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Trimble Nomad G Series: Customer FAQs

What is the Trimble Nomad G series?

The Trimble® Nomad™ G series is a family of ultra-rugged GPS field computers for data collection and mobile GIS that can provide 2 to 5 meter (HRMS) accuracy after differential correction.

The Trimble Nomad G series is offered in a range of configurations; optional features include an integrated 2 megapixel digital camera, an integrated barcode scanner, and an integrated cellular modem. The Trimble Nomad G series offers superior processing power, a high resolution outdoor-viewable screen, and a long-life battery that can run the device all day on a single charge.

All Trimble Nomad G series handhelds feature a huge 6 GB of Flash storage—three times larger than other similar field computers. Powered by the Windows Mobile® version 6 operating system, and with built-in wireless LAN and Bluetooth® wireless technology, the Trimble Nomad G series offers powerful performance and all-in-one feature integration for high productivity in the harshest conditions.

What are the key features of the Trimble Nomad G series?

- All-in-one GPS device with powerful hardware. The Trimble Nomad G series is built for superior performance in harsh conditions, and offers a range of hardware configurations to match your existing workflow. The integrated GPS receiver is optimized for data collection in difficult GPS environments, including under forest canopy and near tall buildings.
- Comes with a range of Trimble Mapping & GIS field and office software. Productive and professional field and office workflow is guaranteed through compatibility with the entire range of Trimble Mapping & GIS software.
- 6 GB of on-board data storage as standard, a Secure Digital (SD) card slot, and CompactFlash (CF) slot (800GL and 800GX models) for expandable data storage. You are assured that you always have ample space for data and raster background maps.
- All-in-one, ultra-rugged solution—you don't have to compromise on ruggedness by carrying additional equipment, and there is only one battery to charge.
- High resolution VGA display makes raster maps exceptionally clear.
- The Windows Mobile 6 operating system provides maximum flexibility in software choice and a familiar, easy-to-use interface so that field crews can be quickly trained to be more productive.

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“Persistent storage” in the operating system ensures that your data is protected, even if power is lost.

- Long-life field-replaceable Lithium-ion (Li-Ion) battery allows up to 15 hours operation with active use of GPS and wireless radios without the need to recharge.
- Optional integrated cellular modem for connecting to the Internet without tethering to an external modem or mobile phone. Integrated wireless LAN and Bluetooth wireless technologies provide options for connecting to the Internet and corporate networks to access data and maps, and to send and receive email and instant messages.
- Optional integrated 2 megapixel digital camera makes it easy to collect photographs in the field without compromising on ruggedness or convenience.
- Optional integrated barcode laser scanner.

Note: For information on using and disposing of Li-Ion batteries, refer to the Trimble Nomad G Series Handheld Computer Getting Started Guide.

What different configurations are available for the Trimble Nomad G series?

The Trimble Nomad G series offers a choice of hardware configurations. All configurations have 6 GB flash storage, integrated GPS, Integrated Bluetooth/WLAN and numeric keypad.

The key differences between the configurations are as follows:

Model	800GL	800GLC	800GLE	800GX	800GXC	800GXE
Expansion	CF/SD	SD	SD	CF/SD	SD	SD
Cellular Modem				✓	✓	✓
Camera		✓	✓		✓	✓
Bar Code Scanner			✓			✓

Note: Each model is physically different and you cannot upgrade from one model to another.

What is the Windows Mobile 6 operating system?

The Windows Mobile 6 operating system is the latest Microsoft® operating system for mobile devices. With a familiar Microsoft user interface, it provides a wide range of standard software applications that work seamlessly with your desktop operating system.

The Trimble Nomad G series is powered by the Windows Mobile 6 operating system, allowing you to choose from the most comprehensive range of software available to meet your field requirements. In addition, this operating system features security enhancements, for more robust use when connected to a network, and persistent storage memory so your data is protected from unexpected power loss.

Will software applications developed for Windows Mobile-based software run on the Windows Mobile 6 operating system?

