# G-TRENDER II User Manual English

Professional GPS Cycle Computer WSG-2000



## WSG-2000 Professional GPS Cycle Computer

#### **Table of Contents**

- 1 Product Overview
- 2 Standard Package
- 3 Illustration on how to install Micro SD card
- 4 Install the battery on Wheel Speed, Cadence Sensors
- 4 Charge the Battery by USB cable
- **5** Function Description
- 8 Status Bar Description
- 9 Pair the Wheel Speed, Cadence and Heart Rate Sensors
- 10 Install Mount Holders on the Bike
- **12** Accessories Installation
- 13 Installation about the Magenet
- 14 Installing on Speed/Cadence
- 15 GPS Setting

- **16** Compass Calibration
- 17 Attitude Calibration
- **18** Altimeter Calibration
- 19 Navigation Setting
- **20** Trip Computer Setting
- 21 My Training
- 22 Information
- 23 Setup
- 28 Running WSG-Tool on PC
- 33 USB Com Port Driver Installation
- 37 Firmware Update
- 39 Specification

## SAFETY NOTES

- The Global Positioning System (GPS) is a U.S. space-based global navigation satellite system. It provides reliable
  positioning, navigation, and timing services to worldwide users on a continuous basis in all weather, day and night,
  anywhere on or near the Earth. The United States have the right, without prior notice or announcement of the situation,
  to reduce the overall system functionality or positioning accuracy (such as in times of war or deliberately blocked, when
  a given region), the U.S. government made some change and that may affect the GPS device accuracy and performance.
- If you use WSG-2000 when in a building (such as in the basement or garage), the tunnel blocked or surrounded by tall building and terrain. It may temporarily lose the GPS satellite signals. As soon as the block is passed, WSG-2000 will reposition and recording the GPS data back to normal
- Please don't make improper changes to replace or modify on the mechanical structure and components. Those improper changes will cause the defective on the WSG-2000 and lose the warranty rights.
- Please keep of using it from dangerous environment.
- Avoid placing it in the high temperature and high humidity environment for a long time.
- If there is strange smell or smoking from the WSG-2000, please shut it down immediately and ask for repairing to the store.
- WSG-2000 doesn't support SDHC Micro-SD card
- PC software requires Microsoft windows XP/VISTA/7

When you first turn on your WSG-2000 or when you shut it down more than one month, it is recommended to face it oriented toward the open sky about  $10 \sim 15$  minutes. This position provides the best receiving status to allow the GPS antenna to acquire and position GPS satellites information quickly. (ex. The window side, or any outdoor open area.)

## **Product Overview**

ESC / MENU

Short Press: Exit

Long Press: Return to the Main Page

Central Button: Select the up, down, left and right function icons.

**Short Press:** Enter the function pages

Set / Lock Button

Short Press: Confirm and Enter

Long Press: Enable / Disable Key Lock

function

Log On / Off Button

Short Press: Enable/ Disable Log

function

Long Press: Enable/ Disable Log function

Push to log / Start New Log

Short Press: Push to log Button

Long Press: Start New Log

Backlight / Power Button

Short Press: Backlight On / Off Long Press: Power On / Off

Hot Key to Add Mark Point

Hot Key for fast switch to favorite pages

Journey accumulated function Button

**Short Press: Start or Pause Journey** 

accumulated

Long Press: Reset the Journey

accumulated

Led indicator

Left Light:

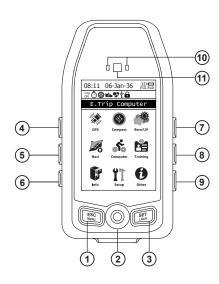
GPS Indicator (Green): When Green light is flashing means positioned

Right Light:

Power Charge Indicator (Orange): When orange light is flashing means battery charging.

**UV Detection Window** 

The detection on the UV status may be failed at the moment when interchanging of sunrise or sunset. For the accuracy of detection, we suggest to adjust the angle of unit to face the window toward the sun.



