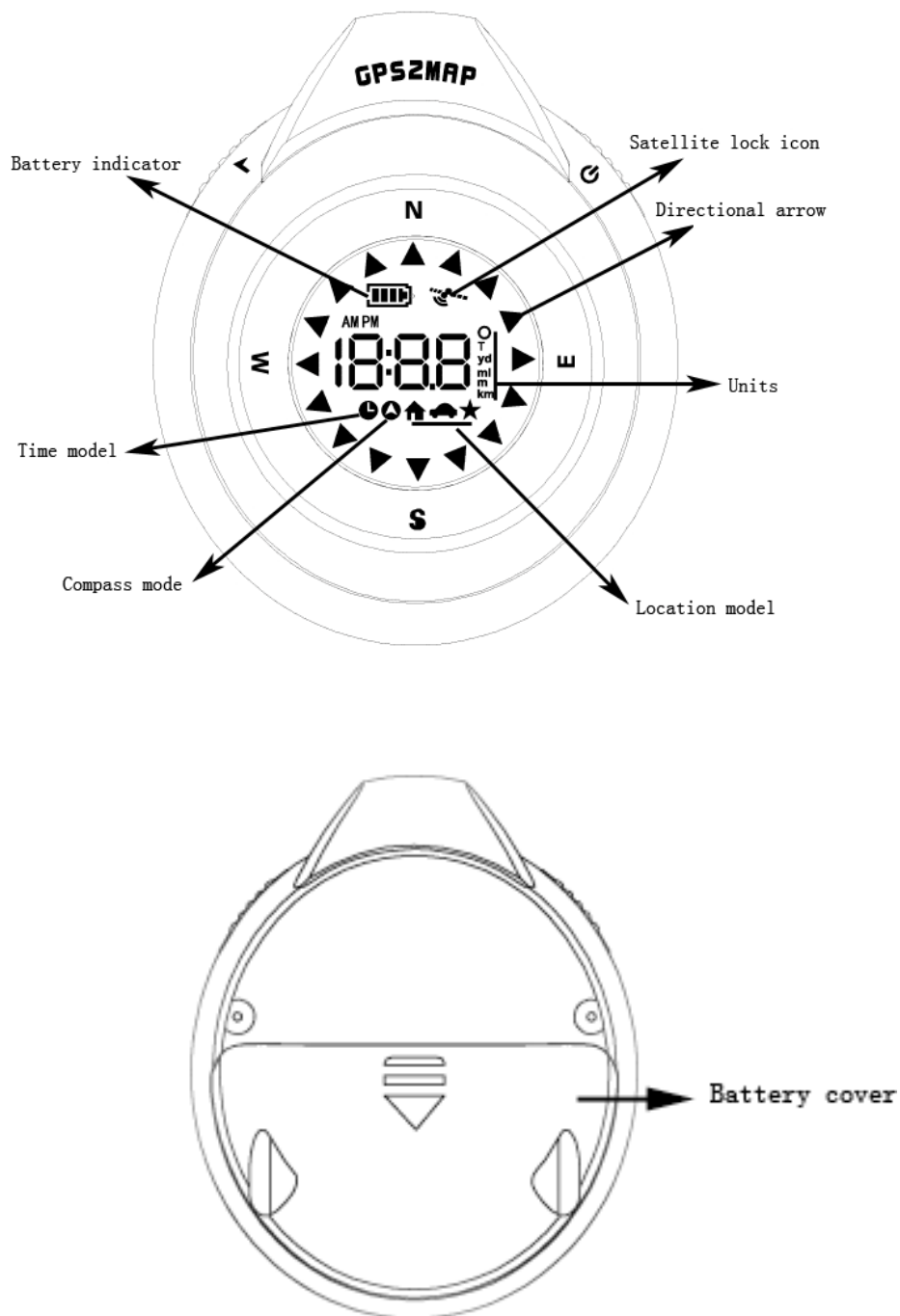


K-GP129 Manual


———— Mini-GPS

Appearance and Function Introduction





Key

: Storage/Setup

: Startup/Shutdown/Mode Switching







Usage






1. Open the back battery cover, insert two new “AAA” Alkaline or rechargeable batteries.
2. Press the  key to start the machine and select the mode (time, compass, home, cars and favorite locations modes).
3. Press the  key and hold down over 2 seconds to set the current location as starting point.

Note: Please place it horizontal to obtain the best effect.

