

Mini GPS

User manual



Introduction

Thank you for choosing our newly developed product EFN-PG03R Mini GPS! It is a small size Universal Mini GPS, No languages limited. Easy to operate and portable GPS receiver with data collecting and calculating functions. It also provides indication of geographic coordinates, directions, world time, distance, mileage, and velocity information. Its high-sensitive direction indication navigate user back to starting point or go to the presented target position. The unit shows clear travelling data in detail, such as, the direction of the target position, distance, satellite time, and velocity information in usage. It is a perfect great partner for personal outdoor travelling : hikers, campers and skiers or wild explorer!

Operation Area

The device receives satellite signal and works only in open area outdoors with no buildings within 15° elevation!

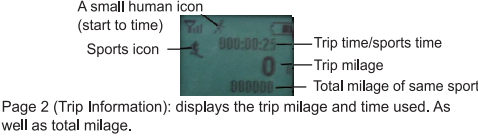
Preparations

- 1.Take a moment to compare the contents of this package with the packing list on the box: take out the unit and accessories, which include 1pc mini GPS unit, 1pc USB cable for charging, and 1 copy of user manual. Please check carefully and contact your local dealer immediately if anything missing or damage.
- 2.The unit is with built-in lithium battery. Please charge fully before usage. While charging, the blue LED backlight is on and it will be off automatically after being fully charged. It takes around 4 hours for fully charge if the battery power is exhausted.
- 3.In power on mode, the battery icon in right upper corner shows the status of the battery power. Please charge in time if it is empty.

Getting Started Unit Overview



Sport Trip Information page

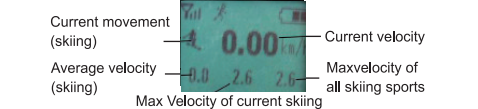


Sports Trip Numbers and select:

Total 6 trip modes, including Walking, Running, Swimming, Skiing, Riding, Biking special symbol modes . In Page 2 (Trip Information), Press **enter** into sports selection, when black number become in highlight, then press **▲** or **▼** repeatedly to select, and press **enter** to enter confirm current selection. Press and hold **▲** 2seconds, a small human icon appears beside the signal bars, and it starts to calculate your mileage / distance and time. Hold **▲** 2 seconds, icon disappears and recording stops. **Note:** In the same model, When start calculate new trip, then last old clear. Press **▲** and **enter** together, then clear total mileage.

Velocity/Speed page

After trip starts recording, go to Page 3 (Velocity page) to view current speed of your current movement, Ave velocity , Max velocity of current sports and Max velocity in history.



If no trip starts, current velocity record only,if start new trip,last velocity clear including Ave, and Max. Press **▲** and **enter** together, then clear History Max.

Geographic Coordinates Page

Go to the Page4 (Geographic Coordinates) to view the geographic coordinates of current position.

Operation the Mini GPS

Understanding Terms

- Select**—move the highlighted area on the screen up or down, using the UP and DOWN keys to select individual fields.
- Key**— when you are directed to press a key, press and quickly release the key.
- Field**— the location on a page where data or an option can be shown or entered.
- Default**—the factory setting saved in the unit's memory.You can change the settings,but you can revert to the factory settings when you select Restore Defaults.

Turning On Mini GPS

To turn on and off:

- POWER/ENTER**
1. In power off mode, Press and hold **enter** for 3 seconds to power on the unit; when the unit turns on, a welcome page "Mini GPS" appears, followed by main page1
 - 2.Press and hold **enter** in any mode to power off the unit.
 - 3.USB charging slot
- To charge your unit by linking to your computer with USB cable. Charging time: about 4hours to full. While charging blue back light is on, and it will be off automatically after being fully charged.
- 4.Smart Back light on/off
- Press and hold **▼** for 3 seconds to turn on or off back light the unit in any mode. The backlight can setting by user.

Selecting Options and Entering Data

- ▲UP ▼DOWN**
- Press **▲/▼** to highlight, select, or choose an item in a list or a field on the screen. From the starting page, press **▲/▼** key to cycles you through the six main pages.
- 1.From any page, press **enter** to view the options menu.
 - 2.Press **▲/▼** to move the highlight up and down on the menu. To select an option, press **enter** to activate an option
 - 3.Press and hold **▲** 2 seconds to exit a menu or return to the previous setting.

