DA6109

Solar Power Multifunctional Digital Altimeter

General Description:

This product is for outdoor sports enthusiasts to produce the ideal type of simple equipment, The use of green solar-powered battery with a waterproof function 。 Solar-powered products to solve the power problem, as well as the environmental pollution caused by discarded batteries.

For outdoor sports enthusiasts to provide a wide range of need, as well as the relatively accurate information , such as: altimeter, barometer, temperature, compass, time and weather forecast.

Functions And Technical Specifications:

Solar Power:
- Low Light Amorphous Silicon Solar Cells
- 7uA at 200 Lux

Altimeter:

- -2,296 feets to 29500 fts. range
- Resolution of 1meter or 3 fts.

Barometer:

- 300mbar to 1100mbar range
- Resolution of 1mbar.
- Sea level pressure manual setting

Weather forecast:

- The weather forecast for next 12 to 24 hours
- 4 weather status indication, Sunny–Cloudy– Overcast–Rain

Electronic Compass:

- 4-bearing mode display

- External Magnetic field calibration
- High Accuracy of + or - 3 degrees
- Resolution of + or - 1 degree

Thermometer:

- Thermometer -10 to +60 degree C (℃ or ℉ selectable)
- Resolution of 1 degree

Time:

- Time with hour, minute, second
- 24hours format clock display

Backlight:

- 5 seconds super bright LED backlight.

Water level:

- IPX-1

.

Use before:

Please into the rechargeable battery before using the device. The operation should be done according to the steps below.

MODE button: switch for altimeter, barometer, thermometer, electronic compass and time, long press to enter or exit user setting mode, long press to switch for ℃ or ℉ and meter or ft.

SET button: the shortcut key of relative altitude measuring mode, lighten blacklight, Adjust for time and SEA level pressure, select weather status, setting the Magnetic declination, enable compass calibration mode.

Operation:
a) Weather forecast and clock mode

   This is a default mode of the device.When the device power on, this mode will be displayed, which will display clock and weather forecast. The weather forecast will stay on the cloudy status. And you can change it by long pressing MODE button to enter into USER SETTING MODE(Please refer to the operation in f))

b) Altimeter mode

   Under this mode, besides displaying the altitude information, it also displays the weather forecast. And the icon which indicates the altimeter mode will glitter. The altimeter has a working range from -2,296 feet to 29,500 feet and resolution of 1meter or 3 feet. the altitude will display in unit of meter, and you can switch for feet or meter by long pressing MODE button under this mode. Press SET button to return to the default mode.
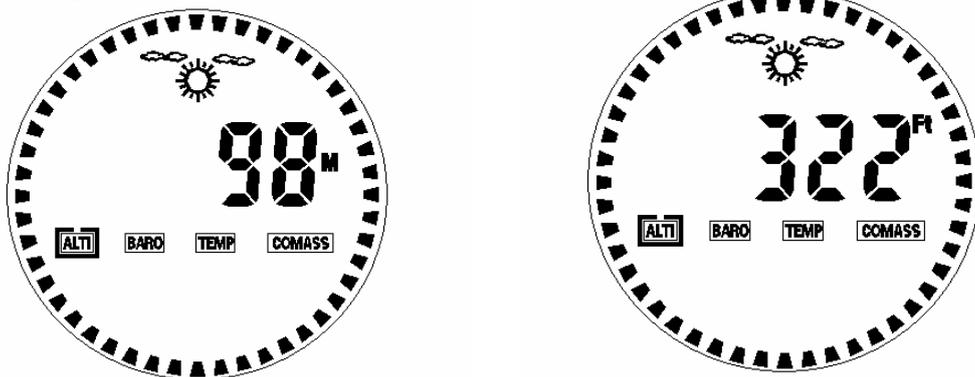
   Attention: you can enter into this mode by short pressing MODE button or SET button, but the mode which enter into is two kinds of status different by short pressing MODE button and SET button.