Operating Instructions

(A) The Screen Display

1. Battery Indicator: Battery power: 
 - Sufficient battery power is displayed as ;
 - Insufficient battery power is displayed as ;
2. Satellite lock icon: Current positioning situation: 
 - If the GPS has not located position,  will flash once per second;
 - After positioning,  will be displayed all the time.

Note: If the GPS has not located position, neither the time mode nor the location mode will be used normally.
3. Directional Arrow: Indicate the direction 
 - Under the compass mode, the arrow will always point North.
 - Under the location mode, the arrow will point to the direction that the current location to the setting destination.
4. Data Display Area: Different data  will be displayed under different modes;
 - Time mode: Display the current time(AM represents morning and PM represents afternoon);
 - Compass mode: Display the included angle between the directional arrow and the north direction(degrees range from 0 to 359);
 - Location mode: Display the distance between the current position and the setting destination.
5. Time Mode Icon: Display the icon  while switching to the time mode;
6. Compass Mode Icon: Display the icon  while switching to the compass mode.
7. Location Mode Icon: Display one of the icons  while

switching to the location mode.


8. Unit: Display one of the icons (T | O | yd/ml | km/m)

while under different modes;


- Time Mode: Display the T icon;
- Compass Mode: Display the O icon;
- Location Mode: Display the British yd/ml(yards/miles) or Metric km/m(km/m) according to the distance.


(B) Operating Guide

1. Startup/Shutdown


a. Startup: Press and hold the  key for 3 seconds to start the product.




Note: To ensure the high quality of the GPS communication, please use the product in the outdoor open area (The product may not work in the indoor parking lot or some other indoor areas).

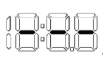
The lock of the GPS positioning will take a few times (After locking the satellite icon  will stop flashing).

b. Shutdown: Press and hold the  key for 3 seconds again to close the product.

2. Mode Switching




a. Press and quickly release the  key to switch between 5 different modes shown below in turn:

b. Time mode → Compass mode → Location mode() → Location mode() → Location mode() → Time mode.





Note: Before locking the GPS positioning, the time can not be displayed and the data display area will display .

System Settings


A. Time Zone Setting

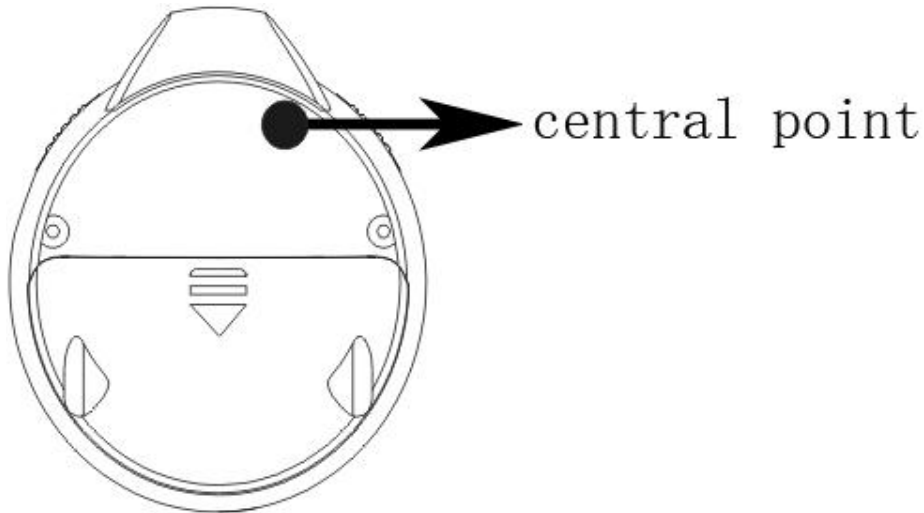
Under the time mode, press and hold the  key for 2 seconds to enter the time zone setting mode. The setting method is: When press the  key time will plus 1, the value displayed ranges from -12 to 12, the unit is time zone, short press the  key to confirm the setting and come back to the time mode.

B. Automatical Shutdown Setting

Under the time mode, press and hold the  key for 2 seconds to enter the time zone setting mode and then press and hold the  key for 2 seconds again to enter the automatical shutdown setting. The setting method is: When press the  key time will plus 5, the value displayed ranges from 5 to 60, the unit is minute, short press the  key will confirm the setting and come back to the time mode.

