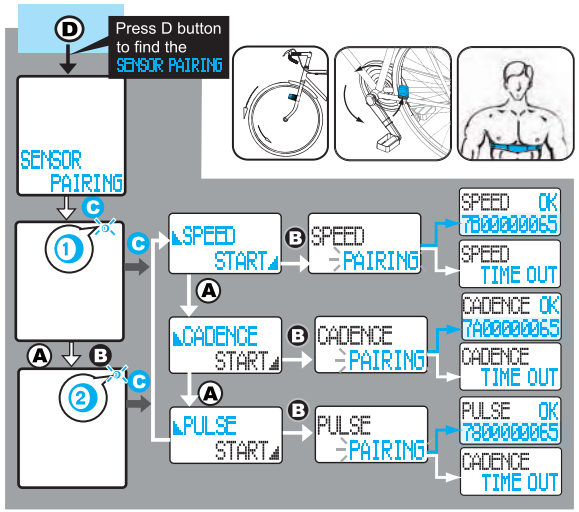
1. Put on the chest belt; roll the wheel and the crank
   (If you have problem with sensor pairing, it might be battery low power; check battery in the transmitter.)
2. If S/R/H show up, the transmitters are paired; if not, you need to do the pairing again.
3. Hold 1 second button D, it will enter setting loop, press D button to find the SENSOR PAIRING, choose bike1 or bike 2 (by pressing A or B) and press C to show coded ID. If computer did not receive any signal from transmitter over 30 seconds, it will show TIME OUT; please check the installation, battery power, and do the pairing again.
4. This computer is design for 2 bikes (you could purchase the 2nd set bike parts), it will automatically shift to bike 1 or bike 2 after pairing separately.



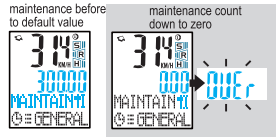
SPEED signal received

RPM signal received

HRM signal received



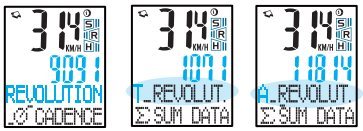
Maintenance Reminder



MAINTENANCE REMINDER

1. The user's friendly function is to remind you about maintaining your beloved bike after presetting the desired reminding distance.
2. It displays the icon for Maintenance Reminder setting.

About revolution



The REVOLUTION function accumulates the pedal rotation data from the latest RESET operation as long as the bicycle is being ridden.

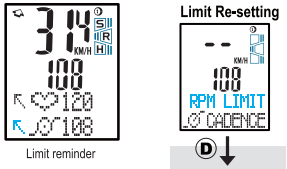
T_REVOLUTION

1. The computer accumulates the total pedal revolutions as long as the bike is running.
2. The real value is 100 times of the number on the screen. (ex. 38, means 3800 turns)
3. Computer will keep this data even you change the battery.

A_REVOLUTION

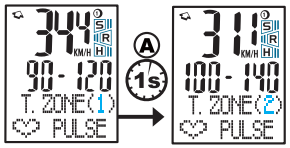
1. A_REVOLUTON is the sum of bike1 and bike2 of its total pedal revolution.
2. The real value is 100 times of the number on the screen. (ex. 38, means 3800 turns)
3. Computer will keep this data even you change the battery.

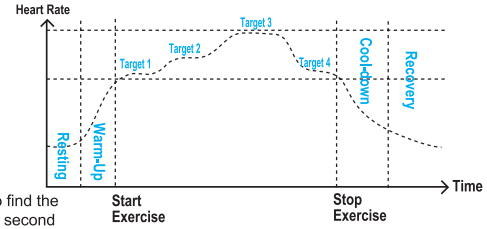
About RPM limit



1. A pacer symbol will show up to remind you only when RPM is over limit (beep should sound). By this way you can shift to a upper gear for more easy riding.
2. To rest it you need to pull off the computer from the bracket. Find "RPM limit" icon (cadence group), hold 1 second the D button to enter (quit) setting mode.

About target zone





TARGET ZONE

Pulse function group, press B button to find the Target Zone (T.ZONE) function, hold 1 second the A (or B) button to shift the 5 set target zone in a loop.