## Standard Package

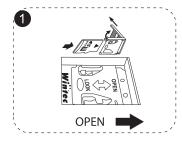
- 1 x WSG-2000 Professional GPS Cycle Computer (built-in Micro-SD card interface )
- 1 x Micro-SD card
- 1 x Rechargeable Li-ion battery
- 1 x Mini USB cable
- 1 x User Manual
- 1 x Cadence Sensor
- 1 x Speed Sensor
- · 1 x Heart Rate Sensor
- 3 x CR2032 Batteries
- · 1 x Mount Holder Package

#### **Optional Accessories**

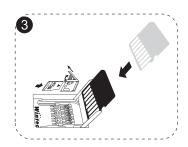
- · AC adapter with USB Port
- · Car Charger with USB Port
- Belt Clip Holder

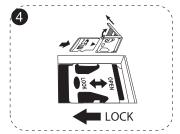
Before you open the package of G-Trender II, please make sure that your package contains all the items listed above, if there is any shortage, please contact the agent you brought from.

## Illustration on how to install the Micro SD card



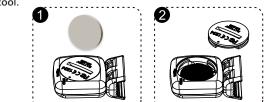


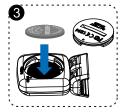




## Install the battery on Wheel Speed, Cadence Sensors

- Remove the battery cover on the back sensor using a coin, or the equivalent tool.
- Insert new lithium batteries (CR2032) with the (+) sign upward and (-) negative downward,
- 3. Close the battery cover firmly.
- Tight the battery cover to the sensor using a coin, or the equivalent tool.









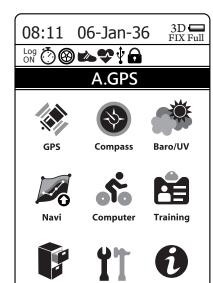
## Charge the Battery by USB cable

- Place the battery into the battery slot on WSG-2000.
- Connect USB Cable to USB port on PC or the AC Adapter (Optional Accessories).
- Plug the mini-USB end of cable to WSG-2000 mini-USB Port.

#### Note

- Please take out the battery when it is not on operation over 30 days.
- Please be sure to turn off the WSG-2000 before battery replacement. If you take it out when operation, it may cause the error in memory to lost the recorded data.
- It is suggested to charge the battery when the low power level is indicated on the screen to make sure the complete efficiency of the recording data and GPS acquisition
- Please make sure the type of battery is correctly.
   The wrong battery placement may be explosive during the usage.
- 5. Please discard the battery to the recycled institution

## **Function Description**



Setup

Info



#### **GPS** Information

Provide GPS-related information and settings.

GPS Information 1	Reset GPS	
GPS Information 2	Coordinates	
GPS Information 3	Display Format	



## Electronic compass / G-Sensor Function

Electronic compass, Attitude information

Compass / G-Sensor	Attitude calibration	
Compass	Compass calibration	

Note

Other

Please note that the Pitch Angle and Roll Angle will change rapidly during the movement. To acquire the best measurement, we suggest looking up the most accurate attitude information when stationary.

## **Function Description**



Barometer/UV Function Provide altitude, pressure, temperature, ultraviolet radiation information and related settings.

Barometer/UV	
Altitude Chart	
Pressure Chart	Altitude Calibration
Temperature Chart	
UV Chart	



Track Navigation Function
Provide track-back information in
Navigation, Mark and Settings.

Track Navigation  You can adjust the proportional scale on the track with central button up or down.	My Favorite Track Back To Start Navigator Mode Delete All Track
Mark Navigation	Mark List Add Mark Delete All Mark



22. Grade

Trip computer Function
Provide information of biking and settings.

Trip Computer (Rotation)	
Trip Computer 1	
Trip Computer 2	Trip Computer Setting
Trip Computer 3	Jetting
Trip Computer 4	

## WSG-2000 contains up to 22 kinds of important information and set up easily for a pleasant ride.

1.	Speed	2.	Max. Speed	3.	Average Speed
4.	Distance	5.	Moving time	6.	Stop Time
7.	Total Time	8.	Altitude	9.	Max. Altitude
10.	Total Ascent	11.	Total Descent	12.	Pressure
13.	Temperature	14.	UV	15.	Course
16.	Time	17.	Heart Rate	18.	Average Heart Rate
19.	Cadence	20.	Average Cadence	21.	Calories



## **My Training Function**

Provide track, time, distance, altitude setting for training program

My Training	My Training Setting (By Distance `Time `Altitude)	
My Training  You can adjust the proportional scale on the track with central button up or down.	My Favorite Track Delete All Track	



## **Odometer Information**

Provide odometer, history, version information, etc

Odometer	odometer setting
History Info	
System Info	



#### **Setup Function**

Provide system and operation information and settings.

