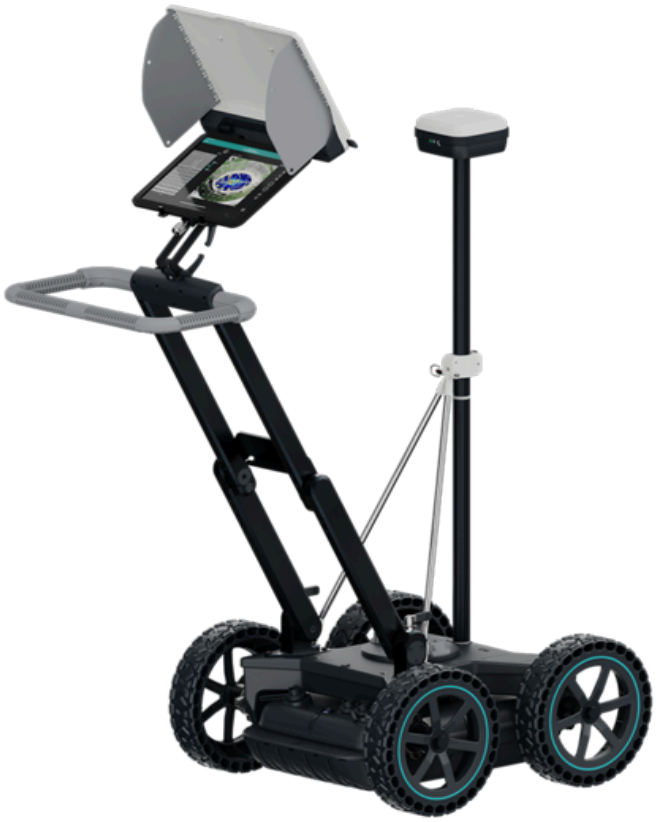
SCREENING EAGLE | proceq



Subsurface Mapping GPR

GS8000

The most efficient real-time workflow and technology to scan and digitize the subsurface

Versatility

No methodology constraints and real time 2D & 3D data visualization of the scanned subsurface, for an optimal interpretation on site, no matter the application.

Accuracy & Resolution

Superior clarity of data at different depths thanks to the unique Swiss Made ultra-wideband radar technology, with high-accuracy geolocation in local coordinates.

User Experience

End-to-end workflows, all the way from the most intuitive data acquisition to instantly shareable deliverables. Access your data from anywhere, anytime.

Proceq GPR Subsurface App
Tech Specs

Measurements modes	Line Scan Grid Scan Free Path
Visualization modes	A-scan Line Scan Line Scan migrated Time Slice View Map View Augmented Reality
On-site annotations	Tags Markers Photos Points of interest Voice notes Markups Linework
Display settings	Slice depth and thickness Auto / linear / time gain Background removal Multi-layer dielectric constant Time window Noise cancellation filter Frequency filter Low pass filter Color palette Object layers
Reporting	Workspace integration Automatic logbook Instant map / drawing generation Instant report generation Share via url
Export format	SEG-Y DXF SHP KML HTML
Coordinate System	EPSG global database Local grid models Geoid models
Languages	English Spanish French German Italian Chinese
Display unit	Any iPad® or iPad Pro® [1] Recommended: iPad Pro WiFi + Cellular Screen resolution: up to 2732 x 2048 pixels Storage capacity: up to 1 TB

Download on the App Store

Instrument
Tech Specs

Radar technology	Stepped-frequency Continuous-Wave GPR
Modulated frequency range	40 – 3440 MHz
Effective bandwidth	3200 MHz
Min. detectable target size	1 cm | 0.4 in [2]
Max. time window	200 ns
Scan rate	500 Hz
Spatial interval	Up to 100 scans/m
Acquisition speed	Up to 80 Km/h | 50 mph [3]
GNSS receiver	Multiband GPS + Glonass + Galileo + Beidou SSR augmentation / NRTK-compatible [4] Dimensions: 145 x 145 x 70 mm Weight: 0.7 Kg, 4x AA-batteries included
GNSS real-time 3D accuracy	Typ. 1 - 5 cm | 0.5 - 2 in [5]
GNSS initialization time	Typ. 5 - 30 s
Wheel encoders	2
Configurations	Proceq GS8000 Lite Proceq GS8000 Pro [6]
Weight	24 Kg [7]
Dimensions	61 x 57 x 38 cm [8]
Antenna positions	Ground-coupled with dual-axis floating Air-coupled with 25 mm clearance [9]
Ingress protection (IP) / sealing	IP65
Power supply	Removable flight-safe battery pack [10] | Off-the-shelf power bank [11]
Autonomy	3.5 hours | Full working day [12]
Operating temperature	-10° to 50°C | 14° to 122° F
Operating humidity	<95% RH, non-condensing
Connectivity	WiFi, Ethernet, USB-A, USB-B, USB-C, Lemo [13]

1. Running an up-to-date iOS version; recommended models: iPad Pro® WiFi + Cellular 11” or 12.9”
2. Metallic object buried at 0.3 m / 1 ft, in average soil conditions
3. At 50 mm scan interval
4. Needs an active Internet connection on the iPad; SSR service available in Europe, USA, southern Canada, southeastern Australia and South Korea / NRTK corrections via NTRIP in RTCM3 format
5. Via NTRIP RTK or SSR corrections; the achieved accuracy is subject to atmospheric conditions, satellite geometry, observation time, etc.
6. GS8000 Pro includes additionally: off-road wheels and underbody, GNSS pole fixation kit, tablet cover for sun and rain, hard transportation case
7. For GS8000 Pro configuration: 27 Kg
8. For GS8000 Pro configuration: 68 x 60 x 42 cm
9. For GS8000 Pro configuration: 40 mm
10. Contains 8x rechargeable C-Type NiMH batteries
11. USB-C PD power bank with max. dimensions: W 85mm x H 28mm (recommended power: 12V/>=1.25A or 15V/>=1A)
12. Recommended battery capacity: >4500 mAh | Recommended power bank capacity: >20000 mAh
13. For terrestrial positioning systems, an intermediate serial adapter to DB9 might be needed to output Pseudo NMEA GGA positions

Our Accessories

Image	PartNumber	Description
	39350510	Accomodates 8x NiMH rechargeable C-batteries. One unit included in all hardware variants.
	39350520	Accomodates any compatible PD power bank unit. One unit included in all hardware variants.
	39350803	For better back & forth rolling on uneven terrains. Included in GS8000 Pro hardware variant.
	39350660	Stabilizes your GNSS pole in uneven terrains. Included in GS8000 Pro hardware variant.
	39350225	Shifts the position of your wheels 20mm in any direction. Included in GS8000 Pro hardware variant.
	39350710	Included in GS8000 Pro hardware variant.
	39350404	Accomodates any iPad Pro and sun & rain cover. Included in all hardware variants.
	39350480	Protects the iPad from sun & rain. Included in GS8000 Pro hardware variant.
	39350060	Accommodates an umbrella to protect the user from sun & rain.
	39350486	Makes the tablet holder compatible with diverse accessories and cases. Included in all hardware variants.

Standards & Guidelines	Description
AS 5488-2013 (Australia)	
NF_S70-003 (France)	
UNI/PdR 26.01:2017 (Italy)	
ASCE 38-02 (United States)	
CSA S250 (Canada)	
HSG47 (United Kingdom)	
PAS128 (United Kingdom)	
ASTM D6432-11	
NCHRP Synesis 255	
SHRP H-672	
SHRP S-300	
SHRP S-325	