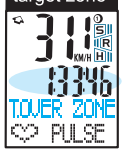
T.IN ZONE & T.OVER ZONE

Time in Target Zone records the duration of exercise intensity is in the Target Zone.

When take exercise, for your reference to adjust exercise intensity, the pacer symbol “up” will show up if your exercise intensity is over the target zone, the duration will be recorded as Time over target (T.OVER ZONE). The pacer symbol “down” will show up if your exercise intensity is under the target zone, but the duration under target zone will not be recorded.

Time in target zone

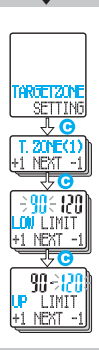
Over target zone



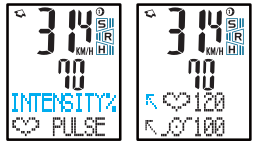
HR Target zone pace

Targer zone Data RE-Setting

Target Zone icon, hold 1 second the D button to enter (or quit) the data setting.



About Intensity



Absolute intensity of exercise (HR%) = Current heart rate / Maximum heart rate

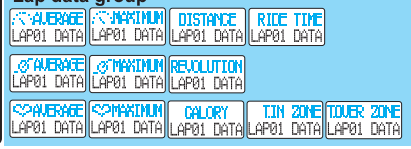
Maximum heart rate =220-Age

*According to ACSM reference regarding the intensity of exercise, the levels are as followed:

<35	Very light
35-54	Light
55-69	Moderate
70-89	Hard
>90	Very hard
100	Maximal

About LAP

Lap data group

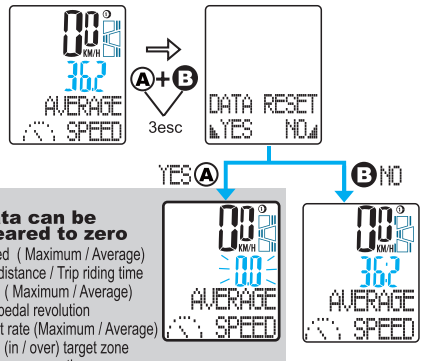


With LAP function, you can have the trip or training divided into several (up to 30) records.

1. Press C to find the LAP icon, press Start to record a new Lap.
2. Lap review is allowed only when you stop riding.
3. In Lap Data Group
   Speed (AVERAGE/MAXIMUM/DISTANCE/RIDE TIME)
   RPM (AVERAGE/MAZIMUM/REVOLUTION)
   HRM (AVERAGE/MAXIMUM/CALORY/T.IN ZONE/T.OVER ZONE)
4. 31st Lap record will automatically cover the 1st Lap record.
5. To clear the LAP data, LAP function group icon, hold 3 seconds A and B button.

Reset

DATA RESET

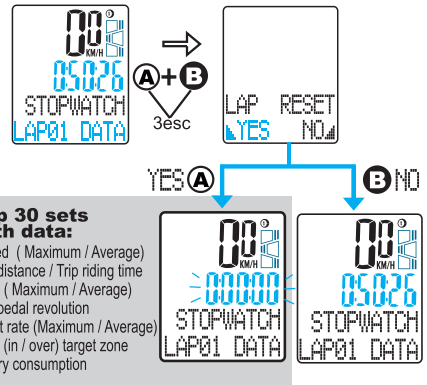


Data can be cleared to zero

Speed (Maximum / Average)
Trip distance / Trip riding time
RPM (Maximum / Average)
Trip pedal revolution
Heart rate (Maximum / Average)
Time (in / over) target zone
Calory consumption

LAP DATA RESET

Lap data can be cleared only in the LAP icon (LAP mode.)



Lap 30 sets with data:

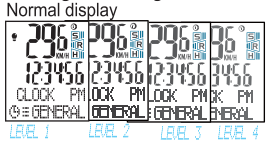
Speed (Maximum / Average)
Trip distance / Trip riding time
RPM (Maximum / Average)
Trip pedal revolution
Heart rate (Maximum / Average)
Time (in / over) target zone
Calory consumption

LCD Brightness

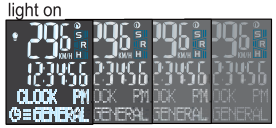
4 grades adjust the brightness.
To reset it you need to pull off the computer from the bracket. Hold 1 second the D button to enter setting mode, find the BRIGHTNESS SETTING.

