

Customer FAQs

GEOSPATIAL DIVISION
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TRIMBLE NOMAD 5 HANDHELD

What is the Trimble Nomad 5 handheld computer?

The Trimble® Nomad® 5 handheld is a fully rugged field computer designed to make GIS data collection and asset management easier. Featuring an expansion slot, Android™ operating system, and Bluetooth® and 4G LTE connectivity, it is a flexible device for the productive field worker. The ultra-rugged design, long lasting user-replaceable battery, and large bright screen make it reliable and dependable for working in all conditions and environments to keep your data safe. With new and improved features, this next generation Nomad 5 handheld is ultra-rugged, more flexible, and easier to use making it the perfect handheld computer for the field professional.

What are the key features of the Trimble Nomad 5 handheld?

5-inch touch screen, 2 cameras (front and back), up-to-date connectivity, dependable ruggedness, Trimble EMPOWER module expansion slot, user replaceable battery, Android 8.1 operating system.



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Components

What are the functions of the integrated digital cameras?

The Nomad 5 handheld includes a rear (field facing) 8 megapixel and a front (customer facing) 16 megapixel camera with an LED flash.

The camera is accessed 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.

How many function keys does the Trimble Nomad 5 handheld have?

The Nomad 5 handheld has 3 physical function keys. They are located underneath the screen at the bottom of the device.

What can I do with the function keys on the Nomad 5 handheld?

The function keys can be programmed to open any application for quick access. To program the desired functionality, use the **Assign Keys** application.

What is in the Nomad 5 handheld packout?

The Nomad 5 handheld packout includes the following items:

- Handheld computer with battery
- AC power adapter with power cord (international version adapters)
- Screen protector
- Stylus and tether
- USB data cable
- Screwdriver
- Quick start guide

Which screws are intended to be unscrewed by users?

Only Phillips (cross cut) screws are intended to be unscrewed by users. They are used to attach EMPOWER modules and the covers of SIM / SD card slots. Do not unscrew any other screws; you might damage a water- and/or dust-tight sealing. Other screws should only be unscrewed by Trimble service providers.

How do I enable the accelerometer and electronic compass?

The orientation sensors are active and applications can access and use the sensors. To see the sensor output, free tools are available from the Google Play Store.

Can I use a nano-SIM card with a spacer to fit the micro-SIM card slot?

Yes. However the nano-SIM may disengage from the spacer and can get stuck. Using a spacer is possible but Trimble recommends using a micro-SIM card.

Why do I have to change touch screen modes when switching between finger and stylus?

Fingers, styli, and gloves have different characteristics in response of a capacitive screen. For optimal response it is recommended to use the appropriate mode. Change the mode with the Touch Control app.

Screen

Do I need a screen protector?

Trimble strongly recommends using a screen protector. The screen protector provided with the Nomad 5 handheld out of the box and available as an accessory protects the screen long term.

How do I apply the screen protector?

Make sure the screen is clean before you apply the screen protector; any dust or dirt between the screen and screen protector will be visible and degrade your display experience.

1. Place the device on a clean, flat surface.
2. Clean the touchscreen with a damp cloth, alcohol wipe or similar.
3. Polish and dry the screen to remove any dust with the lint-free cleaning cloth supplied with the screen protector.
4. Remove the protective film from the screen protector.
5. Align the screen protector with the glass portion of the display. The screen protector should line up evenly with the edges of the device.
6. Carefully lay the screen protector down on the screen. If you make a mistake and the glass looks off-center, you can gently lift the screen protector up and realign it. Then, once the protector is on the screen, give it a soft press in the center and allow the adhesive surface to grip to the screen naturally.
7. If there are any bubbles remaining, use the cloth provided to gently smooth them toward the edges of the screen protector.

NOTE: You can place the screen protector in place and fix it on the upper side with adhesive strips to the housing. This will keep the screen protector aligned when sticking in on.

How do I lock the screen rotation?

