

# GeoMax GNSS ZGP800 Series





# GeoMax

## About Us

GeoMax is an internationally active company developing, manufacturing and distributing quality surveying instruments. We provide a comprehensive portfolio of integrated instruments for the surveying, mapping and construction industries. Both occasional and professional users are addressed with GeoMax's easy-to-use, yet highly productive, range of Total Stations, GNSS, Lasers, Optical and digital levels.

GeoMax is part of the Hexagon Group, Sweden, a global technology group with strong market positions within measurement technologies. Hexagon is the world leader in multidimensional measurements within the macro and micro segments of the measurement and positioning market. The famous international companies within the Hexagon Group have delivered since more than 150 years precision products and solutions to the measurement industry. This technology is supported by a comprehensive sales and service network covering all continents with over 100 branches.

The close cooperation within the Hexagon Group grants GeoMax's access to state of the art development and production facilities in Europe, America and Asia. This enables us to focus on delivering products that "work when you do" by optimizing quality and productivity. Through a continually growing distribution, GeoMax products are available in Europe, Asia, the Middle East, Americas and Africa delivering outstanding price-to-performance.





# Works when you do!

At GeoMax we understand that you work in demanding environments and require excellent price-to-performance without compromising quality, that's why we build products that "Work when you do!".

With the ever increasing demand to complete projects faster and faster, surveyors are looking for technologies to help them improve their productivity. GNSS is one of the latest technologies that delivers surveyors with a new tool to increase productivity. The GeoMax ZGP800 introduces a GNSS system to surveyors that provides true price-to-performance and takes surveying productivity to the next level!

## Real-time GNSS

Real-time GNSS, also called RTK GNSS, provides surveyors instantly with centimetre coordinates for setout and survey. With GeoMax RTK GNSS planning is easy, you never need to worry about inter-visibility, simply setup and start working, even at distances of up to 30 km from the reference station.

## Easy, yet powerful

The ZGP800 sets new standards in ease-of-use without compromising functionality. With a color Windows CE controller, complete with intuitive touch screen functionality users become experts in record time. Using new technology has never been so easy!



## Complete system

GeoMax not only provides you with highly productive equipment, but also with a complete set of accessories to meet your demanding tasks. With everything in one box, GeoMax "Works when you do!".



## Raw Data Logging

With an exceptionally large memory of up to 1 GB, practically endless GNSS raw data can be logged for post-processing. Upon completion of data collection, the removable CF card can simply be transferred to a PC for post-processing to deliver the final accurate coordinates.



## Built for all environments

With the design criteria "Works when you do!" GeoMax products are built to withstand all environmental conditions. With robust specifications, the ZGP800 antenna and controller survive topple over falls. Rain, hail, snow or intense heat will never affect your ZGP800, you can always keep working to get the job done.



## PC-Software

GeoMax Geo Office (GGO) provides a complete suite of programs to support your field equipment. With complete flexibility and ease, data can be downloaded, post-processed and prepared for final CAD processing or direct delivery to clients.





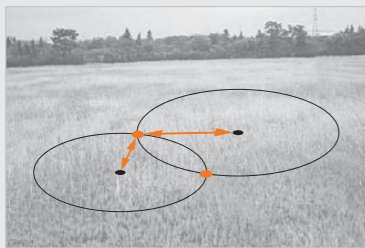
# Works when you do!

At GeoMax we understand that your daily tasks vary greatly, that's why we've created a number of easy-to-use applications to guide you through every day. With both powerful applications and the latest in technology, you can be certain that GeoMax "Works when you do!".



## Setout

No matter if you're using manually entered coordinates, or coordinates read directly from a file, setout has never been so easy. With simple user guidance you'll quickly complete one point and be moving to the next.



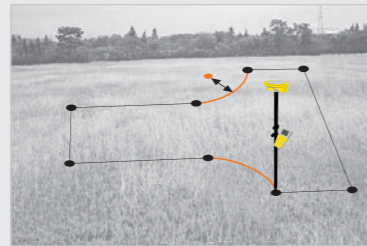
## COGO Routines

Coordinate Geometry (COGO) offers you a wide variety of calculation functions. Calculate points that are immediately ready to be staked out by inverse, or intersection using any combination of directions, distances or lines. Complete flexibility ensures that all of your needs are covered.



## Survey

Measure points, lines and areas with ease both with or without code and attribute information. For instant visual confirmation, immediately view measured data in the large graphical map-view display. When both speed and ease-of-use are a priority, GeoMax ZGP800 delivers.



## Reference Line

Regardless of whether you're staking or checking a reference line or arc you'll be amazed at the flexibility. Entry of reference objects is simple and can be easily assigned parallel offsets or rotations to exactly meet your demanding needs.



