



CODEVINTEC

Tecnologie per le Scienze della Terra e del Mare

CG-6 Autograv™ Survey gravity meter



The CG-6 Autograv™ is the next generation land gravity meter combining a modern, intuitive user interface with our renowned quartz sensor technology housed in a rugged yet lightweight enclosure.

The new CG-6 offers fast, reliable and precise gravity measurements and includes an array of mapping and post processing functionality using the optional tablet computer that comes with our new Lynx LG software conveniently installed.

The new CG-6 offers dependable gravity survey data with ease and efficiency making surveying more cost effective than ever before.



System features

Portable light-weight survey gravity meter

- > Reduced Stabilization Time Between Readings
- > All-Weather Operation (-40 to +45 °C)
- > Dust-Proof, Water Resistant Meter
- > Intuitive Survey-Driven Interface
- > Backlit Inclined Display
- > Robust Fused-Quartz Sensor
- > No Clamping Required
- > On-Board GPS Receiver
- > Bluetooth Connectivity
- > Simplified Leveling Interface
- > On-Board Mass Storage (4 GB)
- > Hot-Swappable Dual High-Capacity Batteries (24 hr at 25 °C)
- > 5 microGal Repeatability
- > Tares Under 5 microGal for up to 20 g Shocks
- > Low Drift Sensor (Uncorrected: < 200 microGal/day)
- > Low Residual Drift (< 20 microGal/day)
- > Automated Corrections (Tides, Tilts, Drift, Temperature)

Ruggedized smart tablet accessory option

- > Lynx LG Land Gravity Survey Software
- > Touch-Free Field Operation of Gravimeter
- > Built-in GPS and Camera
- > Windows Operating System
- > Daylight Readable Multi-Touch Screen
- > Real-Time Position Maps
- > In-Field Simple Bouguer Maps

Applications

> Oil & gas exploration

Gravity can be used to determine the location of a salt dome in which oil or gas could be present. Measuring the density change in an oil reservoir can assist in the oil and gas recovery process.

> Mineral exploration

Gravity can detect volcanic massive sulphides deposits associated with nickel deposits, diamond bearing kimberlites, banded iron formations, and impact basins. Gravity can also be used to determine the size of the deposit.

> Geological mapping

Gravity can be used to complement the results of geological mapping.

> Civil engineering

Gravity can be used to study the integrity of roads, dams, and dykes, looking for areas of weakness in the sub-surface.

> Geotechnical

Gravity can detect voids or cavities whether they are tunnels, washouts or sink holes.

> Regional gravity studies

Gravity can determine the rock type, soil compaction and presence of water.

> Geoid mapping

By measuring gravity changes on the Earth's surface, a more accurate correction can be applied to GPS data to obtain a more precise surface elevation.

> Archaeology

Gravity can be used to locate buried walls, buildings, and tombs.



Optional remote tablet control with Lynx LG software



Lynx LG land gravity software features

- > Bluetooth connectivity for hands-free operation
- > Real-time position maps
- > Simple Bouguer mapping for QC
- > Previous survey/station recall
- > Station/Route import capabilities (KML, GPX, Delimited ASCII)
- > Searchable survey database
- > Advanced corrections
- > Tilt and drift calibration interface
- > GPS integration/synchronization

* Tablet software features are subject to change without notice.

Minimum hardware specifications

Windows based operating system, multi processor controlled, Wi-Fi, Bluetooth, GPS

Complete gravity solutions

Training programs

Customized training programs at client-site or at our facility near Toronto, Canada.

Application software

Software packages are available to support data processing interpretation and mapping needs.

CG-6 Advancements

Building on the success of the Scintrex CG-5 Auto-grav™ we've re-engineered the design to make the CG-6 Auto-grav™ lighter, faster and more powerful.

Smaller, sleeker packaging

- > 35% weight reduction: 5.5 kg (12 lbs) with 2 batteries
- > 32% height reduction: 21.6 cm (8.5 in) freestanding height
- > Re-engineered leveling tripod: 40% lighter, 25% stronger
- > 20% reduced power consumption
- > Reduced profile improves performance in windy conditions

Completely redesigned user experience

- > Faster, easier levelling with improved tilt sensors, visual feedback and a lighter tripod with levelling screws ergonomically placed at the front of the meter
- > Improved on-board interface and new tablet compatibility
- > Intuitive on-board user interface for faster surveying, backlit inclined display for easy readability and 4GB of on-board memory
- > Bluetooth and USB connectivity

Improved sensor performance

- > Reduced long-term drift
- > Compact design with reduced warm-up, setting and stabilization time



Also available

CG-5/CG-6 Trident Vertical Gravity Gradient Tripod



Technical Specifications

Sensor type	Fused quartz using electrostatic nulling	Digital data output	USB and Bluetooth
Reading resolution	0.1 microGal	Dimensions	21.5 cm(H) x21 cm x 24 cm 8.5 in x 8.2 in x 9.4 in)
Standard deviation	< 5 microGal	Weight	5.5 kg (12 lbs) including batteries
Operating range	World-wide (8,000 mGal without resetting)	Standard system contains	> CG-6 Autograv™ Gravity Meter > CG-6 Tripod > 2 Rechargeable Smart Batteries > Battery Charger > Power Supply and USB Cable > Transit Case > User Manual > Spare Parts Kit > Carry Bag
Residual drift	< 20 microGal/day	Available options	> Tablet Computer w/Lynx LG Land Gravity > High-Temperature (HT) Meter Option > Cold Weather Survey Accessories > Surveyor's Backpack > Spare Meter Batteries > Spare Tablet Batteries > Trident Gradient Tripod > Spare Battery Caps
Uncompensated drift	< 200 microGal/day		
Range of automatic tilt compensation	±200 arcseconds		
Tares	Typically < 5 microGal for shocks up to 20 g		
Automated sample corrections	Tide, instrument tilt, temperature, noisy filter, seismic noise filter, drift		
Data output rate	User selectable up to 10 Hz		
GPS accuracy	Standard < 3 m		
Touch-free operation	With Optional Handheld Tablet with Bluetooth		
Battery capacity	2 X 6.8 Ah (10.8 V) rechargeable lithium smart batteries Full day operation at 25 Â°C (77 Â°F)		
Power consumption	5.2 Watts at 25 Â°C (77 Â°F)		
Operating temperature	-40 Â°C to + 45 Â°C (-40 Â°F to 113 Â°F); Optional high temperature version to +55 Â°C (131 Â°F)		

