Introducing the Trimble T70 Tablet

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Overview

Trimble T70: Connect to a better way to work

Designed for the modern surveyor and construction professional, Trimble T70 is the compact, Android tablet that delivers exceptional versatility and seamless transition across GNSS, on-machine guidance, Robotic Total Stations, and Autolock workflows, driving unparalleled productivity in any environment.

The T70 replaces the T7 as well as the TCU5.

Connect to a better way to work

VERSATILE

Seamless Transition across different workflows

Switch between any of these while working in the same job file in your field software

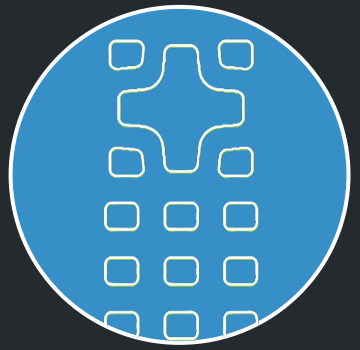
Connect to a better way to work

COMPACT

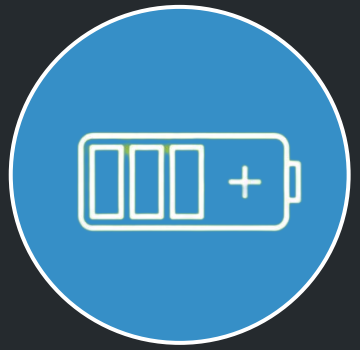
Attach directly to your total station, or use as a lightweight data collector for GNSS collection

6” Screen

760 g Weight



32 Keys



12-14 Hr Battery

Connect to a better way to work

CONNECTED

Designed to let you control hardware, transfer data easily, and integrate with the cloud

1 Empower Bay

Integrated Comms

QuickShare

Trimble Connect & WorksManager

02

Feature Details

Display

See every detail, in any light

- **6” (15.2 cm) Landscape Display** with Full HD+ resolution (2160 x 1080 px)
- **Sunlight Readable** with high brightness (900 cd/m^2) and adaptive brightness sensor
- **Multi-Touch Display** for pinch-zoom and 3D model rotation
- Optimized for use with **stylus, finger, and gloves**

Battery & Power

Designed to work long days

- **12-14 Hour Battery life**, tested with:
  - Screen Brightness 100%
  - Using an EmPower Radio
  - Measuring Continuous Topo with either a Total Station (12 hr life) or GNSS (14 hr)
  - While streaming video
  - At room temperature
  - WiFi and Cellular turned off
- **Internal Battery**: Li-ion 12,800 mAh / 3.635 V
- **Charging**:
  - 4 hours for full-charge
  - Power input: USB Type-C

Communication

Connect from anywhere and manage files easily

Built-in comms let you **sync to the cloud**, even from the field, as well as **receive VRS or IBSS corrections**.

- **Global 4G LTE**:
  - UMTS 3G in regions where it is available
  - NanoSIM card
- **Wi-Fi 6**: 2.4 & 5 GHz
- **Bluetooth® 5.2**
- **Near Field Communication**

Internal GNSS

Leverage GNSS without a dedicated receiver

- **Internal GNSS specs:**
  - Integrated Sierra Wireless EM7590 L1 C/A
  - Tracks GPS, GLONASS, BeiDou, Galileo, & QZSS
  - 4m Horizontal RMS in favorable conditions
- **Useful for:**
  - GIS workflows where high accuracy isn't needed
  - Metadata for all images
  - To assist with tracking when using a robotic total station!

Internal GNSS & Trimble Access

Regain target lock faster with GeoLock

- GeoLock is GNSS-assisted Autolock: If the instrument loses lock to the target and GNSS positions are available, it will help point the instrument to the target
- Enable from the Target controls screen or the Instrument Functions screen
- GeoLock requires a known relationship between the GNSS and local positions. There are two ways to do this:
  - Set up the total station in a defined projection and datum
  - If you not using a defined coordinate system, Trimble Access will math it out!
    - After your station setup, walk for ~30-60 seconds, staying at least 10 meters from the total station
    - TA will capture 5 points with GNSS and the total station simultaneously
- When available, “GeoLock ready” appears in the status bar

Internal GNSS & Trimble Siteworks

Regain target lock faster with Turn-To-GNSS

- Turn-To-GNSS is GNSS-assisted lock to target: If the instrument loses lock to target and GNSS positions are available, it will help point the instrument to the target

