

DL-502 / 503 – ELECTRONIC DIGITAL LEVEL



World's First "Rock-and-Read" Technology

- One Button Operation
- Sub-Millimetre Height Accuracy
- Advanced RAB Code Technology
- Pre-installed Measurement Programs
- Inverse Staff Reading
- Internal Memory

It's time.

Topcon DL-500 series digital levels maximise work efficiency and minimise human errors, providing consistent measurement precision and speed regardless of operator's skill levels.

Incorporating cutting-edge Random-Bidirectional (RAB) coding technology and optimum digital processing algorithm, the DL-500 provides exceptional measurement accuracy, stability, and speed, under a variety of environmental conditions. Even when the staff surface is partially shaded, or in dim lighting conditions as low as 20 lux, one single button triggers measurement and the DL-500 instantly records reliable results.



The world's first "Rock-and-Read" technology provides an additional survey style option that allows a rod person to rock the staff back and forth, instead of keeping the staff plumb.

Pre-installed measurement programs assist with various leveling tasks and accompanied calculations. Internal memory stores the valuable data which can be directly transferred to a computer, eliminating human errors.



Quick – Easy – Reliable Less Errors & Less Fatigue



Single Button Operation

After focusing on the staff, just press one button. The DL-500 reads height and distance, and stores the data. Digital technology eliminates misreading and reduces operator's eye fatigue.



Auto levels require you to read the graduations and estimate the exact reading.



DL-500 electronically reads the code and displays the results under 3 seconds.



High Accuracy

Two models are available for different accuracy requirements.

DL-502: 0.6 mm (Invar staff), 1.0 mm (fiberglass staff)

DL-503: 0.8 mm (Invar staff), 1.5 mm (fiberglass staff)



Maximum Reliability – Field-proven Compensator

Incorporating field-proven pendulum compensator with magnetic damping system, the DL-500 provides stability you need when working on busy roads or bridges subject to vibrations.



Measures Ceiling Height – Inverse Staff Reading

The DL-500 can automatically recognise when a staff has been inverted, thus avoiding costly errors.

"Rock-and-Read" – The World's First Technology

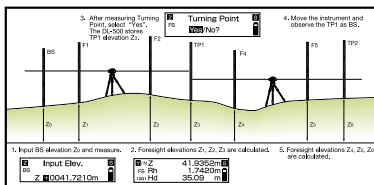
DL-500 tracks the RAB Code staff rocked back and forth, and automatically reads the correct height. The staff reading becomes the minimum when it stands vertically. The DL-500 automatically finds the least value of staff readings. This world's first technology allows for error-free readings of rocked staffs, while eliminating operator's eyestrain.



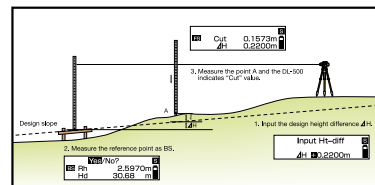
Digital Technology Speeds Up All Leveling Tasks!



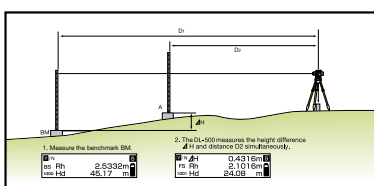
- | | | | |
|-----------------------------------|--------------------------|-----------------------------------------------------------|--------------------------|
| 1 LCD display | 3 7 keys | 5 32x telescope (DL-502)
28x telescope (DL-503) | 7 Measurement key |
| 2 Removable Li-ion battery | 4 Internal memory | 6 Focusing knob | 8 RS-232C port |



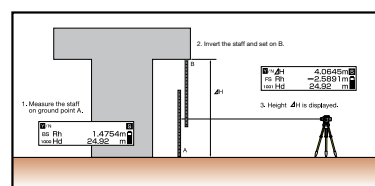
Elevation
Calculates elevation of foresight (FS) with reference to the backsight (BS) elevation. Elevation of turning point (TP) is used for a new backsight, allowing for consecutive leveling.



Height Difference
Automatically displays the height difference between backsight (BS) and foresight (FS) in 0.1/1 mm (0.001/0.01 ft.) unit.