LCD 4 grades brightness

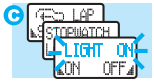
Normal display

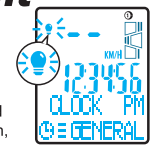


light on



Backlight





1. Press C button to find the Light function icon, turn it on.
2. After turn it on, press any key to light on for 5 seconds each time, and the symbol will flash at the same time.

Beep Reminder

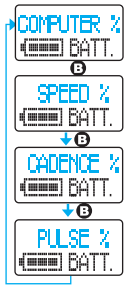
1. Press C button to find the Beep function icon, turn it on.
2. After turn it on, press any key will sound beep.

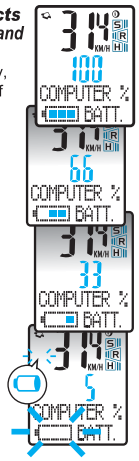
Backlight and Beep functions will increase power consumption, you can turn off these functions for keeping a better battery life.

Battery status detected

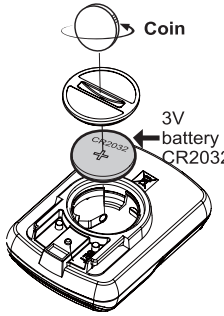
Battery status detects (batteries in computer and in transmitters):

When detect Low battery, the computer will turn off EL/ BEEP function, and stop record data.





Battery Replacement



Main unit battery change

1. Replace the battery with a new battery within a few days when the symbol appears." "
2. Replace with a new CR2032 battery and initiate the main unit.

Check battery power status in BATT icon.
Please change battery if the empty battery symbols show up, low power will result in stopping data record.

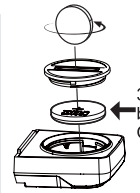
GENERAL : CLOCK / DATE(SUN) / MAINTAIN / USER DATA

CADENCE : RPM LIMIT

SUN DATA : ODOMETER / T_RIDETIME T_CALORY / T_REVOLUT A_ODOMETER / A_RIDETIME A_CALORY / A_REVOLUT

PULSE : T. ZONE(1-5)

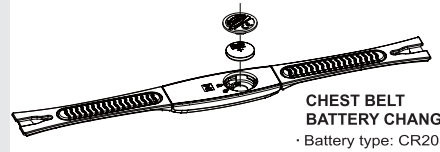
LIGHT(ON/OFF) BEEP(ON/OFF)



Speed (RPM)
Transmitter battery change

Speed and RPM transmitter Battery change

1. The patent-pending transmitter circuit is designed to reduce power consumption, please use a 3V battery for transmitter (generally a CR2032).
2. Replace a new battery when the transmitter's battery power is nearly exhausted, otherwise the transmission power will be very weak and unstable data display will occur.
3. Replace a new CR2032 battery with the positive (+) pole toward the sensor cap .



CHEST BELT BATTERY CHANGE:

· Battery type: CR2032

When change with a new battery, the LED on transmitter will automatically flash for 10 seconds.

Specifcations

Functions	Specifcations
Current speed	0-199.9 KM/H 0-120.0 M/H
Average speed	0-199.9 KM/H 0-120.0 M/H
Maximum speed	0-199.9 KM/H 0-120.0 M/H
Trip distance	0-999.99 KM/MILE
Odometer	0-999999 KM/MILE
Total ODO bike1+bike2	0-1999999 KM/MILE
Riding time	00H00M00S-99H59M59S
Total riding time	00H00M-9999H59M
Total riding time bike1+bike2	0-19999H59M
Maintenance reminder	0-990 KM/MILE
Speed pacer	Current speed compare with Average speed
Current RPM	0-199 RPM
Maximum RPM	0-199 RPM
Average RPM	0-199 RPM
Trip pedal revolution	0-999999 RPM
Total pedal revolution	0-999999*100 RPM
Total pedal revolution bike1+bike2	0-1999999*100 RPM
RPM limit	10-199 RPM
RPM limit reminder	Compare with PRM target zone