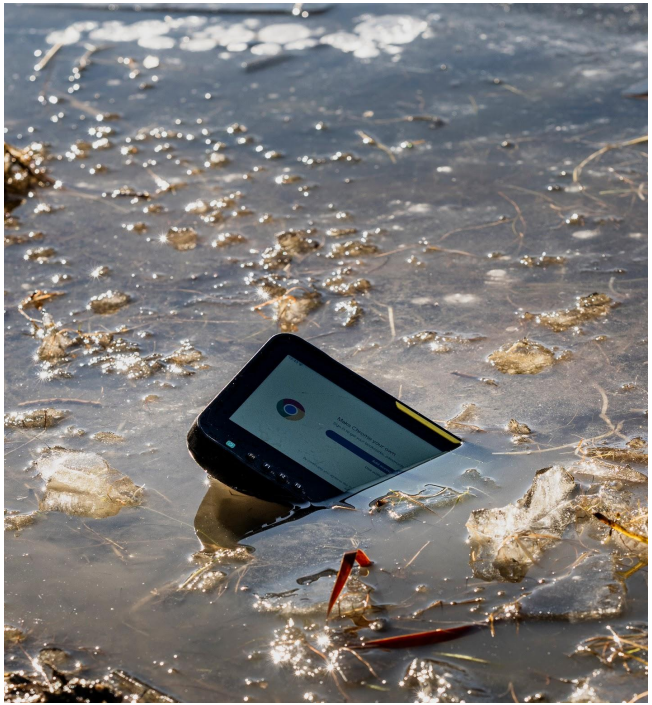
- When in the **Search for Target** screen (reached from the total station control panel Search button), tap the icon next to the **TURN TO** button to turn the instrument to the current GNSS position

- Turn-To-GNSS only when using Integrated Survey, the Siteworks feature enabling combined prism and GNSS workflows

Environmental specifications

Designed for everyday wear, and accidents

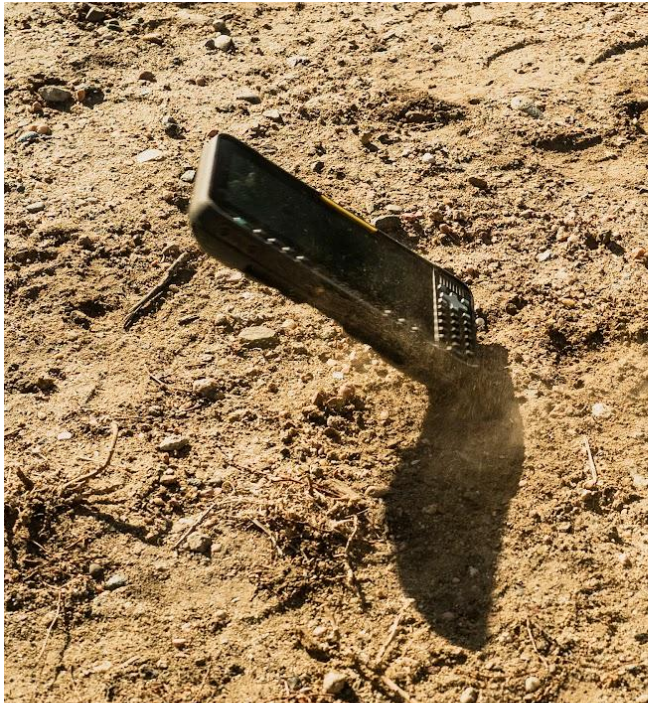
Specifications	
Operating Temp	-20 °C to +60 °C (-4 °F to 140 °F)
Storage Temp	-30 °C to +70 °C (-22 °F to 158 °F)
Startup Temp	-20 °C to +60 °C (-4 °F to 140 °F)
AC Adapter/Charging Temp	0 °C to +45 °C (-32 °F to 113 °F)
Water	IPx8: Immersion, up to 1 m (3.2 ft) depth for 2 hours (IEC-529)



Environmental specifications

Designed for everyday wear, and accidents

Specifications	
Dust	IP6x 8 hours with blowing talcum powder (IEC-529)
Transit Drop	1.22 m drop on to plywood
Humidity	95% Relative humidity Temperature cycle 30 °C to 60 °C (86 °F to 140 °F)
Vibration	General minimum integrity and loose cargo test



Camera

Document your site inside your field software

Easily document site conditions or specific point details with the rear camera

- 13 MP autofocus with LED Flash

Pro Tip! If the sun is setting and you aren't quite ready to quit, turn on the flashlight for a little help seeing your rod tip.

