

Bike GPS UGB-001

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V1.0

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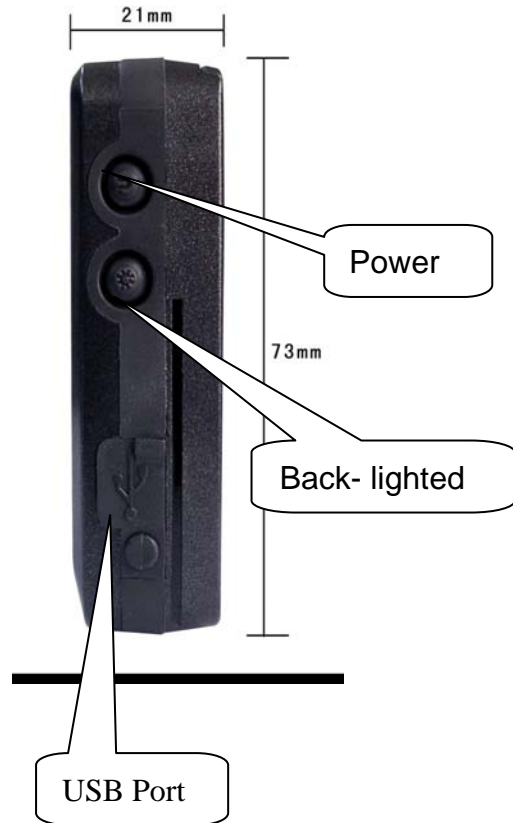
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A.Quick use

1. Button intro:



Touch Pad—scan function



2.Standard package

GPS Unit + travel charger + Li-ion Rechargeable Battery + Document CD + Warranty Card
+bike mount

4. GPS Start to get GPS signals --- when power on, the unit will automatically search GPS signal.

5. Bike mounting method:

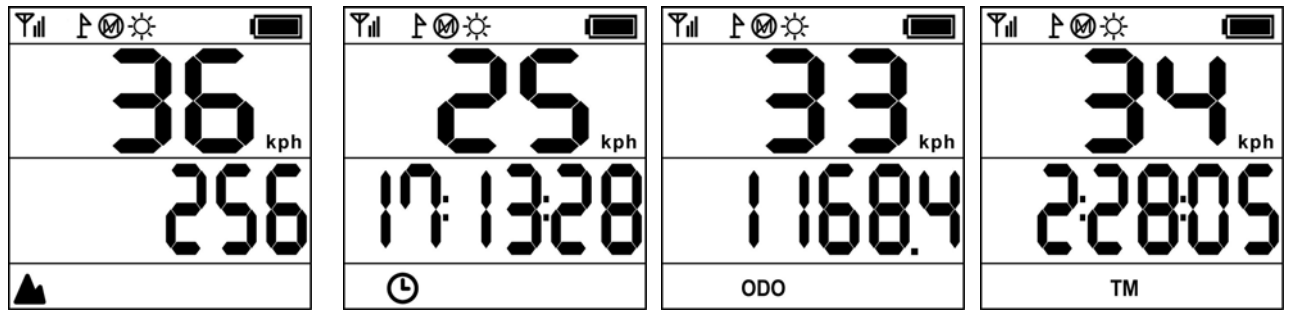
Fixed the device bike mount to your bike handle bar. Please check **(H) Bike mounting installs.**

6. GPS data logger

Turn on the **Device** and press Power button 1 second then enter data logger recorded system, start to record your journey. Stop the data logger function, press “Power” button 1 sec again, it will turn off.

Check the GPS data—Using USB cable connect **Device** to your PC (please install software application), then you could view recorded data on Google Maps. For detail instruction , **please check CD (software instruction)**

