EVERYTHING YOU NEED FOR EFFICIENT SURVEYING CAMPAIGNS

All you need to perform efficient surveying campaigns is included in the Trimble S3 Robotic Total Station solution: An accurate and reliable instrument, integrated robotic radio and popular Trimble TSC3 controller optimized for Trimble Access field software, integrated high capacity battery and dual charger. The Trimble TSC3 controller, included in the robotic solution, is a groundbreaking handheld field computing solution that streamlines the flow of everyday surveying work and the number of peripheral devices you need in the field.

The new Trimble S3 Total Station is backed by Trimble’s extensive and knowledgeable dealer network providing world-class training, service, and support to maintain your productivity. Whether you need to equip a new survey crew, replace older gear, or start a new office, the Trimble S3 Total Station can be depended on to get the job done well.

PROVEN, RELIABLE TRIMBLE TECHNOLOGY

The Trimble S3 Total Station is built upon proven Trimble technologies. The instrument contains the reliable servo drives based on MagDrivé electro-magnetic technology with fewer moving parts which reduce servicing requirements. It also includes intelligent battery and power management systems for 6 hours of operation on a single battery, and Trimble DR technology providing exceptional measurement performance and accuracy.

TRIMBLE DR TECHNOLOGY

Direct Reflex (DR) technology from Trimble enables measurement without a prism on almost any type of surface. Operators in the field can capture information on hard-to-reach targets in dangerous/unsafe locations. Measure quickly and safely without compromising accuracy. Overhead cables, tunnels, bridges, quarry faces, stockpiles, buildings, and elevations can all be measured quickly, easily, and safely.

HIGH CAPACITY INTERNAL BATTERY WITH INTELLIGENT SYSTEM CHARGER

The Trimble S3 Total Station optics by Carl Zeiss are fully coaxial for measurement confidence and reliability. With over 100 years of high accuracy optical instrument knowledge and expertise, Trimble builds the Trimble S3 system with the same high standards of quality that Trimble is known for.

SERVO AND AUTOLOCK

The Trimble S3 Total Stations are also available in servo or autolock only versions. The Trimble S3 Servo and Autolock versions contain a fixed Control Unit with Trimble Access on board for convenient, simple operation in any environment.

STEPPING INTO INTEGRATED SURVEYING

The Trimble S3 Total Station provides the foundation for Trimble’s Integrated Surveying solutions. With Integrated Surveying, you can seamlessly integrate complementary technologies on the job site, such as Trimble GPS/GNSS and optical measurements, which allows you to use the most appropriate tool for the job site conditions. Trimble’s field and office software combine and manage all the data, making it easy to take advantage of the best that each technology has to offer. Combine the Trimble S3 with Trimble’s GNSS receivers to create a Trimble I.S. Rover and start reaping the productivity gains from Integrated Surveying.

For more information about the benefits of Trimble’s Integrated Surveying, check out the technical white paper at www.trimble.com/IntegratedSurveyingWP.
### PERFORMANCE

**Angle measurement**
- Accuracy (Standard deviation based on DIN 18723): 2" (0.6 mgon)
- Average deviation: 5" (1.5 mgon)

**Angle reading (least count)**
- Standard: 1" (0.3 mgon)
- Tracking: 2" (0.6 mgon)
- Averaged observations: 0.1" (0.03 mgon)

**Automatic level compensator**
- Type: Centered dual-axis
- Accuracy: 0.5" (0.15 mgon)
- Range: 5" (±100 mgon)

**Distance measurement**
- Accuracy (RMSE)
- Standard: 1.5 mm + 2 ppm (0.0049 ft + 2 ppm)
- Shortest focusing distance: 1.5 m (4.92 ft to infinity)

**DR mode**
- Range: 5' (±100 mgon)
- Rotation time Face 1 to Face 2: 3.2 sec
- Rotation time Face 1 to Face 2 (Tribrach): 2 sec

**Specifications subject to change without notice.**

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### EDM SPECIFICATIONS

**Light source**
- Laser diode 660 nm; Laser class 1 in Prism mode

**Beam divergence**
- Prism mode: 4 cm/100 m (0.13 ft/328 ft)
- DR mode: 2 cm/50 m (0.066 ft/164 ft)

**Atmospheric correction**
- Continuous: -130 ppm to 160 ppm

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### GENERAL SPECIFICATIONS

**Leveling**
- Electronic 2-axis level in the LC-display
- Servo system
- MagDrive servo technology, integrated servo/angle sensor electromagnetic direct drive
- Rotation speed: 3.2 sec
- Servo-driven, endless fine adjustment

**Magnification/shortest focusing distance**
- 2.3×/0.5 m to infinity (1.6 ft to infinity)

**Telescope**
- Mounted on 10 mm + 2 ppm (0.032 ft + 2 ppm)

**Operating mode**
- Standard: 200 m (656 ft)
- DR mode: 3–15 sec internal/external

**Direct measurements**
- Rechargeable Li-Ion battery 11.1 V, 4.4 Ah

**Power supply**
- Approx. 6 hours

**Search time**
- Typically: 2–10 sec

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**Servo & AutoLoc system**
- Centering system

**Type of radio**
- Internal/external: 2.4 GHz frequency-hopping, spread-spectrum radios

**Memory**
- Operating system: Windows Embedded CE 6.0

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**Servo & AutoLoc Control Panel**
- Display: QVGA, 16 bit color, TFT LCD, backlit (320x240 pixels)
- Audio: 19-key alphanumeric + 4-way arrow key, dedicated navigation and instrument control key(s)
- Operating system: Windows Embedded CE 6.0
- Processor: 624 MHz Marvell ARM920T-PXA300 CPU

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1. Standard: No haze. Overcast or moderate sunlight with very light heat shimmer.
2. Laser Notice no. 50, dated July 26, 2001
4. The capacity in ~30°C (~86°F) is 75% of the capacity at +20°C (68°F).
5. Depending on selected size of search window.