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

- One button triggers measurement and data storage
- 0.5mm/0.8mm height accuracy
- Advanced RAB code technology
- Pre-installed measurement programs
- Height difference measurement
- Inverse staff reading for ceiling height
- Internal memory

Your local Authorized Topcon Dealer is:
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.

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.

High Accuracy! 0.6mm/0.8mm Two models are available for different accuracy requirements. DL-502: 0.6mm (Invar staff), 1.0mm (fiberglass staff) DL-503: 0.8mm (Invar staff), 1.5mm (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 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.

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.

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.

High Accuracy!

0.6mm/0.8mm
Two models are available for different accuracy requirements.
DL-502: 0.6mm (Invar staff), 1.0mm (fiberglass staff)
DL-503: 0.8mm (Invar staff), 1.5mm (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
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!

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.
**World’s First “Wave-and-Read” Technology**

- One Button Triggers Measurement and Data Storage
- 0.6mm/0.8mm Height Accuracy
- Advanced RAB Code Technology
- Pre-installed Measurement Programs
- Height Difference Measurement
- Inverse Staff Reading for Ceiling Height
- Internal Memory

---

**Specifications**

<table>
<thead>
<tr>
<th>Telescope</th>
<th>DL-502</th>
<th>DL-503</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnification</td>
<td>32X</td>
<td>28X</td>
</tr>
<tr>
<td>Objective aperture</td>
<td>45mm (1.78&quot;)</td>
<td>36mm (1.42&quot;)</td>
</tr>
<tr>
<td>Resolving power</td>
<td>3&quot;</td>
<td>3.5&quot;</td>
</tr>
<tr>
<td>Field of view</td>
<td>1°20&quot;</td>
<td>1°20&quot;</td>
</tr>
<tr>
<td>Minimum focus</td>
<td>15mm (0.6&quot;)</td>
<td>15mm (0.6&quot;)</td>
</tr>
<tr>
<td>Image</td>
<td>F1.0</td>
<td>F1.0</td>
</tr>
<tr>
<td>Striae ratio</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

**Compensation**

- Type: Pendulum compensator with magnetic damping system

---

**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

**Optional Accessories**

- F-4/F-24 Interface cable
  - Connects the DL-500 and PC.
- Invar RAB-code staff
  - Length: 2m/3m
  - Weight: 4.5kg/5.5kg
  - Number of section: 1
  - Linear expansion: 1ppm/°C
- Fiberglass RAB-code staff
  - Length: 4m
  - Weight: 2.4kg/3.0kg
  - Number of section: 3
  - Linear expansion: 1ppm/°C
- Aluminum RAB-code staff
  - Length: 5m
  - Weight: 1.6kg
  - Number of section: 5 (telescopic)

**User Interface**

- Display: 128×32 dot matrix LCD with backlight
- Keyboard: 6 keys (7 on front panel, 1 on side panel)
- Circular level sensitivity: 10'/2mm

**Data Storage**

- Internal memory: 2,000 points
- Job: Max. 20 jobs
- Data output format: CSV

**Environmental**

- Water resistance: IP54 (IEC 60529:2001)
- Operating temperature: -20°C to 30°C (-4°F to 86°F)
- Storage temperature: -40°C to 70°C (-40°F to 158°F)

**Others**

- Power supply: BDC46B (Li-ion battery, 7.2V)
- Operating time: Approx. 16 hours
- Weight (including battery): 0.8kg
- Size: 257(D)×158(W)×182(H)mm (10.1×6.2×7.2"

---

**Your local Authorized Topcon Dealer is:**