



GPS Unit

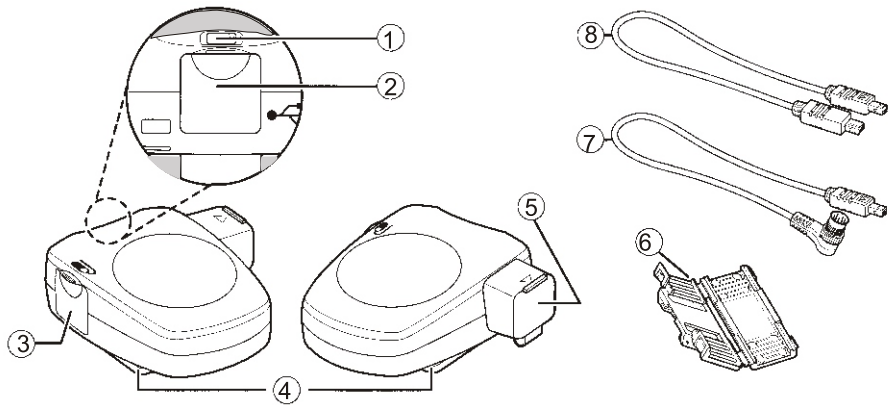
GEO ONE

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User's Manual

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GPS Unit Geo one User's Manual

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For Your Safety

To prevent damage to your Phottix product or injury to yourself or to others, read the following safety precautions in their entirety before using this equipment. Keep these safety instructions where all those who use the product will read them.

- **Do not disassemble:** Touching the product's internal parts could result in injury. In the event of malfunction, the product should be repaired only by a qualified technician. Should the product break open as the result of a fall or other accident, disconnect the device and take it to a Phottix-authorized service center for inspection.
- **Keep dry:** Do not immerse in or expose to water or handle with wet hands. Failure to observe this precaution could result in fire or electric shock.
- **Do not use in the presence of flammable gas:** Do not use electronic equipment in the presence of flammable gas, as this could result in explosion or fire.
- **Keep out of reach of children:** Failure to observe this precaution could result in injury.
- **Request permission before using the device in an airplane or a medical facility:** This device emits radio-frequency radiation that could interfere with navigational or medical equipment.

- **Do not subject to high temperatures:** Do not leave the device in areas subject to extremely high temperatures, such as in a closed vehicle on a hot day. Failure to observe this precaution could result in damage to the casing or internal circuitry, causing fire.

Notice for customers in Europe

This symbol indicates that this product is to be collected separately.

The following apply only to users in European countries:

- This product is designated for separate collection at an appropriate collection point. Do not dispose of as household waste.
- For more information, contact the retailer or the local authorities in charge of waste management.



Introduction

Thank you for your purchase of a Geo one GPS unit, a camera accessory that records the latitude, longitude, altitude, and Coordinated Universal Time (UTC) with your photographs (for a list of compatible cameras, see page 5). Be sure to read this manual thoroughly before use.

Terminology

Function names differ from camera to camera. See your camera manual for details.

The Geo one and Supplied Accessories

Confirm that the package contains the following items:

- ☐ Geo one GPS unit
- ☐ GP-N8 cable for ten-pin remote terminals
- ☐ GP-N10 cable for accessory terminals
- ☐ Applicable to remote control the remote shutter release of GP-C6 line
- ☐ GP-A1 strap adapter
- ☐ CD-ROM
- ☐ UC-E4 USE line
- ☐ Manual (this pamphlet)

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Parts of the Geo one

Refer to the illustration inside the front cover of this manual.

- | | | |
|---|---|-----|
| ① | LED | 10 |
| ② | USB terminal | 17 |
| ③ | GP-C6 for the remote control line of accessories
port | 8 |
| ④ | Mount | 8、9 |
| ⑤ | Connection terminal for GP-N8 or
GP-N10 | 6、7 |
| ⑥ | GP-A1 strap adapter | 9 |
| ⑦ | GP-N8 cable for connection to cameras with ten-
pin remote terminals | 6 |
| ⑧ | GP-N10 cable for connection to cameras with
accessory terminals | 7 |
| ⑨ | CD-ROM drive | 17 |

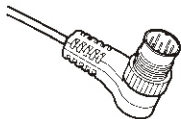
Features of the Geo one

When connected to a camera that supports GPS, the Geo one records location information with photographs (If desired, Geo one connected through a GP-C6 remote cord for shutter release)

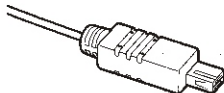
Supported Cameras

The Geo one can be used with the following cameras:

Camera	Required cable
D3,D700,D300,D2X,D2XS,D2HS,D200	GP-N8
D90	GP-N10



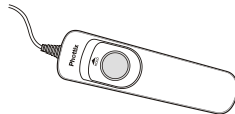
GP-N8 cable for the-pin remote terminals



GP-N10 cable for accessory terminals

Turning the Geo one on and Off

The Geo one is not equipped with a battery or on/off switch: power is supplied from the camera. The Geo one turns off only when the cable connecting it to the camera is disconnected; even when the camera is off, the Geo one continues to receive GPS data. For more information, see "Recording GPS Date" (page 12).