## Area

With complete freedom, you can either measure points, select previously measured points or manually enter points. Whilst creating the area, the perimeter and area of the plan surface is automatically computed.



## Site calibration & Coordinate Systems

The GeoMax ZGP800 provides a simple application to calibrate the system to local site coordinates. For more advanced projects where details of the local coordinate system are provided, a step-by-step routine is available to compute the required transformations to the local coordinate system.



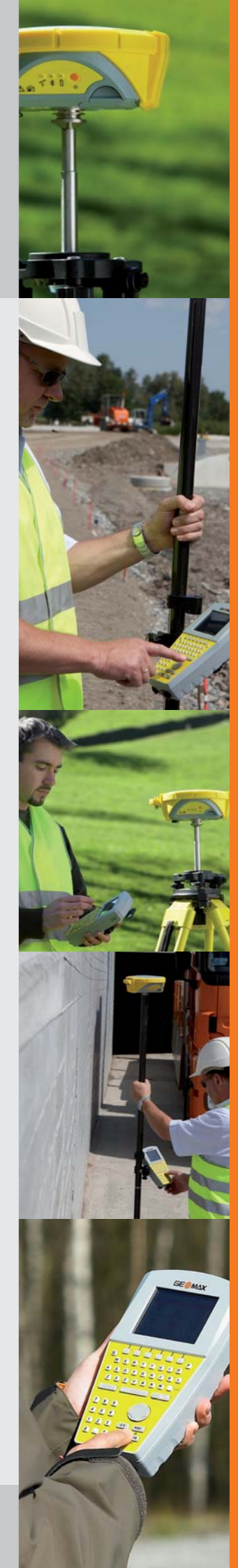
## Quality

Equipped with state-of-the-art NovAtel GNSS technology the ZGP800 provides maximum performance. With built-in Q-Lock™ technology, all satellites are tracked with the highest possible signal strength and regular independent checks are conducted to ensure that you can work in all environments, no matter how challenging. With imbedded multi-tasking processing, accurate RTK positions are computed automatically, or raw data is logged for post-processing. No matter how demanding the conditions, you can be sure that your ZGP800 "Works when you do!".



## Communication

The ZGP800 integrates modern wireless communication technologies. Bluetooth® wireless-technology allows cable free communication between the antenna and controller, and also facilitates connectivity to mobile telephones to receive network RTK correction data. Where no regional RTK correction data is available, local RTK correction data is provided with an integrated UHF radio solution. With full flexibility and reliability, GeoMax GNSS has the communication solution to suit your needs.



# ZGP800 Series

## Technical Data

### Performance Specifications

GeoMax Q-Lock technology  
 Cable-free GNSS with Bluetooth® wireless-technology integrated on the pole  
 Network capable GNSS  
 20Hz Positioning rate  
 72 channel: L1 + L2/L2C GPS  
               L1 + L2 GLONASS  
               SBAS

### Onboard applications/functions

Setout, Survey, COGO, Reference Line, Site Calibration, Determine Coordinate Systems, dxf Import/Export, NMEA output

### Kinematic surveying

Horizontal	± 10 mm + 1 ppm
Vertical	± 20 mm + 1 ppm
Initialisation time	typically 15 seconds
Initialisation reliability	typically >99.9 %

### Static and Fast Static surveying

Horizontal	± 5 mm + 0.5 ppm
Vertical	± 10 mm + 0.5 ppm

### Code differential GNSS

Horizontal/Vertical	typically ± 0.25 m
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### Controller

Display	Colour illuminated ¼ VGA daylight-readable touch screen
Operating System	Windows® CE
Communication	3 Bluetooth® ports, USB and serial port
Storage	Removable CF card up to 1 GB, about 7,800 hours L1+L2 data logging at 15 sec rate

### Data links

Radio modem	UHF radio module with fully integrated Bluetooth® communications port Transmitting power 0.5 W, 1W Optional 10 W & 35 W reference radio
Mobile phone support	External GSM, GPRS, CDMA modems via Bluetooth® communications port

### Environmental conditions

#### Antenna / Controller

Operating / Storage temperature	- 30 °C ~ + 65 °C / - 40 °C ~ + 80 °C
Protection to dust and water	IP66
Humidity	Up to 100%

### Power Supply

Internal Li-Ion batteries	Li-Ion 2.2Ah 7.4V ZGP800A antenna about 5 hours (RTK mode) ZGP800C controller for about 8 hours (RTK mode)
External power input	10.5 to 28 V DC

### Weight

Entire RTK rover (incl. controller, batteries, range pole and bracket)	3.07 kg
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