

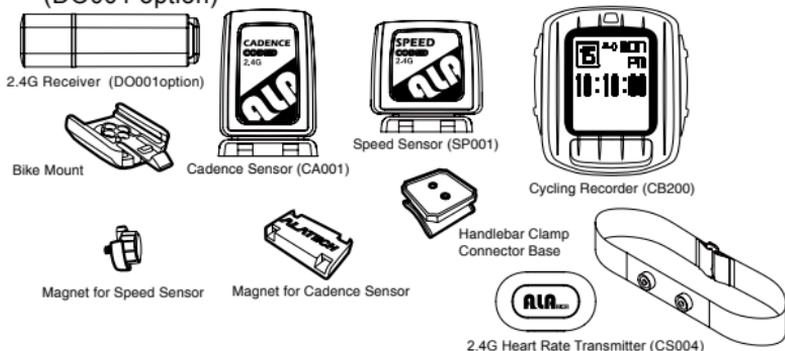
Thank you for purchasing this product.

Before Use

We thank you for purchasing the **ALATECH** Cycling Recorder. In order to correctly and effectively use the functions of this device, please read this manual carefully and keep it in a safe place for future reference.

Package Contents

- Cable Ties
- Screws
- User Manual
- Instructions manual for Battery Replacement
- Warranty
- 2.4G Receiver (DO001 option)
- Cycling Recorder (CB200)
- Bike Mount
- Handlebar Clamp Connector Base
- Speed Sensor (SP001) (including Magnet, Rubber pad)
- Cadence Sensor (CA001) (including Magnet, Rubber pad)
- 2.4G Heart Rate Transmitter (CS004) (include Elastic belt)



Disclaimer

- The CB200 is for use on bicycles only. It is not designed for medical use.
- To ensure correct display values, make the adjustments and enter your personal data when you use this device for the first time and sensor unworkable (lose link). Please refer to the chapter on user configuration.
- The values measured and displayed should be treated as reasonably accurate.
- Alatech is not responsible for any claims of loss or damage from third parties incurred from the use of this device.
- Alatech reserves the right to change the specifications of the hardware and software described in this manual at any time without prior notice.



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1 Getting started with Cycling Recorder

1-1 Before use

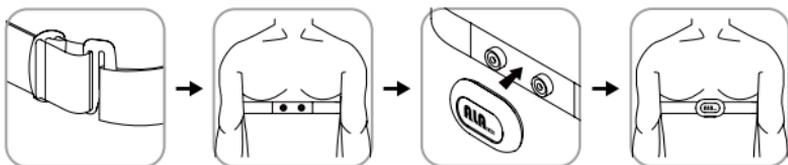
1. When installed on a bicycle this device can display the speed, number of laps and cadence rate. It can also help you to monitor your training output during a fitness session based on your gender, age, body weight, height and maximum heart rate. It will also measure the time used and calories burned. This device helps you to progressively realize your dreams of better physical performance and an improved physique.
2. The device has speed, lap and heart rate sensors built in that provide readouts of cycling speed, cadence, and real time heart rate.
3. When using the device for the first time and after battery changes or resetting, please adjust the different sensors and enter your personal information to ensure data accuracy. Please refer to User Setting 2-3, Page 14 for details.

1-2 Steps to wear the transmitter

The Heart Rate Transmitter Belt reads your real-time heart rate and transmits this to the cycling computer. Please refer to the following steps to wear the Transmitter before you start to exercise.

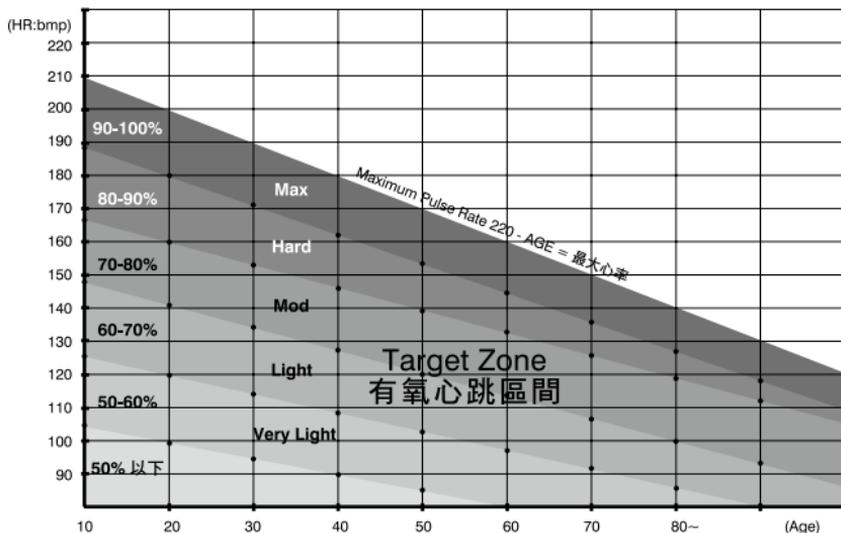
1. Adjust the elastic belt for a proper length for a snug fit your body. Attach one end of the Transmitter to the elastic belt.
2. ALA™ logo of CS004 should face outwards.
3. Buckle the CS004 to the two strap snaps.

Note: Please be sure that CS004 fit tightly with transmitter belt to avoid slipping during your workout.



1-3 Know and customize your maximum training output

The chart below shows the heart rate level using %HR max. HR max = 220 - Age with every 10 years of age as an age zone. This chart is a reference for appropriate training output using the heart training mode.



- The unit for heart rate is bpm (beats per minute), or heartbeats per minute.
- Maximum heart rate = 220 - age. If your age is 20, then 220-20 = 200 bpm, and your maximum heart rate is 200 bpm.
- Maximum heart rate (maximum heart rate, MHR, or HRmax) refers to the maximum heart rate for optimizing exercise or stamina. It is often used as the prescribed index for training output in order to find the THR. The most direct and accurate method of measuring the maximum heart rate is to have this done by a doctor or professional. An Exercise Stress Test is conducted and monitoring is done by an electrocardiograph (ECG). Or you can use the simple age formula to calculate your personal maximum heart rate.

- Target heart rate = training output (%) × maximum heart rate (HRmax).
- The target heart rate (THR) or training heart rate is used to find the ideal rate for the optimal performance of aerobics to maximize the benefit to your heart and lungs. You can find your own upper and lower range target heart rate using the maximum heart rate formula (%HRmax).
- In general, for persons with less than optimal health, it is recommended that the low-strength target heart rate range be set at 60% or below.