	User Info Setting		
	Bike Info Setting		
	Contrast · Backlight ·		
System	Buzzer · Zone Time ·		
	Language · Unit ·		
	Hot Key · Factory Reset ·		
	Firmware Upgrade		
	Wheel Speed pairing		
Device	Cadence pairing		
	Heart Rate Monitor pairing		
Power Saving Mode			
	Over Speed		
Set Alert	UV Excess		
	Heartbeat Load		
Log Mode			
Power Saving Mode Set Alert	Firmware Upgrade Wheel Speed pairing Cadence pairing Heart Rate Monitor pairing  Over Speed UV Excess		



## Other Information Provide other information

Sunrise and Sunset	
Sami ise and Samset	

## Status Bar Description

Log ON	Logger Status. Enable or Disable Logger	<b>‡</b>	USB Status.
Ö	Journey accumulated Status: This function is designed to record all related biking information along the ride when enabled.	<b>a</b>	Key Lock.
8	Wheel Speed Signal Reception Status.	3D FIX	GPS Status
	Cadence Signal Reception Status.	Full	The Power Status about Battery.
*	Heart Rate Signal Reception Status.		



- 1. Logger on and Journey accumulated of are different and separate functions.
- 3. Journey accumulated ( : Journey accumulated is designed to record all related biking information along the ride. And the recorded data will be stored to "My Favorite Track" . You can select the tracks stored inside for track-back navigation and workouts on WSG-2000.

## Pair the Wheel Speed, Cadence, and Heart Rate Sensors

#### Wheel Speed/Cadence

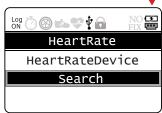
- Remove battery from Wheel Speed or Cadence.(Sensor Side)
- 2. Put the battery in the sensor again and use a coin to twist the battery cover and lock it back into the place. (Sensor Side)
- Go to search device page for pairing sensors. (WSG-2000 Side) (Main Page->Setup->Device->Wheel speed or Cadence) Activating the search function on page of Wheel Speed or Cadence. (WSG-2000)



4. Repeat the step 1~4 until it is successfully paired.

#### **Heart Rate Sensor**

- 1. Remove the battery from Heart Rate Sensor. (Sensor Side)
- Go to search device page for pairing sensors. (WSG-2000 Side) (Main Page->Setup->Device-> Heart Rate)
- Put the battery in the sensor again and use a coin to twist the battery cover and lock it back into the place. (Sensor Side)



- Activating the search function on page of Heart Rate. (WSG-2000 Side)
- 5. Repeat the step 1~4 until it is successfully paired.

PS. The sensors of WSG-2000 have been paired in advance for usage, if the signals are not being received by the unit. Please pair the unit with sensors again. The data of device will be stored in the memory after pairing, you don't need to pair the unit again next time unless you need to change to another one.

## Install Mount holders on the Bike

#### Horizontal Mount Holder





(1)









#### Horizontal Mount holder on the handle bar

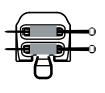
- 1. Back side view
- 2. Stick double-faced sticker on the concave surface of holder
- 3. Slip provided straps trough their holes
- 4. Tighten both straps on the handle bar
- Slide WSG-2000 downwards aligning with the holder's grooves till a "click" is heard.
- 6. To take out, press the spring bar downwards and slide upwards WSG-2000.

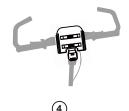
#### **Vertical Mount Holder**



















- 1. Back side view
- 2. Stick double-faced sticker on the concave surface of holder.
- 3. Slip provided straps trough their holes
- 4. Tighten both straps on the Stem
- Slide WSG-2000 downwards aligning with the holder's grooves till a "click" is heard.
- To take out, press the spring bar downwards and slide upwards WSG-2000.

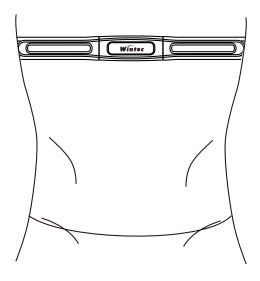








## **Accessories Installation**



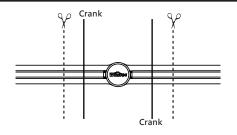
#### Wear the Hear Rate Sensor

- 1. Install the battery (CR2032) on the heart rate sensor.
- 2. Use a coin to twist the battery cover and lock it back into the place.
- Insert the HR strap hook into the two sides of holes, and press it until it fixed on the rubber.
- Adjust the Heart Rate straps to the most appropriate length and fit to the chest size
- Place the heart rate sensor near the area of the heart on the skin, and keep the "Wintec" logo side as the front side when wearing on the chest

#### Attention

- To avoid measurement errors, it is recommended to moisten the electrode pads with water.
- If there is any discomfort or allergy occurred, please remove it immediately.
- If the sensor cannot be detected, please repairing the unit again.
- For the cleanness of the heart rate monitor, you can clean it with towel in wet.