Functions	Specifcations
Current HR	30-240 BPM
Maximum HR	30-240 BPM
Average HR	30-240 BPM
Calory	0-9999.99 KCAL
Total calory	0-999999 KCAL
Total calory bike1+bike2	0-1999999 KCAL
Calory per hour	0-9999 KCAL
HR intensity	0-99%
HR target zone in BPM	30-240 BPM 5 sets
Time in target zone	00H00M00S-99H59M59S
Time over target zone	00H00M00S-99H59M59S
HR target zone pacer	Compare with HR target zone
User data input	Age 5-99, Sex , Weight : 10-199 KG 10-499 LB
12/24H clock	1H00M00S-12H59M59S 00H00M00S-23H59M59S
Calendar	MM:DD:YY week 2000.01.01-2099.12.31
EL back-light	Light 5's per each press
Low battery indicator	< 2.4 V
Circumference bike1	0-3999 mm Default : 2155 mm
Circumference bike2	0-3999 mm Default : 2050 mm
Lcd Brightness	L1-L4

Functions

SPEED FUNCTIONS

CURRENT SPEED

1. The current speed is always shown on the middle display during riding.
2. The speed data are updated per second.
3. 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.

AVERAGE	Average Speed

1. With this function, the computer will display your average speed during riding.
2. 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.
4. It's updated every second on condition that the riding time is over 6 seconds.
5. The computer will automatically reset the following data to zero once the riding time is over 100 hours or the distance is over 1000KM (or miles): riding time, trip distance, average speed.

MAXIMUM	Max. Speed

1. 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 max. speed record will be cleared.

DISTANCE	Trip Distance

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

ODOMETER	Odometer

1. With this function, the computer accumulates the total distance of the bike you ride.
2. The odometer data cannot be cleared by the reset operation.

A-ODOMETER	Total odometer (bike 1+ bike 2)

1. With this function, the computer accumulates the total distance of the two bikes you ride.
2. 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.

RIDINGTIME	Riding time

1. Riding time refers to the accumulated riding time of a trip.
2. 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.

T_RIDINGTIME	Total riding time

1. 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.

A_RIDINGTIME	Total riding time (Bike 1 + Bike 2)

1. With this function, the computer accumulates the total riding time of the two bikes you ride.
2. The sum of T_ RIDINGTIME bike 1 and bike 2 equals A_RIDINGTIME. (i.e. total riding time of bikes 1 plus 2)
3. The accumulated total riding time of Bike 1 and Bike 2 cannot be cleared by the reset operation.

MAINTENAIN	Maintenance reminder

1.function is to remind you about maintaining your beloved bike after presetting the desired reminding distance.
2. It displays the icon (MAINTENAIN) for Maintenance Reminder setting. (Maintenance: Bike1:300km or miles, Bike2:990km or miles.)

	Pace Arrow

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

RPM FUNCTIONS

RPM	RPM Current Cadence

1. RPM (Revolutions Per Minute) is a measure of rotational speed. It's updated every second.
2. The current RPM (cadence) is always shown on the middle display.
3. For Bike 1, if you do not turn the crank for over 4 seconds, the current RPM will be reset to zero.
   For Bike 2, if you do not turn the crank for over 2 seconds, the current RPM will be reset to zero.

MAXIMUM	Maximum Cadence

1. With this function, the computer will record your maximum cadence during riding.
2. Whenever you reset the computer or change the battery, the max. RPM record for a trip will be cleared.

AVERAGE	Average Cadence

1. With this function, the computer will display the average cadence during riding. It's updated per second.
2. Whenever you reset the computer or change the battery, the average cadence record will be cleared.

REVOLUTION	TRIP Pedal Revolutions

1. The bike1, bike2 accumulates the pedal revolutions as long as the bike is running.
2. The bike1, bike2 data can be cleared to zero by Data Reset operation.

