GEOMAX

Robotic Total Station

Substantially minimise the time of any survey task and boost your performance and accuracy to the maximum.

Zoom90 is the ultimate one-man system with significantly increased automation performance, extended reflectorless measurement capability, unmatched Scout-Track-Aim (STReAM360) functionality combined with accXXess EDM technology, and Windows® CE open connectivity.

Thanks to its seamless sensor fusion, the Zoom90 is the ultimate solution.

PART OF HEXAGON

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Ultimate technology

Ultimate performance

FULLY ROBOTIC

STReAM360

GeoTRAil: Supporting this new field software functionality enables the Zoom90 to catch your prism based on the GNSS position transferred from your field controller. Due to its seamless integration in various field software solutions, it is simple and easy to use.

Scout: In addition to GeoTRAil the Zoom90 incorporates the Scout technology where a vertical laser fan is emitted from the rotating instrument. As soon as reflections from a prism are received, the Zoom90 accurately aims towards this prism.
The Zoom90`s unique Scout technology provides greatest flexibility. Independent of your jobsite location, be it in or outdoors, the Zoom90 boosts your performance as it simply finds your prism with a single press of a button. There is no need or coordinate transformations or expensive power-consuming and heavy special prisms. Zoom90 keeps your pole lightweight - convenient to carry all survey-day long! The combination of GeoTRAil and Scout is unique to the Zoom90 and provides maximum flexibility in the field.
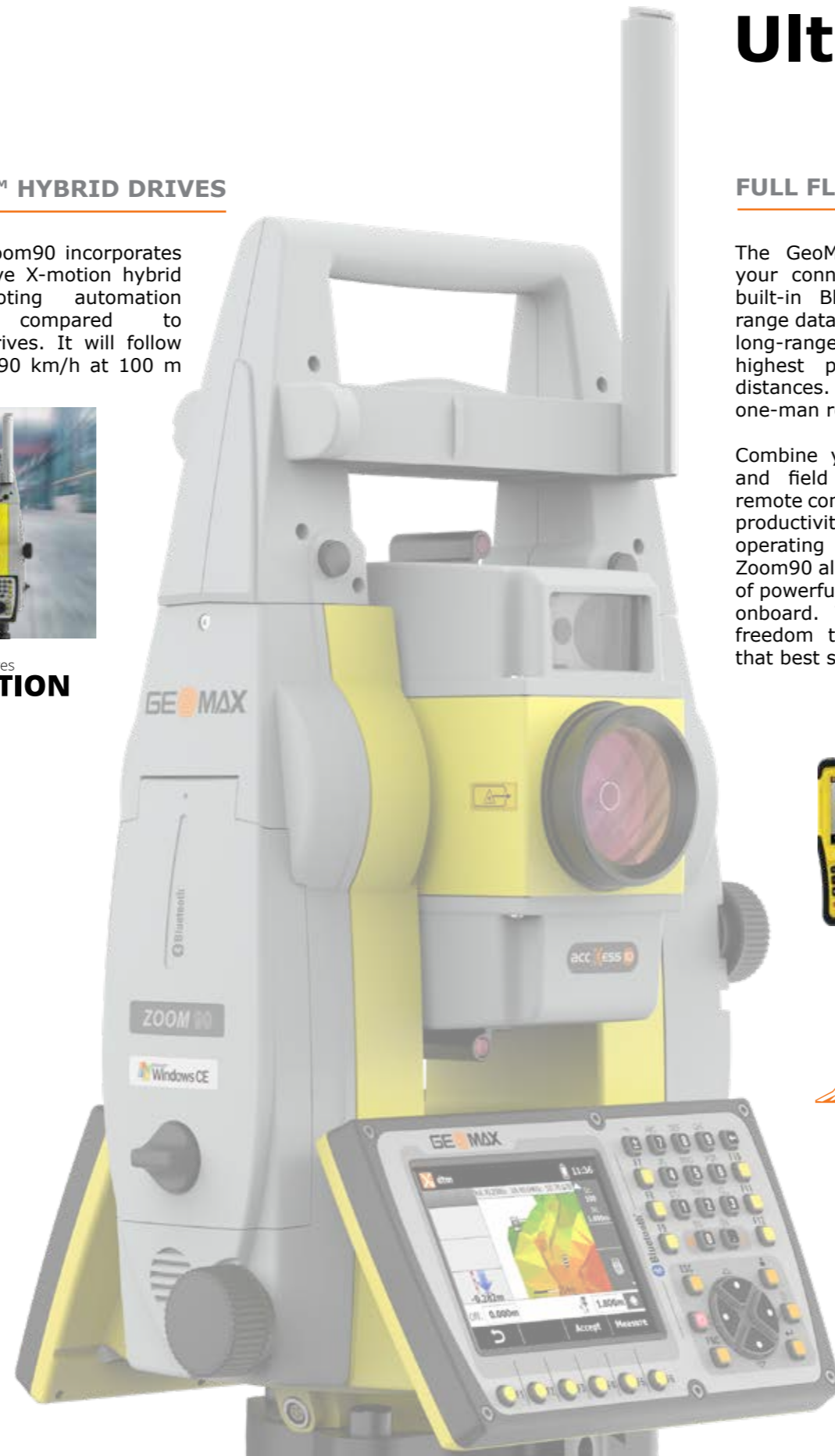
TRack: Another element of the STReAM360 is the tracking functionality; the Zoom90 is continuously tracking the target. Once locked onto, the instrument remains accurately aimed even on fast moving targets.

