

# GLS-1500



Provided by Xpert Survey Equipment  
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## Compact, Operator-friendly Laser System



- Compact, All-in-one Design
- On-board Data Collection
- Eye Safe and Efficient
- Built-in 2.0 Megapixel Camera
- Precise Scan Technology

# GLS-1500 Compact, Operator-friendly Laser System

## Compact, All-in-one Design

Topcon's GLS-1500 laser scanner leaves nothing behind — except the competition. The operator-friendly design allows for quick and hassle-free setups which saves time and improves productivity. With batteries and data collector on-board, Topcon's GLS-1500 is lightweight and cable-free. Transportation is a cinch. While other laser scanners take two people to unload, setup, operate, and load, the GLS-1500 is a one man instrument.

## On-board Data Collection

The GLS-1500 has an on-board data collector with an LCD display and a 21-key keyboard. This gives the scanner the freedom to function as a stand-alone laser scanner with no connection to a computer.

## Eye-safe and Efficient

Use the GLS-1500 anywhere without worrying about damaging the eyes of a passersby. The GLS-1500 uses an invisible, Class 1, eye-safe laser. Scan near airports, busy traffic, and populated areas with no effect to the people or the environment. In addition, the use of a Class 1 invisible laser offers the benefit of low power consumption. With lower power consumption, the GLS-1500 can operate at longer times with fewer battery changes.

## Built-in 2.0 Megapixel Digital Camera

Reduce the amount of equipment needed in the field with the GLS-1500's built-in 2.0 megapixel digital camera. Collect sharp and detailed images from the scanning location, or connect to a PC with ScanMaster software and stream a live video feed of the jobsite to aid in scan setup and data acquisition.

## Dual Axis Compensators

The use of dual axis compensators allows for more accurate instrument setups and scans. Occupy a known coordinate and backsight so traversing within one coordinate system is possible. Compensators can be turned off for tiltable mounts.

## Benefits of the GLS-1500 include:

- Less point cloud noise
- The most consistent scanning accuracy
- The ability to detail slight texture variations
- Great results at ranges over 730 ft. (223m)
- Ease of Topcon (.c3) format widely accepted by most prevalent design platforms



## Small Size, Big Performance

The robust scanner sends out a laser beam that captures data at 30,000 points per second at a range of 730 ft. (223m) to a typical surface, and with an extended range to 1640 ft. (500m) for more reflective surfaces.



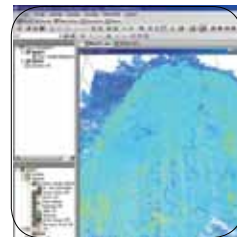
## Wireless LAN & USB Connectivity

The GLS-1500 offers wireless LAN (802.11b) and USB 2.0 PC connection. With the GLS-1500's built-in wireless LAN communication, you can control and collect image and scanning data on a PC from your car.



## Precise Scan Technology

The GLS-1500 integrates pulse-based time of flight and phase-based technologies to achieve industry leading accuracy and "clean" scan data.