   When you enter into this mode by pressing MODE button, it is a measure mode of the absolute altitude. To obtain better accuracy, the altitude information have avoided the effect of wavy atmosphere to get, so it cann't respond the change of atmospheric pressure quickly, and it also cann't show the change of altitude at once either. If you want to get the altitude information of place where you are at once, it needs a long time to avoid the effect of atmosphere. But you can correct it to fit for the current pressure manual by long pressing MODE button when the device is under barometer mode.

   In addition, you can obtain accurate absolute altitude by setting the SEA level pressure, you can get the information of sea level pressure where you are from broadcasting station, TV or newspaper. The sea level pressure setting refers to operation in f).

   If you want to obtain the altitude information of place where you are at once, you can enter into this mode by short pressing SET button when the device is under the default mode. The altimeter will measure at once, whenever you short press the MODE button. But you can only enter into this measure status by short pressing SET button when the device is under the defaullt mode. This status is
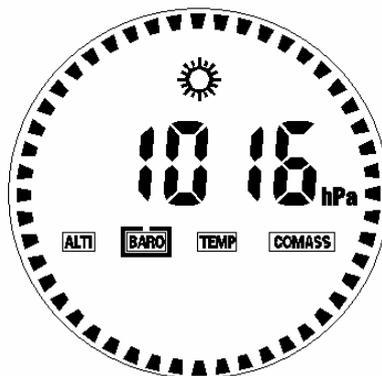
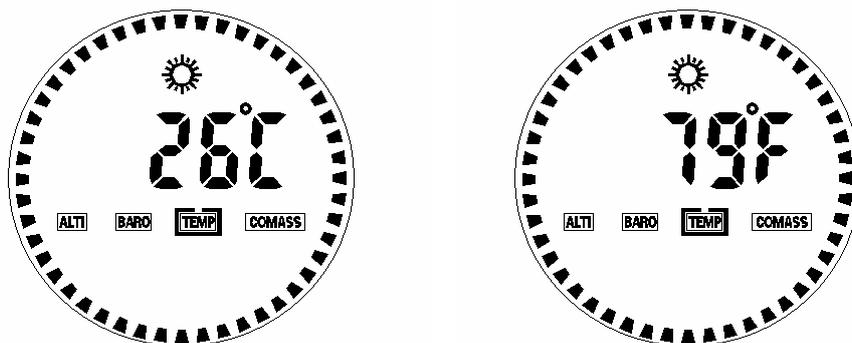**measuring relative altitude conformable.**

c) Barometer mode

You can enter into this mode by short pressing MODE button, and exit this mode by short pressing SET button. Under this mode, it will display the atmospheric pressure information and the weather forecast. The icon which indicates the barometer mode will glitter. The barometer has a working range from 300mbar to 1100mbar and resolution of 1mbar.

In addition, to measure the absolute altitude where you are at once, and you can long press MODE button to sample air pressure under this mode. And the device will switch into the ailtimeter mode automatically.
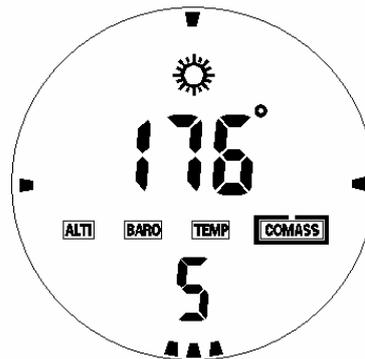
d) Thermometer mode

You can enter into this mode by short pressing MODE button, and exit this mode by short pressing SET button. Under this mode, it will display the air temperature information and the weather forecast. The icon which indicates the thermometer mode will glitter. The thermometer has a working range from -10 to +60 degree C and resolution of 1degree. and you can switch for ℃ or ℉ by long pressing MODE button.

e) Electronic compass mode

You can enter into this mode by short pressing MODE button.Under this mode, it will display these information of compass bearing, angle, 4-bearing, indicating point and the weather forecast. The icon which indicates the electronic compass mode will glitter. The 4-bearing, indicating point shows the four bearing of East, south, west, and north deasil, and the three points show to indicate the north.

