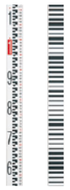
Optional Accessories

New Super-Invar/Invar RAB-code staff

	BIS30A	BIS20	BIS30
Material	New Super-Invar	Invar	Invar
Length	3m	2m	3m
Weight	5.5kg	4.3kg	5.5kg
Number of section	1	1	1
Linear expansion	±0.1ppm/°C	1ppm/°C	1ppm/°C



Fiberglass RAB-code staff

	BGS40	BGS50/50G3
Length	4m	5m
Weight	2.4kg	3.0kg
Number of section	3	4
Rear graduation	Metric	Metric*

*BGS50G3 has 'feet/10th/100th' graduations.

Aluminum RAB-code staff

	BAS55
Length	5m
Weight	1.9kg
Number of section	5 (telescopic)
Rear graduation	Metric

F-4/F-24 Interface cable
Connects the DL-500 and PC.

Standard configuration

DL-502/503 Digital Level unit
BDC71 Li-ion battery
CDC77 charger
EDC113 AC power cable
Hex wrench
Vinyl cover
User manual
Carrying case

SPECIFICATIONS

Telescope	DL-502	DL-503
Magnification	32X	28X
Objective aperture	45mm (1.78in.)	36mm (1.42in.)
Resolving power	3″	3.5″
Field of view	1°20′	
Minimum focus	1.5m (5.0ft.)	
Image	Erect	
Stadia ratio	100	
Compensator		
Type	Pendulum compensator with magnetic damping system	
Working range	±15′	
Height measurement		
Accuracy (standard deviation for 1km double run leveling)		
Electronic reading		
New Super-Invar staff	0.4mm	0.6mm
Invar staff	0.6mm	0.8mm
Fiberglass staff	1.0mm	1.5mm
Optical reading		
Fiberglass staff	1.0mm	2.0mm
Measuring range		
Electronic	1.6 to 100m (5.3 to 328ft.)	
Measuring time		
Fine	2.5 sec. (single/continuous/average)	
Tracking	1 sec.	
Least count	0.0001/0.001m, 0.001/0.01ft., 1/8in.	
Minimum brightness condition	20lx. at the staff surface	
Distance measurement (D=measuring distance)		
Accuracy		
D≦10m	±10mm (±0.4in.)	
10m<D≦50m	±0.1%×D	
50m<D	±0.2%×D	
Least count	0.01/0.1m, 0.1/1ft., 1in.	
User interface		
Display	128×32 dot matrix LCD with backlight	
Keyboard	8 keys (7 on front panel, 1 on side panel)	
Circular level sensitivity	10′/2mm	
Measurement program		
Single / Continuous / Average / Elevation / Height difference / Cut & Fill / Stakeout distance		
Data storage		
Internal memory	2,000 points	
JOB	Max. 20 jobs	
Data output format	CSV	
Interface		
	RS-232C	
Environmental		
Water resistance	IPX4 (IEC 60529:2001)	
Operating temperature	-20°C to 50°C (-4°F to 122°F)	
Storage temperature	-40°C to 70°C (-40°F to 158°F)	
Others		
Power supply	BDC71 (Li-ion battery, 7.2V)	
Operating time	Approx. 16 hours	
Weight (including battery)	2.4kg (5.3 lb.)	
Size	257(D)×158(W)×182(H)mm (10.1×6.2×7.2in.)	

- Specifications may vary by region and are subject to change without notice.
- Other trademarks and trade names are those of their respective owners.

Your Local Authorized Dealer is:

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DL-500 series
ELECTRONIC DIGITAL LEVEL

TOPCON

DL-502/503

ELECTRONIC DIGITAL LEVEL

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

- **One Button Triggers Measurement and Data Storage**
- **0.4mm/0.8mm Height Accuracy**
- **2.5 sec High-speed Measurement**
- **Advanced RAB Code Technology**
- **Pre-installed Measurement Programs**
- **Height Difference Measurement**
- **Inverse Staff Reading for Ceiling Height**
- **Internal Memory**

Topcon DL-500 series digital levels maximize work efficiency and minimize 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 shows reliable results.