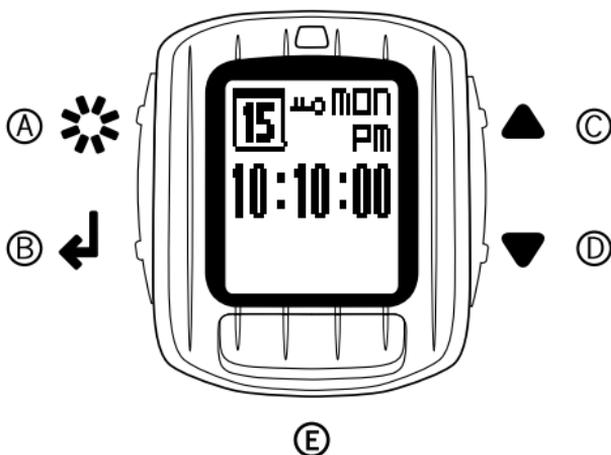
This table has six training programS of exercise intensity heart rate zone:

Training Output	Heart Rate (%), bpm	Time Sustained	Body Condition
MAX * 	171-190 90-100%	Less than 5 minutes	Body condition: muscles are very tired, pounding heartbeat and shortness of breath. Suitable for experienced bikers and runners for the last sprint. Workout time is short. Usefulness: your breathing, heartbeat and muscle stamina are operating at their maximum capacity. If this phase is sustained too long, injury may result.
HARD * 	152-171 80-90%	2-20 minutes	Body condition: your muscles are tired; heart is beating fast and your breaths are short. Suitable for experienced bikers and runners. Usefulness: high output and high speed training. Good for muscle endurance and strengthening.
MED * 	133-152 70-80%	10-60 minutes	Body condition: breathing is fast and your muscles are somewhat tired. Suitable for improving your training. Usefulness: Medium training output, medium fitness strength training; raising training efficiency.
LIGHT * 	114-133 60-70%	60-300 minutes	Body condition: comfortable, relaxed. The strain on the muscles and heart is low. Suitable for basic fitness training. Usefulness: Fostering circulation, improved recovery. Useful for basic training.
VERY LIGHT * 	104-114 50-60%	20-60 minutes	Body condition: very relaxed without any sense of tiredness. Suitable for light training or relaxation exercises. Usefulness: Helps the body warm up, cool down and recover.
User	40-220 (Note 1) custom- 100%	User Defined (Note 2)	User Defined

- Note 1: The 40-220 range is the normal CB200 setting range, but the range values can be user defined. The graph will show the strength of the training according to the value configured.
- Note 2: If the user defined training output is above the 90-100% range, it is recommended that the Time Sustained should be less than 5 to avoid sports injury.

1-4 Keys

The CB200 has 5 keys, see the figure below:

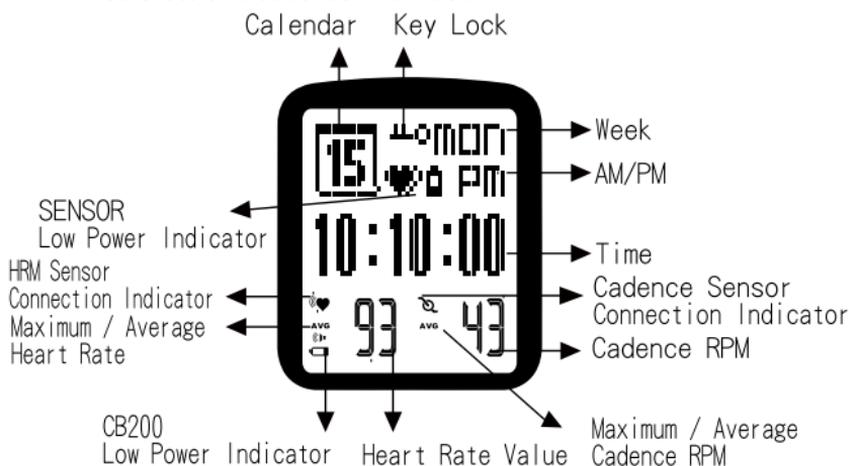


Key	Icon	Function
A	 LIGHT	backlight, on/off lock key (press and hold for 3 seconds).
B	 MODE	enters mode selection; switch mode / leaves mode selection.
C	 UP	Select Pages for use as a shortcut key to adjust values of files.
D	 DOWN	Select Pages for use as a shortcut key to adjust values for training.
E	N/A	Light, backlight, on/off lock key (press and hold for 3 seconds).

1. Press the A button to turn on or off the backlight. You can select how to light it up: Flash and lighting up for 3 seconds. (Refer to the Night Mode on page 90 for setting.) It may be difficult to see the backlight when you turn it on under the sunlight.
2. In the Time main screen, press the A button for 3 seconds to turn on the key lock "🔒" and press it again to unlock.
3. In the Time main screen, press the C button to enter File Log mode, press the D button to enter Training mode, or press the E button to enter Bike mode.
4. When the battery low indicator "🔋, 🔋, 🔋, 🔋" for each sensor or the unit appears on the screen, replace the battery immediately to keep the cycling computer operating.
5. The key combination for resetting the cycling computer is B+C+D+E. Resetting is performed after the beeping sound. After the cycling computer is reset, the screen is turned off automatically. Press any button to turn the cycling computer. After it is turned on, press any button to cancel the beeping sound to use your cycling computer.
6. When the cycling computer is reset or a new battery is replaced, the date and time will be restored to the factory default settings. To re-configure them, refer to "2-3-4 Date & Time Settings" on page 90.

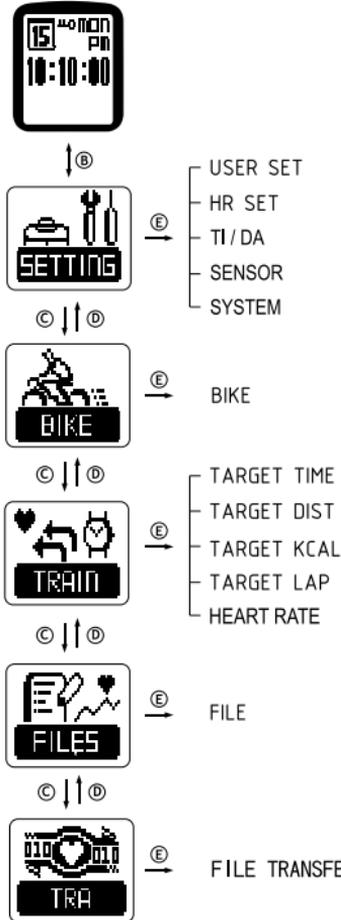
1-5 Screen overview

The upper shows general information while the lower shows the heart rate and cadence information.



