

# Leica Builder ... Built to Build



- when it has to be **right**

**Leica**  
Geosystems

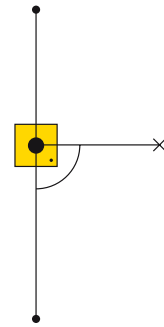
# Leica Builder ... Built to Build



"Instead of tediously setting up strings, with the Builder T100 my masons can start work right away."



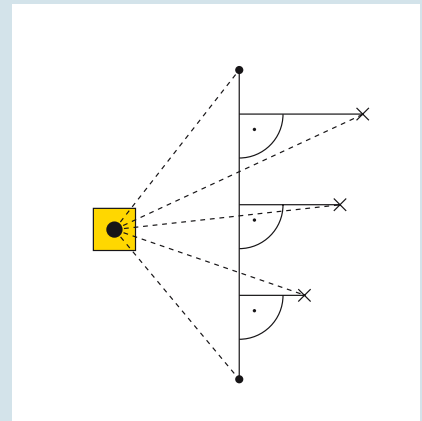
The Builder T100 or T200 can determine fill and drag points, define right angles and slopes.



"The Builder R100 gives me a lot of freedom. I can decide to perform layouts or control measurements at any time and on my own - regardless of how the construction data was prepared. The easy set-up makes it a smooth operation!"



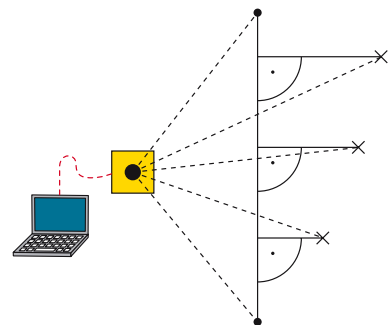
The Builder R100 or R200 determines a target with electronic laser distance measurement. In combination with the angle measurement, it is possible to determine the position of a point to a line and even the height of the point to a reference point with a single measurement.



"The designers simply hand me the data file. I load it into the instrument and can start staking out right away, without having to enter a single number while in the field."



The Builder R100M and R200M with built-in memory, saves and transfers measured data via an interface between the Builder and a PC.



# Builder T100/T200 – The Extremely Fast Electronic



**Clear View**  
High resolution graphic display, instantaneous and clear under any lighting condition. Angles are displayed up to 1mgon or 1".



**Easy Set Ups**  
The laser plummet and the exclusive graphic levelling aid make set-ups extremely easy.



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

# Builder R100/R200 – Layout Laser Distance Measuring



**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' (250 m), or 265' (80 m) 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.

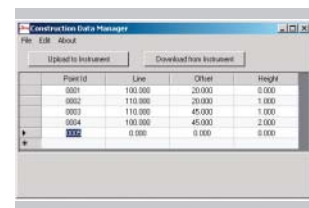
# Builder R100M/R200M – The Digital Construction



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

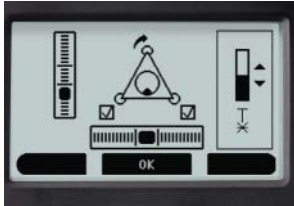


**PC Interface**  
Upload and transfer data simply via the on board data RS232 connection.



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

# onic Theodolite



## Automatic Compensation

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

## 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 leveling aid

Specifications of the Builder T100/T200	
<b>Angle Measurements</b>	
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'
<b>Telescope</b>	
Magnification	30x
Field of view	2.4 m at 100 m
Minimal target distance	1.7 m
<b>Display</b>	
Angle display	up to 1" (1mgon)
Screen/keypad	160 x 280 pixels or alpha numeric 8 x 31 characters, both sides optionally

# Measurements Directly from the Construction Plans



## Graphic Sketches

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

## 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.

Additional Specifications of the Builder R100/R200	
<b>Distance Measurements</b>	
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
<b>Telescope with EDM</b>	
Field of view	2.7 m at 100 m

# on Plan



## Data Exchange

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

## Advantages 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

Additional Specifications of the Builder R100M/R200M	
<b>Communication</b>	
Internal memory	10'000 Data blocks
Interface	RS232/USB up to 19'200 Baud

General Specifications for all Builders	
<b>Weight</b>	
incl. battery and tripod	4,3 kg (Builder T) to 5 kg (Builder R/RM)
<b>Power Pack</b>	
Types of batteries	NiMH Camcorder types or 6 AA-batteries
<b>Laser Plummet</b>	
Precision	1.5 mm at 1.5 m
<b>Environmental Conditions</b>	
Temperature	-20 to +50° C (operation), -40 to +70° C (storage)
Humidity	max. 95 %, non-condensed
Dust and rain	IP54 (IEC 60529)

# Laser Measurement Accelerates Building Process



## Return On Investment

The Builder can save considerable time compared to conventional methods, resulting in potential time savings of 20% – 80%.

### Working hours

(estimates, depending upon application)

#### Conventional theodolite

100%

#### Builder T100/T200

<80%

#### Builder R100/R200

<40%

#### Builder R100M/R200M

<20%

“Thanks to the Builder, I could immediately see the time savings possible on the jobsite. Because of its’ easy handling, I quickly understood how to optimize each job. After using it, I can’t imagine working without the Builder.”

## Why is the Builder theodolite the best choice?

- ... because it is the only modular theodolite that can grow with your needs.
- ... because the operation is so simple.
- ... and because its performance features are second to none.

## Built for Builders

The rugged Builder stands up to the elements and takes all kinds of weather. And yet it’s easy to transport in the carry case that holds most accessories in a single lightweight package.

## Accelerates Building

Traditional layouts require many steps and manipulations. The Builder reduces these steps. The Builder R gives an added advantage with fewer set-ups and laser-aided layouts.

## A New Era

The era of purely mechanical or optical instruments is over. This is the digital era where digital instruments are needed to remain competitive. The digital Builder leads the way in this new era.

## Get a Hands-On Experience!

Contact your Leica Geosystems dealer for a free Builder demonstration today!



Whether you have to precisely layout a construction site, 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, construction laser or machine control installation specifically designed for your construction application.

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

**When it has to be right.**

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**Total Quality Management –  
our commitment to total  
customer satisfaction.**

Ask our 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