## Installation about the Magenet

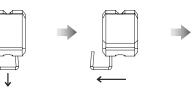


#### Installation about the magenet for the cadence sensor

- 1. Please check the width of the crank and cut off the rubber to the appropriate length according to it.
- 2. Slide through the straps along the curve and the hole on the rubber.
- 3. Place the magnet onto inner side of the crank and fix it with the strap.
- 4.Cut off the additional part of the strap beside the knot.

#### Installing on Magnet of Speed Sensor

- 1. Please remove any dirty or oily things on the spoke to make sure no slipperiness before installing magnet.
- 2.Release the safety hook on the magnet.
- 3.Be sure to clip it on the spoke tightly into the most inner side of gap on the central of two-sided magnet ·
- 4.Lock the safety hook back on magnet in order to avoid it being thrown off in cycling.
- 5.Installing on Magnet of Speed Sensor.



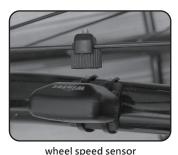
Please clip the magnet for speed sensor on the spoke, place the spoke into the bottom side of crack.

## Installing on Speed/Cadence



the magnet on the frame of rear wheel wheel speed sensor cadence sensor

the magent on the cadence





Attention \

cadence sensor

## Mount the speed, cadence sensor, and magnet on the bike

- 1. Please pair the sensor before mounting it on the bike
- 2. Secure the magnet and sensors correctly on the cadence and wheel as picture indication.
- 3. Place the magnet and faced the cadence or wheel sensor to the magnet by the "Wintec" logo side
- 4. Slide the straps into the sensors and fix it on the bike

- 1. If WSG-2000 cannot connect to sensors successfully, there may be possible improper installation as the following situation:
  - a. The battery is not properly installed
  - b. The distance is too far between wheel sensor and magnet to be connected
  - c. The distance is too far between cadence sensor and magnet to be connected
  - d. The sensors have not been paired with the WSG-2000 in advance.
- 2. Generally the wheel sensor is located on the chainstay near the magnet, please note that it might be difficult to install and be connected if you install it on the front because the different structures of types of bikes.
  - Please place the magnet face toward the white line on left side of cadence sensor or speed sensor in order to make sure the correct value. Please do not face it to the central area of the sensor.

WSG-2000 provide information about how to reset GPS, set coordination and display format etc. (Main Page->GPS->Press the "SET" kev)

1. GPS Restart: Hot start / Warm start / Cold start

WSG-2000 with high-sensitive chipset can well receive and acquire the GPS signals generally when in normal and frequent use. You can execute the Hot/Warm/Cold Start depends on the strength of the GPS signals after WSG-2000 cannot be positioned for a long time, to perform this action can help to speed up GPS positioning.

The conditions to perform the Hot/Warm/Cold Start:

Cold Start: WSG-2000 has not been powered on for more than 3 months.

When you start the WSG-2000 again, the position is away more than 800km from the final position when you shut down the WSG-2000 last time.

 $\label{lem:warm Start:} Warm \, Start: If you start the \, WSG-2000 \, for \, more \, than \, 15 mins \, but \, it \, cannot \, acquire \, and \, fix \, the \, position, \, please \, execute \, Warm \, Start \, function.$ 

Hot Start: If you are a frequent user or the satellite signals are in a very good condition but it cannot acquire and fix the position, please execute Hot Start function.

Coordinate: Default (WGS84)

#### Note:

Unless you need some special application, we strongly recommend using default format (WGS84)

Format: dd.ddd(degree)
 dd mm.mmm' (Degree/minute)
 dd mm' ss.s' ' (Degree/minute/second)

Note: If you start WSG-2000 in the first time or execute the cold start function, there will be discrepancy about the time on the system. Please take and position it to outdoor. It will modify the time automatically.

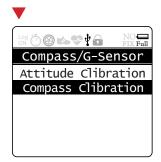




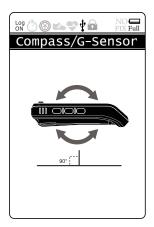
## **Compass Calibration**

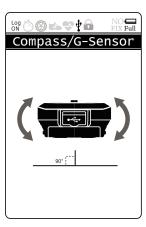
1. Implement Calibration on page of "Compass Calibration". (Main Page->Compass->Press the "SET" key).