Go to **Settings / Display / Advanced** and tap **Auto-rotate screen** to toggle the rotation lock on/off.

What is important to know about projective capacitive touchscreens?

Capacitive touchscreens are very common in today's tablet computers and smartphones. The Trimble Nomad 5 handheld has a capacitive touchscreen that is highly responsive to the touch of a finger, as well as a capacitive stylus. You can easily zoom into images or data (if the software used supports dual touch user interface).

The capacitive touchscreen is based upon the user being a conductor to enable the touchscreen properties. If you are using gloves, such as during very cold weather, Trimble recommends using gloves that are designed for capacitive touchscreens, or the stylus.

The capacitive screen does also work in rain. However in heavy rain or when wiping the screen, false contacts may happen. To wipe the screen and avoid false contacts the touch input on the screen can be deactivated with a key on the physical keypad.

A software tool, the Touch Mode app, is provided to switch between using stylus, fingers, or glove.

What are the "Touch Modes"?

There are touch modes for finger, stylus, and (conductive) glove. Use the Touch Control app which is installed on the Nomad 5 handheld to switch between touch modes.

Accessories

What optional accessories are available for the Nomad 5 handheld?

Handstrap kit, screen protector, rechargeable battery, soft carry case, USB I/O boot, charging station, vehicle hard mount, vehicle soft mount, 12V vehicle adapter, AC adapter, pole bracket, external antenna, stylus with tether, 1D/2D barcode imager, 1D/2D barcode imager & UHF 902-928 MHz RFID - NA, 1D/2D barcode imager & UHF 865.6-867.6 MHz RFID - EU, sub-meter GNSS EMPOWER module

What are the Empower modules?

The Trimble EMPOWER modules provide functions like sub-meter GNSS, RFID scanning, or barcode reading. They are user-exchangeable.

If I lose my stylus, can I use a non-Trimble stylus?

Yes, there are a wide variety of capacitive touch styluses available in the marketplace that work well with the Nomad 5 handheld as long as they have a rubber tip. However the stylus available as an accessory is tuned for the Nomad 5 handheld display and it fits into the stylus holder. Trimble cannot guarantee other styli will work.

Where can I tether my stylus or attach it when not in use?

The stylus comes with a tether that can be easily attached to the mount point by looping the tether through either of the device hooks on the bottom. The stylus can be attached through the handstrap loop for easy storing when not in use.

How do I attach and use the handstrap of the Nomad 5 handheld?

To ensure a good fit:

1. Thread one end of the handstrap ribbon through the handstrap mounting clip; feed it up, over, and down through the lock buckle on the handstrap and pull it tight.
2. Use an Allen key to attach the mounting clip to the Nomad 5 handheld on the left or the right side, according to personal preference.
Note: You can attach a mounting clip to both sides of the Nomad 5 handheld if required
3. Thread the ribbon at the other end of the handstrap through the bottom handstrap slot.
4. Pull the end of the ribbon back towards the center of the handstrap and feed it up, over, and down through the lock buckle on the handstrap and pull it as tight as is comfortable for your hand.
5. If required, use a small blunt tool to push the ribbons through the handstrap slots on the device. Do not use a sharp tool.

Software

Is there a flashlight app?

There are plenty of free flashlight (and other) apps in the Google Play Store: Search for <https://play.google.com/store/search?q=flashlight&hl=en>

How do I capture screenshots?

Power key + Volume Down will save a screen capture to the My Pictures / Screenshots folder.

How does the operating system language provisioning feature work?

When starting the Nomad 5 handheld the first time, you are prompted to select the desired language.

How do I activate Android 8.1 on the Nomad 5 handheld?

The Android 8.1 operating system will guide you through the configuration process the first time you turn on the handheld. This process takes a few minutes. You should set up a Google account and user. After the initial setup, you can change the user settings and most of the other settings through the Settings menu.

Connectivity

Can the Nomad 5 handheld be used for voice calls?

No. However you can use third-party VoIP applications and services such as Skype with the Nomad 5 handheld.