1-6 Switching Mode

Main function structure illustration

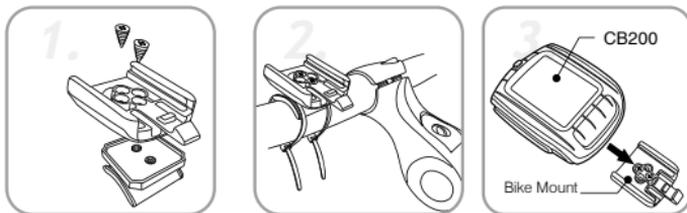


From the general Menu,
press the E shortcut key to enter the BIKE MODE directly
(by passing the Welcome Menu for BIKE MODE).
Press the D shortcut key to enter the TRAINING MODE directly
(by passing the Welcome Menu for TRAINING MODE).
Press the C shortcut key to enter the FILE MODE directly
(by passing the Welcome Menu for FILE MODE).

2 Using the Cycling Recorder for the first time

2-1 Installing the Cycling Computer :

Either on the Handlebar or on the Handlebar Stem



1. First , screw the Bike Mount and handlebar clamp connector base together tightly.
2. And then use the ties to secure the device to the Handlebar or Handlebar Stem . Make sure the handlebar moves freely before securing .
3. Slide the Cycling Recorder into the socket of the Bike Mount until you hear a click sound , make sure the Cycling Recorder is in the right position and will not fall off.
4. To remove the Cycling Recorder : press the lever of the Bike Mount , push the Cycling Recorder out of the Bike Mount from the other side.

2-2 Installing the Sensors

2-2-1 Installing the Speed Sensor (SPEED) : Install the Speed Sensor on the same side of the Cycling Recorder . The Speed Sensor should form a 90angle with the Cycling Recorder within a maximum distance of 5mm/ 0.19685ft.



1. 1.Fasten the Speed Sensor along with the Rubber Pad and secure them on the front fork by cable ties. (ALA logo should face outward). The vertical distance should not be longer than 200 cm from Cycling Recorder.
2. Secure the magnet to the front wheel spoke and adjust the magnet position to be as high as the speed sensor. The magnet should face the Speed Sensor and the distance between each other should be less than 5mm/ 0.19685ft.

2-3 Basic settings

2-3-1 How to enter Setting mode

Press the B button "Mode" in the normal screen to enter the user setting page (SETTING). Press the E button "OK" to confirm.



- Check if there is "🔒" key lock symbol on the screen. If so, you should unlock it first.
(To unlock, press the A button for 3 seconds)

2-3-2 User settings

Screen display	Setting button	Confirming button
1. Unit setting Switch between Metric/English Unit mode: (UNIT: m/ft)	Press the C, D buttons ▲ / ▼	After pressing the E button to confirm, proceed with the next setting.
2. Gender setting Switch between Male/Female: (♂ / ♀)	Press the C, D buttons ▲ / ▼	After pressing the E button to confirm, proceed with the next setting.
3. Age settings Setting range: 10 - 99	Press the C, D buttons ▲ / ▼	After pressing the E button to confirm, proceed with the next setting.
4. Height setting Setting range: 130-230cm	Press the C, D buttons ▲ / ▼	After pressing the E button to confirm, proceed with the next setting.
5. Weight setting Setting range: 35-110kg	Press the C, D buttons ▲ / ▼	After pressing the E button to confirm, proceed with the next setting.
6. Wheel diameter setting Setting range: 700 - 2,499mm	Press the C, D buttons ▲ / ▼	After pressing the E button to confirm, proceed with the next setting.
7. Turn on/off the key tone (Default: OFF)	Press the C, D buttons ▲ / ▼	After pressing the E button to confirm, proceed with the next setting.
8. Turn on/off night lighting mode (NIGHT MODE) NIGHT NO (Default: OFF)	Press the C, D buttons ▲ / ▼ Select Night Mode, FLASH - Flashing only active in Bike Mode) 3 Secs - Lighting up for 3 seconds	Press the E button to confirm Note: Select ON to enter Night Mode

- After one item is set, press the B button to exit user setting mode.

- Note 1: Night Mode: Flashing (FLASH), lighting up for 3 seconds (3 SECS)

Flashing mode (FLASH): Press the A button to flash and press it again to cancel.

Lighting up for 3 seconds (3 SECS): Press the A button to turn on backlight for 3 seconds.

Available in each mode

Method 1 (Table 1. Wheel Diameter Adjustment)

Tire size	L (mm)	Tire size L (mm)	L (mm)	Tire size	L (mm)
12 x 1.75	935	26 x 1(59)	1913	650 x 20C	1938
14 x 1.50	1020	26 x 1(65)	1952	650 x 23C	1944
14 x 1.75	1055	26 x 1.25	1953	650 x 35A	2090
16 x 1.50	1185	26 x 1-1/8	1970	650 x 38A	2125
16 x 1.75	1195	26 x 1-3/8	2068	650 x 38B	2105
18 x 1.50	1340	26 x 1-1/2	2100	700 x 18C	2070
18 x 1.75	1350	26 x 1.40	2005	700 x 19C	2080
20 x 1.75	1515	26 x 1.50	2010	700 x 20C	2086
20 x 1-3/8	1615	26 x 1.75	2023	700 x 23C	2096
22 x 1-3/8	1770	26 x 1.95	2050	700 x 25C	2105
22 x 1-1/2	1785	26 x 2.00	2055	700 x 28C	2136
24 x 1	1753	26 x 2.10	2068	700 x 30C	2146
24 x 3/4 Tubular	1785	26 x 2.125	2070	700 x 32C	2155
24 x 1-1/8	1795	26 x 2.35	2083	700C Tubular	2130
24 x 1-1/4	1905	26 x 3.00	2170	700 x 35C	2168
24 x 1.75	1890	27 x 1	2145	700 x 38C	2180
24 x 2.00	1925	27 x 1-1/8	2155	700 x 40C	2200
24 x 2.125	1965	27 x 1-1/4	2161	29 x 2.1	2288
26 x 7/8	1920	27 x 1-3/8	2169	29 x 2.3	2326

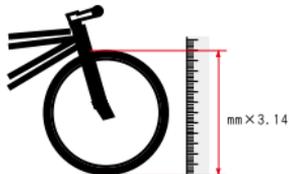
(The wheel diameters listed in the table are recommended depending on the wheel type. If you need accurate sports data, we recommend measuring the wheels manually.)