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

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

DL-502/503

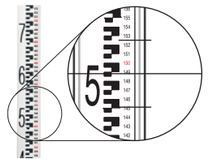
ELECTRONIC DIGITAL LEVEL

TOPCON

Quick. Easy. Reliable. No Error. Less Fatigue.

Single Button Operation!

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



Auto levels require you to read the graduations on the staff with your own eye.

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

High Accuracy! 0.4mm/0.6mm

Two models are available for different accuracy requirements.

Staff	DL-502	DL-503
New Super-Invar	0.4mm	0.6mm
Invar	0.6mm	0.8mm
Fiberglass	1.0mm	1.5mm

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

RAB Code staff can be read in inverse position. This feature dramatically facilitates height measurement of ceilings, tree branches, road signs, bridges, tunnel crowns, and other structures.

"Wave-and-Read" The World's First Technology

DL-500 tracks the RAB Code staff waved 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 waved staffs, while dramatically reducing operator's eyestrain.

Digital Technology Speeds Up All Leveling Tasks!

Practical Measurement Programs! No Need for Calculators

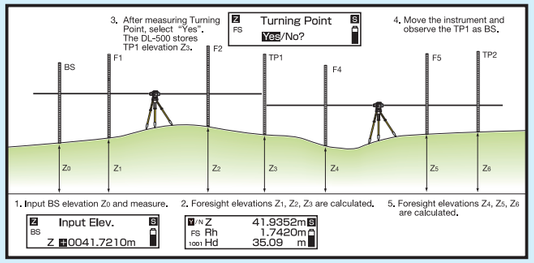
Onboard programs support various measurements such as elevation, height difference, ceiling height, as well as cut/fill and stakeout in horizontal distance.

Internal Memory and Easy Data Transfer!

DL-500 stores up to 2,000 measurement data. The "DL-500 TOOL" software transfers data to a computer in CSV format.

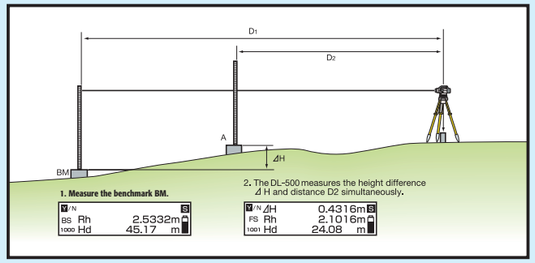
* DL-500 TOOL is available at the Topcon websites.

Elevation



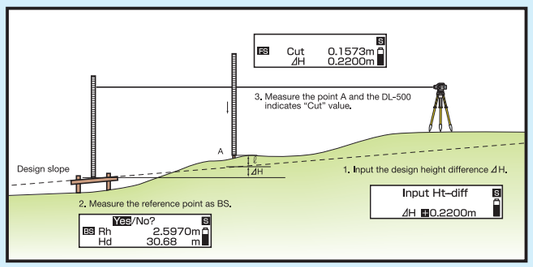
Calculates elevation of foresight (FS) with reference to the backsight (BS) elevation. Elevation of turning point (TP) is used for a new backsight, allowing for consecutive leveling.

Cut and Fill



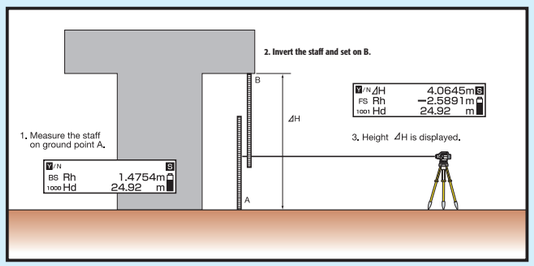
Cut and fill stakeout facilitates slope works. Measurement can be taken with 0.1mm or 1mm (0.001ft. or 0.01ft.) resolutions.

Height Difference



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

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.