P.S WSG-2000 can auto-calibrate itselves or you can manually calibrate the Compass if it goes wrong. Normally, the accuracy of compass will be affected by magnetic things. You can try more times or move to different places and try again if manually calibration is not successful.



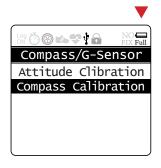


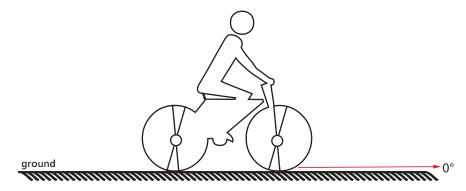




## Attitude Calibration

- First, please position the mount properly on the handle bar or Stem on your bike and fix it.
- 2. Slip WSG-2000 on the mount.
- 3. Please locate your bike on horizontal plane (0°).
- 4. Start the attitude calibration (Main page->Compass->Press the "SET" key).





## **Altimeter Calibration**

As the value of pressure and altimeter may be influenced by the environment, WSG-2000 provides three kinds of values interference to provide the most accurate information to the users.

(Main page-> Barometer / UV-> Press the "SET" key)

- 1. GPS altitude: the value is acquiring from that of GPS.
- Manual Adjustment: the value is acquiring from altitude and pressure sensor and you can also set the related setting by yourselves.
- 3. Factory Settings: the altitude value is acquiring from pressure sensor as the factory default.



## AltimeterCalibration

By GPS Height

By Manual Default Value

Pressure Altitude

**69** m

**GPSAltitude** 

73 m

## **Navigation Setting**

Track back Navigation Setting

(Main Page->Navigation->Track Navigator->Press the "SET" key)

- My Favorite Track: To select your favorite track for navigation or you can delete them from this page. (My favorite track can be selected from the historical information of tracks)
- 2. Back to Start: After start your trip (Journey accumulated function)

  you can check the track on the screen and navigate back to start point.
- Navigation Mode: Select the indication in Heading Up or North Up mode on screen.
- 4. Delete all tracks: Delete all my favorite tracks.



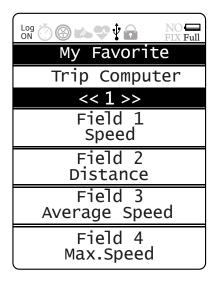
Mark Navigation Setting

(Main Page->Navigation->Mark Navigator->Press the "SET" key)

- Mark List: Select the location Mark you want to go.
   WSG-2000 can indicate a straight line direction and distance to the mark point.
- Add Mark: Mark a location for Mark Navigator.
- Delete All Marks: Delete all marked points in data base.



## **Trip Computer Setting**





- 1. (Main Page->Trip Computer-> Press the "SET" key)
- User can choose 22 information you need and set them on the pages of 'Trip Computer' 1~4 as well as enable or disable the pages.

- My Training Setting (Distance / Time / Altitude)
  - 1. (Main page->My Training->Press the "SET" key)
  - 2. In this function, user can set distance, time and altitude for the training goal for workouts.



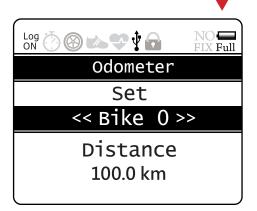
#### Track Training Setting

- I. (Main Page->Track Training->Press the "SET" key)
- My Favorite Track: Select your favorite track for workouts.
- 3. Delete all tracks: Delete all my favorite track.



## Information

- Odometer Setting
  - (Main page->Info->Odometer->Press the "SET" key)
  - WSG-2000 provides odometer 3 bikes calculation separately, you can create and name on your own bikes. You can input the value of distances based on a previously recorded data continually recording the bike.



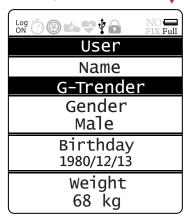
- History Info (To build up my Favorites Track.)
  - 1. (Main Page->Info->History Info->Last page of History Info)
  - If you want to save the track about your ride, you can execute the function of 'Save to my favorite track'.

Note:There are at most 20 tracks that can be saved inside. Please set the tracks as your favorites if you want keep them from replacement.



### System

- User
  - 1. (Main Page->Setup->System->User)
  - You can create your personal profile here; it can automatically calculate your maximum heart rate, heart rate zones and calories consumptions.