Method 2

How to measure the diameter of the front wheel

To get the necessary wheel data, follow the steps below:

1. Set the bike upright and use a tape measure to determine the diameter of the wheel.
2. Multiply the diameter by 3.14 to get the circumference.
3. Enter the value into the Chronograph.
4. Press B or E to exit or enter the next setting screen.



2-3-3 Heart Rate Setting (HR SET)

On the User Menu select HR SET and press the E Key to enter.

Screen Display	Setting Key	Confirm Key
1. Turn on the heart rate alarm (HR ALARM) Turn the heart rate alarm On or Off "❤️" (ON/OFF)	Press the C, D keys ▲ / ▼ to select heart rate alarm On or Off	Press E to confirm and enter the next setting
2. Maximum heart rate (HR MAX) Display the maximum heart rate of the user. (See Note 1.)	1. If no change to the maximum heart rate is needed, press E to confirm 2. Press C, D keys ▲ / ▼	1. Press E to confirm 2. Press E to confirm
3. Heart rate (HR ZONE) Select different heart rates. (See Note 2.)	Press C, D keys ▲ / ▼ to set the target heart rate Press E to confirm. You can enter a customized heart rate.	Press E to confirm
4. Maximum air volume (VO2MAX) Set your aerobic index Physical Activity Status Scale, PAR. (See Note 3.)	1. Press E to confirm use of the default 2. Press C,D to enter level setting (see chart) Press E to perform test	Press E to confirm use of the default

- After completing a setting, press the B key Mode to leave the User Setting mode (User Set).
- Note 1: The default maximum heart rate (HR MAX) is based on your age, height and weight. The maximum heart rate value is for reference only. You can enter your custom maximum heart rate value to suit your own training regimen.
- Note 2: Physical Activity Status Scale, PAR.



Physical Activity Status Scale, PAR

Grade	Description
Sedentary to Light Exercise	
ACT-00	Avoid walking or exertion, e.g., always use elevator, drive whenever possible instead of walking.
ACT-01	Walk for pleasure, routinely use stairs or occasionally exercise sufficiently to cause heavy breathing or perspiration.
Recreational Activity (golf, bowling, yard work)	
ACT-02	10 to 60 minutes per week.
ACT-03	Over one hour per week.
Heavy Aerobic Exercise (run or brisk walking or comparable activity, such as basketball, tennis, racquetball, aerobic dance...)	
ACT-04	Run about 1 mile per week or walk about 1.3 miles per week or spend about 30 minutes per week in comparable physical activity.
ACT-05	Run 1 to 5 miles per week or walk about 1.3 to 6 miles per week or spend 30 to 60 minutes per week in comparable physical activity.
ACT-06	Run 6 to 10 miles per week or walk about 7 to 13 miles per week or spend in 1 to 30 hours per week in comparable physical activity.
ACT-07	Run 11 to 15 miles per week or walk about 14 to 20 miles per week or spend in 4 to 6 hours per week in comparable physical activity.
ACT-08	Run 16 to 20 miles per week or walk about 21 to 26 miles per week or spend in 6 to 8 hours per week in comparable physical activity.
ACT-09	Run 21 to 25 miles per week or walk about 27 to 33 miles per week or spend in 9 to 11 hours per week in comparable physical activity.
ACT-10	Run over 25 miles per week or walk over 34 miles per week or spend over 12 hours per week in comparable physical activity.

Source: National Aeronautics and Space Administration.

Percentile Value for Maximal Aerobic Power chart

The oxygen uptake index will increase as your stamina increases and decrease as you get older. Generally, world-class athletes have a higher aerobic uptake index. Studies show that when the aerobic uptake index falls below the 20th percentile, it reflects a sedentary lifestyle without much exercise that may increase the amount of free radicals inside the body, which is harmful to your health. Please compare your aerobic uptake measured by the chronograph with the chart below and learn about your ability for maximal oxygen uptake.

Maximal Aerobic Power can improve with training and decrease with age, world class athletes typically have high VO₂max. Research suggests that the VO₂max below the 20th percentile for age and sex, which is often indicative of a sedentary lifestyle, is associated with an increased risk of death from all causes.

You can compare your own VO₂max value measured by this watch with the reference list on page 20 for better understanding of your health status.

Percentile Value for Maximal Oxygen Uptake in Men (unit: ml/kg/min)					
Percentile	Age				
	20~29	30~39	40~49	50~59	Over 60
90	55.1	52.1	50.6	49.0	44.2
80	52.1	50.6	49.0	44.2	41.0
70	49.0	47.4	45.8	41.0	37.8
60	47.4	44.2	44.2	39.4	36.2
50	44.2	42.6	41.0	37.8	34.6
40	42.6	41.0	39.4	36.2	33.0
30	41.0	39.4	36.2	34.6	31.4
20	37.8	36.2	34.6	31.4	28.3
10	34.6	33.0	31.4	29.9	26.7

Percentile Value for Maximal Oxygen Uptake in Women (unit: ml/kg/min)					
Percentile	Age				
	20~29	30~39	40~49	50~59	Over 60
90	49.0	45.8	42.6	37.8	34.6
80	44.2	41.0	39.4	34.6	33.0
70	41.0	39.4	36.2	33.0	31.4
60	39.4	36.2	34.6	31.4	28.3
50	37.8	34.6	33.0	29.9	26.7
40	36.2	33.0	31.4	28.3	25.1
30	33.0	31.4	29.9	26.7	23.5
20	31.4	29.9	28.3	25.1	21.9
10	28.3	26.7	25.1	21.9	20.3

Data were obtained from the initial examination of apparently health men and women enrolled in the Aerobics Center Longitudinal Study(ACLS), 1970 to 2002. (Units: ml/kg/min)

2-3-4 Timer Setting (WATCH)

Screen Display	Setting Key	Confirm Key
1. Set standard/ military time (12H / 24H) Standard/ Military Time (12H / 24H)	Press the C, D keys ▲ / ▼ Select (12H / 24H)	Press E to confirm and enter the next setting
2. Set time (HH: mm) HOUR MINUTE	1. Press the C, D keys ▲ / ▼ to set the hours 2. Press the C, D keys ▲ / ▼ to set the minutes	Press E to confirm and enter the next setting
3. Set Date (Y-M-D) YEAR MONTH DATE	1. Press the C, D keys ▲ / ▼ to set the year, month, date	Press E to confirm and enter the next setting

2-3-5 Sensor Setting (SENSOR SET)

Screen Display	Setting Key	Confirm Key
1. 2. 4G HRM SENSOR (CS004) 	Press the E keys to pair.	Pairing failed, Please pair again.
2. SPEED SENSOR (SP001) 	Press the E keys to pair.	Pairing failed, Please pair again.
3. CADENCE SENSOR (CA001) 	Press the E keys to pair.	Pairing failed, Please pair again.
4. 2. 4G Receiver (DO001) 	Press the E keys to pair.	Pairing failed, Please pair again.