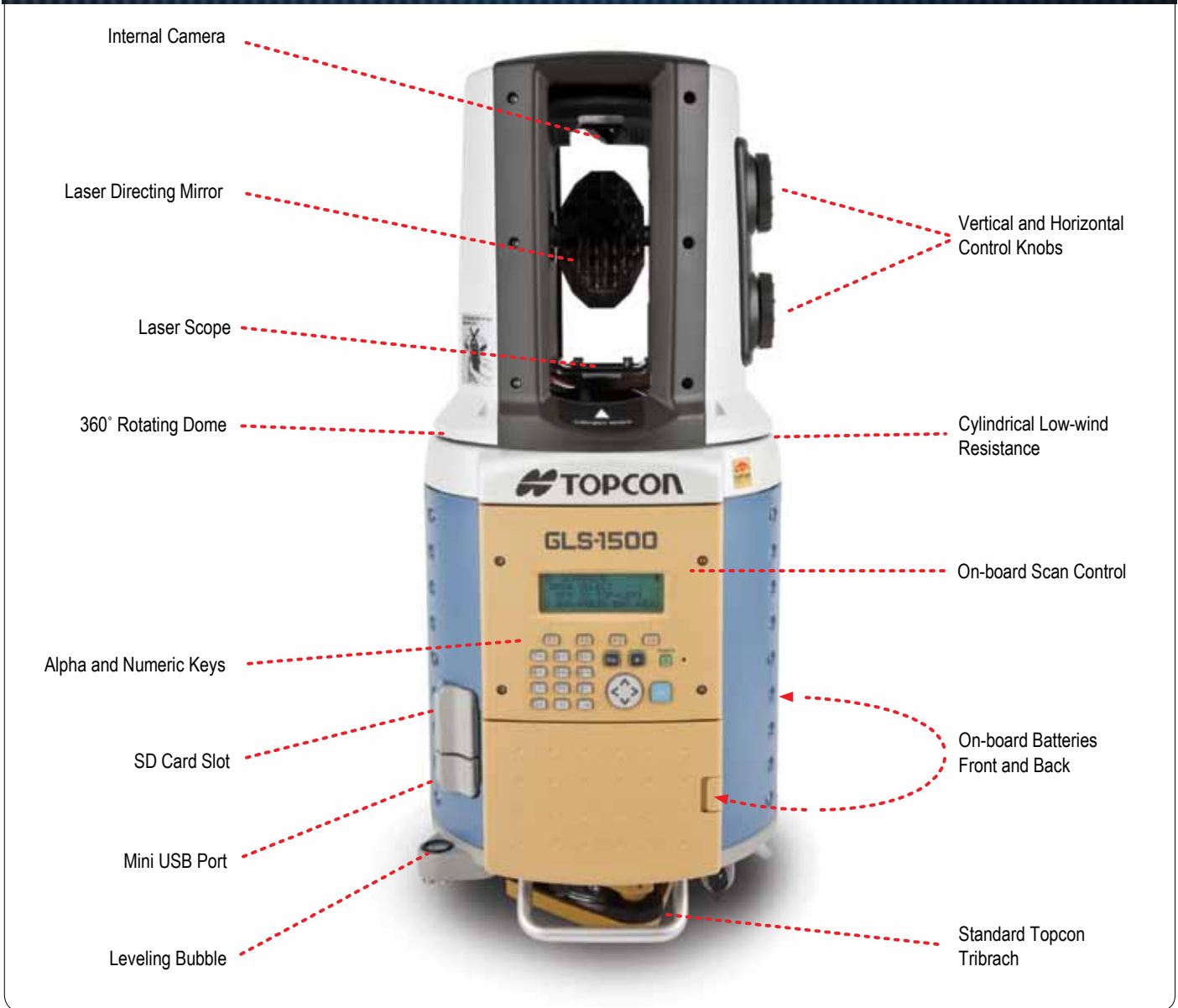


## Smooth Workflow with ScanMaster

Complete your data workflow with ScanMaster software. Manipulate your point cloud, capture images and video, complete target scans and tie-point registration, create mesh objects and annotations and more! Quickly deliver a final product with ease.



PRIMARY FEATURES



**On-board Lithium-ion Batteries**

The GLS-1500 uses four hot-swappable batteries, two per side. With the lower power consumption of the Class 1 laser, the GLS-1500 can operate for 4 hours doing a continuous scan on one set of batteries at a temperature of 68°F (20°C).



KIT COMPONENTS

**System Components**

- Target Board Tilting-Med
- 4 Targets
- BC-30B (120V) Dual Charger
- 4 BT-65Q Batteries
- USB Cable
- 1GB SD Card and CF Card
- Carrying Case and Tool Case



## SPECIFICATIONS

### System Performance

Maximum Range at specified reflectivity	1100 ft. (330m) at 90% 500 ft. (150m) at 18%
Long Range Mode	1640 ft. (500m) at 90% 731 ft. (223m) at 18%
Single Point Accuracy	Distance: 0.16 in. from 3.28 ft. to 500 ft. (4mm from 1m to 150m)
Dual Axis Compensators	Vertical: 6" Accuracy Horizontal: 6" Accuracy

### Laser Scanning System

Type	Pulsed
Color	Invisible (eye-safe laser)
Laser Class	Class 1
Scan Rate	30,000 points/second
Scan Density (Resolution)	
Spot Size	0.24 in. at 130 ft. (6mm at 40m)
Maximum Sample Density	0.04 in. at 328 ft. (1mm at 100m)

### Environmental / Physical

Operating Temperature	+32°F to +104°F (0°C to +40°C)
Dust/Water Protection	IP52
Dimensions	9.5 in. x 9.5 in. x 22.3 in. (240 x 240 x 566 mm)
Weight	35 lbs. (16kg) w/o on-board battery and tribrach

### Scanning Control

System Control	Onboard computer (stand-alone) or PC
Communication Method to PC	Wireless LAN
Display Unit	LCD 20 characters x 4 lines
Keyboard	21 keys
Data Storage	SD Card

For more specifications information:  
[topconpositioning.com/gls1500](http://topconpositioning.com/gls1500)

## SOFTWARE

# ScanMaster 2.0 Office Software

The Topcon GLS-1500 laser scanner leaves nothing behind – except the competition. Paired with ScanMaster Office software you become more proficient and productive.



Image and  
Point Cloud  
Views



With ScanMaster's operator-friendly interface, operators quickly become more proficient and productive. Manipulate data with ease and speed to quickly deliver a product to your customer.

**Modules** - Free Basic module allows your clients to easily review the scan data and your drafting additions. Advanced module with full functionality.

**Engine** - High-performance point cloud engine radically improves performance and saves time.

**Cleanup and Region Selection Tools** - Powerful filtering of isolated measurements from point clouds and region select tools automates the cleanup of noisy data. The most time consuming aspect of working with point cloud data has been greatly improved.

**Edges** - Automatically extract advanced edge sets from scans. Merge the sets to automatically draft complex buildings. Produce 3D solids to send directly to CAD.

**Polylines** - Many new tools to create and edit polylines. These new tools will allow you to quickly produce deliverables for your clients.

**Planes** - Edge extraction from plane intersections allows the user to produce precise edges at the intersection of two or more planes. Great for drawing building lines. Orient view to plane command assists with data cleanup and producing orthoimages.

**Volumes** - Volume reports allow performing flexible volume calculations. Calculate based on a mesh-to-mesh or mesh-to-plane surface comparison, also extract volume region boundary area volume region centroid.

**Regions** - Region selection is another incredible tool for data cleanup and isolate specific surfaces of interest. This is a great tool for QA/QC of grading plans. Also, to isolate road surfaces, building walls, and many other uses.

**Orthophotos** - Orthophoto export.



7400 National Drive • Livermore • CA 94550  
(925) 245-8300

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