Applications developed for Windows Mobile-based software (Windows Mobile 2003 software for Pocket PCs or Windows Mobile version 5.0 software), should run on the Windows Mobile version 6 operating system. However, some of the new functionality in the Windows Mobile 6 operating system may not be available or compatible with software developed for the Windows Mobile-based software.

Will software applications developed for QVGA screens run on the Trimble Nomad G series VGA screen?

In general, applications developed for a QVGA screen will scale correctly on a device with a VGA screen. All Trimble Mapping & GIS software has been updated for the Trimble Nomad G series and will display correctly on either QVGA or VGA devices. For more information, contact your software vendor.

What software versions support the Trimble Nomad G series?

The Trimble Nomad G series is supported by the following field software applications:

- TerraSync™ software version 3.05 or later
- Trimble GPSCorrect™ extension for ESRI ArcPad software, version 2.30 or later
- Trimble GPS Controller software version 2.15 or later
- Applications developed with GPS Pathfinder® Tools Software Development Kit (SDK) version 2.25 or later
- Third-party field software that supports NMEA input

Can I use postprocessed differential correction with the Trimble Nomad G series?

Yes. When using a Trimble Nomad G series handheld, data for postprocessing can be collected with the TerraSync software version 3.05 or later, the GPSCorrect extension version 2.30 or later, or an application developed with GPS Pathfinder Tools SDK version 2.25 or later. Data collected in GPS field software using the NMEA protocol cannot be postprocessed.

The internal GPS receiver does not output carrier data, so it is not possible to use carrier postprocessing techniques. For standard differential postprocessing, GPS Pathfinder Office software version 4.00, or the GPS Analyst™ extension for ESRI ArcGIS Desktop software version 2.10, with the latest updates applied, is required.

What real-time options are available for the Trimble Nomad G series?

The Trimble Nomad G series handhelds support WAAS correction services in North America (for Europe EGNOS test results pending). In open GPS environments, the Trimble Nomad G series handhelds typically achieve 2 to 5 meter accuracy using SBAS.

Can I connect the Trimble Nomad G series to a higher accuracy receiver?

The Trimble Nomad G series is compatible with all Trimble Mapping & GIS GPS receivers, including the GPS Pathfinder ProXH™, ProXT™, and Pro XRT receivers. The Trimble Nomad G series allows a Bluetooth connection to the GPS Pathfinder Pro series for cable-free use. The Trimble Nomad G series also allows connection to older Trimble receivers (for example GPS Pathfinder Pro XR and Pro XRS receivers) through serial cable on COM1 with the standard serial boot accessory.

What GPS output protocols are supported by the Trimble Nomad G series?

The Trimble Nomad G series can output the NMEA and SiRF binary protocols. If you connect to the receiver using Trimble GPS field software, NMEA output is switched off. If you need to re-enable NMEA output, you can use the GPS Controller software. The internal GPS receiver communicates in NMEA by default at 9600 bps.

Can I use an external antenna with my Trimble Nomad G series?

The Trimble Nomad G series does not have an external antenna option. The device is designed to achieve 2 to 5 meter (HRMS) accuracy with the integrated antenna, after differential correction.

How do I use the Trimble Nomad G series to ensure best performance?

When collecting point features or vertices, Trimble recommends that you log GPS data for at least 30 seconds, using a 1-second logging rate. Collecting multiple positions for a static feature helps to improve accuracy by averaging out the errors in individual GPS positions. In heavy canopy, or other difficult environments, logging for 1–2 minutes is recommended.

Pausing briefly (5–10 seconds) before logging a point feature or vertex also helps to get the best performance from the receiver. This allows you to ensure that the internal GPS receiver is horizontal and correctly located over the feature you are mapping, and allows it to settle so that positions are not influenced by the recent movement of the handheld.

How does the Trimble Nomad G series perform in harsh GPS conditions?

The Trimble Nomad G series can track all available GPS satellites. This allows you to get the best results when you work in many different environments, without having to adjust the GPS mask settings. The receiver performs well in harsh GPS environments, such as under heavy canopy and in urban areas.