- Bike Information:
  - . (Main Page->Setup->System->Bike)
- You can set up 3 customized bikes information. For the detailed size of wheel, please refer to the following table.



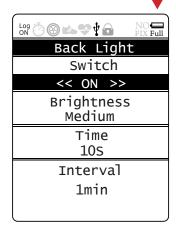
## Setup

Wheel size	L (mm)	Wheel size	L (mm)	Wheel size	L (mm)
12 x 1.75	935	26 x 7/8	1920	27 x 1-1/4	2161
14 x 1.5	1020	26 x 1(59)	1913	27 x 1-3/8	2169
14 x 1.75	1055	26 x 1(65)	1952	650 x 35A	2090
16 x 1.5	1185	26 x 1.25	1953	650 x 38A	2125
16 x 1.75	1195	26 x 1-1/8	1970	650 x 38B	2105
18 x 1.5	1340	26 x 1-3/8	2068	700 x 18C	2070
18 x 1.75	1350	26 x 1-1/2	2100	700 x 19C	2080
20 x 1.75	1515	26 x 1.40	2005	700 x 20C	2086
20 x 1-3/8	1615	26 x 1.50	2010	700 x 23C	2096
22 x 1-3/8	1770	26 x 1.75	2023	700 x 25C	2105
22 x 1-1/2	1785	26 x 1.95	2050	700 x 28C	2136
24 x 1	1753	26 x 2.00	2055	700 x 30C	2170
24 x 3/4 Tubular	1785	26 x 2.10	2068	700 x 32C	2155
24 x 1-1/8	1795	26 x 2.125	2070	700C Tubular	2130
24 x 1-1/4	1905	26 x 2.35	2083	700 x 35C	2168
24 x 1.75	1890	26 x 3.00	2170	700 x 38C	2180
24 x 2.00	1925	27 x 1	2145	700 x 40C	2200
24 x 2.125	1965	27 x 1-1/8	2155		

P.S the above setting list is provided with general wheel sizes for reference,

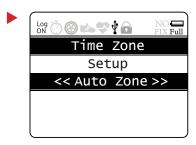
if you need to provide more precised information, you can measure the total length about the tire directly.

- Change the Backlight and Interval
  - (Main Page->Setup->System->Backlight)
  - Here you can set the selections on the setting of backlight interval. As the setting indicated in the figure for example, the backlight stays on 10 seconds after 1 minute interval in circulation.



- · Time Zone
  - (Main Page->Setup->System-> Time Zone)
  - About the time zone setting, the system will automatically convert to local time according to the GPS time. If you select the "Auto Zone", the system will automatically base on the longitude of your position in a converted local time.

PS. When GPS need to be cold-start or the first time to start it, the system time will show you wrong information, and you need to position it in the outdoor places. When successfully fixed, the time will be automatically changed to the right one.



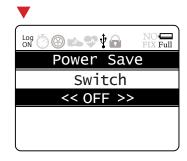
## Setup

- Hot Key Selection
  - (Main Page ->Setup->System->Button Shortcuts)
  - The hot key selections are designed to quickly switch on the function pages selected on the list. (The middle key on the right side of WSG-2000 units)



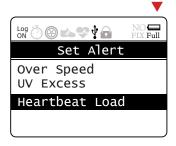
#### Power Saving Mode

- 1. (Main Page ->Setup->Power Save)
- When enable the power-saving mode, the system will automatically turn off the screen to save the power consumption if paused after 1 minute, but the unit is still working. If you want to display the window again, press any key of it.



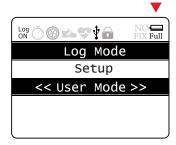
#### Alerts Setting

- (Main Page ->Setup->Set Alert)
- 2. You can set the value on alerts regarding over- speed setting and UV measurement and heartbeat rates if beyond the settings of limited value. (You can input your personal information in the Main Page ->Setup->System->User. WSG-2000 will auto calculate your optimized heartbeat rate) Or you can set by your selves. If the alert function is enabled, the system will warn you when your movement is over the limited setting.