2-3-6 SYSTEM

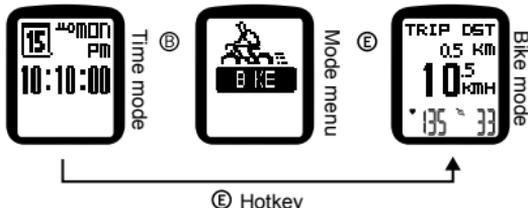
Screen Display
1. ABOUT MODEL (CB200) 
2. ABOUT FW VER (FW VER 0.001) 
3. MEMORY USED 

3 Bike Mode



3-1 How to enter Bike Mode

A. Normal: In Duration Mode, press the B button "Mode" to enter the mode menu and select Bike Mode. Press the E button "OK" to confirm and enter Bike Mode.



Go to the previous level using the B button.
Select an item or value using the C, D buttons.

B. Hotkey: In Duration Mode, press the E button "OK" to confirm and enter Bike Mode.

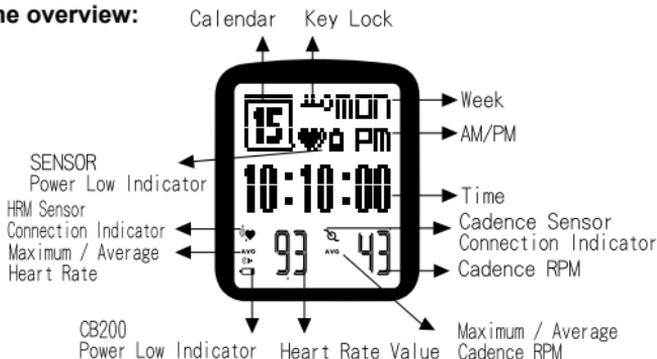
Note: In Duration Mode, make sure the keyboard lock symbol "⌨" does not appear on the screen, otherwise you cannot enter the mode.

C. Warning screen 1: If the "WARNING FILES WERE FULL" screen indicating the files are full appears, you have to enter the file log mode and select your desired files to be uploaded to BIKE COACH on your PC. Then delete unnecessary ones to continue your exercise.

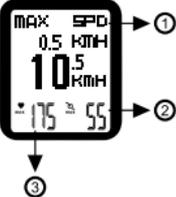
D. Warning screen 2: If the memory used exceeds 80% or the "WARNING MEMORY USED 80%" screen indicating the memory will be full soon appears during the exercise, you can still exercise. If the memory is used up, the system will automatically delete the oldest file.

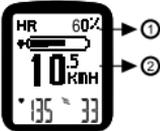
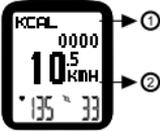
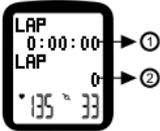
3-2 Bike Mode screen

Name overview:



Sub-Menu explained (in menu order)

Screen Display	Setting Key	Confirm Key
 <p>The screen shows 'TRIP DST' at the top with a right-pointing arrow labeled ①. Below it is '0.5 KM'. The large central display shows '10.5' with 'KMH' below it. At the bottom, it shows '135' and '33' with a right-pointing arrow labeled ②. A downward-pointing arrow labeled ④ is at the bottom left.</p>	1- Trip distance (TRIP DST) 2- Real-time speed 3- Cadence frequency 4- Real-time heart rate	Press E OK to switch the menu
 <p>The screen shows 'TRIP TM' at the top with a right-pointing arrow labeled ①. Below it is '00:00:00'. The large central display shows '10.5' with 'KMH' below it. At the bottom, it shows '135' and '33' with a right-pointing arrow labeled ②.</p>	1-Trip time (TRIP TM)	Press E OK to switch the menu
 <p>The screen shows 'TM' at the top with a right-pointing arrow labeled ①. Below it is '00:00:00'. The large central display shows '10.5' with 'KMH' below it. At the bottom, it shows '135' and '33' with a right-pointing arrow labeled ②.</p>	1-Current time (TM)	Press E OK to switch the menu
 <p>The screen shows 'AVG SPD' at the top with a right-pointing arrow labeled ①. Below it is '0.5 KMH'. The large central display shows '10.5' with 'KMH' below it. At the bottom, it shows '155' and '38' with a right-pointing arrow labeled ②. A downward-pointing arrow labeled ③ is at the bottom left.</p>	1-Average speed (AVG SPD) 2-Average Cadence frequency (🚲) 3-Average heart rate (❤️ AVG)	Press E OK to switch the menu
 <p>The screen shows 'MAX SPD' at the top with a right-pointing arrow labeled ①. Below it is '0.5 KMH'. The large central display shows '10.5' with 'KMH' below it. At the bottom, it shows '175' and '55' with a right-pointing arrow labeled ②. A downward-pointing arrow labeled ③ is at the bottom left.</p>	1-Maximum speed (MAX SPD) 2-Maximum Cadence Frequency (🚲 MAX) 3-Maximum heart rate (❤️ MAX)	Press E OK to switch the menu

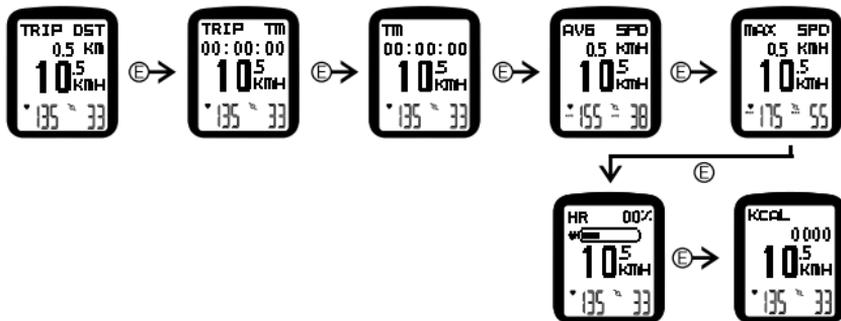
Screen display	Screen meaning	Description
	1- Percentage of target heart rate zone 2-Real-time speed	Press the E button "OK" to switch between screens.
	1-Calories consumed 2-Real-time speed	Press the E button "OK" to switch between screens.
	Manual lap counting function (Note 1) 1-Time per lap 2- Lap Number displays lap N in real time.	Press the E button "OK" to switch between screens.

