



# **LaCoste & Romberg** LLC

*The first name in gravity since 1939*

## Model G Gravity Meter

LaCoste & Romberg, manufacturer of high precision gravity meters since 1939, introduced the world's first worldwide range gravity meter - the Model G meter - in 1959. The Model G land gravity meters have set the standard by which all other gravity meters are measured. They have a proven record of reliability and durability, so much so that virtually all L&R meters manufactured to date are still in use.

The Model G (geodetic) meter uses the famous patented L&R zero-length™ spring and suspension system. The Model G has been the standard of the industry for over 40 years. We estimate that more than 10 million gravity stations have been observed with this meter on every continent.



## Technical Features the Model G

- ✓ **Reliability** - Our meters employ components that are designed for long life and require little maintenance. Our sensors contain rugged metal components which can reliably withstand extreme field conditions.
- ✓ **Range** - The G meter has a worldwide range of 7,000 mGal without resetting.
- ✓ **Drift** - Gravity meter drift for a new meter is less than 1 mGal per month. As a LaCoste & Romberg meter ages, the drift often improves to rates of less than 0.5 mGal per month. Once initial expansion takes place, the sensor does not radically change its characteristics with time, in fact they become more stable.
- ✓ **Stable Factory Calibration** - The calibration depends on a hardened micrometer screw and metal lever system. It is stable over the life of the meter and is not affected by loss of operating temperature.
- ✓ **Beam Position** - A Capacitive Positioning Indicator (CPI) system allows beam position to be read without using the optical system. Improves the meter repeatability.
- ✓ **Ceramic Levels** - A resistive liquid electronic level indicator system. Temperature stable and more accurate

## Options

- ✓ **Aliod 100 Electronic Feedback System** - High accuracy, user friendly 100 mGal range feedback system displays gravity in mGals as well as meter temperature and battery voltage. Electronic levels and the dial clamp option are required.
- ✓ **Nulling Dial Clamp** - Used to prevent the counter dial from moving during measurements. Recommended for meters with the Aliod 100 option or when monitoring earth tides.
- ✓ **High Speed Crank** - Useful for resetting the counter over a large interval between surveys.

## Reliable Factory Service

LaCoste & Romberg's famous reliable factory service stands behind every gravity meter we produce. Our trained technicians have many years of experience at building and maintaining gravity meters.

### G Meter Specifications

#### System Performance

|                         |  |
|-------------------------|--|
| <b>Sensor Type:</b>     | Zero Length™ Metal Spring  |
| <b>Data Resolution:</b> | 0.005 mGal   |
| <b>Repeatability:</b>   | In field conditions (Repeatability depends completely on care in handling meter)<br>0.01 to 0.02 mGal. |
| <b>Accuracy</b>         | 0.04 mGal or better  |
| <b>Range:</b>           | Worldwide  |
| <b>Temp. Range:</b>     | 0° to +45°C  |
| <b>Absolute Drift:</b>  | <1.0 mGal per month<br><0.5 mGal per month after aging   |

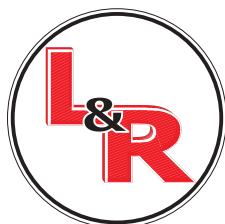
#### Physical Dimensions

|                         |   |
|-------------------------|---|
| <b>Size and Weight:</b> | 19.7 x 17.8 x 25.1 cm 7.75 x 7.0 x 9.875 in |
| Meter                   | 7 lbs; 3.2 kg                               |
| Battery                 | 5 lbs; 2.3 kg                               |
| Meter, Battery & Case   | 22 lbs; 10 kg                               |

#### Warranty

|                  |                         |
|------------------|-------------------------|
| <b>Standard:</b> | 1 year, parts and labor |
|------------------|-------------------------|

Specifications subject to change.



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