

Leica Builder Family Built for Construction



SITE-PROOF
by Leica Geosystems

- when it has to be **right**

Leica
Geosystems

Meet the Leica Builder Family...

Easily affordable, tough total stations, built specially for site work. Simple routines for standard building and construction tasks.

With the Leica Builder, Leica Geosystems is aiming at experts in the building sector who have shied away from using professional measuring instruments. In the design priority of making the theodolite as easy-to-use as possible, the advantages and the added value of the Leica Builder become evident: its uniquely easy-to-operate control concept and the outstanding product performance accelerates common construction site jobs, e.g. layout or survey.

Benefits of using Leica Builder:

- Increase productivity
- Easy to learn & use
- Cost effective
- Multi-lingual
- Reliable layout & distance measurements
- Layout
- Reflectorless Electronic Distance Measurement (EDM)
- Unique Leica PowerSite software

Who can use Leica Builder?

- Landscape gardeners
- Surveying companies
- Construction companies
- Refurbishing designers
- House builders
- General contractors

Leica PowerSite Software

The Leica Builder series is equipped with the new built-in Leica PowerSite software, specifically designed to meet requirements of construction experts for their daily work on the site. High performance and amazing ease-of-use make this software the ideal solution for every layout task.

With the built-in Leica PowerSite software, every layout task on the construction site is a piece of cake. It is fast and professional, yet easy to use and learn. The user additionally benefits from the most advanced electronic distance measurement and pinpoint accuracy.

- Fast & efficient layout
- Protect your property
- Multilingual support



Builder T100 / T200

Rugged, high-quality, electronic theodolites. The best in the market. Compensates horizontal and vertical angle. Provides graphic levelling aid. Pincode protection possible.

Functions of the Builder T:

- Set angles
- V display in degrees or as percentage of inclination
- Sector "Beep" signals right angles
- Hz display clockwise or counter clockwise
- Checks level positioning with the graphic levelling aid

Builder R100 / R200

The R100 and R200 series offer additional time saving and accuracy benefits with the built-in laser EDM feature, including PowerSite software for layouts and measurements.

The advantage of the Builder R:

- Even an inexperienced operator can implement a construction plan or perform a control measurement
- The clearly arranged built-in functions "Layout", "As-Built", "Tie Distance" and "Area" reduce work to a minimum

Builder R100M / R200M

These models include a data exchange function for storing and transferring data for those who need to optimise workflow. Seamless dataflow e.g. between the architect and the Builder.

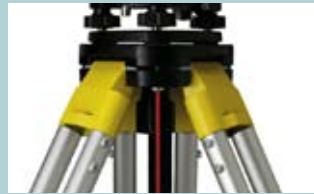
The advantage of the Builder RM:

- Receiving and transmitting measured or layout data via digital files increases processing efficiency
- Read and write errors are eliminated
- Data is saved and managed on a PC
- Designs can be implemented directly from the planning stage



Clear view

High resolution graphic display, instantaneous and clear under any lighting condition. Angles are displayed up to 1 second.



Easy set ups

The laser plummet and the exclusive graphic levelling aid make layouts extremely easy.



Leading edge measuring technology

Continuous drive, absolute angle sensors and crystal clear telescope optics turn working with the Builder into immediate fun.



Automatic compensation

Compensation of vertical and horizontal reading guarantees minimal vertical axis errors and fast measurements.



Electronic laser distance measurements

The unique combination of a red laser and a flat prism allows the Builder R to measure distances up to 830' (250m), or 265' (80m) reflectorless.



Free set ups possible

The Builder R does not require line-of-sight or known point set-ups. Set-up points can be freely chosen to keep construction in sight.



Implementing the plan is easy

Simply set up and level the Builder. Call up the 'layout' function, enter the value and point the instrument towards the target.



Graphic sketches

Graphically display the most significant outline points of the site in a sketch format for fast ID and reference.



Call up plan data

Enter the data at the office and simply call it up at the site.



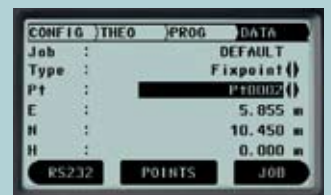
PC Interface

Upload and transfer data simply via the on board data RS232 connection.



Editing data

Save data as tables, or process values as north/east or line and offset points.



Data exchange

Read or load data saved in tables with a single button press.