- Note 1: CB200 cycling Recorder has two lap counting functions - Manual Lap Counting and Automatic Lap Counting. Manual Lap Counting should be used for the non-circular track to manually record the data per road section. Automatic Lap Counting should be used for the circular track to record each lap's data.
- Manual Lap Counting is available in Bike mode and Training mode. Press the C button "Up" during the trip to record the number of laps.
- Automatic Lap Counting can be used to configure the desired number of laps and the distance of all laps for the Target Lap in Training mode. Press the E button to enter Sports mode to automatically count laps.
- When Automatic Lap Counting is active, Lap is locked. Read the instructions here before use.

3-3 How to switch between screens (Consultation)

During the riding, press the E button "OK" to switch between screens. Screens are:

TRIP DST/TRIP TM/TM/AVG SPD/MAX SPD/HR/KCAL. (screen cycling)



3-4 Notes

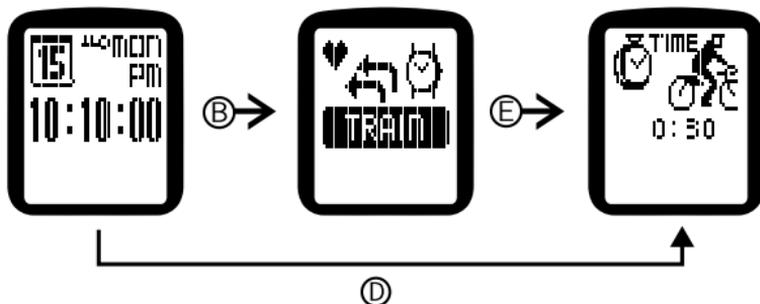
1. When Manual Lap Counting (Lap) is used, press the C button "Up" to record the current lap (Lap), lap distance (Lap DST), lap time, and heart rate data.
2. The system will exit Sports mode 30 minutes after no sensor message is sent in.
3. In Bike and Training modes, press the "D button" to pause without exiting the mode screen. Press the "D button" again to continue your trip.

4 TRAINING MODE



4-1 Accessing the TRAINING MODE

A. Standard access: In Watch Mode, press B Mode to enter mode selection and select Train (TRAINING MODE). Press E OK to confirm access.



B. Accessing via a shortcut key: In Watch Mode, press D Down to directly enter TRAINING MODE.

Note: In Watch Mode, check to see the key lock symbol  is not displayed.

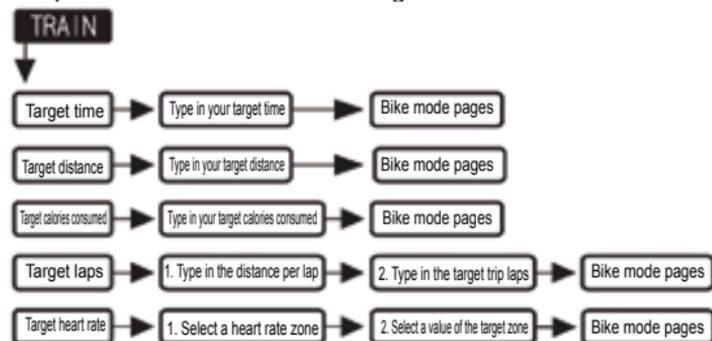
4-2 Training mode overview

Set your sports target for bicycle training. The user information is provided in countdown format. The product has the following training modes:

1. Target trip time: Set a fixed period of time for training.
2. Target trip distance: Set a fixed distance for training.
3. Target calories consumed: Type in the amount of calories to be consumed for training.
4. Target trip laps: Type in each lap distance and the number of laps for training. (Automatic Lap Counting is enabled.)
5. Target heart rate zone: The heart rate zone can be set. A warning is issued if the heart rate exceeds the threshold level.

Abbreviation name	Default value	Description
 TARGET TIME	30 min.	Target trip time
 TARGET DIST	1 Km	Target trip distance
 TARGET KCAL	100 Kcal	Target calories consumed
 TARGET LAP	1 Km, 10 LAP	Target trip laps (Automatic Lap Counting)
 HEART RATE	Light, 114 - 133	Target heart rate zone

The process flow chart of the training modes is shown below:



Note: When you exceed the set heart rate range, CB200 will make beeping sounds and the warning indicator 24 will flash until your heart rate returns to the set range. If you are below the heart rate range, CB200 will make a beeping sound five times and the warning indicator will flash five times.

4-3 How to switch between screens

1. Switch between screens in a manner as that of Bike Mode.
2. After selecting your desired mode for training, press the E button "OK" to start riding your bicycle.
3. The first page of the page screen is the target screen and the following pages are the same as those in Bike Mode.

Page screen	How to use	Description
	After the target time is set, press the E button "OK" to start training.	The page shows the user's target time in countdown format. You can hear a beeping sound when time is over.
	After the target distance is set, press the E button "OK" to start training.	The page shows the user's target distance in countdown format. You can hear a beeping sound after your training is finished.
	After the target calories consumed is set, press the E button "OK" to start training.	The page shows the user's calories consumed in countdown format. You can hear a beeping sound after your training is finished.
	After the number of laps is set for automatic lap counting, press the E button "OK" to start training.	The page shows the user-defined number of laps which will be automatically counted.
	After the target heart rate zone is set, press the E button "OK" to start training.	The page shows the user-defined target heart rate zone. You can hear a beeping sound when you are below or above the target value.

4-4 Notes

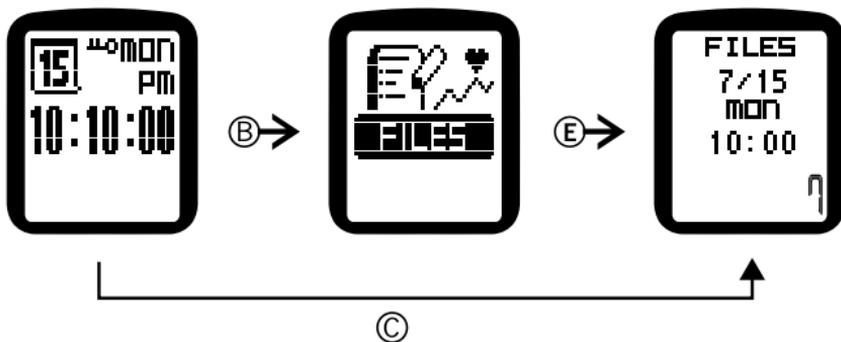
1. If you select the Auto Lap function, the system will cancel the Lap function.
2. After you achieve your training target, warning sounds will be made for 30 seconds and the system will exit the Sports mode. Press the OK button to exit the mode directly.