Coordinates conversion

In Page4, press **enter** to conversion coordinates into different format you liked metric system or others..

Satellite Time

Go to Page5 (Satellite Time) to view the accurate synchronized satellite time and date. The default time zone is Beijing time with +8 H.

Time conversion

In Page5, press **enter** to conversion time into different format you liked. 12H/24H



Stopwatch Function

In Page 5, Hold **enter** enter stopwatch. Press **enter** to start timer record, press **▼** one time to record one,Total can record 12times,press **enter** again to stop record. Press **▲** or **▼** to read different records. Press **▲** and **enter** together, then clear timer record. Hold **▲** for 2second,then exit stopwatch function to time page. All Timer records clear.

Calibrating Digital Compass

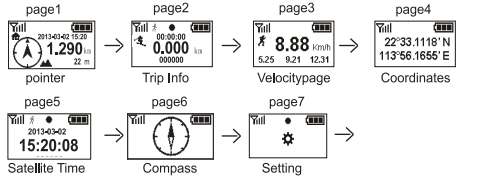
The internal digital compass requires calibration for first time use, or when the Mini GPS has been moved 100miles (160km) from the place of last calibration.



- 1.Lay the Mini GPS on a flat surface with LCD facing up and no metal object nearby.
- 2.In digital compass page, Click **enter** key, the LCD will display a 20second count down.
- 3.Within the 20 seconds,slowly rotate the Mini GPS 360degrees twice, clockwise , according picture instruction.

Main Pages

Information needed to operate the Mini GPS is found on the six main pages. Once turn on unit, press **▲/▼** key to cycles through the pages.



View Operation main pages

POI Setting /Pointer Page

After POI setting succeeded, then this page to be pointer page.

POI means point of interest, a point or building marked in map with geographic coordinates information.

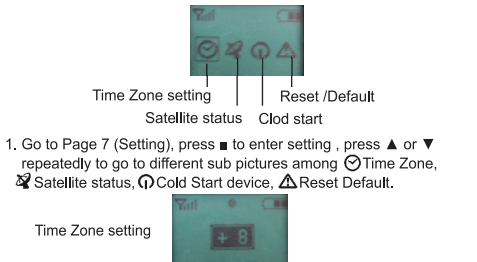
POI Numbers and select:

Total 24POI,including Home, Park, Impact point, Star, Flag, Heart 6 special symbol and series number 1,2,3,4.....18. Press **enter** enter into POI select, when black number become in highlight, then press **▲** or **▼** repeatedly to select POI number, and press **enter** to enter.

A.POI Setting

- 1.In an open area outdoors with no buildings within 15° elevation, hold the unit straight upward and power it on. After enter into the page 1 (General Picture), the left upper corner signal bars indicate the signal status. No bars means no GPS signal is captured. One bar means 3 satellites signals are captured, 2 bars means 4 satellites, 3 bars means 5 satellites, 4 bars means 6 or more satellites. To set accurate POI, 2 bars are required at least. The more bars, the more accuracy. Cold starting means getting start in a new place or after power off for a long time, and it takes around 2 minutes to capture satellite signals. Warm starting means getting start with minor position change and

Setting Page



1. Go to Page 7 (Setting), press **enter** to enter setting , press **▲** or **▼** repeatedly to go to different sub pictures among Time Zone, Satellite status, Cold Start device, Reset Default.

Satellite strength/ status



In the setting menu, press **▲** or **▼** to select **Cold Start**, press **enter** enter **Satellite status**: displays the status of satellite signal information. Press **enter** again exit to last page.

Cold start

In the setting menu select **Cold Start**, press **enter** enter Cold Start device, press **▲** or **▼** to select again, option displays in black background and white icon: press **enter** to confirm cold start. Option display in black icon press **enter** to exit to last main page.