#### Log Mode

- (Main page ->Setup->System->Log Mode)
- 2. WSG-2000 provides 4 modes to Log function.
  - a . User Mode: Set the log mode you need by WSG-Tool.
  - b. Walk Mode: To record a point by time or distance interval per 20 sec. or 50 meters. The limit for the logging within the speed ranges from 1 to 150km per hour (Speed >= 1 to 150km/h)
  - c . Bike Mode: To record a point by time or distance interval per 10 sec. or 100 meters. The limit for the logging within the speed ranges from 1 to 150km per hour (Speed >= 1 to 150km/h)
  - d . Car Mode: To record a point while heading angle changes more than 7 degree. And the limit for the logging within the speed ranges from 1 to 2000km per hour (Speed >= 1 to 2000km/h)



#### Run WSG-Tool on PC

 WSG-Tool is the software for looking up the track files, displaying it on map, making the training reports, Geo-Tagging the JPEG photos according to Logger data, or exporting /importing my favorite tracks. It can also convert the files into different formats as well as advanced settings on the system. You don't need to install USB Com Port Driver in advance. Please connect the USB cable on WSG-2000 and computer for running of WSG-Tool.



- The track will automatically display on Google maps when WSG-2000 is connected to PC and execute WSG-Tool.
- When you use USB connection for outputting NNEA on the PC side. (Such as for navigation software). You need to install USB Comport driver in advance stored in Micro SD card.



- The PC window system requires on Windows XP/ VISTA/7
- If you need to update the firmware on PC, please install USB Com Port Driver in advance.

## The easily operating application software, WSG-Tool



• You can set and easily perform the GPS parameters, transfer the format of tracks or geo-tag the photos by W SG\_Tool stored and built-in the Micro-SD card of WSG-2000

### Run WSG-Tool on PC

#### How to Execute WSG-Tool

- Turn-On WSG-2000 and connected it to PC side with USB cable. The Screen of WSG-2000 will show the page as below. PC will auto run WSG-Tool while you select "open WSG-Tool" item.
- Note: It may take longer to wait for running WSG-Tool in the first time. Please be patient in waiting.
- When the WSG-Tool is running, the computer screen will appear the following window. If not, you can also go to "my computer" to find 'WSG-TOOL.exe' and execute it.





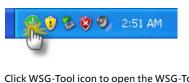


3. The WSG-Tool will auto-read the last recorded track from Micro-SD card as Google Maps format and display it by browser connection.



#### Run WSG-Tool on PC

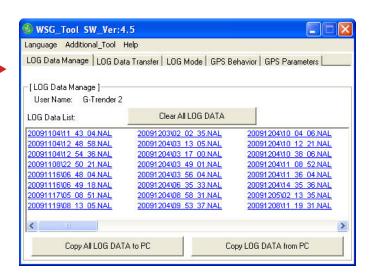
At same time, the WSG\_Tool icon is hidden on the below system bar.



Click WSG-Tool icon to open the WSG-Tool main page.

Note

For detailed operation on WSG-Tool, please refer to [Help \ WSG Tool User Manual1



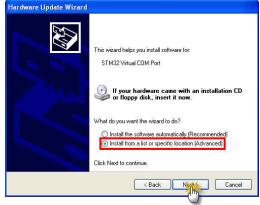
#### USB Com Port Driver Installation

Follow below steps for installing the USB Com Port driver.

- 1. Connect WSG-2000 with USB cable to PC side and run "WSG-Tool". The WSG-Tool will copy USB Com Port driver to the path of "My documents \ WSG2000". Then press "ESC" key on WSG-2000 to restart the WSG-2000.
- User will see a menu on the WSG-2000, please select "Normal mode". The Found New Hardware Wizard will pop up on PC as below, please follow below steps.

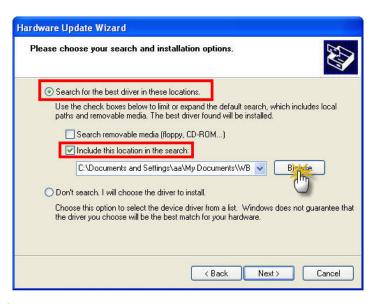
Note The PC operating system requires Microsoft windows XP/VISTA/7





## **USB** Com Port Driver Installation

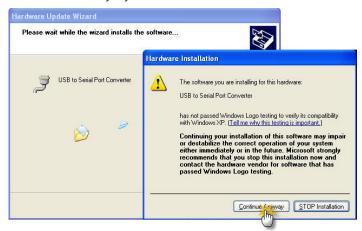
Tick items as below picture and press "Browse".



Choose the location of "... \ My documents \ WSG2000" , and press "OK" .



- When back the Found New Hardware Wizard, please press "Next" button to install USB Com Port driver.
- Select "Continue Anyway" to continue install USB Com Port driver.



