

# Leica PowerDigger 3D

## The new standard for 3D excavator guidance



### Leica PowerDigger 3D – Advanced 3D Excavator Guidance System

**Leica PowerDigger 3D is the world's most popular, flexible and user friendly 3D excavator system. Dig faster, dig more, and dig right first time, saving up to 20 % in operating costs and beating your competition to win those crucial tenders!**

Using the Leica PowerBox GNSS (GPS + GLONASS) the exact 3D position of the bucket is determined and compared with a reference surface. Slope and height differences are then shown to the operator, in real-time, on the screen.

The system allows you to design and store on-the-fly complex surfaces with several slopes – directly in the machine.



### Benefits

#### Increased productivity

- Eliminate down time to make grade checks, PowerDigger ensures accurate digging exactly to the design plans and provides you the real-time information you need.

#### Increased precision

- Graphical 3D guidance means your operator achieves better results, and quicker. Allows all your operators to work smarter.

#### Increased flexibility

- Handle any complex excavation designs, with no staking!
- Handle "blind" and underwater excavation with ease – "see" your bucket's actual location on screen at all times.
- Maximum return on your investment – PowerDigger 3D transfers easily between all machines in your fleet.

#### Reduced costs

- Reduces or eliminates grade checking minimizing machine downtime, maximising production time.
- Get it right, first time, and increase your margins from day one.

- when it has to be **right**

**Leica**  
Geosystems

# Leica PowerDigger 3D

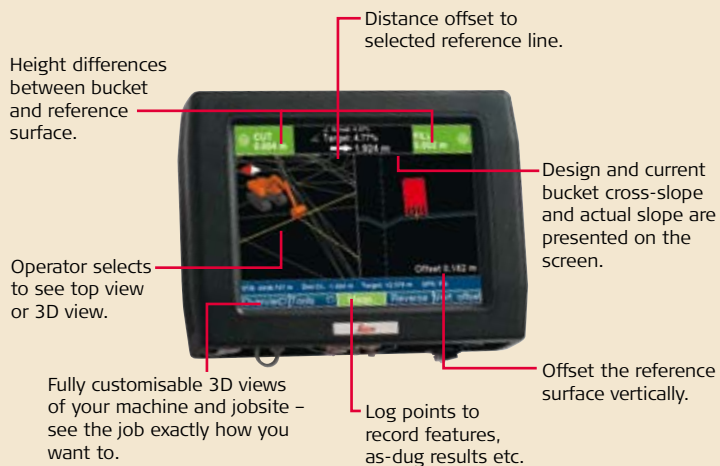
## The new standard for 3D excavator guidance

### How does PowerDigger 3D work?

- Receives machine position via GPS.
- Calculates the bucket's exact 3D position on site.
- Compares bucket position with the 3D design model.
- Displays differences (cut/fill/slope) on-screen for the operator.

Working with vertical curves, cross-slope transitions, and changes in width is child's play – thanks to PowerDigger 3D. The system always displays the machine's position relative to the 3D design surface, in any site conditions. Leica PowerDigger 3D can operate in single and dual GPS/GNSS configuration.

Perfect for underwater excavations, and can also record the final excavated surface, for your as-dug reports – no more surveying needed!



### Technical Data

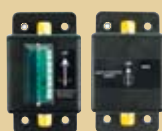
#### MPC 1300 3D-Panel

Display:	TFT-LCD, 8.4" colour touchscreen
Interfaces:	MIL-C-5015 2pol, power input 9 – 36 V, LEMO 7p, COM 1 (RS232) 12 V out, LEMO 7p, COM 2 (RS232), 12 V out, LEMO 6p, 10 Mbit Ethernet (crystal CS 89000), 12 V out LEMO 5p, keyboard, 5 V 12 V out, MS3112E-10-6S,CAN (Intel 82C 527), COM 3 (RS232), 12 V out Amphenol MUSB, USB 1.1A
Power supply:	9 – 36 V DC
Operating System:	LINUX
IP class:	IP 54
Dimensions:	Width 235 mm, Height 180 mm, Depth 85 mm
Weight:	3.6 kg
Environment:	Operating: -50° C to +70° C
Warranty:	1-year
<b>Import formats</b>	Land XML, CL, LOC/DAT, PLN
<b>Import models</b>	Road lines; horizontal and vertical alignments with cross-slope Complex road designs including templates Digital terrain models (DTM) Points, baselines and grade benchmarks

Virtually eliminating downtime waiting for stakeout means you can utilise your excavator much more efficiently. In real-time the machine operator gets information about the bucket position. With bucket tilt and rotation you can even fine-grade with the excavator.

PowerDigger 3D supports all common 3D design model formats, which can be sent wirelessly – via GSM or local wireless LAN – to the machine from any computer with internet access.

### Sensors and Components



**MSS 300/301**  
Angle Sensor



**MNA1200**  
GNSS Antenna



**PowerBox**  
GNSS Receiver



**PowerAntenna**  
GNSS Antenna



**MSS 302**  
360° Sensor



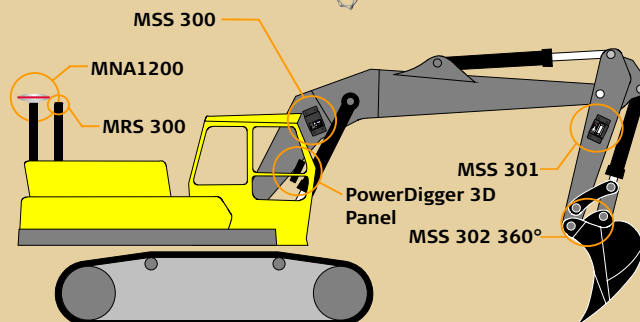
**MPC 1300**  
3D Panel



**MRS 300**  
Rotation Sensor



**MCP 300**  
PowerDigger Panel



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