

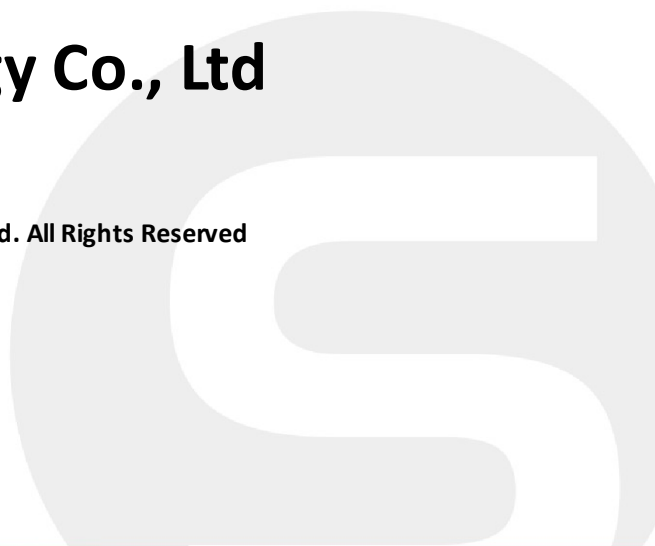


Geogagger N1

User Manual

Solmeta Technology Co., Ltd

Copyright ©2010 Solmeta Technology, Co., Ltd. All Rights Reserved



Contents

1. SAFETY INFORMATION.....	3
2. OVERVIEW	4
3. PACKING LIST	5
4. PRODUCT VIEW	6
5. CHARGING	7
6. HOW TO USE THE GEOTAGGER N1.....	8
7. OTHER OPERATIONS.....	11
8. WARRANTY	12
9. SPECIFICATIONS	13

1. Safety Information

To prevent damage to the GPS unit or injury to yourself or to others, please read the following safety instructions before using this equipment.

Do not disassemble

Touching the product's internal parts could result in injury. In the event of malfunction, the products should be repaired only by a qualified technician. Any unauthorized disassembly or modification may void the unit's warranty.

Keep the GPS unit dry

Do not immerse in or expose to water or handle with wet hands. Exposing the GPS unit to water could result fire or electric shock.

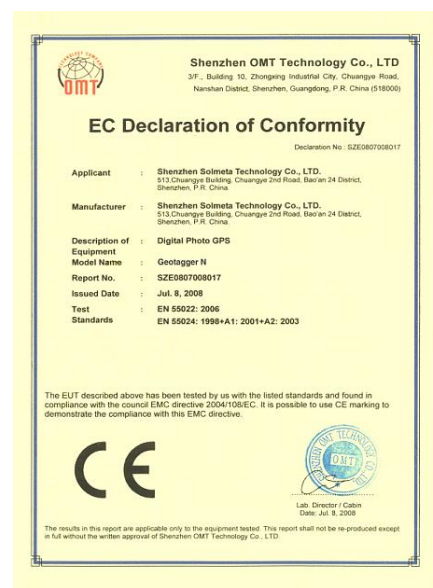
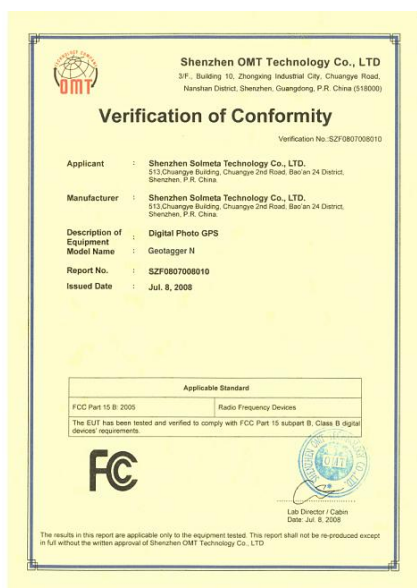
Do not subject to high temperatures

The GPS unit can be damaged by exposure to fire or high temperatures. Do not leave the unit in areas subject to extremely high temperatures. Failure to observe this precaution could result in damage to the casing or internal circuitry, causing fire.

Keep out of reach of children

Failure to observe this precaution could result in injury.

FCC/CE Compliance



2. Overview

Thank you for purchasing Solmeta **Geotagger N1**, a geotagging device that records the latitude, longitude, altitude, and UTC (Coordinated Universal Time) with your photographs with **Nikon D3x, D3s, D3, D700, D300s, D300, D200, D2/x/xs/Hs and D90, D5000** Cameras. The geotagging information is saved as metadata with the image, and can be used in a variety of ways to add value to your photographs.

