

# Customer FAQs

GEOSPATIAL DIVISION

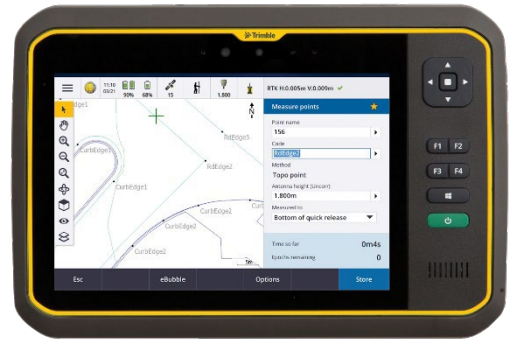
October 2022

## TRIMBLE T7 TABLET

### What is the Trimble T7 tablet?

The Trimble® T7 tablet is a rugged field tablet that provides flexibility for survey and GIS applications. The T7 is a next generation GNSS tablet that integrates seamlessly with Trimble field software and the Trimble suite of GNSS receivers and total stations to provide a complete, fully integrated field solution for surveyors and GIS professionals. The familiar Windows® 10 operating system and up-to-date wireless communication allows users to upload, sync, and share data in real time using Microsoft® Office software applications or third-party developed software. The T7 tablet has a flexible modular system for expansion and an internal professional GNSS receiver for accurate real-time positioning. Featuring a 7-inch sunlight readable screen, hot-swappable batteries, and military certified rugged exterior, the T7 tablet is designed to work in the toughest environments for maximum efficiency and productivity.

The T7 tablet is ultra-rugged, more flexible, and easier to use making it the perfect handheld computer for the field professional.



### What is new with the updated T7 tablet released in October 2022?

The T7 tablet released in October 2022 includes up to eight hours of battery life.

### What are the key features of the T7 tablet?

7-inch touch screen, two cameras (front and back), up-to-date connectivity, dependable ruggedness, two Trimble Empower™ module expansion slots, hot-swappable batteries, Windows 10 operating system.

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## Components

### **What are the functions of the integrated digital cameras?**

The T7 tablet includes a rear (field-facing) 8 megapixel and a front (user-facing) 2 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 T7 tablet have?**

The T7 tablet has four physical F-keys (function keys). They are located to the right of the screen on the front of the device.

### **What can I do with the function keys on the T7 tablet?**

The function keys can be programmed to assign actions or open any application for quick access. To program the desired functionality, use the Function Key Setting application.

### **What is in the T7 tablet packout?**

The T7 tablet packout includes the following items:

- Tablet with battery
- AC power adapter with power cord (international version adapters)
- Screen protector
- Stylus and tether
- Handstrap

## **What are the environmental performance characteristics of the T7 tablet?**

Water: IP65 - Survives rain and water spray from any direction.

Dust: Protected against dust: IEC 60529, IP68.

Drops: Survives multiple drops of 4 ft. (1.22 m) MIL-STD-810G, Method 516.6 Procedure IV.

Operating Temperature: -4°F to 140°F (-20°C to 60°C), MIL-STD-810G.

Storage Temperature: -22°F to 158°F (-40°C to 70°C), MIL-STD-810G.

For details, refer to the datasheet.

## **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 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 Microsoft Store.

## **What size is the SIM card?**

The T7 tablet requires a micro-SIM.

## **Why do I have to change touchscreen modes when switching between finger and stylus?**

The capacitive touchscreen responds differently to the different characteristics of fingers, styli, and gloves. For optimal response Trimble recommends that you select the appropriate mode; use the Touch Control app that is installed on the T7 tablet.

## **Screen**

### **Do I need a screen protector?**

Yes. Trimble strongly recommends using a screen protector. The screen protector provided with the T7 tablet out-of-the box and available as an accessory protects the screen long term. Although the screen of the T7 tablet is hardened glass, it may show scratches over time. The screen protector also protects the screen from UV radiation.

## 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 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?

You can lock the screen rotation in the Windows 10 Action Center. Tap the Action Center icon at the lower right corner of the screen, and then tap Lock Rotation.

## What is important to know about projective capacitive touchscreens?

Capacitive touchscreens are very common in today's tablet computers and smartphones. The T7 tablet 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.

## **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 T7 tablet to switch between touch modes.

## **Do I have to use Trimble-provided gloves for my touchscreen to work?**

No, but you do need to use gloves designed for use on projective capacitive touchscreens. There are plenty of touchscreen safety gloves available; Trimble does not provide gloves.

## **Accessories**

### **What optional accessories are available for the T7 tablet?**

Pole mount, handstrap, shoulder sling, shoulder sling bag, stylus, screen protector, power supply, vehicle charger, spare batteries, external battery charger, Empower modules. For more information, contact your Trimble distributor.