T_REVOLUTION	Total Pedal Revolutions

1. The computer accumulates the total pedal revolutions as long as the bike is running.
2. The bike1, bike2 data can not be cleared to zero by Data Reset operation, but by all clear operation.
3. The real value is ten times of the number on the screen. (ex. 38, means 380 turns)

A_REVOLUTION	Total All Pedal Revolutions (bike1+bike2)

1. The A-revolution accumulates the total pedal revolutions as long as the bike is running. Either Bike 1 or 2 has its individually.
   A-revolution is the sum after bike1 plus bike2 total pedal revolutions
2. The A-revolution data can not be cleared to zero by Data Reset operation, but by all clear operation.
3. The real value is one hundred times of the number on the screen. (ex. 188, means 18800 turns)

RPM LIMIT	RPM limiet

Setup the RPM value, the pacer symbol will show up (beep should sound) to remind you only when RPM is over limit. By this way you can shift to a upper gear for more easy riding.

HEART RATE FUNCTIONS

♡	Current Heart Rate

Current Heart RateDisplay the current heart rate on the middle of display.

MAXIMUM	Maximum Heart Rate

1. Monitors and records the maximum heart rate during exercise.
2. The range of maximum heart rate is from 30 to 240 bpm.

AVERAGE	Average Heart Rate

1. Calculating the average heart rate during exercise. According to this value we can know if the cardiopulmonary condition has been improved while do the same intensity of exercise.
2. Range of average from 30 bpm to 240 bpm.

User date

1. Enters the data for sexuality, age, weight and height of user.
2. Personal data is an important reference for calculating the consumption of calories.
3. Range of age is from 5 to 99.
4. Units of weight: kg from 10 to 199 lb from 10 to 499

CALORY	Calories Heart Rate

1. Calculates the calories expended for the whole exercise process, not only from exercise.
2. 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.
3. Calories consumption will be affected by Heart rate, sexuality, weight and type of exercise.
4. The unit of calories is Kcal.
5. The range is from 0 Kcal to 9999.99 Kcal.
6. Calory will be calculated when the heart rate is equal or over 90bpm.

T_CALORY	Total calories Heart Rate

1. Records the total (cumulative) calories expended.
2. Unless this value is reset, the data will be save separately, so weekly or monthly cumulative calories consumption can be seen in this mode.

A_CALORY	Total calories Heart Rate (Bike 1 + Bike 2)

1. A_calcory is total calories heart rate bike1 plus bikr 2 (cumulative) calories expended records.
2. this A_total calories data can not be cleared to zero, by data reset operation, but by all clear operation.

CLORY/H	Calories per hour mode

1. Calculates the expended calories per hour based on the current heart rate.
2. Increasing or decreasing the heart rate intensity can control target calorie consumption.
3. The range for calorie consumption per hour is from 0 to 9999 Kcal.

INTENSITY%	Heart Rate Intensity

Display the current heart rate intensity

T. IN ZONE	In target zone time mode

1. Calculates and records the exercise time within the target zone.
2. The range is from 00H00M00S to 99H59M59S.

T. OVER ZONE	Above target zone mode

1. Calculates and records the exercise time NOT in the target zone.
2. The range is from 00H00M00S to 99H59M59S.

↖ ↘	Target zone limit

1. This value depends on the target zone setup, and the lower and upper limits are displayed as a heart rate value.
2. The heart rate display is simple and clear and is convenient for the beginner.
3. " ↖ " will display when the heart rate is below the lower limit of the target zone (beep should sound).
4. " ↘ " will display while the heart rate is above the upper limit of target zone (beep should sound).
5. The range for each target zone must be more than 10 bpm.
6. The range for the limit mode is from 30 bpm to 240 bpm.

T. ZONE	Program target zone mode

1. There are 5 sets of programmable target zones.
2. Switch the Target Zone manually by hold 1 sec buttom A or B.
3. The Beep will sound when the target zone shifts from one zone to another.

OTHER FUNCTIONS

	Battery status detected

1. This function detects the battery power in the computer and transmitters.
2. Press A button to find theBATT function, Battery status detected .
3. When detect Low battery, the computer will turn off EL function, and stop record data.

	Low Battery Indicator

1. When the low-battery icon" " appears on the display, it's time to get a new battery.
2. Replace the battery with a new one A.S.A.P. when the icon blinks on the display. Otherwise, the new data of some functions will not be stored into the computer.
3. If you do not change the battery in a few hours, the computer may still work for a few days. The data will be displayed as usual, but the new data will not be stored before the battery is changed.
4. To save battery power, there's no EL backlight when the low-battery symbol is blinking.