Keyboard

Faster data entry with more keys than the T7

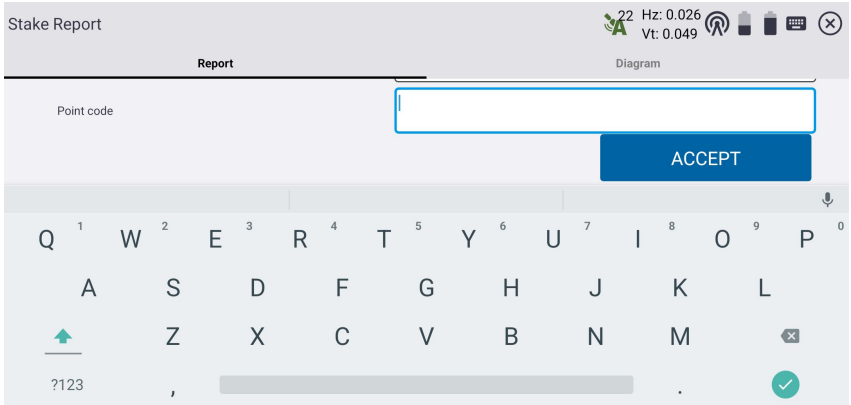
32-Key Backlit

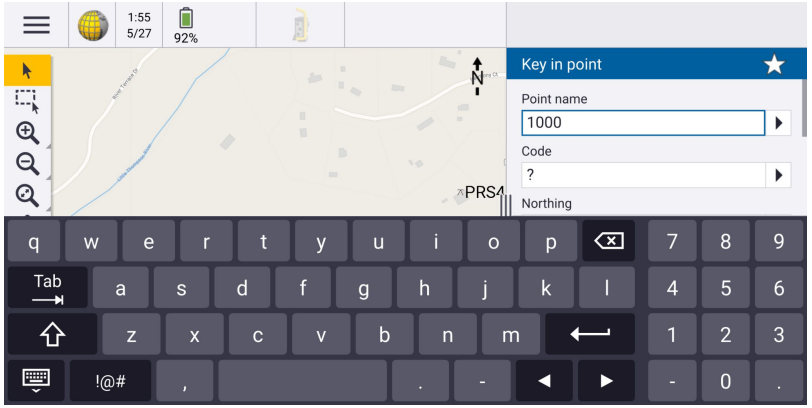
Alpha-Numeric Tactical Keypad

- Dedicated navigation keys
- Standard 12-key T9-style Numeric/Alpha cluster
- Android control keys
- Programmable Function keys for Trimble Access

Keyboard

Pop-up keyboard available for long entries





03

Operating System and Security

Security

- **Verified Boot**
  Every time an Android device starts up, Verified Boot runs a complete security check on the entire boot process. It ensures that the operating system hasn't been tampered with or corrupted by malware or exploited vulnerabilities.

- **Trusted Execution Environment (TEE)**
  Inside the T70's main processor is a special, isolated area called the TEE. This is where the most sensitive data, like encryption keys and biometric information (fingerprints, face scans), is processed and stored.

- **Security-Enhanced Linux (SELinux)**
  SELinux enforces strict "access control" policies, meaning processes are only given the absolute minimum permission they need to do their job.

- **Application Sandboxing**
  An app cannot access the data, files, or memory of another app unless the user grants explicit permission.

- **FIPS 140-2 certified**:
  This certification validates the strength of Android's cryptographic modules, which are used for encryption. All on-device data is encrypted and cannot be accessed from outside the device without the user's permission.

- **Regular Security Patches**
  Trimble distributes the latest Android and Qualcomm security patches each quarter.