What cellular networks does the Nomad 5 handheld computer support?

Worldwide LTE in regions where it is available and compatible with 4G and 3G networks. AT&T and Verizon supported. WiFi 802.11 a/b/g/n/ac, Bluetooth BT 2.1 + EDR, BT 4.2

How do I switch cellular networks?

Go to **Settings / Network & Internet / Mobile Network / Advanced** and tap **Automatically select network** to toggle the lock off and then select the desired network.

How can I transfer data with my Nomad 5 handheld?

Data can be transferred from the Nomad 5 handheld using the following methods:

- Via cloud-based file sync services (for example, Dropbox, Microsoft OneDrive, Google Drive sync, or with other cloud-based apps) over Wi-Fi or 4G.
- Via Wi-Fi connection using a wireless LAN connection to an access point
- Via a USB data transfer cable (type C)
- Via a USB stick

How can I use the Nomad 5 handheld Wi-Fi capability?

The Trimble Nomad 5 handheld has integrated Wi-Fi that can be used to receive data anywhere within the range of a Wi-Fi access point. A Wi-Fi connection can be used to connect to the Internet (at broadband speeds) through an access point.

NOTE: When there is an active connection to a Wi-Fi access point, power consumption increases and the battery will discharge more rapidly.

How can I use the Bluetooth capability?

The Nomad 5 handheld has an integrated Bluetooth® radio to establish cable-free connections to other Bluetooth devices that are within 10 meters.

Using a Bluetooth connection, you can communicate with other Bluetooth-enabled devices such as mobile phones, desktop computers and more. You can also communicate with Bluetooth-enabled peripheral devices instead of using USB connections.

NOTE: When there is an active connection to another Bluetooth device, power consumption increases and the battery will discharge more rapidly. Individual usage patterns will vary by device and the frequency of the Bluetooth communications

How do I change the SD and SIM card?

The SIM card and SD card slots are underneath the EMPOWER module bay on the top back of the device. If you have an EMPOWER module installed, you will need to remove it. If you do not have a module attached to the device, the module bay cover should be attached; you will need to remove it.

For either the EMPOWER module or the module bay cover, use a Phillips screwdriver to loosen the 4 Phillips screws and remove the module or cover.

Looking from the top down, there is an elongated door secured with 4 silverish Phillips screws. Loosen these screws and then remove the SD/SIM card door.

Insert the SD (micro) or SIM (micro) card. Then close the SD/SIM door and replace the screws, and re-attach the module or module bay cover, tightening the screws.

What type of cable connections does the Nomad 5 handheld support?

The Nomad 5 handheld ships with USB type C data transfer cable and audio plug on the user-replaceable I/O boot.

Can I replace the I/O block?

Yes. The I/O boot is user-replaceable in case of damages.

GNSS

Does the Nomad 5 handheld have internal GNSS?

Yes. The Nomad 5 handheld has an integrated GNSS receiver.

What level of GPS accuracy can I expect with my Nomad 5 handheld?

The Nomad 5 handheld uses an uBlox NEO-M8T chipset that is capable of 2 to 4 meter real-time accuracy using its integrated antenna and SBAS corrections. If you use a GNSS L1/L-band GNSS Module you can receive GNSS positions with sub-meter accuracy.

NOTE: Accuracy depends on environmental conditions.

What are SBAS corrections and how does the Nomad 5 handheld use SBAS?

All Nomad 5 handhelds have an integrated GPS receiver that supports SBAS (Satellite Based Augmentation Systems) satellites under normal conditions.

Can I use an external GNSS antenna with my Nomad 5 handheld?

Yes, an external GNSS antenna can be used as well as advanced GNSS setups with the Empower GNSS module or survey grade receivers.

Can I use an external GNSS receiver with my Nomad 5 handheld?

