

Trimble Productivity:  
Finish Faster with Fewer Machines



## GCS600 GRADE CONTROL SYSTEM FOR EXCAVATORS



## FLEXIBLE, AFFORDABLE AND EASY TO USE

### Productivity and Payback in One

**Package:** Looking for a flexible, cost-effective entry-level product that gives you elevation control and fast return on investment? Look no further than the Trimble® GCS600 Grade Control System for Excavators! The GCS600 is an economical, easy-to-use solution for

excavation, trenching, grading and profile work. Designed for both tracked and wheeled hydraulic excavators, the GCS600 is the ideal choice for owner-operators, site preparation and general contractors. You'll get the flexibility to go from depth control to depth and slope to more complex excavating jobs with the same machine quickly and

easily. Plus, we've designed this cost-efficient system to give you maximum performance and payback by reducing man hours for grade checkers and faster job cycles. The Trimble GCS600 for Excavators gives you the control you need while increasing your job flexibility, productivity and profitability.

## THE GCS600 FOR EXCAVATORS: HOW IT WORKS

The Trimble GCS600 Grade Control System for Excavators uses angle sensors that measure the relationship between the body, boom, stick and bucket to determine where the cutting edge is and should be, directing the operator to the desired depth and slope. You know exactly where the bucket is at all times—with no guesswork.

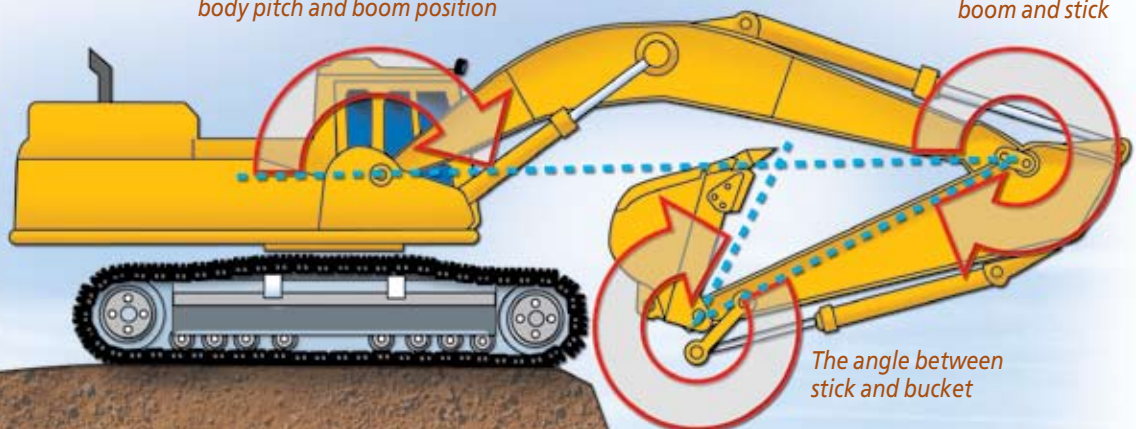
### TRIMBLE GCS600 FOR EXCAVATORS APPLICATIONS

- Excavating basements, foundations and footers
- Flat bottom and simple slope trenching
- Flat and simple slope grading and embankments
- Profile excavation of canals or batters

*The angle between body pitch and boom position*

*The angle between boom and stick*

*The angle between stick and bucket*



# TAKING THE GUESSWORK OUT OF EARTHWORKS IMPROVES YOUR PRODUCTIVITY AND PROFITABILITY



Performing earthworks smarter, faster and more profitably is critical to success in today's highly competitive construction industry. Today, you need to be able to perform all parts of the job faster and more accurately than ever before. From estimating to completion, Trimble's next-generation Grade Control Systems are truly revolutionizing the total construction process.

Trimble offers you the most complete line of Grade Control Systems. From laser or sonic-based through to 3D, these rugged systems are easy to use, fully upgradeable and flexible enough to meet a wide range of application and jobsite requirements. Additionally, each system can be used as a full control system or as a guidance system. Quite simply, there is no better solution to meet the challenges of today's schedules and budgets. Gain a competitive edge and

streamline your operations with the next-generation of grade control systems from Trimble.

## FASTER JOB CYCLES

Spend more time being productive and less time waiting for surveying and grade checking. With depth and slope information displayed in the cab, operators can finish jobs faster with minimal supervision—even in dusty, windy or dark conditions.

## FLEXIBLE

Perform a wide range of work, from mass excavation through to finished grade, on both large and small jobs. Trimble Grade Control Systems are designed to adapt to a variety of machines and jobsite applications.

## LOWER OPERATING COSTS

Getting the job done right the first time eliminates rework. With cut and fill information at your fingertips the need for grade checkers in or out of the ditch is reduced, and in many cases not required. Through improved productivity, personnel and machine costs are also reduced. Plus, accurate grading helps you carefully control material usage.

## RETURN ON INVESTMENT

Grade Control Systems quickly pay for themselves—often on the first project! Faster completion, less rework, less staking, less checking, lower costs, and improved material yields all add up to a stronger bottomline for your company.

## PRODUCTIVITY-ENHANCING FEATURES

The Trimble GCS600 for Excavators is easy to install, set up and use on excavators with standard buckets or tilt buckets, and offers many productivity- and site safety-enhancing features.

