Leica Builder Family
Built for Construction

- when it has to be right

SITE PROOF by 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
- Multilanguage support

Builder T100 / T200


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" (1 mgon)
- **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

## 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.

<table>
<thead>
<tr>
<th>Angle measurements and telescope</th>
</tr>
</thead>
<tbody>
<tr>
<td>(R)100M power standard deviation (ISO 17123-3)</td>
</tr>
<tr>
<td>(R)200M power standard deviation (ISO 17123-3)</td>
</tr>
<tr>
<td>R300M power standard deviation (ISO 17123-3)</td>
</tr>
<tr>
<td>Compensator</td>
</tr>
<tr>
<td>Telescope magnification and field of view</td>
</tr>
<tr>
<td>Minimum target distance</td>
</tr>
</tbody>
</table>

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
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Dust and rain protection (IEC 60529)
IP54

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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.

When it has to be right.