Cut and Fill
Cut and fill stakeout facilitates slope works. Measurement can be taken with 0.1mm or 1 mm (0.001 ft. or 0.01 ft.) resolutions.



Ceiling Height
Two measurements provide a ceiling height; one with a staff placed on the ground, the other with an inverted staff put onto the ceiling. Elevation of ceiling can also be calculated with reference to the benchmark elevation.

Practical Measurement Programs – No Need for Calculators

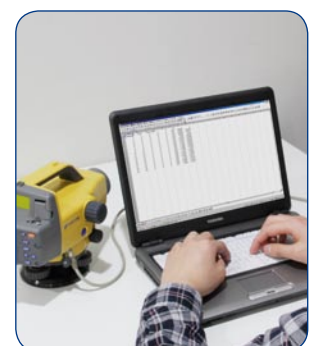
Onboard programs support various measurements such as elevation, height difference, ceiling height, as well as cut/fill and stakeout horizontal distance.



Internal Memory and Easy Data Transfer

Topcon Link 8.0 PC software can be used to download data from the DL-500, whilst TopconTools 8.0 can be used for data transfer and adjustment.

Topcon Link 8.0 PC and TopconTools 8.0 software are available at the Topcon websites.



It's time.

The Leader in Positioning Technology ...

Topcon offers positioning products that deliver unparalleled site-wide performance and integration. Topcon's history of technological advances and our reputation for superior reliability means there's no other company positioned to provide you with a better "Total Positioning Solution."

From survey to inspection Topcon, through our dealer network, provides the innovative technology that gives surveyors, civil engineers, contractors, equipment owners and operators the competitive edge by addressing such critical issues as increasing profits, quality craftsmanship, improving productivity, lowering operating costs, and enhancing job site safety.

Full positioning integration field-to-finish: That's the goal of Topcon. When it's time for you to step up to the next level, it's time to turn to Topcon.

The Leader in Customer Satisfaction ...

To ensure that your Topcon instrument maintains peak performance, your local Topcon dealer offers factory trained and certified service technicians. If service isn't available in your area, our European Service Center offers a repair and return policy second to none.

Standard configuration

- DL-502/503 Digital Level unit
- BDC46B Li-ion battery
- CDC68 charger
- EDC113 AC power cable
- Hex wrench
- Vinyl cover
- User manual
- Carrying case



Specifications subject to change without notice
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SPECIFICATIONS

	DL-502	DL-503	
TELESCOPE			
Magnification	32X	28X	
Minimum focus	1.5 m		
COMPENSATOR			
Type	Pendulum compensator with magnetic damping system		
Working range	±15'		
HEIGHT MEASUREMENT			
Accuracy	(standard deviation for 1km double run levelling)		
Electronic reading	Invar staff	0.6 mm	0.8 mm
	Fiberglass staff	1.0 mm	1.5 mm
Optical reading	1.0 mm	2.0 mm	
Measuring range	1.6 to 100 m		
Measuring time	Fine / Tracking	3 sec. (single/continuous/average) / 1 sec.	
Least count	0.0001/0.001 m		
DISTANCE MEASUREMENT			
(D = measuring distance)			
Accuracy	D≤10m / 10m<D≤50m / 50m<D ±10 mm / ±0.1% × D / ±0.2% × D		
Least count	0.01 / 0.1 m		
USER INTERFACE			
Display	128 × 32 dot matrix LCD with backlight		
Keyboard	8 keys (7 on front panel, 1 on side panel)		
DATA STORAGE			
Internal memory / Number of Jobs	2,000 points / Max. 20 Jobs		
INTERFACE			
RS-232C			
ENVIRONMENTAL			
Water resistance	IPX4 (IEC 60529:2001)		
Operating temperature / Storage temperature	-20°C to 50°C / -40°C to 70°C		
OTHERS			
Power supply	BDC46B (Li-ion battery, 7.2V)		
Operating time	Approx. 16 hours		
Weight (including battery)	2.4 kg		
Size (D x W x H)	257 × 158 × 182 mm		



Your local authorised Topcon distributor is: