

Nikon Technical Note

GPS Connection to D1X and D1H

The D1X and D1H products support the recording of Longitude, Latitude and Altitude information with any picture taken when the D1X/H is receiving GPS data from any valid source.





The D1X/H products support GPS data input in the NEMA 0183 Version 2.0.1 protocol.


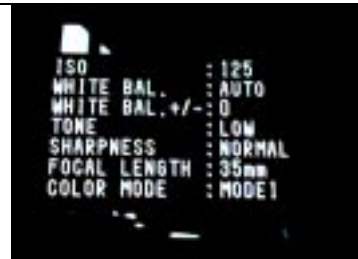
Nikon Japan has certified two GPS receivers for use with the D1X/H
 Magellan ColorTrack
 Garmin GPS III

The following GPS units were recently tested and confirmed operational with the D1X/H by Nikon Inc.
 Magellan MAP 315
 Magellan MAP 330

Both of these receivers are NMEA 2.1 compliant, and send GPS location data to the D1X/H

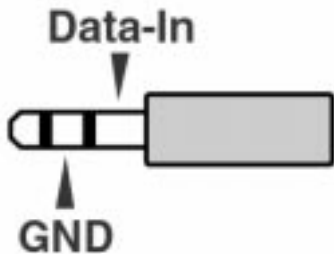
How to setup a D1X/H to accept GPS data feeds from complaint GPS receivers.

			
<p>Setup Menu GPS Input is OFF Select the GPS option by using the 4 way switch</p>	<p>Setup menu Activating GPS Input Menu. Select ON by using the 4 way switch</p>	<p>Setup Menu GPS Data input is ON Check the TOP LCD to see if the D symbol appears</p>	<p>The D symbol above the shutter speed display indicates an active GPS Data Feed</p>

		
<p>The First Page of Shooting data</p>	<p>The Second page of Shooting data</p>	<p>The Third page displays Location Data</p>

Connecting your GPS receiver to the D1X/H

Some GPS receivers ship with a cable suited for connection to a PC system (DB-9 serial connector). The D1X and D1H require a 2.5mm male stereo connector for connection to a GPS receiver.



The pin connections for the 2.5mm stereo jack. The tip connector is not used.

The GPS receiver manual will contain a diagram of the pinouts for the cables they supply. Some vendors will supply a bare cable (a cable with the special connector for the GPS unit, and a set of bare leads for connection to other devices). Some vendors may not supply such a cable and the user will have to fabricate a correct cable for their unit. The connector for the GPS data feed is located directly under the 1394 connector on the rear of the camera body.

In order for the D1X and D1H to accept data from a GPS receiver, the data format must be set to **NMEA** and the Baud rate set to **4800 BPS**. By default the Magellan systems are not set to output GPS information over the serial connection.

Inform users that in some cases GPS receivers may not provide data when used indoors. In these instances the user should be advised to check to see if the receiver supports a simulation mode, which will allow them to confirm the proper connection between the camera and receiver.

Also note that when running on battery power, the GPS activity indicator will only appear when the exposure meter is active. By default the meter is only active for 6 seconds. Custom setting #15 can extend this time to 16 seconds.

Magellan GPS Map 315/330 Serial Connector Pinouts



The Diagram to the left shows the DB-9 connector pinouts used for Magellan GPS receivers. For connection to D1X and D1H cameras the Data-Out from the GPS receiver (Pin #2) must be connected to the Data-in connection on the 2.5mm stereo jack. The Ground connection (Pin#5) must be connected to the Ground connection on the 2.5mm stereo jack.

Please note that some brands GPS receivers may use other cable designs, this Magellan system is used as an example. Both the MAP 315 and MAP 330 receivers use the same pin configurations. Always advise the users to check with the GPS user manual or vendor to assure that the correct pinouts are used.