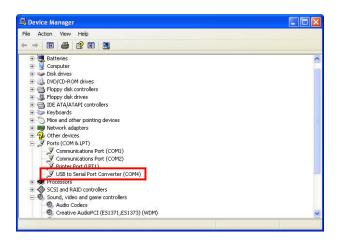
Click "Finish" to complete it.



## **USB Com Port Driver Installation**

You can check comport number in 'Device Manager' and make sure the USB driver is successfully installed (WSG-2000 device must connect with PC via USB cable).

Then you can define the comport for WSG-2000 (the following picture shows the COM4) as the communications interface.

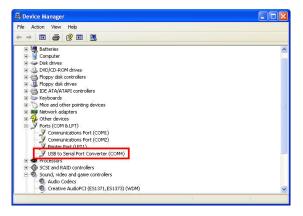


## Firmware Upgrade

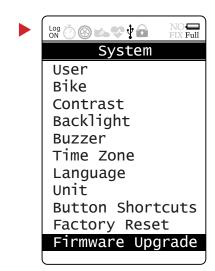
This is the instruction on how to update firmware for WSG-2000.

 Connect WSG-2000 to PC via USB cable. If you haven' t install USB Com port driver before, please refer to the part of installing on USB Com Port Driver.

Note The PC operating system requires Microsoft windows XP/VISTA/7



Go to Firmware Upgrade function page. (Main Page->Setup->System->Firmware Upgrade)



## Firmware Upgrade

 WSG-2000 will enter update mode. User also can cancel it by pressing the "ESC" key on the WSG-2000.



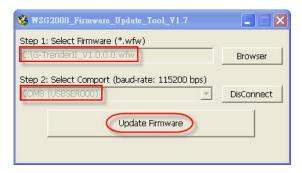
#### **Wintec Boot loader**

G-Trender II Ver:0309\_1355 BOOT-HW

**USB** Interface

**ESC** 

- 4. Execute the WSG2000\_Firmware\_Update\_Tool. (Step1)Select firmware file (G-TrenderII\_v1.0.0.0.wfw) • (Step2)Select USB Com port number and then press "Connect" Button. (Step3)Press "Update Firmware" button to start upgrade firmware.
- When the process of update is finished, WSG-2000 will reboot it selves automatically.
- Note Please note that if the process of update is failed, WSG-2000 will enter the firmware update mode automatically. Please connect WSG-2000 to PC again and repeat the operation from the step 4.



## **Specifications**

- 1. Standard Lithium Battery BL-5C NOKIA
- 2. 3D electronic compass + 3D Accelerometer
- 3. High accurate pressure altimeter
- **4.** High resolution 4 gray-scale LCD H240xW160
- 5. UV sensor
- **6.** 2.4G wireless communication module
- 7. The most up-to-date GPS IC u-Blox5 (5th generation)

Model Number	G-TRENDER II / WSG-2000		
Descriptions	Professional GPS Cycle Computer		
GPS Frequency	L1, 1575.42 MHz		
Channels	32 Channel for acquisition 18 Channel for tracking		
Correlator	1 million parallel correlators		
Chipset	u-blox 5		
Protocol	NMEA 0183 V2.3		
Update rate	1Hz		
Antenna Type	Built in Patch Antenna		
Transmission rate	115200 bps		
Accuracy	2.5m CEP (stand-alone, S/A off) 2.0m CEP (SBAS)		
Dimensions	108*54*23.5 mm		
Weight	116 g		
Operating temperature:	-10°C ~ 60°C		
Dynamics	Signal levels:     Strong: typ. 4g     Weak: typ 1g		

Acquisition				
Reacquisition	<1 sec.			
Hot start	<3.5 sec			
Warm start	33 sec			
Cold start	34 sec			
Power				
Battery Source	1100mA			
Battery Charger	DC 5V			
Battery Charging Time	4 Hours (Device is working) 3 Hours (Power off the device)			
Operation Time	13 Hours (Normal mode with low back-light) 14 Hours (Normal mode w/o back-light) 17 Hours (Power saving mode w/o back-light)			

Track record (Logger)				
Max. record points	33500000 points per 1GB Micro SD card			
LOG Mode	<ul> <li>Disable LOG</li> <li>By angle change</li> <li>By Speed</li> <li>By Time interval</li> <li>By Distance</li> <li>Mix mode ( Distance/ Time/ Speed/ Angle)</li> <li>Push-to-LOG</li> </ul>			