Reset Default

In the setting menu select **Reset Default**, press **enter** enter Reset Default. Press **▲** or **▼** to select again, option displays in black background and white icon: press **enter** to confirm reset default. Option display in black icon press **enter** to exit to last main page.

- power off not more than 2 hours, and it takes around 40 seconds. Hot starting means getting start after power off or lose signals shortly, and it takes around 5 seconds to capture satellite.
- 2.When 2 or more signal bars appear, hold on **enter** and **▲** for two seconds to mark your current location as waypoint. The current location coordinate is stored with the selected location icon. It is confirmed the 1st POI. POI order number or destination symbol shows in the left of the screen and recording date and time shows in the right. User can go back the original position or go to the target position with direction and distance information shown.
 - 3.Press **enter**,then POI order number highlight ,to press **▲** or **▼** to change to the UP or next POI, press and hold on **enter** and **▲** simultaneously again to confirm the 2nd POI, then up to 18 POI one by one,(1),(2)...(18). Each POI is with the recording date and time and user can judge the concrete place upon the recording time or special favourite icon.
 - 4.Hold on **▲** for 3 seconds to enter into the geographic coordinates changing picture. The 1st digit shows in highlight, then press **▲** or **▼** repeatedly to change number from 1-9, press **enter** to go to the digit need to be changed one by one. The last letter N stands for north latitude, S for south latitude, E for east longitude, and W for west longitude. User can find out the geographic coordinates by free Google map and then input data into the unit. After setting, hold **▲** for 3 seconds to save input data and return to General Picture. The current location coordinate is stored with the selected location icon.To avoid getting lost for a outdoor trip, you may save relative and important geographic coordinates into the unit in advance before departure. You may check the distance and direction at any time during your trip. More applications, more findings...

NOTES:

- 1.In the same POI seat picture, the second confirmation will cover the original one. Please change to the next POI for recording if you still want to keep the original information.
- 2.Once lost satellite reception during POI setting, no more than 2 signal bars appear, Move to a location that have a clear view of the sky.

B. Pointer Page



The pointer page helps guide you to a destination. When navigating towards a destination, the pointer page shows the name, the distance, time to go, and a direction arrow in the compass ring. The compass ring reflects your heading(direction of movement).To navigate, walk in the direction the arrow is pointing.

Magnetic north for your reference.

When moving at a certain velocity, Compass icon **enter** an arrow will point to the direction of the magnetic north.

Change Measuring Unit:

Go to page1 or page2 , Press **▲** and **▼** together, can change measuring unit: 'km' to 'mile' , which stand for kilometer and mile.

Clear POI:

Clear POI, Go to certain Pointer page ,after selected POI location, Press **enter** and **▼** together , to clear current POI information.

NOTES:

- 1.The unit is not a magnetic compass. You must be in moving for the unit to determine your heading. Movement at a certain velocity to make calculations and display accurate direction and distance information.
- 2.To save battery power, you may power off the unit after you get the direction and distance information, and then power on after a period of time when you need to confirm again.

Mini GPS Specifications

Receiver	Type L1, C/A code	
	51-channel acquisition	
	14-channel tracking	
Maximum Update Rate	10Hz	
Display	Pixel H*W	128 x 64 dot matrix
	Backlight Type	Blue
Appearance	Dimensions	65 x 52 x 21mm
	Weight	39.6g w/ battery
Memory	512KB	
Key	3 function keys: with 1 major button and 2 auxiliary ones	
Accuracy	Position	10m (2m WAAS corrected)
	Velocity	0.1m/sec
Time To First Fix	Hot-Start	5 seconds average
	Warm-Start	40 seconds average
	Cold-Start	2 minutes average
Sensitivity	-161dBm tracking	
	-157dBm re-acquisition	
	-148dBm acquisition	
Interfaces	NMEA-0183 v3.01	
Assistance	Message-based via NMEA serial port	
Power	USB DC5V and 3.7V 390MA lithium battery	
Operation Time	Up to 17 hours	
Current Consumption	Acquisition	~32.5mA
	Tracking	~18.2mA
Temperature	Operation	-20°C ~ +55°C
	Storage	-30°C ~ +65°C
Humidity Range	Up to 80% non-condensing	