

Leica iCON builder 60

Product information



icon
intelligent CONstruction

With Leica iCON builder 60, construction layout was never more professional.

The intuitive user interface paired with the highest quality manual total station perfects any job.

- Industry leading layout software
- Best-in-class measurement technology
- High return on investment



Electronic Guide Light (EGL) guides rod-man left/right to correct alignment

Measurements to any surface up to 500m/1600ft

Best-in-class laser measure with PinPoint technology

Ambient light sensor (ALS) automatically controls display/button illumination

Long lasting Li-Ion batteries

3.5" coloured touch screen

iCONstruct software onboard

USB memory stick and SD card support

Speaker for sound notification



Leica iCON builder 60

One instrument for many tasks

Applications



- Layout lines for footings or chalk line for formwork on foundation



- Layout points on blinding layer such as pipe insert or cut-outs before pouring concrete



- Check distances, area or block volume of concrete, plaster stones, etc.

Hardware



- Button illumination for continued work in low light conditions



- Industry leading coloured touch screen for best visibility



- PinPoint R500 laser for highest measurement precision

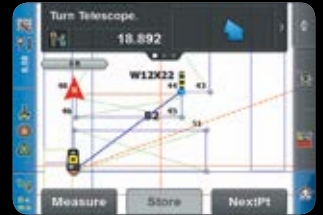
Software



- Graphical map view for quick navigation and point/line selection



- Dynamic map updates with telescope & pole positions plus bulls-eye view for fast in/out & left/right guidance



- Simply import your ASCII or DXF data and straight work from the map
- All status information shown at a glance

Versatility



- iCON builder 60 can be also used as one-person station for checks, such as tie distances, clearance or verticality



- Benefit from larger screen by connecting rugged tablet via internal Bluetooth up to 50 m / 160 ft



Leica TrueZero prism
Mini prism with zero prism constant. No difference in measuring to surface, reflective tape or prism.



Leica iCON CC80
Robust, lightweight tablet PC with multi-touchscreen and versatile communication capabilities.



Leica iCON CC66
Rugged, mobile tablet PC with enhanced connectivity and functionality.

Technical Specifications iCON builder 60



Angle Measurement (Hz, V)	
Accuracy ¹⁾	2" (0.6 mgon) / 5" (1.5 mgon) / 9" (2.8 mgon)
Method	Absolute, continuous, diametrical
Display resolution	1" / 0.1 mgon
Compensation	Quadruple axis compensation
Compensator setting accuracy	0.5"/1.5"/2"



Distance Measurement (Prism)	
Range ²⁾	
Round prism (GPR1)	3.500 m (12000 ft)
Mini Prism (CRP111, GMP101)	2.000 m (7000 ft)
Reflective tape (60 mm x 60 mm)	250 m (800 ft)



Accuracy ^{3) 4)} / Measurement Time	
Standard:	1.0 mm + 1.5 ppm
Tracking:	3.0 mm + 1.5 ppm
Distance Measurement (Any Surface) ⁷⁾	
Range ⁵⁾	
PinPoint R500	> 500 m (1640 ft)
Accuracy ³⁾ / Measurement Time	
	2 mm + 2 ppm / typ. 3s
Laser dot size	At 30 m: approx. 7 x 10 mm At 50 m: approx. 8 x 20 mm
Shortest measurable distance	1.5 m



Data storage / Communication	
Internal memory	1 GB, > 50.000 points
USB memory stick	1 GB
SD card	8 GB
Interfaces	- Serial (Baudrate up to 115'200) - USB Type A and mini B, - Bluetooth® Wireless, class 1 - Bluetooth® > 1000 m (with TCP529-S)
Data formats	TXT/CSV (ASCII), DXF, HexXML, TRM, GEO, LIN



Guide Light (EGL)	
Working range (average atmospheric conditions)	5 m - 150 m
Positioning accuracy	5 cm at 100 m



Telescope	
Magnification	30 x
Resolving power	3"
Field of View	1° 30' (1.66 gon) 2.7 m at 100 m
Focusing range	1.7 m to infinity



Keyboard & Display	
Display	High resolution Color & Touch display, 65'000 colors, graphics, Full-VGA, display illumination, 10 brightness levels
Keyboard	22 keys (4 function keys, 12 alphanumeric keys), illumination

Operating System & Processor	
Operating system	Windows CE 6.0
Processor	Freescale i.MX31 533 MHz ARM Core

Laserplummet	
Type	Laser point
Centering accuracy	1.5 mm at 1.5 m Instrument height

Internal Battery	
Type	Lithium-Ion
Operating time ⁶⁾	approx. 6-8 hours

Weight	
Total station including GEB222 and tribrach	5.8 kg

Environmental	
Temperature range (operation)	-20° C to +50° C (-4° F to +122° F)
Dust / Water (IEC 60529) Humidity	IP55, 95%, non condensing



Leica iCONstruct Onboard Software	
Functionality of iCON builder 60 Start Kit	iCON app "As-Built", iCON app "Layout Points", Set up with Control Line, Set up Anywhere, Height Transfer, Field Calibration, Settings
Extra functionality	iCON build, iCON build plus, iCON app "Sketch", iCON app "Volumes", iCON app "Stakeout", iCON app "Layout Lines" iCON app "Cut & Fill", iCON app "Roading", iCON app "Slopes", iCON app "Checks", 500m Reflectorless Option
Delivery Contents	
	iCON builder 60, Tribrach, TrueZero mini prism, Mini reflector pole set, Charger, 2x Li-Ion Batteries, Industrial grade 1GB USB stick, USB to mini-USB cable, iCONstruct Start Kit Software, Documentation, Carry Case



Legend:

- ¹⁾ Standard deviation ISO 17123-3.
- ²⁾ Overcast, no haze, visibility about 40 km; no heat shimmer.
- ³⁾ Standard deviation ISO 17123-4.
- ⁴⁾ To Round Prism GPR1.
- ⁵⁾ Under optimal conditions on Kodak Grey Card (90% reflective). Maximum range varies with atmospheric conditions, target reflectivity and surface structure.
- ⁶⁾ Single Measurement every 30 second at 25° C. Battery time may be shorter if battery is not new.
- ⁷⁾ Reflectorless measurement time may vary according to measuring objects, observation situations and environmental conditions.



Leica iCON gps 60
Versatile SmartAntenna for multi-purpose positioning tasks.



Leica Builder
Intuitive, powerful and scalable manual total station series for routine construction tasks on site.



iCON robot 60
High-end robotic total station with superior technology and iCON onboard.



Leica Geosystems intelligent CONstruction.

Whether you construct buildings, roads, bridges or tunnels, you benefit from intelligent CONstruction. Leica iCON is more than a new product line or software package, it enables you to enhance your performance, and increase your profitability through perfecting your construction workflow.

Understanding construction demands outstanding solutions:

- Custom-built
- Complete
- Straightforward
- High performance

When it has to be right.



The **Bluetooth**® word mark and logos are owned by Bluetooth SIG, Inc. and any use of such marks by Leica Geosystems AG is under license. Other trademarks and trade names are those of their respective owners.

Illustrations, descriptions and technical data are not binding. All rights reserved.
Printed in Switzerland – Copyright Leica Geosystems AG, Heerbrugg, Switzerland, 2014.
817368en - 05.15 - INT



Leica iCON build
Brochure



Leica Builder
Brochure



Leica Rugby 800
Brochure



Leica iCON robot 60
Product information