Specifications of the Builder T100 / T200

Angle Measurements

Standard deviation	ISO 17123-3
T100	9" (directional deviation 3 mm at 70 m)
T200	6" (directional deviation 3 mm at 105 m)
Compensator	2-axis electronic operating range +/-4'

Telescope

Magnification	30x
Field of view	2.4 m at 100 m
Minimal target distance	1.7 m

Display

Angle display	up to 1" (1mgon)
Screen/keypad	160 x 280 pixels or alpha numeric 8 x 31 characters, both sides optionally



Additional specifications of the Builder R100 / R200

Distance Measurements

Standard deviation	ISO 17123-4 3 mm + 2 ppm
Range	80 m on Kodak gray card 250 m on Leica flat prism
Time for a measure	< 2 s typical on flat prism

Telescope with EDM

Field of view	2.7 m at 100 m
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Additional specifications of the Builder R100M / R200M

Communication

Internal memory	10'000 data blocks
Interface	RS232/USB up to 19'200 baud

General Specifications for all Builders

Weight incl. battery and tripod	4,3 kg (Builder T) to 5 kg (Builder R/RM)
Power pack types of batteries	NiMH camcorder types or 6 AA-batteries
Laser plummet precision	1.5 mm at 1.5 m

Environmental Conditions

Temperature	-20 to +50° C (operation), -40 to +70° C (storage)
Humidity	max. 95 %, non-condensed
Dust and rain	IP54 (IEC 60529)

Builder M/RM Power

What is the difference between the M power and the RM power?

Both models can carry out distance measurements to glass prisms for highest accuracy combined with greatest range. The Builder RM power has a reflectorless mode which allows measurements to be made without a prism to inaccessible places such as facade points and wall corners. All you have to do is sight the desired point and take the measurement.



Setting out

Setting out made easy! All setting out tasks whether points, lines or curves, are done quickly and easily.



As-built

Points, axes or ground profiles are simply and quickly captured or checked.



Landscaping works

Setting out of points, offset lines and the calculation of areas and volumes are completed simply and in the shortest possible time.

Extended Support



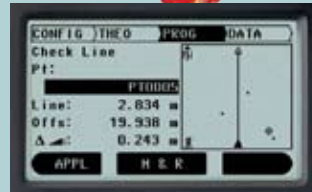
Graphic levelling aid

Fast, convenient and precise setup, thanks to the unique levelling aid and the laser plummet.



Simple menu control

Easy, reliable selection of the most suitable program with the help of clear graphics.



Graphic display

All at a glance – with the graphic window. This includes surveyed points, predefined axes and the Builder station.



Angle measurements and telescope

(R)100M power standard deviation (ISO 17123-3)	9" (directional deviation < 5 mm at 100 m)
(R)200M power standard deviation (ISO 17123-3)	5" (directional deviation < 3 mm at 100 m)
R300M power standard deviation (ISO 17123-3)	3" (directional deviation < 2 mm at 100 m)
Compensator	Electronic 2-axis compensator / working range +/- 4'
Telescope magnification and field of view	30 x, 2.6 m at 100 m
Minimum target distance	1.7 m

Distance measurement without glass prism (red dot), Builder RM power only

Range	170 m on Kodak grey card, 250 m on flat prism
Standard deviation (ISO 17123-4) (normal/tracking)	3 mm + 2 ppm / 5 mm + 2 ppm
Typical time for a measurement	< 2 s on flat prism

Distance measurement on glass prism (fine/fast)

Range (fine/fast/tracking)	1000 m with CPR111 Builder TrueZero prism, Up to 3500 m with a Leica circular prism
Standard deviation (ISO 17123-4) (fine/fast/tracking)	2 mm + 2 ppm / 5 mm + 2 ppm / 5 mm + 2 ppm
Typical time for a measurement (fine/fast/tracking)	< 1 s / < 0.5 s / < 0.3 s

Other system specifications

Internal data memory/interface	10,000 data blocks / RS232 or USB up to 19,200 Baud
Display	160 x 280 Pixel or alphanumeric 8 lines x 31 characters, both sides optionally
Weight including battery and tribrach	5 kg
Power supply	NiMH-rechargeable battery or 6 AA batteries
Temperature	-20° C to +50° C (operation), -40° C to +70° C (storage)
Humidity	Max. 95%, non-condensing
Dust and rain protection (IEC 60529)	IP54

Whether you have to stake out a construction site precisely, perform control measurements, collect height and angle data, align concrete forms, install ceilings and partitions, lay gravity flow pipe, locate underground services or complete site preparation and earthworks – Leica Geosystems offers the right instrument for your application.

Easy-to-use, jobsite tough, accurate and reliable – Leica Geosystems instruments ensure the efficient use of your materials and resources. High quality products, such as optical and electronic levels, construction lasers, total stations and distance meters, provide fast results, keep you working and increase your profitability.

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Total Quality Management – our commitment to total customer satisfaction.

Ask your local Leica Geosystems dealer for more information about our TQM program.

Distance meter (RL), Laser plummet:
Laser class 2 in accordance with IEC 60825-1 resp. EN 60825-1



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