5 FILES VIEW

5-1 Accessing Files

A. Standard access:

in the General Menu, press B Mode to access and select Files. Press E OK to confirm and select the desired file. Use the C or D keys for page up and page down.

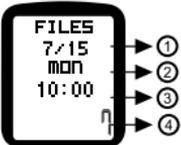
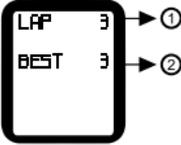
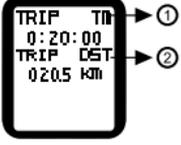
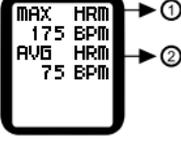
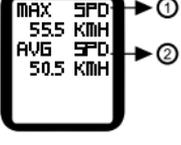
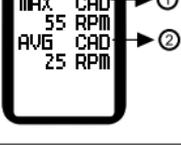


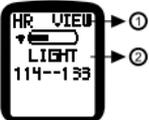
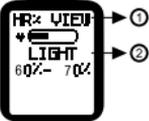
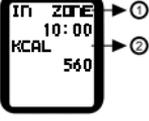
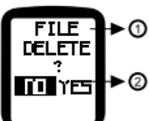
B. Accessing via a shortcut key:

In the General Menu, press C Up to access Files mode. Press E to select the desired file and use the C or D key to change the page.

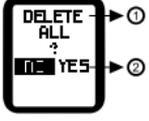
5-2 Check Files

5-2-1 Check Files

Menu Display	Menu Items	Explanation
	1, 2-Date of training (month, day, week) 3-Starting time 4-The nth training record (first in, first out)	Select a record to view and press E Up to access.
	1- Total laps in one session (Lap) 2- Best lap (Best)	Press E OK to change the page and to view the entire record for a session. Press C Up to access the lap record (Lap mode).
	1-Trip Time (TRIP TM) 2-Trip distance (TRIP DST)	Press E OK to change the page.
	1-Maximum HRM (MAX HRM) 2-Average HRM (AVG HRM)	Press E OK to change the page.
	1-Maximum speed (MAX SPEED) 2-Average speed (AVG SPEED)	Press E OK to change the page.
	1-Maximum Cadence (MAX Cadence) 2-Average Cadence (AVG Cadence)	Press E OK to change the page.

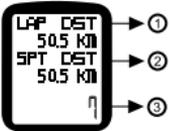
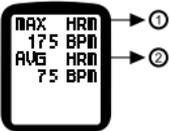
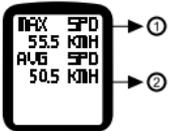
Screen display	Screen meaning	Description
	1-Heart rate zone view (HR VIEW-1) 2-User-defined heart rate target	Press the E button "OK" to switch between screens.
	1-Heart rate percentage view (HR VIEW-2) 2-User-defined heart rate target	Press the E button "OK" to switch between screens.
	1-In Zone Check if your heart rate falls within the accumulated time of the set target. 2-Calories consumed in Kcal	Press the E button "OK" to switch between screens. ZONE 10:00 Accumulated time: hour/minute
	1- Data deletion 2- Option	Press the E button "OK" to switch between screens.

5-2-2 View the total records

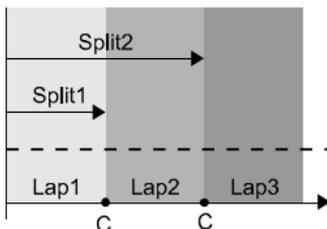
Screen display	Screen meaning	Description
	1-Total trip mileage Note 1	Press the E button "OK" to switch between screens.
	1-Total trip time Note 2	Press the E button "OK" to switch between screens.
	1-Total calories consumed in Kcal. Note 3	Press the E button "OK" to switch between screens.
	1- Total data deletion 2- Option	Press the E button "OK" to switch between screens.

- Note 1: Total trip mileage (ODO. DST): Record your total trip mileages. After your trip, the accumulated mileages will be updated automatically.
- Note 2: Total trip time (Total TIME): Records your total trip time. After your trip, the accumulated time will be updated automatically.
- Note 3: Total calories consumed (Total KCAL): Records your total calories consumed. After your trip, the accumulated calories consumed will be updated automatically.
- Note: Upon accumulation, the total data cannot be erased.

5-2-3 Trip lap view (LAP Data)

Screen display	Screen meaning	Description
 <p>① → LAP DST 50.5 KM ② → SPT DST 50.5 KM ③ → 1</p>	<p>1- Distance of the current lap 2-The total distance from the starting point to lap N (Note 1) 3-The current laps</p>	Press the E button "OK" to switch between screens.
 <p>① → LAP TIM 0:20:00 ② → SPT TIME 0:20:00</p>	<p>1-Time used for the current lap 2-Total time used for the current lap (Note 2)</p>	Press the E button "OK" to switch between screens.
 <p>① → MAX HRN 175 BPM ② → AVG HRN 75 BPM</p>	<p>1-The highest heart rate of the current lap 2- The average heart rate of the current lap</p>	Press the E button "OK" to switch between screens.
 <p>① → MAX SPD 55.5 KMH ② → AVG SPD 50.5 KMH</p>	<p>1-The highest speed of the current lap 2-The average speed of the current lap</p>	Press the E button "OK" to switch between screens.
 <p>① → MAX CAD 55 RPM ② → AVG CAD 25 RPM</p>	<p>1-The highest cadence of current lap 2-The average cadence of current lap</p>	Press the E button "OK" to switch between screens.

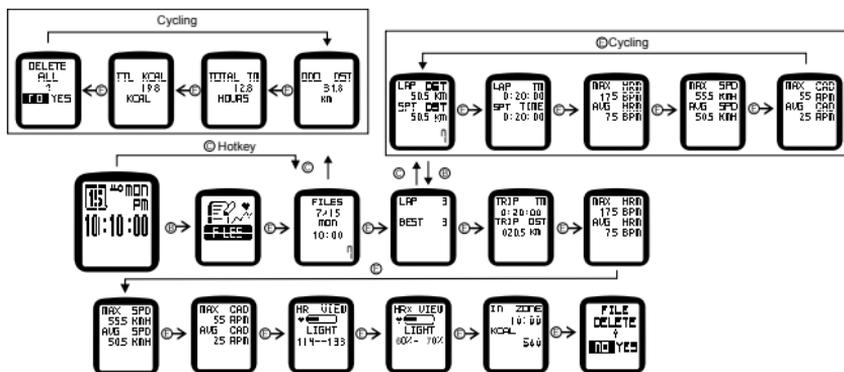
- Note 1: Except for Lap 1 that is calculated from the start point of the trip, the remaining sections are calculated from the period between the two presses of the Lap button.
 - Note 2: The Lap and Split concept
1. Lap means the time or distance per lap. Except for Lap1 that is calculated from the start point of the trip, the remaining sections are calculated from the period between the two presses of the Lap button.
 2. Split means the time or distance from the start point of the trip to the figure, i. e. , from the start point to the time when the Lap button (C button) is pressed.