CLOCK	Clock Time: 12H/24H Alternative

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. In this format, to AM or PM. 24H means 24 hours.
3. When in the sleep mode, only the clock time will be displayed on the screen.

DATE	Calendar

1. Calendar per setting month /day /year
2. auto display day format 01.01.2000~12.31.2099.

	EL back-light

1.Press C button to find the Light function, turn on/off the EL back-light.
2. After turn it on, The symbol " " will apper to indicate the EL back-light function is at working status.
3. Press any key to light on for 5 seconds each time, and the symbol will flash at the same time.

BRIGHTNESS	LCD Brightness

1. Contrast adjust have 4 grades adjust the brightness.(LEVEL 1~4)
2. adjust the brightness Contrast will also affect the EL back-light

BEEP	Beep reminder

1. Press C button to find the Beep function icon, turn it on.
2. After turn it on, press any key will sound beep.

Trouble Shooting

PROBLEM	CHECK ITEMS	REMEDY
No display	1. Is the battery dead? 2. Is there incorrect battery installation?	1. Replace the battery. 2. Be sure that the positive pole of the battery is faces the battery cap.
No current Speed or incorrect data	1. Does the Speed symbol disappear? 2. Is it at the main unit data setting display? 3. Are the contacts between the main unit and the bracket poor? 4. Are the relative positions and gap of speed transmitter and magnet correct? 5. Is the circumference correct?	1. Please hold C button 3 seconds; it will again automatically scan for transmitters. Or refer to Sensor Pairing p.18. 2. Refer to the main unit data setting procedure and complete the data setting. 3. Wipe contacts clean. 4. Refer to P.5, re-adjust position and gap correctly. 5. Refer to P.8 and enter correct value.
No current RPM or Incorrect data	1. Does the RPM symbol disappear? 2. Is the relative positions and gap between RPM transmitter and magnet correct? 3. Is the sensing distance too long or the installation angle of the RPM transmitter incorrect? 4. Is the RPM transmitter battery nearly exhausted? 5. Is any strong interference source nearby?	1. Please hold C button 3 seconds; it will again automatically scan for transmitters. Or refer to Sensor Pairing p.18. 2. Refer to P.7 re-adjust position and gap correctly. 3. Refer to P.7 then adjust distance or angle between the main unit and the RPM transmitter. 4. Repair with a new battery. 5. Move away from the source of interference.
No Heart Rate or Incorrect data	1. Does the Heart Rate symbol disappear? 2. Note to wear chest belt correet with sensor touch the skin? 3. Is the Heart Rate battery nearly exhausted?	1. Please hold C button 3 seconds; it will again automatically scan for transmitters. Or refer to Sensor Pairing p.18. 2. Refer to P.9 re-adjust correctly position 3. Repair with a new battery.

Irregular display		Refer to the "Main unit data setting" and initiate the main unit again.
LCD is black	Have you left main unit under direct sunlight when not riding the bike for a long time?	Place main unit in the shade to return to normal state.No adverse effect on data.
Display is slow	Is the temperature below 0°C (32°F)?	Unit will return to normal state when the temperature rises.

Precaution

1.Remember to pay attention to the road while riding.
2.Don't disassemble the main unit or its accessories.
3.Check relative position and gap of sensor, magnet and main unit periodically.
4. Don't use thinner, alcohol or benzene to clean the main unit or accessories when they are dirty.
5. Don't leave the main unit exposed to direct sunlight when not riding the bike.
6.Take care of you chest belt. Wash the chest belt by suds, and then flush out with water. Let it dry naturally. Avoid putting the chest belt under the environment of high temperature or touching the corrosive material such strong acid or alkalis .
7.The physical condition of individual might effect the intensity of signal.
8.Avoid using the heart rate 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 with high voltage and strong magnetic field.
9.To ensure your safety, please use the Heart Rate Transmitter under a doctor or coach's direction if you have one of the following conditions:
   a. Cardiopulmonary disease
   b. Obesity.
   c. No exercise for long period of time.

Federal Communication Commission Interference Statement

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 residential 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 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 different from that to which the receiver is connected.
. Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

This device complies with 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.