Yes, Trimble makes GNSS receivers that connect easily to the Nomad 5 handheld through a Bluetooth connection. Please research the specifications and connection options prior to making model and configuration assumptions for an external GNSS receiver. If you want to connect via Bluetooth make sure your receiver is capable of using a Bluetooth PIN.

Is raw GPS data available?

Yes.

How to get the location into Chrome?

Go to **Settings / Security & Location / Location / App-level permissions** and turn on or off the applications that you want to grant access to location data. These location data are received from your Wi-Fi or WWAN network, or from the Nomad 5 handheld internal GNSS receiver.

How do I connect the EM100 location to the Esri® Collector for ArcGIS® field app?

Ensure the EM100 module is connected to the device and the EMPOWER Hub application is running in the background.

Go to **Settings / System / About tablet** and tap **Build number** seven times. Once completed, a message will read "You are now a developer".

Go to **Settings / System / Developer options / Select mock location app** and select **GNSS Status**.

Open GNSS Status, go to **Settings / Source / Position Source** and select **Trimble EM100 GNSS Module**.

Open Esri Collector, go to **Settings / Location provider / Integrated receiver / Details** and select **Location services**.

Operating System

What operating systems does Nomad 5 handheld support?

The Nomad 5 handheld is powered by the Android 8.1 operating system. This is an open and fully GMS certified operating system enabling you to run any application, for example the Trimble TerraFlex™ software or Trimble Penmap® for Android software, and third party applications such as Skype, Esri® collector for ArcGIS®, etc.

How can I reset my Nomad 5 handheld?

Go to **Settings / System / Reset options / Erase all data (factory reset)**. Note, this will erase all data from the device.

How do I update the Android operating system?

Go to **Settings / System update / Check for update** and update the system if it is not up to date.

Power

What does the status LED indicate?

The charging status is shown with an LED on the front of the display.

- Red: charging error
- Orange: Nomad 5 handheld is charging
- Green: Nomad 5 handheld is fully charged

Will using WWAN impact my battery life?

Yes. However, battery life is a complex calculation, based on a variety of factors that include: software applications in use, wireless features in use (Bluetooth, Wi-Fi, GPS), exposure to extreme heat or cold, age of the batteries, and battery storage and charging routines. Using the WWAN feature requires power and that comes from the battery when the device is not plugged into an electrical outlet.

How do I change the battery?

Do the following:

1. Slide the locking clip to the Unlocked position.
2. Insert the battery top side first.
3. Press firmly down on bottom battery until it latches into place.
4. Slide the locking clip to the Locked position.

To remove a battery:

Caution- If you remove the battery the device will instantly turn off due to power loss. Make sure you either plug the device into a power source or shut the device down to prevent loss of data.

1. Slide the locking clip to the Unlocked position
2. Slide the battery latch across
3. Lift the battery up and out

Why are the batteries arriving "dead"?

The batteries are not dead but in sleep mode. This prevents the batteries from degrading when shipping or being on a shelf. The batteries will "wake up" once charged in a Nomad 5 handheld or the charging dock available as accessory.

How do I turn off the device?

To turn off the device, push and hold the power button located on the left side of the device then tap **Power off** on the screen.

How do I maximise battery life?

Ways to reduce power consumption and extend the battery life are:

- Battery Saver (Android 8.1 battery settings)
- Minimize the Power & sleep timeout settings (Settings > Display > Advance)
- Reduce the display backlight (Settings > Display or pull down Quick Settings and drag slider)
Lock screen rotation
- Turn off unneeded radios (Wi-Fi, WWAN, Bluetooth)
- Change sync settings (Settings > Users & Accounts > Automatically sync data). Deselect the items you don't need.

How long does it take to charge the battery of the Nomad 5 handheld?

The Nomad 5 handheld will take less than 4.5 hours to fully charge. Batteries should neither be charged at temperatures below 0°C (32°F) nor temperatures above +45°C (113°F) to avoid impacting battery longevity and performance.

Where can I get more information?

Go to geospatial.trimble.com/Nomad-5 or contact your local authorized [Trimble Distributor](#).