

di-GPS Basic **digital images GPS**

Users Guide

Ver 1.00

Please visit our website www.di-gps.com for the latest version of the user guide

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Introduction

Thank you for purchasing the di-GPS Basic Receiver. The di-GPS Basic (digital images GPS) is specially designed for DSLR (Digital Single-lens reflex) camera. It provides real time position (latitude, longitude, elevation) and the precise time (UTM time) information to your DSLR camera. It records the locations to each digital image file so that you would never forget the exact location where you took the pictures.

di-GPS Basic allows you to save your present location data to your digital image file. Its State-Of-The-Art technology provides extremely fast TTFF (Time-To-First-Fix), unrivaled high sensitive and superior performance at virtually any outdoor environments. The di-GPS Basic can work in a place where GPS was not possible before, in the woods, under very heavy foliage, canyon, terrain obstructions, in cities with densely populated high-rise buildings and even inside a train or a car, with no external antenna required. It is designed to meet the rigorous demands of today's digital photographers.

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Warning / Precaution for Use

- Keep out of reach of children. This device contains small parts which may pose a choking hazard. Consult a physician immediately if a child swallows any part of this device.
- Under no circumstances should you attempt to disassemble the product and repair it yourself. Doing so may result in electric shock or product malfunction. Should the product break open as the result of a fall or other accident, send the unit to Dawn Technology Limited service for inspection. For more information, please visit our web site at www.di-gps.com.
- Do not handle with wet hands or immerse in or expose to water or rain. Failure to observe this precaution could result in fire or electric shock.
- Do not use in the presence of flammable gas. Failure to observe this precaution could result in explosion or fire.
- Do not expose to flame or excessive heat.
- Do not expose to high temperatures
- Do not leave the device in a closed vehicle under the sun or in other areas subject to extremely high temperatures. Failure to observe this precaution could result in fire or in damage to the casing or internal parts.
- Disconnect the GPS device immediately in the event of malfunction. Should you notice smoke or an unusual smell coming from this device, remove the 10 pins connector immediately and send the unit to Dawn Technology Limited service for inspection. For more information, please visit our web site at www.di-gps.com.

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Mounting

The di-GPS Basic receiver provides two mounting method. The GPS unit can be mounted on the flash accessory shoe or attached to the camera strap.



di-GPS Basic Mounted on the flash accessory shoe.



di-GPS Basic attached to the camera strap.

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Connect a di-GPS Basic

Connect the DSLR camera and di-GPS Basic as described below.

1. Turn off the camera.
2. Remove the Cap from the 10 pin remote terminal on the camera body.
3. Store the Cap in a safe place.
4. Connect the di-GPS Basic to the camera's 10 pin remote terminal with 10 pin connector. Do not use any extension cord. The 10 pin connector must be aligned with the mark on the camera body. Tighten the locking nut on the 10 pin connector.
5. Turn the camera on.
6. If the di-GPS Basic is properly connected, the camera will display a blinking icon in the top control panel as the GPS receiver is searching for a signal. The icon will stop blinking once signal has been established and the receiver is ready to supply the current position.

di-GPS Basic will automatically to start receive satellites signal when connecting to the camera. The di-GPS use the power from the camera. Please disconnect the di-GPS Basic when not in use to save power.

Each satellite broadcasts a digital message that contains two types of information. One type is ephemeris data, which includes the assigned serial number of the satellite; the status of the satellite (healthy or faulty); the current date and time. The second type is almanac data and includes precise orbital position of every satellite in the system.

At the initialize stage, di-GPS Basic needs all these data for the position fixed. It usually takes a minute to few minutes to receive all data. An open sky outdoor environment will enable faster acquisition process. It will take a longer time at a weak signal environment. Once di-GPS Basic locked to the satellites, it will take a few seconds for reacquisition even at weak signal environment.

Note

- Please refer to user manual of your DSLR for more information on taking photographs with a GPS.
- Be sure to turn off your camera before disconnecting the di-GPS Basic. Do not connect or disconnect the di-GPS Basic while the camera is on. Failure to observe this precaution could cause a malfunction of the camera.
- Do not carry the camera by the di-GPS Basic or subject the camera or cord to physical shocks while the cord is connected. Failure to observe this precaution could result in physical damage of the cord.
- Re-place the caps on the camera when the terminals are not in use.

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Status LED indicator for N2 di-GPS fix or not fix

LED OFF	:	DSLR camera not connected
LED Flashing	:	No fixed, Signal searching
LED ON	:	Position Fixed

GPS Icon on DSLR camera indicator for N2 di-GPS fix or not fix

No GPS icon display	:	di-GPS Basic not connected
GPS icon Flashing	:	Not fixed. Signal searching
GPS icon displayed	:	Position fixed. Current location information will be recorded in the image files.

LED on the di-GPS Basic will only represent the status of di-GPS Basic but not the reception of GPS data to the DSLR camera.

GPS data are only recorded when the **GPS** icon displayed in the top LCD panel of the DSLR camera. Please make sure that the **GPS** icon is displayed before shooting.

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Specifications

General

Chipset SiRF Star III Low Power
Frequency L1, 1575.42 MHz
C/A code 1.023 MHz chip rate
Channels 20 channel all-in-view tracking
Sensitivity -159 dBm

Accuracy (Open Sky)

Position 10 meters, 2D RMS
5 meters, 2D RMS, WAAS enabled
Velocity 0.1 m/s
Time 1us synchronized to GPS time

Datum

WGS-84

Acquisition Time (Open sky, stationary requirements)

Reacquisition 0.1 sec., average
Hot start 1 sec., average
Warm start 38 sec., average
Cold start 42 sec., average

Dynamic Conditions

Altitude 18,000 meters (60,000 feet) max
Velocity 515 meters /second (1000 knots) max
Acceleration Less than 4g
Jerk 20m/sec max

Power Source

Powered from DSLR camera via 10 pin connector cable
Power consumption less than 45mA

Protocol

Baud rate 4,800 bps
Output message NMEA 0183

Interface

10 pin connector direct connect to Nikon D3, D300, D2X, D2XS, D2HS, D200 and Fujifilm S5 Pro DSLR camera

Physical Characteristics

Dimension 50mm*32mm*13mm
Weight: 30g
Operating Temperature -10°C to +45°C
Operating Humidity: 5% to 90%, No Condensing

* Specifications are subject to change without any notice.

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Warranty

- Dawn Technology Limited guarantees its product, which is determined to be defective or faulty materials and workmanship, for a period of one year after the date of purchase. During the one-year warranty, Dawn Technology will repair or replace the product free of charges. Please keep your original invoice as proof of purchase.
- Customers who have products covered under the warranty are required to contact Dawn Technology Limited by e-mail for troubleshooting issues before returning product.
- Customer should responsible for shipping and insurance charges for returning the product to Dawn Technology Limited.
- Charges will be imposed for repair 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 alterations or repairs have been carried out by persons not authorized by Dawn Technology Limited.
- 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.

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