7. LCD display

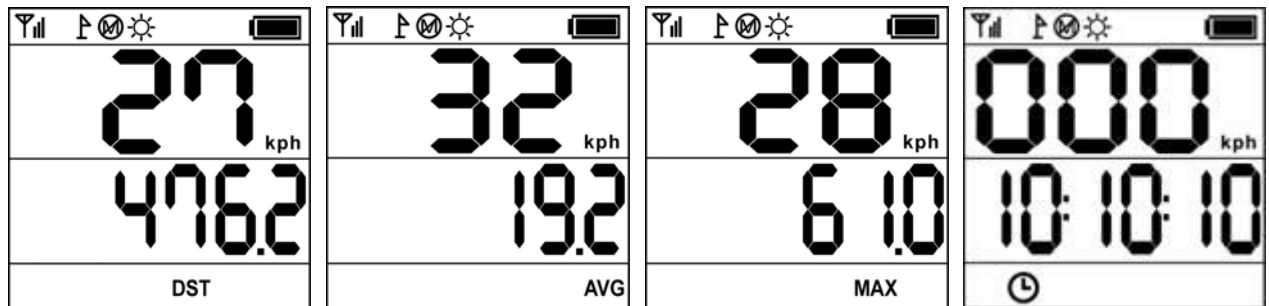


Current Speed/Elevation

Speed/time

Speed/total mileage

Speed/ trip time



Speed/moved distance

Speed/average Speed

Speed/ Maximum speed

Data turns Zero
(Time except)



GPS signal

Data logger on






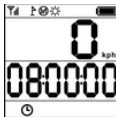
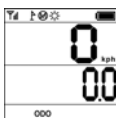
Memory full

backlight on

Power

8. Function switch

Operation	display	Definition
Press Power button 1 second	⌚	Stay on - GPS is on
When you see this mark , that means GPS is fixed (Around 35 seconds GPS signal will fixed)	📶	GPS fixed signal
When Power on , press power button 1 second----- the data logger is on , you will see the flag on the top of screen	🚩	Data logger is on
Press power button 1 second again-----the data logger will off.		Data logger is off
Press back-lighted button 1 second --- Back-lighted is on	☀️	Back-lighted is on
Press 1 second again---- Back-lighted is off		Back-lighted is off

Touch pad–Touch , it could scan to each function		Touch –Move to next page and show different data
Press this button 3 seconds		Auto scan for each page
When power is low , the battery will be flash. This mean battery still have one hour left		Power low
Log memory state--- When the screen show out this icon means memory full		Memory full, please download the data and save file on software. Clear data on software , too
When Power on, press two buttons together for 3 seconds ----- switch to metric and imperial(mph)/(kph)		kph /mph switch
Press back-lighted button 5 seconds		Statistic data turn to zero (except time)
When Power off , press 2 buttons together ---- Adjust Time Zone		Adjust time Zone--- Select time zone by press Power button, complete setting by press backlight button.
Press back-lighted button 12 seconds----Total mileage turns zero		Total mileage turns Zero(ODO)
Log time—when move the logger, it records tracks in every 1 second, if did not move, the tracks will be record in 1 minute.		

When you turn on Device, press Power button 1 sec start to record your journey, just touch the pad under the bottom of the device to switch to next info.

When biking, you could set the screen to Auto Scan mode, which will decrease the risk when you are biking and checking the info at same time.

If you need overview your record data, connect the device to your PC by Mini USB interface (required install GPS application software previously) and upload your data to "Google Earth®". For software user manual please check the CD "*GPS Application Software*".

B. Introduction

Our GPS Device is marvelous Sport GPS with cycle computer. The chip designed based on Mstar MSB 2122 which provides the high sensitivity for cycle computer statistics for

biking outdoor.

This new gadget with LCD monitor is ideal for biking and long journey. User could easy to view the screen while workout such as total mileage/kilometer, moved time, elevation and speed. This new device is compact and easy to carry.

Our GPS Device is a small, robust unit that records NMEA position data from a GPS. It is really convenient, economical alternative to using a laptop computer especially on long road. Simply connect the logger to a GPS during your trip then download the track data to a PC.

Also, our photo map part is one of brilliant function, User could match photo in certain waypoint by their own which show on Google earth.

