



GLS-2000 SERIES

MULTI-FUNCTIONAL
3D LASER SCANNER





Three Models Three Ranges



- Fast, precise scanning
- Reduced noise, high-quality point clouds
- Full dome field-of-view (fov)
- World's first – direct height measurement
- Surveyor-style backsight orientation

Capture reality on your terms

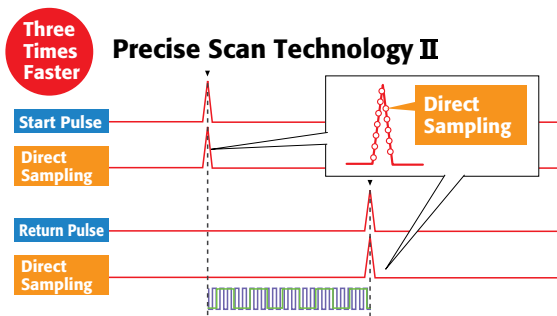
The GLS-2000 series of scanners is comprised of three comparable, yet distinct models: the GLS-2000S (short-range), GLS-2000M (medium-range), and GLS-2000L (long-range). Each model is a full-featured scanner that can be effectively deployed to capture existing, as-built conditions based on the measurement range requirements of the application. The innovative capabilities of the GLS-2000 combined with its field rugged design, provides users with a purposeful solution that will stand up to the most extreme work environments.

Versatile and adaptable

The GLS-2000 offers quick, simple and effective ways of capturing 3D point cloud data at high-speed without sacrificing the accuracy desired by today's demanding professionals. With one-button to start scanning, on-board enabled occupation and backsight orientation, and combined with ScanMaster software – the GLS-2000 portfolio provides a solution suited to any industry professional wanting the most value from their scanning investment.

Dual cameras – wide-angle and zoom

The GLS-2000 is equipped with dual 5 megapixel cameras – the 170° wide-angle camera obtains images at high speed while the 8.9° telephoto camera is coaxial with the measuring axis.



Precise Scan Technology II

With three times faster (time-of-flight) pulse signals compared to previous GLS models, the GLS-2000 produces a clear signal waveform enabling more precise signal processing. Employing an ultra high-speed ADC (analog-digital converter) along with a newly developed direct sampling technique, Precise Scan Technology II enables signal extraction resulting in reduced noise and high accuracy data.





System Performance

Maximum Range (at 90% reflectivity)	
GLS-2000S	130 m (High Speed)
GLS-2000M	350 m (Standard)
GLS-2000L	500 m (Standard)

Single Point Accuracy

Distance	3.5 mm (1-150 m), 1 sigma
Angle	6"
Tilt Sensor	
Type	Liquid 2-axis tilt sensor
Range	+/- 6'
Target Detection Accuracy	3" at 50 m

Laser Scanning System

Type	Pulse (Time of-Flight); Precise Scan Tech. II
Laser Class	3R (High / Standard) 1M (Low Power)
Scan Rate	Up to 120,000 pts/sec
Spot Size	≤ 4 mm at 20 m (FWHM)
Field of View	360° H / 270° V
Color Digital Imaging	
Wide-angle	170° Diagonal
Telephoto	11.9° H / 8.9° V

Scanning Control

Control System	On-board
Display	3.5" Touch Screen
Data Storage	SD Card

Physical and Environmental

Operation Temp	23°F to 113°F
Storage Temp	-4°F to 140°F
Dust / Humidity	IP54
Weight	24 lbs. with batteries and tribrach

ScanMaster

Complete, full-featured 3D point cloud software package that includes all tools for processing, editing, and delivering point cloud data from your Topcon GLS-2000 laser scanner.



Processing point cloud data

After field work is complete, ScanMaster supports importing, viewing, and cleaning of collected point cloud data – providing multiple tools for registering, then geo-referencing to survey control.

Extracting objects

Tools for creating and editing objects such as polylines, meshes, edges, and planes are easily accessed. The region selection tool is especially useful for isolating surfaces such as roadways and building walls, floors, and ceilings.

Export to industry applications

Exporting clouds or objects to third-party design and analysis applications is simple. Many of today's most popular applications can directly accept the Topcon (.c3) point cloud format, making workflows even more streamlined.