5-3 File log operating process

After the file logs are shown, press the E button "OK" to turn pages for viewing.

If you need to view the lap data, press the C button "Up" on the LAP screen to view logs.



6 FILE TRANSFER

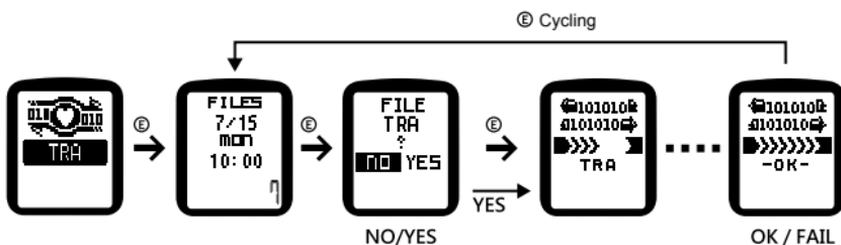


6-1 File management

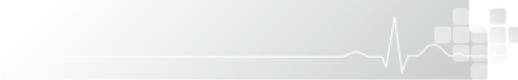
1. In File mode, the files are saved based on the FIFO rule. The larger the file number is, the newer the file is. The newest data is saved as the 20th one.
2. To query other data, press the C and D button "Up and Down" to turn pages for viewing.
3. One file is transmitted at a time.
4. Up to 50 pieces of lap data can be stored in one file.
5. Up to 20 pieces of data can be accessed. The number of pieces of data depends on the previous capacity used for recording.

6-2 File transfer operating process

After you enter FILE TRANSFER mode, press the E button "OK" to turn pages for viewing.



Make sure if this file is transmitted to the computer. Select NO or Yes. To transmit a file, select YES and press the E button to confirm. Wait until the file transmission is complete. The screen showing OK / FAIL that indicates if transmission was successful or failed then appears. Press the E button to return to the screen with the FILE TRANSFER options.



7 Specifications

- **Cycling Recorder (CB200)**
Surface material: RoHS compliant polymer casing
Chronograph accuracy:
less than ± 0.5 seconds/day at 25° C / 77° F
Accuracy of heart rate measurement: ± 1 bpm at steady state
Beat per second (bpm): displayed as a numerical value
Heart Rate Measurement Range: 40-220 bpm
Number of training records: 20 (max)
Number of lap records: 50
Operating temperature: -10° C to +50° C / 14° F to 122° F
Battery model: CR2032 \times 1
Battery life: 280 hrs workout record approximately
- **Speed (SP001) and Cadence (CA001) sensor**
Casing for sensors: RoHS compliant polymer casing
Operational temperature: 0° C to +50° C / 14° F to 122° F
Water resistance: resistant to splashes and sweat drops
- **Heart rate Transmitter (CS004)**
HRM strap material: TPU with textile (BE002)
HRM module housing material : ROHs compliant polymer casing
Hook material: metal
Battery model: CR2032 \times 1
Battery life: 500 hrs workout record approximately
Operating temperature: -10° C to +50° C / 14° F to 122° F

8 Warranty Information

1. Changing the battery:

- Insert a coin into the battery socket on the back of the chronograph.
- Turn the socket cover counterclockwise to open and check the “O” ring is properly seated, clean and dry.
- After changing the battery replace the “O” ring and close the cover (it is recommended that the “O” ring be changed with each battery change).
- Make sure the back cover is in the correct position and turn it clockwise to tighten.

2. Heart Rate Detection Strap maintenance and cleaning:

A. In normal use the battery in the chest strap will last approximately 50 hours.

B. Please rinse the strap with water or a non-corrosive cleaning solution and wipe with a soft towel. Do not use alcohol or other solvents and do not wipe with rough material.

C. Do not place the chest strap in a washing machine, or spinner and dryer.

D. Do not iron the elastic band accessory for the chest strap.

- To ensure the integrity and water resistance of the Heart Rate Detector Strap as well as the function and performance of the components, it is recommended that you open the battery cover only when the battery must be changed.
- When not using the chest strap, place it in a dry place and away from TVs, monitors or other sources of radiation to avoid interference that will reduce the life of the battery.

9 Q & A

Q1 : Why are the speed and cadence values not being displayed properly?

A :

1. Refer to 2-1 and 2-2 and check if the distances between the sensors and the device match the recommended distance and reception angle.

2. Check for sources of interference such as: TVs, electric bikes, trains, railroad cables, traffic signals, high voltage lines, electronic door locks, mobile phones and car engines.

3. When installing the sensor, pay careful attention to possible interference. Even if the coding can be completed and seems correct, interference can cause false data entry that will result in abnormal readings later. To detect interference during coding, watch for signals that appear when the pedal and front wheel are stationary. If no signals appear spontaneously then no interference is present. When later adjustments are made always check for interfering signals.

4. Check the battery.

5. Check the location of the sensor – it may have been moved by an accidental kick or impact. If the sensor is out of place it may not receive impulses from the magnet.



Q2: I pressed all the keys, but the Chronograph does not respond. What can be done?

A:

1. Press the B + C + D + E keys all at the same time to reset the Chronograph. The screen will light up and then turn off. Press any key to turn it on again and then any key to turn off the beep and start using the device again.
2. Make sure the battery is not dead.

Q3: Why is the signal from the Heart Rate Transmitter not being read?

A:

1. Make sure the conducting flaps on both sides of the Heart Rate Transmitter are completely wet.
2. Confirm that there is no electromagnetic interference nearby such as TV, electric bikes, trains, railroad cables, traffic signals, high voltage wires, electronic door locks, mobile phones or car engines. If there is possible interference, leave the location or take off the transmitter to find the source of interference and move it away.
3. Stop and check for the heartbeat signal. If the signal is beating irregularly and there is no interference, then it means the transmitter is not fitting or working correctly. Please adjust the transmitter and make sure the conducting pads on each side are wet. After 9 or 10 regular beats the heartbeat value will be correctly displayed.
4. If the heartbeat signal is still irregular, lift the transmitter off the skin to stop the circuit, without touching the conducting pads, and check for a signal. If there is a signal then there is some interference with the proper heartbeat rate signal and it will not be displayed.