### **Depth to Target and Working Slope Display:**

The system displays required depth and working slope to reduce manpower, improve material yield, and speed completion time. Numeric depth, LED lights, and dynamic bucket graphics indicate distance to desired slope or depth. An audible tone lets you stay focused on the machine's operation while still digging to grade.

**Quick Benchmarking:** Pushbutton benchmarking lets you fully bench the system by simply pushing one button for faster system/job setup and ease of use.

**Benching:** The optional Laser-Catcher feature allows re-benching with the laser without returning to the initial benchmark. This lets you work across a greater area, using the laser as a reference, each time the machine moves location.

**Pitch and Roll Compensation:** The pitch and roll sensor compensates for machine footing attitude so you don't need to level the machine before you begin work saving time and reducing operating costs.



### **Articulated Boom and Tilt Bucket Support:**

By simply adding another Trimble AS300 Angle Sensor, you can use the Trimble GCS600 on excavators with articulated booms or tilt buckets to maximize the excavator's full capabilities.

**Upgradeability:** The Trimble GCS600 for Excavators is part of Trimble's next-generation Grade Control System family. The backbone of the system is built on the Controller Area Network (CAN) industry-standard communication interface. For larger or more complex applications, this system can be upgraded to the Trimble GCS900 3D GPS Grade Control System for Excavators.



Using the Trimble GCS600 gives you a system that indicates depth and slope, or a combination of both. You can control and carry out desired depth or slope without a grade checker or laborer in the ditch. This capability significantly reduces the costs and downtime associated with staking or in the ditch grade checking, and also increases site safety by eliminating the need for a person to be present near the operating excavator.



### TRIMBLE CB410 CONTROL BOX FOR EXCAVATORS:

The Trimble CB410 Control Box has dual LED depth and slope indicators, a graphical backlit LCD display, and easy-to-operate toggle and pushbutton switches for fast, reliable setup and depth guidance. When used with the GCS600 for Excavators, the CB410 not only gives you a range of powerful features, but is specifically designed for unobstructed vision and excavator control. These features include:

- Backlit LCD Graphical Display shows detailed system information and real-time diagrams and graphics for easy viewing and operation.
- LED indicators on each side of the CB410 adjust for ambient lighting conditions and provide job guidance at a glance or in the operator's peripheral vision, without taking eyes off the job at hand.
- Built-in Beeper provides the operator audible tones for grade guidance or warnings and conveniently mounts in an excavator cab within reach of the operator for maximum field of vision.
- Rugged Toggle Switches and Pushbuttons allow simple operation and exceptional tactile feedback for easy operation.



### TRIMBLE AS300 ANGLE SENSOR

Trimble AS300 Angle Sensor is a solid-state, gravity-referenced 360-degree sensor which is sealed for underwater applications to expand the GCS600's jobsite capabilities. The AS300 Angle Sensor measures the relationship between the machine's boom, stick and bucket angles and provides reach and elevation guidance of the bucket cutting edge. This gives the contractor the ability to excavate anytime—even at night or underwater—without worrying about elevation inaccuracy.



### TRIMBLE AS310 DUAL AXIS SENSOR

The Trimble AS310 Dual Axis Angle Sensor measures the machine in two axes (pitch and roll) to accurately provide guidance to the bucket cutting edge when the machine is not truly level. The operator can position the machine quickly from one location to the next while maintaining production without concern about existing ground conditions or perfectly leveling the machine. The AS310 helps ensure the Trimble GCS600 for Excavators provides accurate elevation guidance regardless of the level condition of the machine.



### TRIMBLE LC300 LASER CATCHER

The optional Trimble LC300 Laser Catcher is a combination laser receiver and angle sensor in a single unit. The LC300 lets you dig and track the machine to your next dig position without re-benching. Simply move the sensor receiver cell through the laser plane to re-reference. An additional component, such as a laser receiver, is not required since the LC300 combines both in one package. This eliminates the need for installation and removal every day and reduces setup time.



## PRODUCTIVITY IS...

### Design

software that helps you prepare data for use on the construction job site.

### Grade

control that is faster, more accurate and minimizes rework.

### Check

site measurement and stakeout for non surveyors on the job site.

### Manage

your assets to improve efficiency, safety, and theft recovery.

### Build

with precise laser and positioning for faster layout, leveling and alignment.

Productivity is the key to profitability...getting the job done faster with less machine time and personnel. Only one company can support your productivity with the broadest, deepest and most advanced construction solutions in the industry. Productivity is... Trimble.

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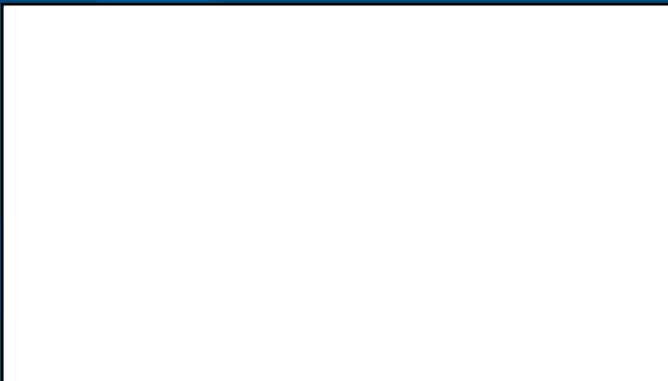
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