

# Trimble Grade Control Components



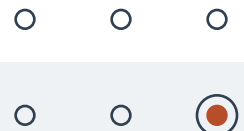
## Trimble TD510 and TD540 Displays

The 10-inch (25.4 cm) TD540 and 7-inch (17.78 cm) TD510 displays ensure the best user experience with the Trimble® Earthworks Grade Control Platform. With a specialized combination of anti-glare, powerful backlighting and advanced optical bonding techniques, these rugged displays combine at-a-glance sunlight readability with an easy to use, multi-touch interface. Built on top of a powerful 3D graphics engine and processing platform, the Android™ operating system allows you to install additional applications without upgrading hardware or adding an additional display.



### Features include:

- Powerful octa-core processor platform with dedicated graphics processor
- Integrated Bluetooth® and Wi-Fi for wireless connectivity
- Quick release RAM mounting for daily theft protection removal
- Front facing USB for easy firmware updates and synchronization of design and productivity data



# Trimble Grade Control Components

## Trimble CB460 Control Box

Designed for use in harsh construction environments, this display for all machine types is part of the Trimble GCS900 Grade Control System and gives the operator a full-color graphical display for easy viewing and guidance to grade.

Four LED light bars to provide grade guidance at a glance and support for external light bars

Fast data transfer via Ethernet connection



A large, easy-to-read 7-inch (17.78 cm) full-color LCD display

Audible tones for real-time grade guidance or warnings and alerts

## Trimble SNM941 Connected Site Gateway

Connect your machine with rugged hardware from Trimble. Featuring both Wi-Fi and cellular connectivity, the Trimble SNM941 Connected Site® Gateway enables wireless data transfer of design files and GNSS corrections, fleet, asset and site productivity information.



## 2D components

### Spectra Precision GL700 Series Grade Laser

Spectra Precision® GL700 dual grade lasers provide years of durable, precise machine guidance with GCS900 2D Grade Control Systems, GCSFlex Grade Control Systems and laser-based compact machine installations. Ideal for site preparation, trenching and pipe laying, fine grading and road construction, GL700 lasers can help you get to grade faster with more accuracy.

### Trimble LR410 Laser Receiver

The Trimble LR410 Laser Receiver is mounted to an electric mast on the blade and connected to the machine hydraulics to accurately control lift. It provides high precision elevation guidance for both automatic and indicate guidance systems in 2D grade control applications.

### Trimble ST400 Sonic Tracer

The Trimble ST400 Sonic Tracer is mounted to the blade and uses a physical reference such as curb and gutter, stringline, existing or previous pass as an elevation reference.



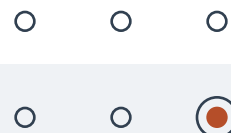
Spectra Precision GL700 Series Grade Laser



Trimble LR410 Laser Receiver



Trimble ST400 Sonic Tracer





# Trimble Grade Control Components

## 3D components

### Trimble MS996 GNSS Smart Antenna

The Trimble MS996 GNSS Smart Antenna contains an integrated GNSS receiver, antenna, and isolation system all in a single, durable housing. It uses the advanced Trimble RTK engine for faster initialization times when satellite lock is lost and enhanced performance near obstructions.

### Trimble MS976 GNSS Smart Antenna

Trimble MS976 GNSS Smart Antenna offers a cost-effective alternative for contractors who need a highly accurate GNSS receiver at a lower price point. It is optimized for cab or machine body mount only.

### Trimble MS956 GNSS Modular Receiver

The Trimble MS956 GNSS Modular Receiver is a positioning receiver intended for use with a rugged Trimble Zephyr™ 3 Antenna. The compact form factor easily fits in the headliner or within cab compartments of heavy equipment. The MS956 is specially designed and tuned to operate through the shock and vibration forces experienced on heavy equipment.

### Trimble Zephyr 3 Antenna

The Zephyr 3 antenna offers full support for current and near-future GNSS signals including GPS, GLONASS, Galileo, BeiDou, OmniSTAR, Trimble RTX®, and SBAS. Combined with rugged durability, the Trimble Zephyr 3 antenna will be a long-term investment.

## Trimble GNSS Smart Antenna features include:

- Trimble ProPoint® RTK Engine for faster initialization times when satellite lock is lost and enhanced performance near obstructions
- Simultaneously tracks GPS, GLONASS, Galileo and BeiDou
- Support for Trimble xFill®, GSOF (General Serial Output Format) and SBAS systems (including WAAS, EGNOS, MSAS, QZSS)
- Single, rugged unit containing GPS antenna, receiver and isolation system (MS976 GPS antenna and receiver only)
- Mountable on cab, chassis, or blade (MS976 cab or machine body mount only)
- Three LED indicators that provide instant operational feedback
- Single cable connector (high cycle count connector)
- USB support mode enabling improved firmware update speeds and WebUI browser access



Trimble MS996  
GNSS Smart Antenna



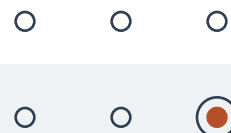
Trimble MS976 GNSS  
Smart Antenna



Trimble MS956  
Modular Receiver



Trimble Zephyr 3  
Antenna





# Trimble Grade Control Components



## Trimble SNR On-Machine Radios

Rugged Trimble on-machine radios offer a modernized platform for communicating with Trimble Universal Total Stations or with a fixed GNSS base station.

Available in:

- Single-band 450 MHz, 900 MHz, and 2.4 GHz
- Dual-band 900 MHz + 2.4 GHz and 450 MHz + 2.4 GHz



## Trimble Total Stations

Trimble SPS Series Universal Total Stations can be used for even greater accuracy when performing fine or finished grading, providing alternate 3D guidance options for customers where GNSS is not suitable. The SPS instruments are the 3D solution of choice for high precision machine guidance applications and suited to deliver fine grading results.

*Surface accuracy is dependent on numerous variables such as machine type and configuration, material characteristics, system calibrations and operator technique.*



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