Features

- Embedded the real time geographical information to the EXIF data of the digital photo.
- Very high sensitivity, quick cold start.
- Built-in rechargeable battery, doesn't consume the power of the camera, lasting up to 20 hours. Automatically switch to Nikon camera for power source when the device is in low power.
- "Auto" switch design, which allow the Geotagger N1 will turn on when the camera is turned on and will turn off when the camera is turned off. Use-friendly.
- Compatible of multi-model design, which allow you choose the different data cable to match different camera .
 - Cable-A for connection to Nikon D3x,D3s,D3, D700, D300s,D300, D200, D2/x/xs/Hs
 - Cable-B for connection to Nikon D90
 - Cable-C for connection to Nikon D5000
- "Indoors" geotagging, automatically tags the photo with the last location information when indoors or loss of GPS signal.
- Supports Flickr, panoramio, Locr, Picasa, etc.

Be sure to read this guide thoroughly before use.

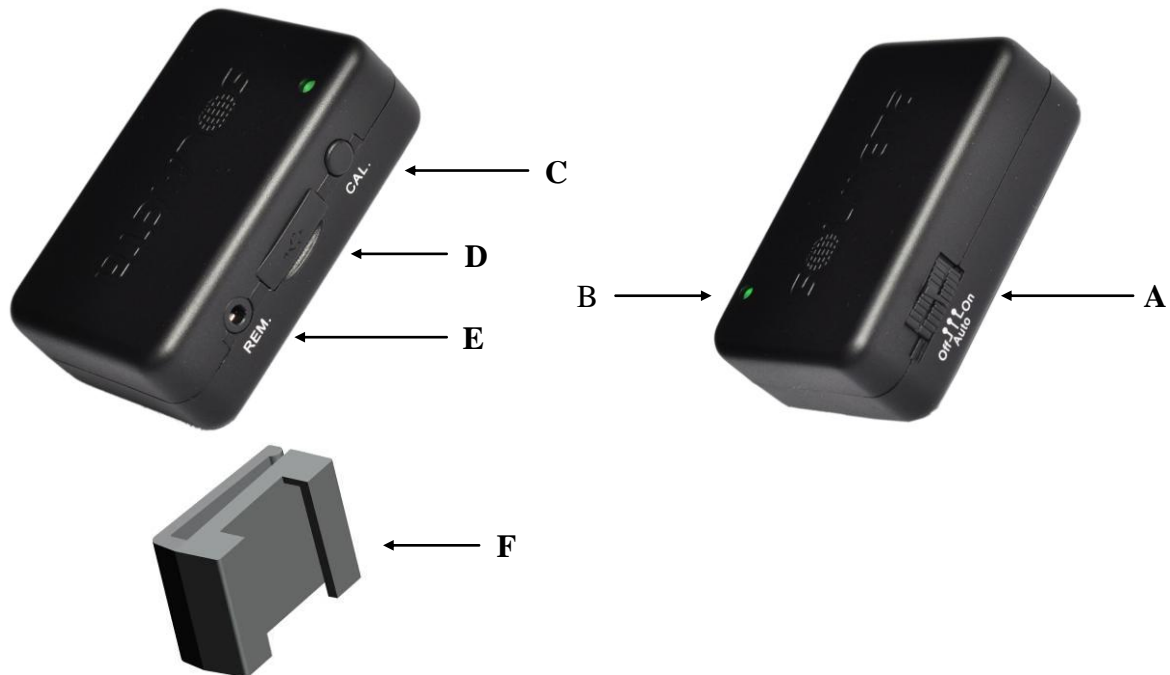
3. Packing List

Thank you for purchasing the Geotagger N1. Before you start, make sure that the following items are included in your package. If any of these items are missing, please contact us.

1. GPS receiver
2. Data cable (the cable below only one per package)
 - a. Cable-A cable for connection to Nikon D3X, D3S, D3, D700, D300S, D300, D200, D2/x/xs/Hs
 - b. Cable-B for connection to Nikon D90
 - c. Cable-C for connection to Nikon D5000
3. USB charging cable
4. Wired remote
5. Camera strap fastener
6. CD containing user manual and software utilities
7. Protection sleeve



4. Product view



- A Power switch
- B Status LED
- C Calibration button (only available for Geotagger N2)
- D USB Port
- E Remote socket
- F Camera strap fastener

LED

The N1 has a LED that changes color to signify different operating conditions.

