

LN-100

 **TOPCON**

LN-100

Layout Navigator



Layout

By one-person, simple operation, quickly !!

- Layout and Topo measurement with extremely simple operation
- Simple instrument set up with Automatic leveling
- Android Terminal as controller
- One-person layout by Automatic Target Tracking
- Compact and Light weight design
- TSShield equipped onboard

Innovative solution for Layout work

Stake-out work can be accomplished only by one-person, so easily and quickly !!



Simple, Easy and straightforward operation



Automatic Self-levelling

After the Power is turned ON, the instrument automatically starts leveling itself, With internal precise tilt sensor and motorized mechanism. Conventional way for leveling the instrument with foot screws were totally eliminated.



Android Terminal as Controller

Android terminal can be used as a controller of the instrument and measurement. The exclusive control software, "TopLayout" is a free software. Transferring design or measured coordinate data can be done directly with PC or through e-mail or cloud server using on the Android terminal. With this communication functions, field and office are connected effectively.



Choose set up method

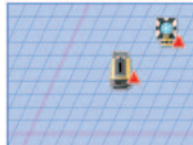
For setting up instrument at any given point, 4 methods are supported, in order to flexibly adapt to different situations of known point availability at the construction site. This will help easy orientation of the instrument.



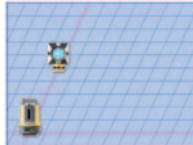
Resection (Instrument at any given point and measure 2 known points)



Instrument at any given point and measure 2 points (coordinate origin and a point on one of coordinate axis)



Instrument at a known point and measure a back sight point (known point)



Instrument at the coordinate origin and measure a point on one of coordinate axis.



Wide Working Coverage

The measurement can be preformed in 200m diameter area centered by the instrument and within $\pm 10m$ elevation difference between the instrument and prism. This eliminates unnecessary change of instrument location, therefore, improve efficiency of entire measuring or layout work.

LN-100

Simple Design System

Simple Operation, only by 3 Buttons and Android Terminal for controls.



Control Software for Android Terminal, "TopLayout"

A free software, downloadable from Google Play, controls Instrument orientation measurement, Topographic measurement, Layout operation/ Guidance, Data transfer.

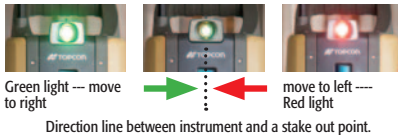


Functions for Speedy Stakeout works, improves efficiency 30%



Guide Light --- Brigt to recognize

The Guide Light guides operator to instantly recognize the line between the instrument and the selected stake out point, with clearly visible Green and Red lights.



High speed position update

Prism position on the terminal display is updated 20 times/second, which enables very smooth trace of prism movement, without feeling delay, and therefore, locating prism precisely to the stake out point.



Both hands can be used

Holding the terminal on the arm holder, both hands become usable which greatly improves speed and efficiency of works to drive in stakes or nails.



Special algorithm

Actual layout work flow were carefully examined and an exclusive algorithm was employed to most suit to actual work flow through putting stakes/nails to measure and record stake/nail positions.

After once the prism is laid down to the ground and plumbed again after putting the stake, the instrument will immediately and automatically re-lock the prism. Therefore, the operator does not need to care instrument status nor control the instrument to search and lock the prism and can concentrate to put the stake and measure its position.

The works necessary o be done at the stake out point can be very efficiently accomplished.



TS Shield onboard

The World first support system, TSshield safe guards your LN-100

The LN-100 is equipped with the TSshield, the world first user support system onboard.

Integrated multi-functional communication module communicates information such as, location and status of instrument, with the exclusive support Server.

Based on the information, the instrument owner will receive timely support such as software update.

Please refer to the Topcon's web site for further details.



Standard Components

LN-100

Battery BDC70 2 pieces

Battery Charger

Charging Cable

Carrying case

Laser Warning sheet

Carrying belt

Wiping cloth

Instruction Manual (CD-ROM)

Instruction Manual for TSshield registration

Instruction Manual for TSshield (CD-ROM)

Warranty card

Address card

SPECIFICATIONS

Model	LN-100
Measuring Range	
Distance	0.9 – 100m ^{*1}
Vertical range	(at 0.9 to 22m distance) ±25° (at 22m to 100m distance) ±10m
Horizontal range	360°
Positioning Accuracy ^{*1}	H: 1.5mm@50m V: 3.0mm@50m
Measuring Accuracy	±3mm(Distance)/ 5"(Angle)
Automatic Leveling	
Leveling range	±3 °
Tilt Correction	
Type	2-Axis Liquid Compensator
Working range	±6'
Automatic Tracking	
Tracking range	0.9 – 100m ^{*1}
Working range	360° (Horizontal)、±25°(Vertical)
Max. Rotation speed	60°/sec (=10 rpm)
Guide Light	
Light Source	LED (Red 626nm / Green 524nm)
Visible range	Horizontal > 8°(7m at 50m distance)
Laser Plummet	
Light Source	LED 635nm
Wireless LAN	
Communication range	802.11 n/b/g 100m ^{*2}
Battery	
Type	Standard: BDC70 (Lithium Ion battery)
Operating Time	Approx. 5 hours (continuous use, at 20°C)
Dimensions	185 (W) x 196 (D) x 29e5 (H) mm
Weight	4.0 kg (including battery BDC70)
Ambient Temperature	
Operation	-20 – +50°C
Storage	-30 – +60°C
Immersion Protection	IP 65

Note:

*1 When prism ATP2 or ATP2S is used.

Ambient condition: not under severe weather of Rain/Fog/Heat Shimmer

*2 The wireless communication range and speed may change subject to

- Specifications subject to change without notice.
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