What is the time to first fix for the Trimble Nomad G series?

The Trimble Nomad G series can take up to 4 minutes to get its first fix (GPS position) when it hasn't been used for several hours. When used within an hour of previous use, the time to first fix is typically less than a minute.

Can I use other GPS software with the Trimble Nomad G series?

The Trimble Nomad G series can connect to applications that accept NMEA messages. If you connect to the receiver using Trimble GPS field software, NMEA output is switched off. If you need to re-enable NMEA output, you can use the Trimble GPS Controller software.

What connectivity options does the Trimble Nomad G series support?

The Trimble Nomad G series has integrated Bluetooth wireless technology and integrated wireless LAN support for connecting to a variety of peripheral devices, or to the Internet and corporate networks for sending and receiving data, files, and email. The 800GX, 800GXC, and 800GXE handhelds are equipped with a cellular modem for connecting to the Internet without the need for a separate device. The standard serial boot has a DB9 serial port and a mini-USB client for connecting and synchronizing your device with an office computer.

The optional USB boot has a mini-USB client for connecting and synchronizing your device with an office computer, and a USB-host port and audio jack wired for a mono speaker and microphone combination headset. USB-host supports USB human interface devices (for example keyboards, and some barcode scanners) and USB mass storage devices.

What can I use the Trimble Nomad G series' wireless LAN capabilities for?

Trimble Nomad G series handhelds have an integrated wireless Local Area Network (LAN) radio compliant with IEEE 802.11 b/g that you can use to receive data anywhere within the range of a wireless LAN access point. Wireless LAN is often referred to as Wi-Fi.

There are many publicly available wireless LAN access points (also known as “hotspots”) available. To find publicly available access points, use locator Internet sites such as www.jiwire.com.

Using the wireless LAN radio in a Trimble Nomad G series handheld does not impact GPS performance. But battery power is consumed faster when there is an active connection to a wireless LAN access point.

What can I use the Trimble Nomad G series’ cellular modem capabilities for?

The Trimble Nomad 800GX, 800GXC, and 800GXE handhelds are equipped with an integrated cellular modem. Devices with a cellular modem are also described as having wireless WAN (Wide Area Network) capability as the modem can be used to transmit or receive data anywhere within the range of the mobile phone carrier’s cellular network. You can use the cellular modem to:

- Receive real-time corrections from VRS™ networks for use with the GPS Pathfinder ProXRT receiver for high accuracy GIS data collection
- Exchange or synchronize data with a remote server without returning to the office
- Access background maps from an Internet map server in the field
- Send or receive email in the field

Can the Trimble Nomad G series cellular modem be used for voice calls?

No. The modem is for data only and voice calls are not supported.

Will the cellular modem work in my region?

The Trimble Nomad 800GX, 800GXC, and 800GXE handhelds are equipped with a quad band GSM module that operates in the 850/900/1800/1900 MHz frequency bands. The GPRS/EDGE cellular modem on these devices will work on any GSM network operating in these bands that does not require carrier certification. The Trimble Nomad 800GX, 800GXC, and 800GXE handhelds are AT&T certified. Other carriers may also require certification.

The Trimble Nomad 800GX, 800GXC, and 800GXE handhelds are certified for use in the USA, Canada, and the European Union. Outside the European Union, distributors are responsible for determining radio type approval requirements.

For advice on local network coverage and whether the Trimble Nomad G series will work on your local network, consult with your carrier.

What can I use a Trimble Nomad G series’ Bluetooth capabilities for?

The Trimble Nomad G series has an integrated Bluetooth radio that you can use to establish cable-free connections to other Bluetooth devices that are within 10 meters.


Using a Bluetooth connection, you can communicate with Bluetooth-enabled devices such as mobile phones, desktop computers, and many more. You can also communicate with peripheral devices that use Bluetooth adaptors instead of serial or USB connections. In particular, you can add high-accuracy GPS capability by using a Bluetooth wireless connection to a GPS Pathfinder Pro series receiver.