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

Yes, there are a wide variety of capacitive touch stylus available in the marketplace that work well with the T7 tablet as long as they have a rubber tip. However the stylus available as an accessory is tuned for the T7 tablet display and it fits into the stylus holder. Trimble cannot guarantee other styli will work.

### **How do I attach and use the handstrap of the T7 tablet?**

Attach the handstrap to the left or the right side of the device, according to your personal preference. To ensure a good fit:

1. Thread one end of the handstrap ribbon through the top handstrap slot; thread from the center of the device toward the top of the device.
2. 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 tight.
3. Thread the ribbon at the other end of the handstrap through the bottom handstrap slot; thread from the center of the device toward the bottom of the device.
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.

## How do I attach and use the shoulder sling with my T7 tablet?

There are several ways to attach the shoulder sling to the T7 tablet:

- If you have a handstrap attached to the device, clip the shoulder sling onto the handstrap buckles.
- If you do not have a handstrap attached to the device, attach the shoulder sling standalone connector straps to the handstrap slots on the device, and clip the shoulder sling to the connector straps.
- You can attach the shoulder sling to the handstrap slots/shoulder sling connector straps on either side of the device, according to your preference.
- You can attach a shoulder sling to the top or bottom handstrap slots, or use two shoulder slings and attach them crosswise to the device to create a harness.

## What are the Empower modules?

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

## Software

### How do I install the Trimble Access™ software?

You need to download and install the Trimble Installation Manager on the T7 tablet. Connect the T7 tablet to the internet, open the browser and download the Trimble Installation Manager from <http://www.trimble.com/installationmanager/>. When you start Trimble Installation Manager, the Trimble Access software downloads; you must have a Trimble Access license.

### How can I change the date format in the Trimble Access software?

To change the date format using the Trimble Access software:

1. On the status bar, tap Date/Time. The operating system Date and Time settings dialog opens.
2. Scroll down to Related Settings and tap Additional Date, Time & Regional Settings.
3. Under Region, tap Change Date, Time or Number Formats.
4. Tap Additional Settings.
5. On the Date tab, type into the short date field the format that you want. Tap Apply and then tap OK.

## **Can I set the camera to use the rear camera when starting the camera app instead of the user-facing camera?**

Windows 10 opens the user-facing camera the first time you open the camera app. To change to the rear camera, in the camera app, tap the icon in the top left corner of the screen. The camera app remembers the last setting and will launch the selected camera the next time you open the camera app.

## **How do I activate Windows 10 on the T7 tablet?**

Windows 10 will guide you through the configuration process. This process takes a few minutes. You should set up a Windows account and a user. After the initial setup, you can change user settings and most of the other settings in the Settings menu.

## **How does the operating system language provisioning feature work?**

When you turn on the T7 tablet for the first time, you are prompted to select the desired language.

# **Connectivity**

## **Can the T7 tablet be used for voice calls?**

Not through the cellular network, however you can use Microsoft Teams or similar audio and video applications.

## **What cellular networks does the T7 tablet computer support?**

Worldwide LTE in regions where it is available, and compatible with 4G networks. AT&T and Verizon supported. Wi-Fi 802.11 a/b/g/n/ac, 2.4 GHz, Bluetooth® wireless technology 5.1.

## **How can I transfer data with my T7 tablet?**

Data can be transferred from the T7 tablet using the following methods:

- Via cloud-based file sync services (for example, Trimble Connect® app, Dropbox, Microsoft OneCloud, 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 stick

The Windows operating system enables the use of any cloud-based software already in common use. It is also possible to sign in through the Trimble Access software to an integrated survey workflow which connects Trimble Business Center office software and other office-based data with Trimble Access software using Trimble Sync Manager™ and the Trimble Connect cloud platform.

## How can I use the T7 tablet Wi-Fi capability?

The T7 tablet 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 wireless technology capability?

The T7 tablet 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 located underneath the Empower module bay on the 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.

1. For either the Empower module or the module bay cover, use a Phillips screwdriver to loosen the four Phillips screws and remove the module or cover.
2. Looking from the top down, there is an SD/SIM bay door located on the right edge of the module bay. Flip the SD/SIM bay door open, and insert the SD and the SIM card into their respective slots.
3. Close the SD/SIM bay door.
4. Replace the module bay covers, or if using modules, re-attach them, tightening the screws.

**CAUTION** - The T7 tablet has a micro-SIM card housing. If you have a nano-SIM card, you will need a nano-SIM to micro-SIM card adapter sleeve to fit into the micro-SIM card slot. A problem can occur when the adapter sleeve (with SIM inside) is inserted into the T7 tablet's SIM slot incorrectly where the SIM falls out of the adapter sleeve while still inserted in the SIM card slot. When the adapter sleeve is empty and you attempt to remove it from the T7 tablet, it catches on delicate SIM terminal contacts. **Trimble highly recommends using a micro-SIM card and not a nano-SIM card with adapter.**



### **What type of cable connections does the T7 tablet support?**

The standard configuration T7 tablet ships with USB 3.0, serial DB-9, power, 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 damage.