Attention: the electronic compass had been calibrated before leaving factory, but for getting a better accuracy during using, you must calibrate the compass again under the USER SETTING MODE(Please refer to the operation in f)).
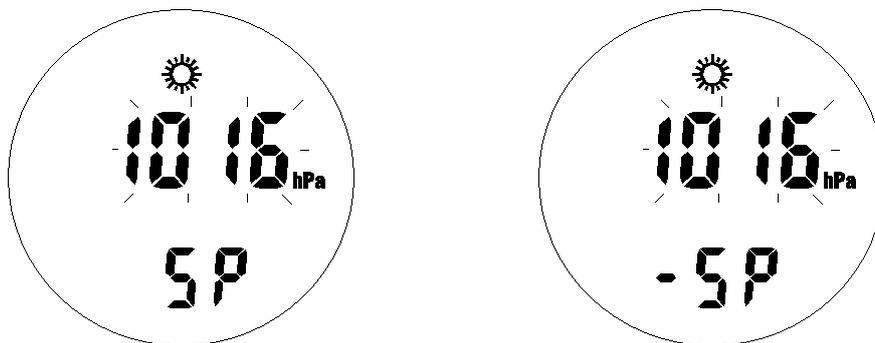

f) User setting mode

you can enter into this mode by long pressing MODE button when the device is under the default mode. It will have a circle of time setting, sea level pressure setting, weather forecast setting, magnetic declination setting and electronic compass calibration by short pressing MODE button. Finally you can let it automatically return to the default mode after 20 seconds without pressing any key, or l press MODE button to return when the device is under the time setting status.

1. Time setting: The hour and minute will flash when it is selected, you can set it by short pressing SET button.

2. Sea level pressure setting: you can switch to this State by short pressing MODE button, In this state, long press MODE to choose to increase + (the default for the increase)
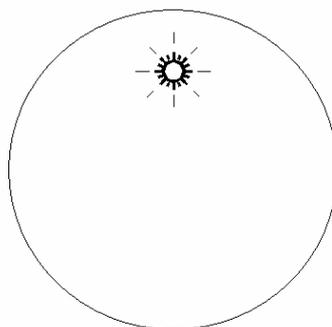
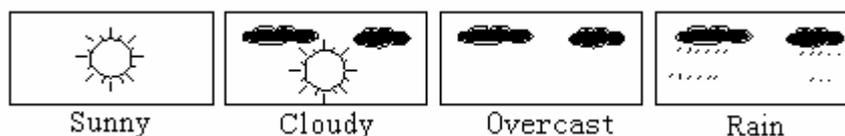or decrease - pressure value, according to the specific numerical press SET button.

3. weather forecast setting:

3.1 You can enter into this setting by long pressing   MODE button.

3.2 When the weather indicator is showed, press SET button to change the weather indicator in this order: Sunny–Cloudy– Overcast–Rain

When the device power on, the weather indicator will show the cloudy automatically. For getting a better result of weather forecast indicator, and you can choose the suitable indicator according to the current weather condition.
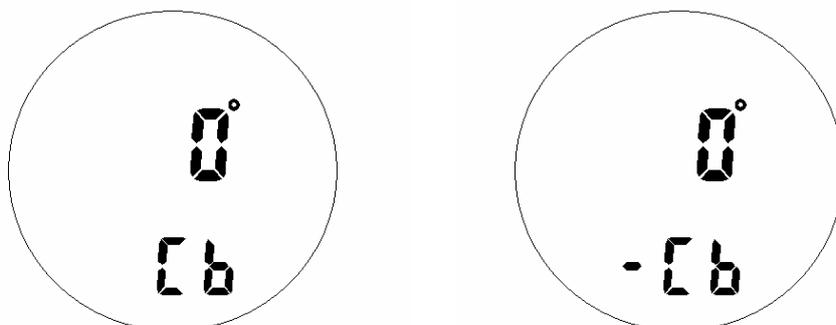

| Sunny | Cloudy | Overcast | Rain |

Attention:

1). Do not set the weather indicator when it is raining.