AiM: The Zoom90 aims accurately at any prism, without the need to look through the telescope. Highly reliable measurements are performed automatically and are consistently repeatable.

X-MOTION™ HYBRID DRIVES

The GeoMax Zoom90 incorporates highly innovative X-motion hybrid drives, promoting automation performance compared to conventional drives. It will follow your target at 90 km/h at 100 m distance.

hybrid drives
XMOTION

FULL FLEXIBILITY

The GeoMax Zoom90 meets all your connectivity needs. Use its built-in Bluetooth® for medium-range data transfer or its dedicated long-range Bluetooth® handle for highest performance over long distances. Either way, it is ideal for one-man robotic surveys.

Combine your preferred software and field controller to perform remote control tasks with increased productivity. The Windows® CE operating system installed on Zoom90 allows you to run a variety of powerful field software packages onboard. This provides you the freedom to choose the software that best suits your needs.

X-PAD SOFTWARE

X-PAD ULTIMATE is the dedicated GeoMax field software and is available in two tailored versions:
• X-PAD ULTIMATE SURVEY for surveyors
• X-PAD ULTIMATE BUILD for construction professionals running on Android operating systems.

Due to the close cooperation with key users all around the world, X-PAD ULTIMATE is continuously kept up-to-date and convinces due to its perfect balance between clear structure, straight forward workflows and high functionality.

The GeoMax software offering is completed by X-PAD FUSION, a fully featured office software that even features automatic point cloud registrations.

Just as the field software, X-PAD FUSION is versatile and flexible enough to fuse data of not only GeoMax but also third-party sources, such as drones, in one database, eliminating time consuming data conversions and risks of data loss.

NAVLIGHT

NavLight

Fitted as standard in the telescope, the NavLight is an efficient alignment aid, helping to speed up work while setting out.

Its flashing red and yellow lights will guide you quickly and exactly to the line of sight.

EDM TECHNOLOGY

accXess io

GeoMax's accXXess EDM Technology in the Zoom90 provides leading reflectorless measurements up to 1,000 metres.

The extra small laser footprint and the sophisticated signal-processing technology ensures the highest accuracy, regardless of the distance or conditions.

GE✺MAX
FIELDGenius

The fully equipped Zoom90 is second to none and its performance goes beyond your expectations.

Angle measurements

Accuracy	1" (0.3 mgon), 2" (0.6 mgon), 5" (1.5 mgon)
Display resolution	0.1" (0.1 mgon)
Method	Absolute, continuous, diametrical
Compensation	Quadruple axis

Telescope

Magnification	30x

Distance measurements - Standard prism Accuracy/Time (Typ.)

Single (fast)	2 mm + 1.5 ppm / 0.8s
Standard	1 mm + 1.5 ppm / 2.4s
Continuous	3 mm + 1.5 ppm / < 0.15s
Range	up to 3500m

Distance measurements - reflectorless

Range	accXess5 / accXXess10 500 m / 1000 m
Accuracy	2 mm + 2 ppm**
Time	Typ. 3 sec
Precise capture	8x20 mm at 50 m

Motorisation

Technology	Hybrid Drives
GeoTRAil - GNSS based prism search	
Speed	100 g/sec
Scout - Opto-electronic prism search	
Range	300 m at round prism
TRack - Automatic prism logging	
Range	800 m at round prism
Max speed	90 km/h at 100m
AiM - Automatic prism fine aiming	
Range	1,000 m at round prism
Hz/V accuracy	1"
Technique	Image processing

Distance meter (reflector mode): Laser class 1 in accordance with IEC 60825-1 resp. EN 60825-1; **Laser plummet:** Laser class 2 in accordance with IEC 60825-1 resp. EN 60825-1; **Distance meter (reflectorless mode)**: Laser class 3R in accordance with IEC 60825-1 resp. EN 60825-1.

NavLight ™ - Alignment aid

Range	5 m to 150 m
Accuracy	5 cm at 100 m

Interface

Keyboard	Full alphanumeric; 35 keys; illuminated (2nd optional)
Display	Full VGA 640 x 480 colour and touch with LED backlight
Data recording	1 GB internal memory; removable SD card and USB stick
Ports	Serial; USB; internal Bluetooth®; long-range Bluetooth handle and external power
Operating system	Microsoft® Windows® CE 6.0

Physical specifications

Weight	5.0 - 5.3 kg (w/o battery and tribrach)
Operating- / storage temperature	-20° C to 50° C / -40° C to 70° C
Protection class	IP55 dust and waterproof rating
Humidity	95%, non-condensing

Power supply

Internal battery	Removable Li-Ion 4.4 Ah / 7.4 V
Operating time	7-10 h***

Plummet

Type	Laser point, adjustable brightness
Accuracy	1.5 mm at 1.5 m instrument height

* Fast mode;
** > 500 m: 4 mm + 2 ppm;
*** Single measurement every 30 second at 25° C. Battery time may be shorter depending on conditions.

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Learn more at:
geomax-positioning.com

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