### **Can I use a normal USB cable to connect my T7 tablet to my desktop PC / laptop?**

No. USB cables as used for mobile devices are not supported because the T7 tablet uses a Windows 10 desktop operating system, not a mobile operating system.

### **Is there a potential problem with USB 3.0 and GNSS?**

Yes. USB 3.0 in general can potentially jam GNSS bands. Trimble recommends you do not use USB 3.0 sticks on the T7 tablet to transfer data when logging base data.

## **GNSS**

### **Does the T7 tablet have internal GNSS?**

Yes. The T7 tablet has an integrated GNSS receiver.

### **What level of GNSS accuracy can I expect with my T7 tablet?**

The typical accuracy is 2 to 4 meters.

### **Can I use an external GNSS antenna with my T7 tablet?**

Yes. For more information, see the Trimble GNSS systems portfolio here:

<https://geospatial.trimble.com/products-and-solutions/gnss-systems>

## **Operating System**

### **What operating systems does T7 tablet support?**

The T7 tablet supports Microsoft Windows 10. This is an open and fully capable desktop operating system enabling you to run any Windows software, such as Microsoft Office or Microsoft Teams.

## **Can I install my own Microsoft Windows 10 operating system and are the required drivers available?**

Yes. It is possible to install an enterprise version of Windows 10 on the T7 tablet as with any other PC. Drivers are available on the T7 tablet support website.

## **How can I reset my T7 tablet?**

You can reset the T7 tablet through the Windows 10 operating system.

## **Does the T7 tablet support Windows 11?**

Windows 11 requires device screens of 9" or larger. With a 7" screen the T7 tablet supports Windows 10 and will continue to receive security and driver updates via Windows Update.

## **How do I reload the operating system, or update the BIOS?**

Windows images and BIOS are located here <http://mcs.trimble.com>

# **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: charging (changes to solid green when charged)
- Green: fully charged
- Green - Flashing: sleep state

## **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, GNSS), 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 a battery?**

Do the following:

1. Turn the battery latch 180° anticlockwise until the flat edge aligns with the battery opening (you can use a coin or the top of the stylus to do this).

2. Insert the battery, then turn the battery latch 180° clockwise to lock the battery in place.

To remove or hot-swap batteries:

**CAUTION** - Trimble strongly recommends that before you hot-swap a battery:

- In the Trimble Access software, you complete your task;
- In all other applications, you save your data.

**NOTE:** If you remove both batteries at the same time the device will instantly turn off due to power loss. Make sure you keep one battery in the device by following the instructions. If you have the device turned off you can remove both batteries at the same time.

1. Use the battery indicator LEDs to identify the battery with more remaining power. Start with the battery with the least remaining power.
2. Turn the battery latch by 180° anticlockwise until the flat edge aligns with a battery opening, then remove the battery.
3. Replace this battery with a fully charged battery.
4. Turn the battery latch 180° clockwise to lock the battery in place.

### **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 T7 tablet.

### **Can I charge the batteries in my T7 tablet?**

Yes. Batteries can be charged in the T7 tablet, or using the external battery charger available as an accessory.

### **Can I use a power bank to charge the T7 tablet?**

No. A power bank provides 5V through the USB port. Power banks are suitable for smartphones or small tablets, but the T7 tablet consumes more power. It uses 19V and can only be charged through the power supply port.

### **What happens if I remove both batteries at the same time?**

The T7 tablet will instantly turn off due to power loss. Make sure you always keep one reasonably charged battery in the device when changing the batteries.

### **In which order is power consumed from the batteries?**

One battery is discharged first, then the second battery is discharged. This gives you better control over the battery status and hot-swap.

## How do I maximize battery life?

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

- Battery Saver (Windows 10 Action Center)
- Minimize the Power & sleep timeout settings
- Reduce the display backlight
- Lock screen rotation
- Turn off radios when they are not in use (Wi-Fi, WWAN, Bluetooth)
- Change sync settings (Settings / Accounts > Sync your settings). Deselect the items you don't need.

## Is it normal for the battery to get warm?

Yes, it is normal for any battery to get warm during discharge or charging. Note that batteries should not be charged at temperatures below 0°C (32°F) nor temperatures above 45°C (113°F) to avoid impacting battery longevity and performance. Do not charge batteries inside a hot vehicle (for example, parked in the sun) as temperatures can quickly exceed the specified range.

## The T7 tablet released in October 2022 is said to have better battery life, what can I expect compared to the previous model?

Battery life on the new model has improved to an estimated 8 hours of use compared to 4 ½ hours on the previous model. Environmental conditions, screen brightness, and application use can vary.

## Where can I get more information?

Go to <https://geospatial.trimble.com/t7> or contact your local authorized [Trimble Distributor](#).