

# All in One Sensor User Manual

S11-0237-UM01-V1.3R  
Model No. PGPS-01-01



## 1. Intended User

This product is intended for strengthen your PhotoGPS, besides linking up locations and photos of your trip, All in One Sensor helps to record different environment data including TEMPERATURE, HUMIDITY, PRESSURE, HEIGHT and ILLUMINATION information. And merge with the data collected by your PhotoGPS.

## 2. Delivery Content

- All in One Sensor Unit
- PhotoGPS Firmware Downloads Instruction
- 1 year Warranty Registration Card
- User Manual
- PC Software Downloads Instruction

## 3. System Requirement

- PhotoGPS with firmware version 1.21 or above.
- 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:

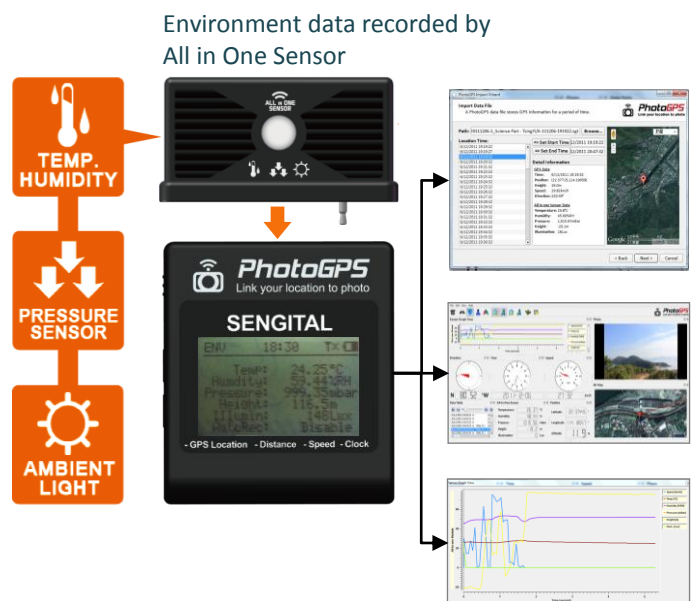
- Show visible damages,
- No longer works,
- Was stored under unfavorable conditions for a long period of time or
- Was subject to considerable transport stress
- Miscellaneous
- Servicing, adjustment or repair works must only be carried out by a specialist/specialist workshop.

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

## 5. Operation

**IMPORTANT:** Please upgrade your PhotoGPS to version 1.21 or above to make sure All in One Sensor operate properly. Please refer to section 5.2 "Firmware/Software Update" for more details.

1. Synchronize time by receiving GPS signal or using PhotoGPS Software (Please refer to PhotoGPS user manual for detail.)
2. Plug in All in One Sensor to the PhotoGPS.
3. New page "ENV" showing real time environment data will immediately available in PhotoGPS LCD screen.
4. Once sensor is plugged, environment data can be logged by "Manual Record" or "Auto Record" (Please refer to section 5.1 for detail)
5. To collect data, connect PhotoGPS to PC by USB cable. Upload GPS data to PC by copy and paste data file from the memory drive to your PC.
6. Run PhotoGPS software, sensor data will be shown in the "Detail Information" with the GPS data if the data set includes environment data.
7. Data field "All In One Sensor" will be shown in software interface including all sensor information
8. "All In One Sensor Graph View" will also be shown in software interface with different sensor data.



Data and graph are shown in PhotoGPS software

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## 5.1 Data Logging

- The All in One Sensor provides an auto record feature which can be enabled/disabled by press and hold the mode button with 3 seconds in “ENV” page
- The sampling frequency that the sensor can record is identical to that of PhotoGPS main unit setting.
- Environment information will be saved in a same file (with GPS data if GPS is “ON” and valid GPS is received) with the saved location.
- The data will not be saved automatically if the auto recording is disabled
- The auto record status is shown on the PhotoGPS LCD
- The auto record feature will be enabled automatically when the 1st valid GPS data is received (GPS is switched on)
- The auto record feature will be disabled automatically when GPS switch is switched to OFF.
- User is allowed to manually save current location and environmental data by pressing the ‘MARK’ button

## 5.2 Firmware/Software Update

### PhotoGPS Firmware Update:

1. Download the updated “firmware.bin” file from <http://www.sengital.com/PhotoGPS/>
2. Click to enter [Software] to download PhotoGPS firmware
3. Take out the battery from the PhotoGPS unit and then connect PhotoGPS device to computer using USB cable.
4. Press and hold the mode button and then insert battery to the PhotoGPS
5. PC will detect PhotoGPS unit as a memory drive.
6. Delete firmware.bin file, then copy and paste the updated firmware.bin file to PhotoGPS memory drive
7. Unplug the device, once PhotoGPS is disconnected from PC, PhotoGPS would reboot automatically.
8. PhotoGPS unit would load the updated firmware successfully.

### Software Update:

1. Download the updated PhotoGPS Software from <http://www.sengital.com/PhotoGPS/>
2. Click to enter [Software] to download PhotoGPS software.
3. Extract the ZIP file to your desktop.
4. Double click the “PhotoGPS.exe” to launch the software.
5. Install Google Earth plug-in

## 6. Operation Messages

The following messages will be shown if the “MARK” button is pressed to notice the status of PhotoGPS

Status	System Message
● ONLY the All in One Sensor data is saved	Sen Data Marked
● Both of the All in One Sensor and GPS data are saved	Sen&Loc Marked
● ONLY GPS data is saved ● No All in One Sensor is plugged	Location Marked
● The GPS is ON, but no valid GPS is received ● No All in One Sensor is plugged	GPS Sig Waiting
● The GPS is OFF ● No All in One Sensor is plugged	Pls turn on GPS

## 7. Product Specification

Operating Voltage	3.3V (Power supplied by PhotoGPS)
Current Consumption	Normal operation mode: around 11mA Sleep mode: around 0.2mA
Size	36mm X 63mm X 20mm
Weight	26.3g
Phone Jack	3.5mm standard phone jack
Operating Temperature	-10C...+60C
Storage Temperature	-20C...+60C