Locate and Map Underground Utilities with GPR

UtilityScan®

www.geophysical.com

UtilityScan[®] is the industry standard ground penetrating radar solution for the designation of subsurface utilities. With UtilityScan, users can quickly identify and mark the location and depth of service utilities – gas, communications, sewer lines – and other metallic and non-metallic targets including underground storage tanks and PVC pipes.

The UtilityScan family is configurable and provides the flexibility to address a wide range of utility applications. The selection of the appropriate antenna and cart tailor UtilityScan beyond utility operation to address NDT and environmental applications, including bridge deck assessment and concrete scapping.

deck assessment and concrete scanning.

Regardless of the configuration, UtilityScan delivers exceptional data quality while being rugged enough to stand up to years of field use.

Designate Targets

- Real-time data collection
- Back-up cursor and cross-hair cursor allow the user to accurately locate targets
- Multiple techniques to calculate depth of targets

Premium Mobility

- Easy to transport
- Durable components tested to withstand the toughest conditions

Integrated System

- Windows® CE operating system
- · Ability to store and replay data
- · GPS integration

Value

- Multiple antenna options
- Flexible system for concrete and bridge inspection applications
- Two-year warranty

"Seeing all the different ways to use GSSI GPR has been beneficial to what services we can offer our customers."

Typical Uses

non-metallic

Utility detection – metallic and

Environmental remediation

Damage prevention

Geological investigation

Archaeology and forensics

Road inspection

Curtis Hoag, GPRS Charlotte



UtilityScan Solutions

Utility locators, construction professionals, environmental firms and land surveyors need a reliable, non-destructive method to locate subsurface targets prior to digging, trenching, conducting site assessments and mapping.

Locate and Map Underground Utilities

Designate the location and position of metallic and non-metallic pipes in real time using the GSSI UtilityScan. GPR can enhance one's overall understanding of subsurface targets and obstructions.



UtilityScan data showing a duct bank with five utilities. Also shown is a well-defined excavation trench.

Locate Underground Storage Tanks

Use UtilityScan to accurately pinpoint underground storage tanks and associated piping.





UtilityScan data depicting storage tanks under concrete pad





Survey Solutions

Survey Cart Options



Rugged Cart

- Weather resistant design
- Multiple antenna options (2600 MHz to 270 MHz) •
- Internal integrated survey wheel encoder •
- Removable, 16-inch wheels (41 cm)
- Marking paint can holders
- . Compatible with SIR 3000 control unit
- Dimensions: 30.1 x 47.9 x 41.8 in (76.4 x 121.6 x 106.1 cm)
- Antenna centerline to front of cart: 19 in (48.3 cm)
- Weight: 58 lbs (26.3 kg)
- Model 643



Compact Cart

- Compact, weather resistant design •
- Multiple antenna options (2600 MHz to 400 MHz) .
- Internal integrated survey wheel encoder
- Removable, 12-inch wheels (30 cm)
- Compatible with SIR 3000 control unit
- Dimensions: 24.3 x 39.4 x 40.3 in (61.7 x 100 x 102.4 cm)
- Antenna centerline to front of cart: 15 in (38.2 cm)
- Weight: 48 lbs (21.7 kg) .

Standard Cart

- Lightweight and foldable design •
- Multiple antenna options (2600 MHz to 400 MHz) •
- .
- 20-inch front and 24-inch back wheels (51 cm, 61 cm)
- Dimensions: 24.9 x 53.3 x 45.8 in (63.2 x 135.2 x 116.3 cm)
- Antenna centerline to front of cart: 31.6 in (80.2 cm)

Antenna Options



0 - 12 feet* (0 - 4 m) 400 MHz Antenna



0 - 18 feet* (0 - 6 m) 270 MHz Antenna



Data Options

Real-time 2D Profiles



RADAN® 3D Data

*under ideal soil conditions

Model 653

- Integrated survey wheel encoder
- Compatible with SIR 3000, SIR 20, SIR 2000 control units
- - Weight: 39 lbs (17.7 kg)
- Model 623

UtilityScan Flexibility

The UtilityScan flexibility allows you to convert the system to address different applications, including:

Concrete Scanning and Inspection

Use ground penetrating radar to locate embedment within concrete structures prior to cutting or coring. Collect quantifiable data on rebar location and areas of delamination.





Bridge Deck Inspection

By substituting the standard utility antennas with a high frequency antenna, users can determine the condition of aging bridge decks, parking structures and obtain accurate concrete cover depth on new structures.

Control Unit Specifications

Image Capacity	Internal: 500 2'x2' data images	
External Memory	Based on Compact Flash size	
Internal Memory	2 GB	
Display	8.4 inch, full-color, 800x600 resolution, 64K colors, clearly visible in sunlight	
Post-processing	On-screen	
Battery	Internal (3 hours), 10.8 VDC	
Ports	RS232, Compact Flash memory, USB master & slave	
Environmental	Water-resistant	

System Includes

SIR®	3000	control	unit
JIII	2000	control	unit

400 MHz or 270 MHz antenna
Choice of cart option
2 m control cable
2 batteries
Battery charger
Custom transit case for control unit
AC adapter
User manual

Sunshade

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