C. Feature

- ☆48 parallel satellite-searching channels for fast acquisition and reacquisition.
- ☆Superior sensitivity, up to -161 dBm, GPS able to acquisition signal at indoor
- ☆Mstar MSB 2122 chipset, Hot start 1.5 sec, warm start 32 sec, cold start 35 sec
- ☆Store up to 260,000 waypoints, 32Mb memory for recording
- ☆LCD display and Touch pad
- ☆Automatically change to next page
- ☆Absolutely bike computer upgrading
- ☆Calculates precise speed and distance while you biking
- ☆Smart track-logs mode-Record one waypoint at each one second while moving, record one waypoint at each minute while motionless.
- ☆Low power consumption 35mA/h(average)
- ☆User can select among Google earth, Satellite or Hybrid to show the track
- ☆Built-in GPS application software, could save as KMZ, CSV, GPX and NMEA
- ☆Integrated Photo with Mainnav Software
- ☆Transmission data via USB
- ☆Replay the recorded routes/ time/ speed... point by point
- ☆Lightweight and compact --suitable for biking, hiking and traveling.
- ☆Weather Proof IPX6

D. Specification

Physical Dimension

Size: 73(L)X50(W)x21 (H) (mm)

LCM: 33(mm)X 33(mm)

Weight:70g

Environmental Characteristics

1. Working temperature: -20°C to +85°C (internal temperature).

2. storage temperature: -55°C to +75°C.
3. input voltage: 5.5 ± 0.5VDC
4. Backup power: 3.7V Rechargeable Li-ion Battery 850mAh,

GPS

- 1) Acquisition:48 channel parallel
- 2) Acquisition Sensitivity: -161 dBm
- 3) Tracking: up to 12 satellites parallel
- 4) Tracking Sensitivity: -161 dBm
- 5) Update rate: 1 second
- 6) Acquisition time

Reacquisition	1 sec, averaged
Snap start	0.1 sec, averaged
Hot start	1.5 sec, averaged
Warm start	32 sec, averaged
Cold start	35 sec, averaged

Accuracy position 2m CEP

Position accuracy:

- 1.Non DGPS (Differential GPS)
 - Position: 2m
 - Velocity :0.1 meters/second, with SA off
 - Time:1 microsecond synchronized GPS time
2. DGPS (Differential GPS) or WAAS / EGNOS ON (Built by demand)
 - Position: 1 meter, typical
 - Velocity: 0.05 meters/second, typical
3. Dynamic Conditions:
 - Altitude: 18,000 meters (60,000 feet) max
 - Velocity: 515 meters / second (1000 knots) max
 - Jerk: 20 meters/second, max
 - Acceleration: 4 G, max

Interfaces

- 1) USB 2.0
- 2) NMEA 0183 Version 3.0 ASCII output (GPGGA, GPGLL, GPGSA, GPGSV, GPRMC, GPVTG).
- 3) Real-time Differential Correction input (RTCM SC-104 message types 1, 5 and 9).
(Optional model)

Baud rate 9600

Connector

Battery recharging connector: Mini USB

Battery

Capacity: 850mAh.

Type: Li-ion rechargeable

Normal use: 22 hours(backlight off)

Accessory

1. Rechargeable battery, 850mAh (**compatible with Nokia BL-5C battery**)
2. Software
3. bike mounting
4. USB cable
5. Warranty card
6. Travel charger

Certification:

RoHs

CE&FCC

Warranty

All of our GPS products have the one-year warranty and repair policy from the day of purchase.

The Device is warranted to be free from defects in material and function for one year from the date of purchase. Any fault product within this period under normal conditions will be replaced without any charge.

E. Operational characteristics**Initialization**

Once the initial self-test is complete, Device starting the process of satellite acquisition and tracking automatically. GPS Device takes about 35 seconds to achieve a position fix in normal circumstances. After a position fix has been calculated, valid position, velocity and time is transmitted over the output channel.

Also, our Device records NMEA position data from a GPS. It is really convenient, economical alternative to using a laptop computer, especially on long road. Simply connect the logger to a GPS during your trip then download the track data to a PC.

Data logger

1. LCD screen which shows speed altitude/latitude
2. Reads NMEA data from GPS
3. Compact size and lightweight

4. Store up to 260,000 waypoints
5. User friendly Windows based Mainnav software
6. Whether proof IPX6
7. With user friendly Windows based Google earth software
8. Replay the recorded routes/ time/ speed... point by point

Data Memory

With the acquisition process is completed, the Device sends valid information over output channels. The data include:

- 1) Velocity
- 2) Error estimates
- 3) Date/time
- 4) Latitude/longitude/altitude/speed

F. Safety Statement

R&TTE / CE

This device complies with ETSI EN 300 328-1, ETSI EN 301 489-1 / 17, EN60950.