2). Do not set the weather indicator in nighttime.

3). The accuracy of a genera pressure-based weather forecast is about 70% to 75%.

4). The weather forecast is meant for next 12 to 24 hours.It may not reflect the current situation.

4. Magnetic declination setting: you can enter into this setting by long pressing

MODE button.

LCD display initial "Cb" (the default state for the increase), according to SET button to select the magnetic declination, the angle value from "0" to "30" increase. In the initial state, long press MODE will display "-Cb", according to SET key set of negative magnetic declination, the angle value from "0" to "-30" diminishing. Magnetic declination settings please refer to local data
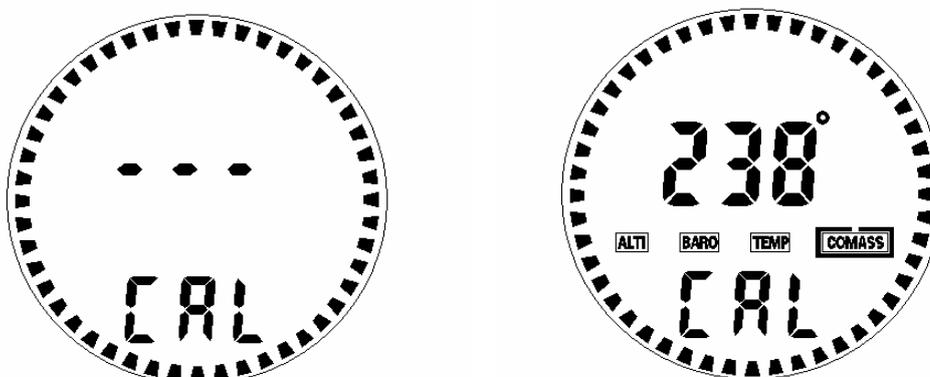

5. Electronic compass calibration: This elctronic compass function of the device had been calibrated before leaving factory. But if the electronic compass has been used for a long time, or has been replaced a new battery, and because the effect of external magnetic field made the accuracy bad. So for getting a better accuracy, you must calibration again.

5.1 You can enter into this electronic compass calibration status by long pressing MODE button. And the LCD will display "CAL" to indicate the calibration status.

5.2 At this time, you can begin calibrating by short pressing SET button. During calibrating, the direction point of ext-circle will turn anticlockwise on the LCD, also it displays the compass angle and "CAL" icon.

5.3 During calibrating, place the digital compass on the flat of your hand with the face pointed upwards. Keep you hand parallel to the ground and turn the compass very slowly (It is probably easier to turn your body rather than your hand). The device will change into the electronic compass mode automatically after completing calibration. If not, you must do it repeatedly until the device return to the electronic compass mode automatically.
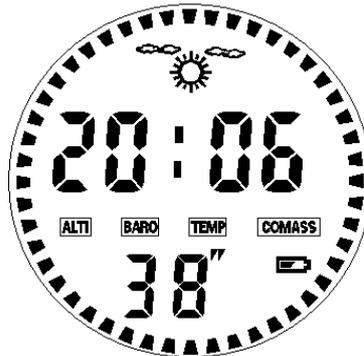
g) Backlight Operation

You can lighten the backligh by long pressing SET button. The backlight will be lighted for 5 seconds, then it will be closed automatically for saving power.

h) Low Battery Indicator

When the device usage will reduce battery life, low power will show the symbol "▱", As for your product sunny environment, for battery charging. At this time, with the exception of the compass could not be activated, all other functions remain normal.

Precautions:
1). The device is not designed as a commercial navigation device.
2). Never place the device near magnetic field equipment.
3). Keep away your digital compass from much moisture and humidity situation. Avoid direct water exposure.
4). Use this device within temperature range(-10º to 60℃).
5). Always place the device horizontally when using electronic compass.