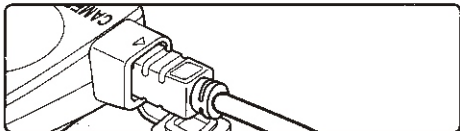
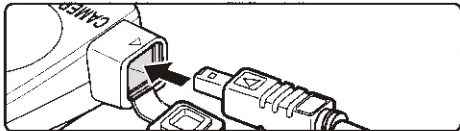


GP-C6 cable for accessory terminals

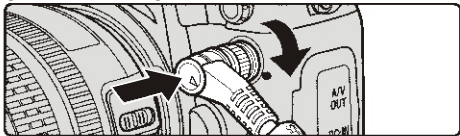
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Cameras with Ten-pin Remote Terminals

- 1 Turn the camera off.
- 2 Insert the GP-N8 cable (⑦) into the connection terminal (⑤).



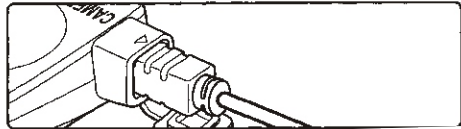
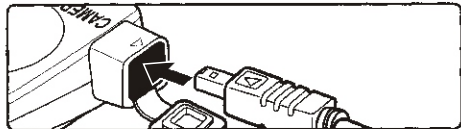
- 3 Aligning the mark on the connector with the mark on the camera body, insert the ten-pin connector into the camera's ten-pin remote terminal and tighten the locking nut.



Connecting the GP-N8 to a D3 digital camera

Cameras with Accessory Terminals

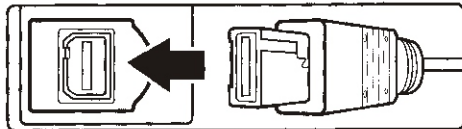
- 1 Turn the camera off.
- 2 Insert the GP-N10 cable (⑧) into the connection terminal (⑤).



- 3 Open the camera accessory terminal cover and insert the GP-N10 as shown. Be sure that the connector is in the correct orientation; do not use force.

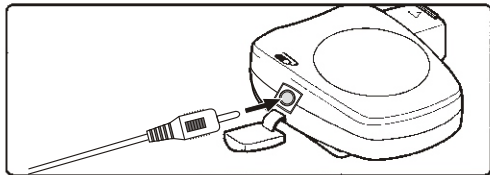


Connecting the GP-N10 to a D90 digital camera



Connecting the Optional GP-C6

Remote shutter release for the GP-C6 release can be connected to the Geo one accessory terminal (③). When connecting the GP-C6, be sure the connector is in the correct orientation; do not use force.



✓ Disconnecting the Geo one

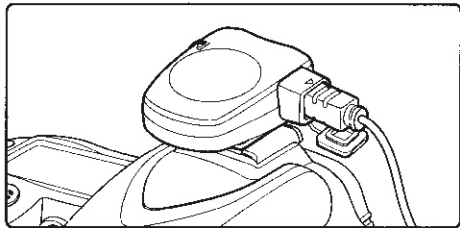
Turn the camera off, disconnect the cable, and then replace the ten-pin terminal cap or close the accessory terminal cover.

Mounting the Geo one on the Camera

Page 1 of 2

The Camera Accessory Shoe

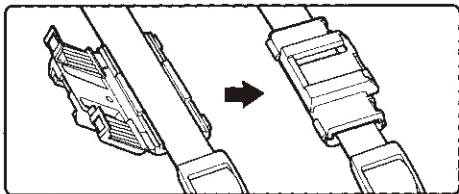
The Geo one is equipped with a mount (⑦) that fits the camera accessory shoe. Slide the Geo one onto the camera accessory shoe as shown.



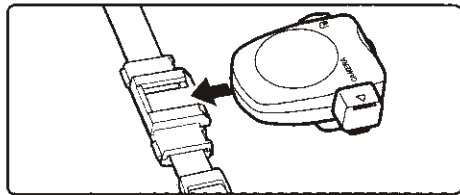
Mounting the Geo one on the Camera Strap

The supplied strap adapter (⑥) can be used to attach the Geo one to the camera strap.

- 1 Attach the strap adapter as shown. Do not attach the adapter where the strap is doubled.



- 2 Mount the Geo one on the camera strap as shown (④).

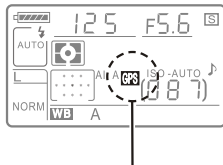
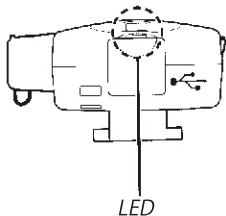


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✔ Mounting the Geo one on the Camera Strap

Note that the built-in GPS antenna may sometimes not be in the correct orientation when the Geo one is mounted on the camera strap, and that signal quality may drop as a result.