C. Compass Calibration

Manual Calibration: Press and hold the  key for 3 seconds to enter the compass calibration mode. During calibration, the product should be placed horizontally. Then turn it in one direction 3 times at a uniform speed (take the point shown in the figure as the central point). Meanwhile the screen will display the calibration progress state. After finishing calibrating, the product will enter the compass mode automatically.



D. Location Mode Setting

1. There are three location modes can be selected which are named home mode (🏠), car mode (🚗) and the favorite location mode (★) respectively. Users can switch between them by short pressing the ⏻ key.

Under these modes, the data display area displays the horizontal distance between the current location and the stored location. And the directional arrow points to the direction that the current location to the stored location.

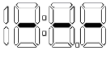
The unit of the distance is divided into two types. One is Metric unit containing m(meter) and km(kilometer), the other is British unit containing yd(yards) and ml(miles)(km ml will be displayed instead of yd while the distance is larger than 1999m). Users can switch between them by short pressing the ▶ key.

2. Press and hold the ▶ key for 3 seconds to store the current location.

For example: When you start SY-812 near your home, after the satellite icon stop flashing, you can turn the SY-812 into location mode, and store the latitude and longitude of your home by pressing and holding the ▶ key for 3 seconds. Now the data display area displays 0 (all the triangle icons around the screen light up), then the communication start and the directional arrow moves clockwise. After the communication finished, the directional arrow stops moving and all the directional arrows (the triangle icons around the screen) light up (wait for a moment during the communication).By doing so, when you take and start SY-812 at any place, waiting for the satellite icon to stop flashing and switching to the location mode, you will found the horizontal distance between your current location and your home displayed in the data area and the direction that your current location points to your home indicated by the directional arrow.

Note:

1. If the satellite icon is flashing, the distance and direction can not be displayed.

2. If the satellite icon is flashing, the data display area displays 

Specification

System Specification

Electrical Characteristics	
GPS chipset	High sensitivity single chip solution
Frequency	L1, 1575.42 MHz
C/A Code	1.023 MHz chip rate
Channels	48 channels all-in-view tracking
Sensitivity	Tracking: -158dBm
Display	
LCD	Type: ICON; Diameter: 30mm; Shape: Round
Backlight Color	White
Power	
Battery Type	AAA X 2 or NiMH
Operating Time	6 hours
Physical Characteristics	
Dimension	80X66X23 (mm)
Net Weight	42 grams,without batteries
Dynamic Condition	
Acceleration Limit	Less than 4g
Altitude Limit	18000 meters(60000 feet) maximum
Speed Limit	515 meters/second (1000 knots) maximum
Jerk Limit	20 m/sec**3
Acquisition Rate	
Hot Start	1 second(average)
Warm Start	38 seconds(average)
Cord Start	42 seconds(average)
Reacquisition	0.1second(average)
Antenna	
GPS Antenna Types	15 X 15 mm, Patch Antenna
Accuracy	
Position Horizontal	10 meters, 2D RMS 1-5 meters 3D RMS, WAAS corrected
Velocity Accuracy	0.1 m/sec
Time Accuracy	1 micro-second synchronized to GPS time

Temperature)	
Operating Temperature	-15°C ~ 60°C
Storage Temperature	-30°C ~ 85°C
Humidity	Operational up to 80% non-condensing
Authentification	
FCC	USA (Covers requirements for CANADA ICES-003)
CE	Europe

Troubleshooting

- If the SY-812 is unable to be started or be used normally, please make sure that the battery pack is installed correctly.
- If you are not using your SY-812 for a long period of time, please remove the batter pack.
- If you are moving, the time required for GPS positioning may be increased. Recommendation: When you start SY-812, please stop in order to reduce this time.
- Press or key will turn the backlight on. After 20 seconds, the backlight will be turned off automatically.
- SY-812 will store the data when it is shut off. However, if you remove the battery pack or the battery pack ran out during while using the SY-812, the data will not be stored.
- Do not use or store the SY-812 in a location subject to high temperature or humidity (for example in a closed vehicle or in direct sunlight for a long time). The high temperature or humidity may impair the product's use.
- If the time information of the satellite state is incorrect, please enter the time zone setting mode to set the time zone correctly.
- Do not use or store the SY-812 close to equipments that produce strong magnetic fields (such as electrical products or magnets). The magnetic materials may make the SY-812 indicate an incorrect direction.
- If new battery pack is used or the direction can not be precisely indicated, please recalibrate the compass.
- Please press fairly on the arrow position shown in the figure to slide the battery cover off.