LED COLOR	LED MODE	DESCRIPTION
GREEN	Flashing twice a second	The N1 is searching for GPS satellite signals.
	Steady	The N1 has obtained a signal lock and is ready to record and geotag
RED	Flashing	The N1 is charging. Low battery warning. N1 requires charging. NOTE: When in low battery and connected to camera, the camera will power the N1 automatically.
	Steady	The N1 is in full charge.

5. Charging

1. Power off the Geotagger N1, then connect the device with a computer or an AC adaptor by the USB charging cable. (The Geotagger N1 can be charged using any 5V standard USB charger)
2. It takes around three hours to fully charge the Geotagger N1 .
3. The LED on the N1 will be red blinking during the charging, and will be steady when the device is in full power.

NOTE

- The built-in rechargeable battery cannot be replaced by users; it needs to be replaced by our professional technician if it needs servicing.
- **Auto Meter off**
Nikon added a new function to the D3x, D3s, D3, D700, D300s, D300 and D90, D5000. The new function resolved a battery drain issue by allowing the user to select the metering system to stay On or auto Off when GPS signals are received to reduce power consumption.

To access this function on your Nikon camera, please follow the step below:

Menu→ Custom Settings Menu→ (C) Timers/ AE Lock→ c2 Auto meter- off delay

6. How to use the Geotagger N1

Connect the Geotagger N1 to camera

1. Turn the camera and the Geotagger N1 off.
2. Mount the Geotagger N1 onto the flash shoe or attach the N1 on the camera strap with the supplied strap fastener. Connect the Geotagger N1 to the camera by the appropriate data cable (The pictures below are with different model Nikon camera)
 - A300 cable for connection to Nikon D3x,D3s,D3, D700, D300s,D300, D200, D2/x/xs/Hs
 - CA90 cable for connection to Nikon D90
 - CA5000 cable for connection to Nikon D5000

Mount the Geotagger N1 onto the flash shoe



Slide the N1 onto the hot shoe



The N1 connected to Nikon D300



The N1 connected to Nikon D90



The N1 connected to Nikon D5000

Attach the device on the camera strap with the supplied strap fastener



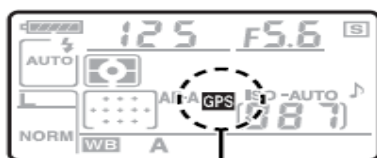
With 10-Pin remote terminal camera With D90



With D5000

Capture and record the GPS data

1. With the Geotagger N1 connected to the camera, turn the N1 on. The LED on the N1 will light and blink quickly, after a while will slow down and at last steady, that means the N1 is being fixed and ready to supply the GPS data.
2. Turn the camera on, a GPS icon will be displayed in the control panel on top of the camera.



GPS icon (illustration shows control panel for the D90 digital camera)

3. To view GPS data, select GPS > Position in the camera setup menu (this option is not available with D2x, D2xs, D2Hs, and D200 cameras). The current latitude, longitude, altitude, and UTC will be displayed as below.




```
LATITUDE      : N
                : 22° 31.145'
LONGITUDE     : E
                : 113° 55.106'
ALTITUDE      : 39m
TIME (UTC)    : 2010/05/24
                : 02:11:32
```

4. Take pictures, GPS data and the heading will be recorded with each photograph.
(With the Geotagger N1 on “Auto”switch position, the geotagger N1 will turn on when the camera is turned on and will turn off when the camera is turned off. Use -friendly, power saved.)

NOTE

- To get a quick fix, please take the Geotagger N1 and your camera to an open outside space and stand still
- If there is no blinking GPS icon in the control panel, check the connection, and make sure the switch is in the correct position.
- To get the GPS data more accurate, we suggest holding the camera steady for a few minutes when the N1 is just being fixed, that is especially important for the value of altitude.
- Some of the Nikon camera has an “Auto meter off” option that is also a power saving method. We suggest adjusting it to 30 seconds or more to avoid missing the GPS data, or half press the shutter to activate the GPS when taking a photo.

