PhotoGPS User Manual

PhotoGPS
Link your location to photo

1. Intended User

This product is intended for working with your own photos taken by your own camera to obtain full record for your trip and field study by merging your PHOTOS with TIME and LOCATION.

2. Delivery Content

- PhotoGPS Unit
- USB Cable
- AAA Battery x 3

- User Manual
- PC Software Downloads Instruction
- 1 year Warranty Registration Card

3. System Requirement

- PC (with Windows XP / Vista / Window 7)

4. Safety Instructions

We do not assume liability for resulting damages to property or personal injury if the product has been abused in any way or damaged by improper use of failure to observe these operating instructions. The warranty/guarantee will then expire!
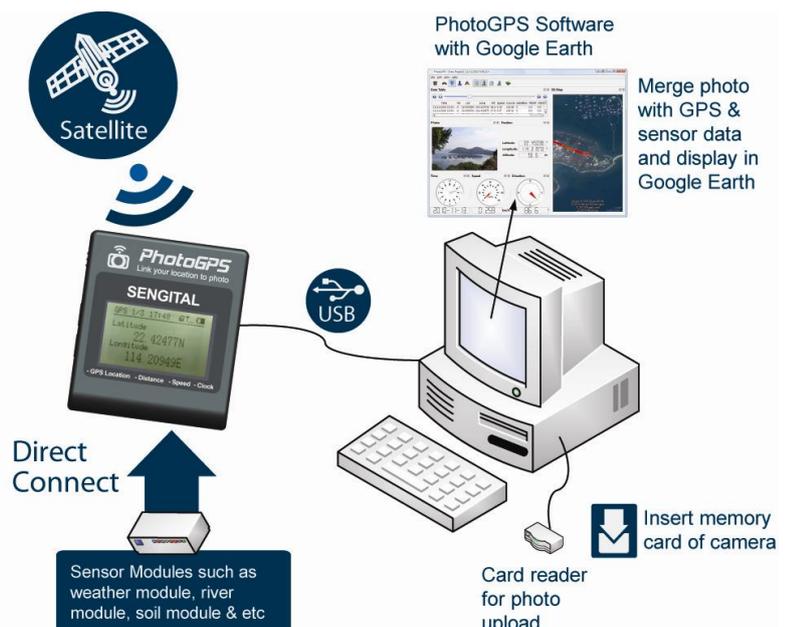
Persons/Product

The product is not a toy and should be kept out of reach of children.

When used in conjunction with other devices, observe the operating instructions and safety notices of connected devices

The product must not be subjected to heavy mechanical stress.

The product must not be exposed it to extreme temperatures, direct sunlight, intense vibration or dampness.

If there is reason to believe that safe operation is no longer possible, the device is to be put out of operation and secured against unintended operation. Safe operation is no longer possible if the device:

- Show visible damages,
- No longer works,
- Was stored under unfavorable conditions for a long period of time or
- Was subject to considerable transport stress
- Miscellaneous
- Servicing, adjustment or repair works must only be carried out by a specialist/specialist workshop.

If any questions arise that are not answered in this user manual, contact our Technical Advisory Service.

5. Operation

- Switch On the PhotoGPS unit when you start your field trip in open area
- Take GPS data during field trip (by pressing the "mark" button manually or let the unit auto take data)
- By pressing "mode" button to switch different page to display different data such as longitude, latitude and altitude, speed, course, time, position, altitude, total distance and system info.
- Switch Off the PhotoGPS after you finished your field trip (in order to save power)
- Connect the PhotoGPS unit to PC by USB cable
- Upload the GPS data to PC by copy and paste the data file from the memory drive to PC hard disk
- Copy the photo files from Camera to PC
- Run our PC software to link up the photos taken by any camera with the uploaded GPS data
- Your photos and track will then be displayed in the software with Google Earth or Google Map plug-in

5.1 Software Installation

- Download the PhotoGPS Software from http://www.sengital.com/PhotoGPS/
- Run the installation file and follow the instruction of the installation process
- Install Google Earth Plugin

5.2 Time Sync to PhotoGPS Unit

There are two ways to sync the time of the PhotoGPS unit: 1) By GPS clock and 2) By PC

1) To sync the time by GPS, the user can switch on the PhotoGPS unit in open area to get GPS signal. Then the time will be set automatically.
2) To sync the time by PC, the procedure is shown below:
   - Connect PhotoGPS device to computer using USB cable.
   - Launch the PhotoGPS software.
   - PhotoGPS software will detect if PhotoGPS device is connected.
   - If PhotoGPS device is detected, a window will be prompted asking if the user wants to synchronize the PC clock with the PhotoGPS device.
   - Once confirmed, a prompt window will be shown informing the user to unplug the USB cable.
   - Once PhotoGPS unit is disconnected from PC, PhotoGPS would reboot automatically.
   - PhotoGPS unit will be set the time as the PC

5.3 Firmware Update

- Download updated firmware.bin file from http://www.sengital.com/PhotoGPS
- Take out the battery from the PhotoGPS unit and then connect PhotoGPS device to computer using USB cable.
- Press and hold the mode button and then insert battery to the PhotoGPS and PC will detect PhotoGPS unit as a memory drive. Delete firmware.bin file, then copy and paste the updated firmware.bin file to PhotoGPS memory drive
- Unplug the device, once PhotoGPS is disconnected from PC, PhotoGPS would reboot automatically.
- PhotoGPS unit would load the updated firmware successfully.

6. Product Features

Powerful PhotoGPS Logger
- Clock shows time and date
- GPS (longitude, latitude and altitude)
- Show Speed, Course
- Show total distance and distance from last location
- Auto and manual location record (Configurable time (default 1min) for regulator record)
- Store Data in internal 4MB memory or SD card
- USB auto upload data from internal memory or SD card to PC
- USB firmware update (for future add-on features update)
- Support add-on sensor(s)

User Friendly Software
- Link up photo to location
- Show overall path with photos in a map
- Show data of the trip such as speed, course, time, position, altitude, total distance
- Support Google Earth and Google Map
- Virtual Tour: Free view, first person view and third person view for showing the path
- Show full path, latest path, extruded full path and extruded latest path on 3D Map
- Support add on sensors such as weather sensor and water quality instrument
- Track Overview shows the overall route of the field trip

7. Technical Data

Operating Voltage:	3.6V to 4.5V (3xAAA)
Maximum Current Consumption	~70mA
Battery Life:	~24Hr (GPS On), ~60Day (GPS Off)
Operation Temperature:	-20 to +70°C
Storage Temperature:	-30 to +80°C
Output Data:	NMEA format with GPRMC and GPGGA
Dimensions (L x W x H)	75.5mm x 66mm x 20.5mm
Weight:	64g (w/o batt), 99g (w batt)
Color:	Black
Internal Memory Capacity:	4MB
Memory Storage Duration:	~21000 GPS data point = 350Hr field trip time @ sampling rate 1mins/data