



2550GR

GROUND PENETRATING RADAR

The Subsite® 2550GR Ground Penetrating Radar System will help you locate any type of utility conduit or piping—metallic or non-metallic, including PVC—beneath soil, rock, pavement, and other surfaces. Plus, a user-friendly Windows-based interface provides productivity-enhancing benefits from easy integration of GPS data to reliable wireless connectivity for downloading web-based maps such as Google Earth.

KEY FEATURES

- :: Locates both metallic and non-metallic pipes and cables to allow one-pass locates at depths of up to 19.7 feet (6 m), depending on soil conditions and antenna selection.
- :: Earth-engaged antenna provides better contact on uneven terrain and reduces signal loss.
- :: Easy GPS connectivity allows you to see your path and marks in real-time as you scan.
- :: With 5.6 mph (9 km/h) survey speed and digitally controlled radar, the 2550GR provides fast, clear images.
- :: Wireless connection allows you to download maps such as Google Earth.
- :: The 2550GR folds up into a size that is easy to transport.
- :: Assisted grid capability allows you to grid your location digitally, without having to paint the ground.
- :: Rugged, four-wheel cart design allows the operator to scan on any type of terrain.
- :: One-touch recalibration button lets you transition from one scanning surface to another quickly and easily.
- :: Dual-frequency antenna simultaneously sweeps in two frequencies; this allows you to see both deep and shallow objects simultaneously.



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2550GR GROUND PENETRATING RADAR

The versatile 2550GR is ideal for utility mapping efforts, plus void and sinkhole detection, concrete detection, and locating underground storage tanks.

2550GR GROUND PENETRATING RADAR SPECIFICATIONS

	U.S.	METRIC
SYSTEM		
Survey path width	19.68 in	500 mm
Recording channels	2	
Transmit pulse frequency	200 kHz	
Typical antenna frequency	250 and 700 MHz	
Typical collection speed (scans/second)	100	
Typical collection speed at 2-in (5-cm) sampling interval	5.6 mph	9 km/h
Display mode	Gray scale/color palette	
Zoom	Up to 4x	
Data storage	Laptop hard drive	
Profile length, max	Virtually unlimited	
Stored data format	Raw data (for further data analysis)	
Setting of GPR propagation velocity (to get accurate evaluation of depth of detected targets)	Ground truth or hyperbola fitting methods	
Reading of pipe position/depth	Software cursor	
System output	Printable radar map with descriptor of detected utilities	
Diagnostic	Radar and power supply status, excessive speed, data loss	
Languages	English, French, German, Spanish, Italian, Portuguese, Chinese	
Data collection type	Parallel profile lines, perpendicular to the expected orientation of utilities	

RADAR POWER REQUIREMENTS

Battery operating time	<10 hours	
Power supply	12V sealed lead acid, 12 Ah	
Mechanical		
Operating temperature	14-104°F	-10-40°C
Humidity	100% (sealed)	
Weight, w/out battery or PC	60.6 lb	27.5 kg
Weight, w/out PC	68.6 lb	31.1 kg
Weight, total	73.9 lb	33.5 kg
Width	21 in	533 mm
Length, handle fully extended	49.92 in	1.27 m
Length, folded	39.96 in	1.02 m
Height, handle fully extended	39.48 in	1 m
Height, folded	20.4 in	521 mm

	U.S.	METRIC
DUAL FREQUENCY		
Antenna technology	Ultra-wide band, ground coupled, shielded dipole	
Typical range	.32-8.2 ft	0.1-2.5 m
Range, max	.32-19.7 ft	0.1-6 m

RECOMMENDED PC SPECIFICATIONS

- Processor: Intel® Core™ i5 1.9 GHz (minimum: Intel® Core™ i3 1.7 GHz)
- RAM: 4GB (minimum 1GB)
- Intel HD Graphics 3000 or nVidia graphic adapter compatible with OpenGL 2.1 or newer (minimum: graphic adapter compatible with OpenGL 2.1)
- Screen Resolution: 1024 x 786
- Operating System: Windows 7 (32bits)
- Shock Proof Hard Disk Drive
- Serial Port RS 232 (only used with the GPS)
- USB Port (minimum: Ethernet port)

GPS REQUIREMENTS

The 2550GR system can be used with a GPS to position the scans in real time without the need of creating a grid. Requirements are:

- Dual frequency (L1+L2)
- Positioning update greater than 5 Hz
- RTK: connection to a base station via radio link (UHF or GSM) or connection to a Continuously Operating Reference Station (CORS) via internet
- NMEA output
- Serial cable (RS232) or Bluetooth® connectivity

Specifications are general and subject to change without notice. If exact measurements are required, equipment should be weighed and measured. Due to selected options, delivered equipment may not necessarily match that shown.