

Leica PowerGrade Intelligent Grading Systems



SitePOWER
by Leica Geosystems



- when it has to be **right**

Leica
Geosystems

Leica PowerGrade -

Leica PowerGrade, the next-generation grade control systems from Leica Geosystems can revolutionise your construction process. It not only boosts your productivity and performance, it also offers a level of flexibility and upgradeability not available in other systems on the market today. Leica PowerGrade can dramatically increase machine utilisation, productivity and optimise material usage on any earthmoving and fine-grading project. It can be used with a wide range of sensors and combines ease-of-use, unrivalled flexibility with very powerful and intuitive control software.

Unique PowerSnap Concept

The key to the Leica PowerGrade system lies in our unique PowerSnap concept – a single docking station allowing easy and quick exchange of panels, depending on the job you need to do. Simply swap the 2D with the 3D panel or even transfer the panels between machines. Just snap the control panel into place and get to work.

Why be forced into buying a complete dozer or grader system for each machine in your fleet? PowerGrade's unique Snap-on and Snap-off capability allows you to change from one configuration to another as the job demands.

For example:

Running in 3D GPS mode today and 2D laser mode tomorrow? –

Just switch operating modes.

Using the grader one day and your dozer the next? –

Just transfer the control panel to the other machine.

The cable-free control panels speed up installation and panel exchange on the machines – no more connectors or cables. Simply snap the panel on to the docking station and start operation!



- Unrivalled Flexible Grading System



Key Benefits

Increased productivity

- Maximises your machine utilisation and return-on-investment from day one, by getting right to grade the first time
- Save time, setup and go in minutes. PowerGrade system remembers all your settings

Increased flexibility

- Unique Snap-on & Snap-off capability
- Easy removal of key components for overnight security. One docking station for all panels
- Fully upgradeable from basic 2D entry system to full 3D capability in the same control panel. Laser, slope, sonic, GPS and total station control options
- Simple upgrade step to 3D - buy a 3D-ready panel and upgrade later or rent the GPS/Tracker and 3D software

Reduced costs

- Reduced fuel costs
- Faster job cycles reduce operating costs
- Reduce labor costs by reducing or eliminating grade checks, and getting to grade faster and more accurately

Leica PowerGrade Intelligent Grading System

Leica PowerGrade provides automatic control of both slope and elevation. Adding an extra mast and laser sensor even allows work independent of slope direction. The system is ideal for contractors who want to further increase their machine productivity working with easy-to-use, high accuracy grade control.

Fully upgradeable solution

The Leica PowerGrade system is easily upgraded from basic 2D to full 3D capability. On the 3D panel, one option does not exclude the other and in case there is no GPS signal available you can continue in 2D with lasers, slope or ultrasonic sensors.

For 3D systems, which can seem to be both a considerable investment and technology leap, consider adopting gradually while staying in full control of your investment outlay. If you are not sure you want to take the whole investment today – consider buying a 3D ready control panel and upgrade only when it suits you. If you only need 3D for a short period we offer attractive rental packages for the GPS/Tracker as well as the 3D software only when you need it.

CAN bus

Leica PowerGrade can be installed on machines from any vendor. It uses the industry standard Controller Area Network (CAN) to meet your needs of today and in the future. Add sensors easily and upgrade your system quickly to meet your specific machine and application requirements.

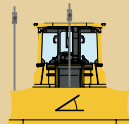


2D System Configurations

Laser & Slope Control



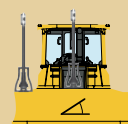
Dual Laser Control



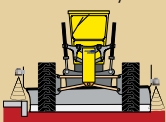
PowerMast Laser & Slope control



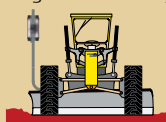
Dual PowerMast Laser control



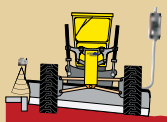
Sonic Tracer System



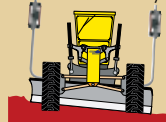
Single PowerMast System



Sonic Tracer & PowerMast Laser Control System



Dual PowerMast System





crossfall
de.



Auto/Manual control mode selection, with optional lever-mounted controls available

Easy navigation through menus. Adjust sensor settings, access special functions and more with the intuitive keypad

Function Keys for instant access to important functions

Operator friendly

PowerGrade is quick to learn and easy to use. Operators require no previous computer experience.

Special features of Leica PowerGrade:

- Contact-free control/display panel
- Automatic Side-shift control for motorgrader moldboards with our unique Tri-Sonic technology. Works right off curbs, stringlines or 3D design models
- Automatic power down when the control panel is removed. Machine specific settings are permanently stored in the docking station
- Waterproof system – designed for the harshest construction environments



Technical Data	
PowerGrade panel	
Display:	3.5" TFT daylight readable colour screen 300 cd
Weight:	0,5 kg
Dimensions:	L 175 x W 125 x H 30 mm

Technical Data	
Docking station	
Electrical input:	10 – 24V (v)
Supply:	ON/OFF switch
2 x CAN:	Junction box
Serial output:	2 x RS232. R



2D Sensors

Slope Sensor



MLS700 Laser Receiver



Leica TriSonic Tracer



Leica PowerGrade 3D

Advanced Grading System

Special features of Leica PowerGrade 3D:

- One panel solution – switch between 2D and 3D with the same panel
- Works with many current total stations and GPS sensors.
- Hold Slope feature allows precise crown cuts and extending past breaklines when needed. No more overcuts
- Automatic Side-shift control with our unique Tri-Sonic or 3D GPS/Tracker sensors
- Unique mast-tilt compensation – no more rebenching your motorgrader blade between cut and fine-grading passes
- Create Reference surfaces with up to four slopes without needing a 3D design file
- Automatic power-down when the control panel is removed. Machine specific settings are stored in the docking station



Auto/Manual information directly on the screen



Fully customisable 3D views of your machine and jobsite – see the job exactly how you want to

Quick access to important menu options

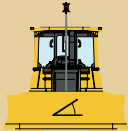
via junction box)
 ch for power control of the entire system
 and J1939
 X, TX, 12V/2 amp, GND

Technical Data	
PowerGrade 3D panel	
Display:	7" daylight readable colour touch screen
Weight:	1,5 kg
Dimensions:	L 220 x W 160 x H 60 (90) mm

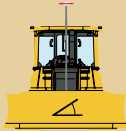


3D System Configurations

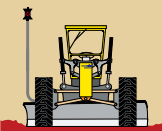
PowerTracker Control (TPS)



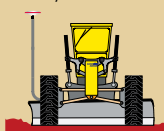
Single GPS & Slope

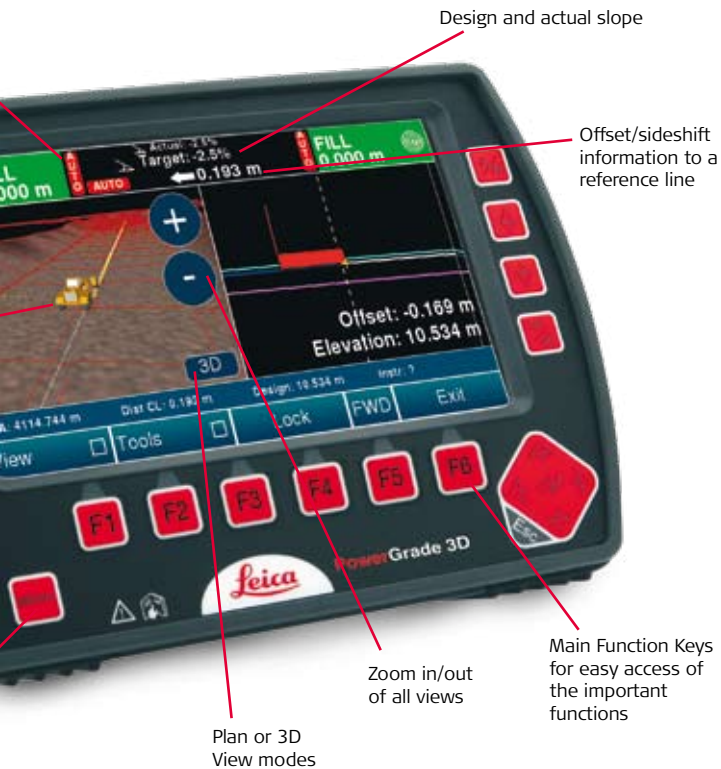


PowerTracker Control (TPS)



GPS System





The **Leica PowerGrade 3D** system opens new dimensions in earthmoving and fine grading. The 3D system brings the design surfaces and alignments inside the cab. You are no longer dependent on stringlines, stakes or hubs. Work independently, and accurately, anywhere on the project design guided by GNSS/GPS system or PowerTracker, Leica Geosystems' unique robotic total station.

Versatile Software

Leica PowerGrade 3D offers unique features designed to make your machine easier to operate, quicker and more profitable. Work with any design format, design slopes and pads on-the-fly, control the edge of the cut automatically, reduce material movements. Get it right, first time.



First-class after sales support & service

Comprehensive support is only a quick phone call away providing regional and nationwide service. You benefit from an extensive network of Leica Geosystems service centres and authorised Leica Geosystems dealer centres.



3D Sensors

GPS/GNSS Antenna



GPS/GNSS PowerBox



PowerTracker



PowerTracker Target



Asphalt, concrete or earth, shifting it or laying it. Whether you need simple laser height detection for excavators or need to control a concrete slipform paver to millimeters, Leica Geosystems can help you optimize site productivity with a complete range of machine control solutions. Plan your own upgrade path to full 3D machine control with GPS, terrain modelling software and automatic blade control.

Dozers, graders, excavators, concrete pavers and asphalt finishers are just some of the construction machines that can be fitted with scaleable, tough and reliable Leica Geosystems construction machine control systems. With a wide range of support services to choose from, Leica Geosystems helps you master your site.

When it has to be right.

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Total Quality Management – our commitment to total customer satisfaction.

Ask your local Leica Geosystems dealer for more information about our TQM program.



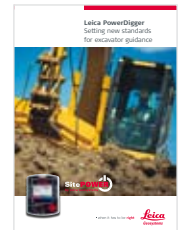
Leica RedLine
Product brochure



Leica PowerBlade
Product brochure



Leica Rugby 300/400
Product brochure



Leica PowerDigger
Product brochure