Cyber Security FAQs

Trimble will send updates to the T70 approximately every 90 days

- **Do I ever need to reinstall the OS?**
  - No, the latest OS is included and comes standard on your device, there is no separate file to download/install
- **Do I have to do anything special to keep my device updated?**
  - No, updates are sent directly to your device
  - OS updates will NOT overwrite your data
- **How often to do I need to update my device?**
  - You will receive a notification to update the OS once a quarter

04

Controller Comparison

Controller Comparison

	T70	T7	TSC510	TSC710
Weight	1.68 lbs (760 g)	2.65 lb (1200 g)	2.18 lbs (987 g)	2.80 lbs (1270 g)
Screen Size	6 inch (152 mm)	7 inch (178 mm)	5 inch (127 mm)	7 inch (178 mm)
OS	Android 15	Windows 10	Android 14	Android 14
Memory	8 GB	8 GB	8 GB	8 GB
Storage	128 GB	256 GB	128 GB	128 GB
Camera	Rear: 13 MP	Front: 2MP, Rear: 8MP	Rear: 16 MP	Rear: 16 MP
EMPOWER	1 Bay	2 Bays	1 Bay	2 Bays
Battery Life	12-14 h	10 h	16-18 h	10 h
IP Rating	IP68	IP68	IP68	IP68
MIL Std	MIL-STD-810H	MIL-STD-810G	MIL-STD-810H	MIL-STD-810H
WWAN	4G	4G	4G	5G

Controller Comparison

	T70	TDC6	TCU5
Weight	1.68 lbs (760 g)	0.63 lbs (287 g)	0.95 lbs (437 g)
Screen Size	6 inch (152 mm)	6.3 inch (160 mm)	5 inch (127 mm)
Operating System	Android 15	Android 14	Android 7
Memory	8 GB	6 GB	2 GB
Storage	128 GB	64 GB	16 GB
Camera	Rear: 13 MP	Rear: 16 MP Front: 5 MP	N/A
EMPOWER	1 Bay	N/A	No Empower bays, but compatible with the Robotic Holder
Battery Life	12-14 h	9 h	N/A uses total station or robotic holder power
IP Rating	IP68	IP67	IP65
MIL Std	MIL-STD-810H	MIL-STD-810H	1 m Free Drop (EN 60068-2-31)
WWAN	4G	5G	N/A

05

Supported Hardware & Software

Total Station Compatibility

Works with S & SPS series total stations

Work robotically using an EM120

Work onboard with the adapter Plate:

- A Bluetooth connection is used to command the total station. Compatible models include:
  - All S-Series total stations
  - SPS730 & SPS930
- The power source for the T70 and the total station remain separate

Total Station Compatibility

Works with S & SPS series total stations

Attaching the T70 onboard has a minimal impact on total station accuracy

Best practice notes:

- Check your reference angle after attaching or detaching
- Perform instrument calibrations without T70

The Test: Adding extra weight onto the total station can affect the compensator, which will have an effect on the vertical measurements. In this test, we compared measurements to a target 66 m (216 ft) away, with and without T70 attached

	ΔH Total Station Standalone	**ΔH T70 Attached**
Face 1	-5.8006 m	-5.8007 m
Face 2	-5.8008 m	-5.8009 m

Result: T70 impact was 0.1 mm at 66 m (0.004 in at 216 ft)

For reference, this impact is smaller than the typical error from normal tripod movement throughout the day

Field Software

Trimble Siteworks

Trimble Access

Trimble TerraFlex

Trimble Mobile Manager

Android-based 3rd party apps

Easily Share Data

Trimble Cloud Software: Connect & WorksManager

Share, review, and coordinate data in real-time between the office and the jobsite.

Compatible with Trimble Access, Siteworks, Earthworks, TBC, and more

Android Quick Share

Send/receive files from nearby devices

Available on Android, ChromeOS, and some Windows devices

Trimble Data Manager

Dedicated file explorer application built to handle the folder structures of Trimble project files

06

Parts, Accessories, & Data Plans

Standard Accessories

Included with every Purchase:

- Trimble T70 Tablet
- Carry Pouch
- Glass Screen Protector
- Wrist strap
- Stylus with strap and 2 extra tips
- USB-C Cable

Optional Accessories

Optional Accessories

- Pole Cradle & Mount Clamp
  - Same mount clamp as the TSC710
- RAM ball mount for in-cab
- Total Station Adapter Plate
- EMPOWER Modules
- Power Supply with Wall Adapters

Data Plans (US & Canada)

Reliable coverage across the U.S and Canada with seamless carrier switching

DAC SIM: Multi-carrier connectivity compatible with:

- US: AT&T, Verizon, T-Mobile
- Canada: Rogers, Bell, Telus