Using the Bluetooth radio in a Trimble Nomad G series has no impact on GPS performance. However, when there is an active connection to another Bluetooth device, battery life is shortened.

What are the functions of the integrated digital camera?

The Trimble Nomad 800GLC, 800GLE, 800GXC, and 800GXE models include an integrated digital camera. You access the camera through an application that is pre-installed with the operating system. The camera features a variety of shooting modes to make it easier to capture images in different lighting conditions, and it can also record video with audio. The 2-megapixel sensor can capture images with low, medium, or high compression, and in a choice of resolution from 320x240 to 1600x1200 pixels. The camera uses the standard Windows Mobile API for camera control, and it is compatible with other field software applications such as ESRI ArcPad, which has integrated camera functionality. You can use the camera while logging GPS positions with the internal GPS receiver.

What are the functions of the barcode scanner?

The Trimble 800GLE and 800GXE models include an integrated barcode scanner. You can use your own barcode scanner software or the pre-installed ScanAgent application included with the device. To access the scanner, either press the arrow button  on the keypad, or open the scanner SIP (soft input panel). The scanner can collect up to four scans per second, and features a bright scan line and aim mode. The scanner has a programmable scan angle, and supports most symbologies.

How is the Trimble Nomad G series handheld powered?

The Trimble Nomad G series is supplied with a rechargeable, field-removable Li-Ion battery that provides up to 15 hours of battery life in normal use (including wireless radios and GPS). The battery is internally rechargeable using the international power supply that comes with the system. Spare rechargeable batteries, an external battery charger, and a 12 V vehicle adapter are also available as optional accessories. Charging the battery takes approximately 4.5 hours.

What can I do to prolong battery life?

To maximize battery life, Trimble recommends the following:

- Turn off wireless radio services such as the cellular modem, Bluetooth and Wireless LAN, when not in use.
- Disconnect from the GPS receiver, when positioning is not required.
- Turn off the screen backlight; reduce the backlight brightness.
- Try to avoid using the handheld in very cold conditions (-20 °C/-4 °F and below).

What is in the box?

The Trimble Nomad G series is supplied as standard with the following components and accessories:

- Rechargeable Li-Ion battery module
- Rugged stylus with spring-loaded tip
- Stylus lanyard
- AC Power supply with International adapter kit
- USB data cable
- User guide

- Hand strap
- Screen protectors (2-pack)
- Getting Started CD with ActiveSync® technology

What optional accessories are available for the Trimble Nomad G series?

The following optional accessories are available for the Trimble Nomad G series:

- Nylon carry case
- USB boot with USB host, client, and audio jack
- Spare battery charger
- Extended cap
- 12 V vehicle charging cable
- Vehicle mount
- Serial interface cable
- AA Battery Module

What expansion options are available on the Trimble Nomad G series?

The Trimble Nomad G series contains a fully sealed SD slot that you can use with an SD memory card with up to 2 GB capacity. Higher capacity SD cards (SDHC) up to 8 GB, manufactured by SanDisk and Kingston, are also supported. You can use the integrated camera to log directly to an installed SD card. Some applications may also support storage of data directly to SD. To access the SD slot, simply remove the top cap with the supplied screwdriver/stylus tool. The 800GL and 800GX models also have a CF slot.

Are the camera or barcode scanner removable?

No. For models with an integrated barcode scanner and/or digital camera, these components are hardwired into the device.

Are accessories from the Trimble Recon or Trimble Ranger handhelds compatible with the Trimble Nomad G series?

The following Trimble Recon® and Trimble Ranger™ handheld accessories are also compatible with the Trimble Nomad G series:

Trimble Recon handheld	Trimble Ranger handheld
Null Modem Cable	Cable
Vehicle Charger	
AC Charger	

Where can I get more information?

Go to www.trimble.com/nomadg.shtml or contact your local Trimble Mapping & GIS reseller.