FCC

This device complies with Part 15C, Part 15B and ID Application of the FCC rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

G. Earth Datums & output setting

NMEA Transmitted Messages Output Messages NMEA Sentence

GPGLL: Global positioning system fixed data

GPGLL: Geographic position latitude \ longitude

GPGLL: GNSS DOP and active satellites

GPGLL: GNSS satellites in view.

GPGLL: Recommended minimum specific GNSS data

GPGLL: Course over ground and ground speed

Global Positioning System Fix Data

\$GPGLL,161229.487,3723.2475,N,12158.3416,W,1,07,1.0,9.0,M, , ,0000*18

Name	Example	Units	Description
Message ID	\$GPGGA		GGA protocol header
UTC Time	161229.487		Hhmmss.sss
Latitude	3723.2475		ddmm.mmmm
N/S Indicator	N		N=north or S=south
Longitude	12158.3416		dddmm.mmmm
E/W Indicator	W		E=east or W=west
Position Fix Indicator	1		See Table 5-3
Satellites Used	07		Range 0 to 12
HDOP	1.0		Horizontal Dilution of Precision
MSL Altitude	9.0	Meters	
Units	M	Meters	
Geoid Separation		Meters	
Units	M	Meters	
Age of Diff. Corr.		second	Null fields when DGPS is not used
Diff. Ref. Station ID	0000		
Checksum	*18		
<CR> <LF>			End of message termination

Position Fix Indicator

Value	Description
0	Fix not available or invalid
1	GPS SPS Mode, fix valid
2	Differential GPS, SPS mode, Fix valid
3	GPS PPS Mode, Fix valid

GNSS Satellites in View

(GSV)\$GPGSV,2,1,07,07,79,048,42,02,51,062,43,26,36,256,42,27,27,138,42*71
\$GPGSV,2,2,07,09,23,313,42,04,19,159,41,15,12,041,42*41

Name	Example	Units	Description
Message ID	\$GPGSV		GSV protocol header

Number of Messages	2		Range 1 to 3
Message Number	1		Range 1 to 3
Satellites in View	07		Range 1 to 12
Satellite ID	07		Channel 1 (Range 1 to 32)
Elevation	79	degrees	Channel 1 (Maximum 90)
Azimuth	048	degrees	Channel 1 (True, Range 0 to 359)
SNR (C/No)	42	dBHz	Range 0 to 99, null when not tracking
Satellite ID	27		Channel 4 (Range 1 to 32)
Elevation	27	degrees	Channel 4 (Maximum 90)
Azimuth	138	degrees	Channel 4 (True, Range 0 to 359)
SNR (C/No)	42	dBHz	Range 0 to 99, null when not tracking
Checksum	*71		
<CR> <LF>			End of message termination

Recommended Minimum Specific GNSS Data (RMC)

\$GPRMC, 161229.487,A,3723.2475,N,12158.3416,W,0.13,309.62,120598, , *10

Name	Example	Unit	Description
Message ID	\$GPRMC		RMC protocol header
UTC Time	161229.487		hhmmss.sss
Status	A		A=data valid or V=data not valid
Latitude	3723.2475		ddmm.mmmm
N/S Indicator	N		N=north or S=south
Longitude	12158.3416		dddmm.mmmm
E/W Indicator	W		E=east or W=west
Speed Over Ground	0.13	Knots	
Course Over Ground	309.62	Degrees	True
Date	120598		ddmmyy
Magnetic Variation (1)		Degrees	E=east or W=west
Checksum	*10		
<CR> <LF>			End of message termination

H. Attachment for Bike mount

1 find a position to fix on Handle bar



2 Using screw Combine these two together



3. Fix the rubber under the holder



4. put string through the holder



5. Fix on the handle bar – circle on the handle bar



6. Tight on the handle bar and cut the over string part



7. Put the device on bike mount and finish attachment