- 1** Connect the Geo one (page 6,7) and turn the camera on. The Geoone LED(①) will light and a **GPS** icon will be displayed in the control panel on top of the camera.



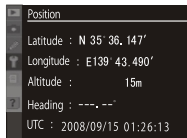
GPS icon (illustration shows control panel for the D90 digital camera)

LED	GPS icon	Status
Blinks red	Blinks	GPS data not recorded.
Blinks green	On	Three satellites detected; GPS data recorded.
On (green)		Four or more satellites detected; GPS data are more accurate.

✓ The GPS Signal

GPS data will be recorded only if the Geo one is able to detect three or more satellites. If no signal is received from the Geo one over two seconds, the **GPS** icon will no longer be displayed in the control panel and no GPS data will be recorded.

- 2 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 Coordinated Universal Time (UTC) will be displayed (the example below shows the display for D90 digital cameras).



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☑ Coordinated Universal Time (UTC)

The Coordinated Universal Time (UTC) received from the GPS satellite is recorded separately from the time provided by the camera clock.


3 Take pictures. GPS data will be recorded with each photograph.

☑ Auto Meter Off

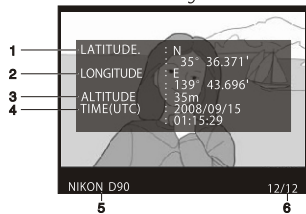
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If **Enable** is selected for **GPS > Auto meter off** in the setup menu for D3, D700, D300, and D90 cameras, the exposure meters will turn off automatically after the time specified in the camera Custom Settings menu. This reduces the drain on the battery but may prevent GPS data from being recorded if the exposure meters are not activated until immediately before the picture is taken. Check that the  icon is displayed before shooting. The Geo one periodically acquires GPS data when the camera or exposure meters are off, although the LED will not light. If no operations are performed for about three hours, the Geo one will turn off.

When a D2X, D2XS, D2HS, or D200 camera is connected, or a D3, D700, D300, or D90 camera is connected with **Disable** selected for **GPS > Auto meter off**, the exposure meters will not turn off while the Geo one is connected. The drain on the camera battery can be reduced by turning the camera off when not in use.

- 4 To view the GPS data recorded with each photograph, press the  button and display the photographs full frame. The photo info display will contain a page listing GPS data for the current photograph.

GPS data for D90 digital cameras



- | | |
|------------------------------------|---------------------------------------|
| ① Latitude | ⑤ Camera name |
| ② Longitude | ⑥ Frame number/Total number of images |
| ③ Altitude | |
| ④ Coordinated Universal Time (UTC) | |

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Notes on the Geo one

The Geo one does not supply the compass heading. Local geographic and atmospheric conditions may prevent or delay the acquisition of GPS data. The Geo one may be unable to receive GPS data indoors, underground, or in the vicinity of large structures, trees, or other objects that block or reflect satellite signals. The positions of GPS satellites are continuously changing, preventing or delaying the acquisition of GPS data at certain hours of the day. The presence of cellular telephones or other devices that transmit on frequencies close to those of GPS satellites may also interfere with the acquisition of GPS data.

En Note that the Geo one may take several minutes to require a signal if the unit has not been used for an extended period or has been moved a great distance since GPS data were last received.

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 Geo one. In the event of continued malfunction, contact your retailer or Phottix -authorized service representative.

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This product shall not be exported without authorization from the appropriate governmental authorities.

Specifications

Supported cameras	Nikon D3,D700,D300,D2X,D2XS, D2HS, D200 and D90 digital cameras	
Receiver	Tracking channels: 18 (SBAS compliant)	
Acquisition times*	Cold start: Approx. 45s	Hot start: Approx. 5s
Update rate	Once per second	
Data format	NMEA (National Marine Electronics Association) version 2.3 (compatible with version 3.01)	
Geodesics	WGS84	
GPS accuracy*	Horizontal: 10 m/33ft. RMS	
Interfaces	Connection and accessory terminals, USB	
Average power consumption	65mA	
Operating temperature	0°C-40°C/30° F-104° F	
Dimensions(W×H×D)	Approx. 46X26X50mm/2.2X1.0X2.0in.	
Weight	Approx. 28g/0.98oz.	
Length of cable	Approx. 25 cm/10 in. (GP-N8 and GP-N10)	
Compatible accessories	GP-C6 remote cord	UC-E4 USB cable

* Under open sky (no obstructions nearby)

Connecting the Geo one to a Computer

The Geo one can supply GPS data to a computer for use with mapping software and other applications. Connect the UC-E4 USB cable supplied with your digital camera to the Geo one USB terminal (②) and connect the cable to the computer. Power is supplied from the computer. And windows XP for windows Vista drivers from the CD-ROM access.

If the Geo one is connected simultaneously to both a camera and a computer, GPS data will be supplied to computer only.