Camera GPS icon status

No  icon	Not connected to the camera
 icon blinking	Not fixed, signal searching
 icon displayed	GPS fixed

7. Other operations

Remote Trigger / Shutter Release Pass-through

In order to make sure that Nikon DSLRs can work properly when the remote connecting socket is occupied by Solmeta geotagger, the Geotagger N1 is designed with a 2.5mm remote pass-through. We also provide a remote control in the package which enables you to use the remote trigger when the solmeta geotagger is working .



“ Indoors” Geotagging

One of the main features of the Geotagger N1 is its unique ‘indoor’ GPS signal fixing ability. This feature allows the device to continue to supply location information to the camera, even if signals from GPS satellites are blocked. If you should enter a location, such as a building, where the roof blocks the signals from the GPS satellites, the device memorizes the last location fix and sends this location to the camera for each photograph taken until GPS signals are received again from the satellites and a new fix can be obtained.

Once you leave the no/weak signal area, the device will automatically reacquire a GPS signal to obtain the new, exact location.

If you are taking photographs “indoors” and do not want the last received signal to be recorded in your photos, you can just switch the Geotagger N1 to “Off”.

8. Warranty

- Solmeta Technology Co., Limited guarantees its product from manufacturing defects and workmanship for a period of one-year from the date of original purchase. During the one-year warranty, Solmeta Technology will repair or replace the product free of charge. Please keep your original invoice as proof of purchase.
- Customers who have products covered under the warranty are required to contact Solmeta Technology by e-mail (service@solmeta.com) for troubleshooting issues before returning the product.
- Customers are responsible for shipping and insurance charges for returning the product to Solmeta Technology.
- Charges will be imposed for repairing product, which is out of warranty coverage or invalid warranty.
- The guarantee is not valid if defect is due to damage caused by incorrect use, poor maintenance or if persons not authorized by Solmeta Technology have carried out alterations or repairs.
- For the device to be used correctly, the user should strictly adhere to all instructions included in the user guide and should abstain from any actions or uses that are described as undesired or which are warned against in the user guide.

Precautions for use

Do not drop: The product may malfunction if subjected to strong shocks or vibration.

Keep dry: This product is not waterproof, and may malfunction if immersed in or exposed to water.

Avoid sudden changes in temperature: Sudden changes in temperature, such as occur when entering or leaving a heated building on a cold day, can cause condensation inside the device. To prevent condensation, place the device in a carrying case or plastic bag before exposing it to sudden changes in temperature.

Keep away from strong magnetic fields: Do not use or store this device in the vicinity of equipment that generates strong electromagnetic radiation or magnetic fields. Strong static charges or the magnetic fields produced by equipment such as radio transmitters could affect the product's internal circuitry.

A note on electronic devices: In extremely rare instances, a strong external static charge may cause the device to stop functioning. Turn the camera off and disconnect and reconnect the Geotagger N1. In the event of continued malfunction, contact your retailer or Solmeta-authorized service representative.

Information in this document is subject to change without notice. Solmeta Technology reserves the right to change or improve their products and to make changes in the content without obligation to notify any person or organization of such changes or improvements.

9. Specifications

ELECTRICAL CHARACTERISTICS	
GPS Chipset	SiRF Star III
Frequency	L1, 1575.42 MHz
C/A Code	1.023 MHz chip rate
Channels	20 channel all-in-view tracking
Tracking sensitivity	-159dBm
ACCURACY	
Position Horizontal	10 meters, 2D RMS 1-5 meters 2D RMS, SBAS corrected (WASS, EGNOS, MSAS)
Velocity	0.1m/sec.
Time	1 micro-second synchronized to GPS time
DATUM & PROTOCOL	
Datum	WGS-84
GPS Protocol	NMEA 0138 ASCII
Baud Rate	4,800 bps
ACQUISITION RATE	
Hot start	1 sec., average
Warm start	38 sec., average
Cold start	42 sec., average
Reacquisition	0.1 sec., average
DYNAMIC CONDITION	
Acceleration Limit	Less than 4g
Altitude Limit	18,000 meters (60,000 feet) max
Velocity Limit	515 meters/sec. (1,000 knots) max
Jerk Limit	20 m/sec*3
BATTERY	
Battery	570mAh Li-ion
Operation Current	Lower than 60mA
Charging Current	300mA
OPERATING CONDITIONS	
Operating temperature	-10°C—50°C(-2°F ~ 122°F)
Humidity	Operational up to 95% non-condensing
SIZE & WEIGHT	
Dimension (L x W x H)	56 mm x 36mm x 19mm
Weight	40g