

DIGITAL LEVEL

DL-103/103AF



"EASY OPERATION" & "ACCURACY"

TOPCON proudly announces
added to the current "DL s
Our concept with the new
which all users of optical l
Topcon will advance the di

Simple & Easy Operation

Just press the measurement button and the measured value is displayed.

The measurement time is only 2 seconds !

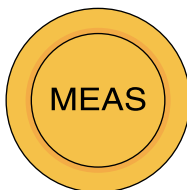
The DL-103/103AF will dramatically improve your productivity in the field, compared to standard leveling procedures.

1. Collimate Staff and focus on.



2. Press "Meas" (Measurement) button.

2 Sec.



3. Measured Value is displayed.



No Human Error

The instrument person does not have to read a leveling rod. The DL-103/103AF does it automatically, using a bar code staff.

RS-232C Data-Output

RS-232C port allows data-communication to a data collector or PC. You can compute the leveling data quickly, easily and accurately.



s that the "DL-103/103AF" Digital Levels have been series".

DL-103 is primarily "easy operation" & "Accuracy" leveling instruments are trying to achieve.

Digitalization in leveling with the "DL-103/103AF".



Distance Measurement

Distance can be measured using the bar code staff.

Adjusting Mode

The Adjusting Mode allows the users to maintain good adjustment all of the time. The interactive guidance through all the procedures, will eliminate mis-adjustment

Unique fiberglass Staff

Unique fiberglass staff is compatible with DL-103/103AF. (e.g. 5m)

Easy-Portability & Handling

The compact size & light weight of the DL-103/103AF will allow you to handle it easily and make field use stress free. (2.3kgs/DL-103)

ADVANCED FEATURES OF DL-103/103AF

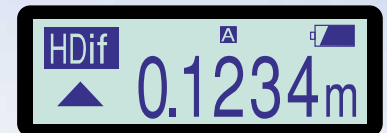
Auto-Focus (DL-103AF)

The DL-103AF allows you to use an "Automatic-Focusing" function. Auto-focus of the DL-103AF eliminates all your manual focusing-procedures ! (Conventional manual focus is selectable)



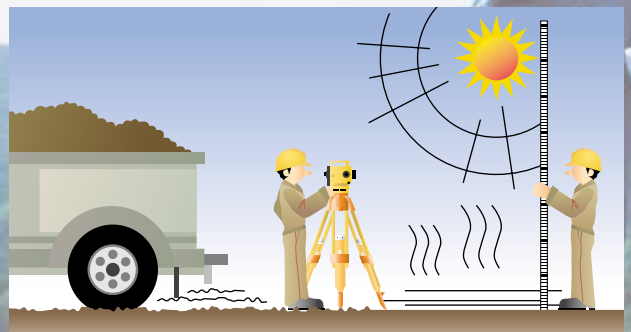
Height-difference mode

The Difference of height between the reference point and other measured points can be calculated and displayed for quick "cut/fill" work.



Environmental Resistance

The DL-103 is designed to resist almost any conceivable situation in the field, such as vibration, shade, rain-conditions etc. (Water-proof : class IPX 6/DL-103)



Continuous 20 hours operation, Power remaining indicator, Auto Cut-Off

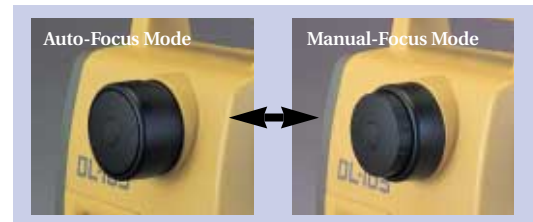
Our low power consumption design enables 20 hours continuous operation in the field. The display of DL-103/103AF keeps you updated on the remaining power, and you can easily change the dry-cell batteries before an unexpected interruption of work. The Auto Cut Off function will prevent wasting power if you do not operate the instrument for a 30 minute span.

SPECIFICATIONS

| DL-103 | | DL-103AF | | DL-103 | | DL-103AF | |
|---|---|----------|--|---|---|--|--|
| TELESCOPE | | | | MEASURING RANGE 2m to 60m (7ft to 197ft) | | | |
| Magnification | 26× | | | MEASURING TIME 2 sec. | | | |
| Objective Aperture | 30mm | | | CIRCULAR LEVEL SENSITIVITY 10'/2mm | | | |
| Field of View | 1°30' | | | OTHERS | | | |
| Resolving Power | 4" | | | Display | 128×32 dot, Dot matrix LCD with backlight (55.01mm×16.29mm) | | |
| Minimum Focus | 0.9m | | | Data Transmission | RS-232C port provided | | |
| Image | Erect | | | Key (including power key) | 5 keys | | |
| COMPENSATOR | | | | Application Program Rod Height/Difference of elevation | | | |
| Working Range | ±10' | | | Timer | Built-in Timer for auto power-off | | |
| Setting Accuracy | 0.5" | | | Horizontal Circle | 360° or 400gon | | |
| HIGHT MEASUREMENT | | | | Power Supply AA size dry battery × 4 | | | |
| Accuracy (Standard Deviation for 1km double run leveling) | | | | Operating Time 20 hours (Alkaline) 8 hours (Alkaline) | | | |
| Electronic Reading | ±1.8mm w/Glass Fiber Staff ±2.0mm w/Aluminum Staff | | | Ambient Temperature Range -20°C to +50°C (-4°F to +122°F) | | | |
| Optical Reading | ±2.5mm | | | Water Proof | IPX 6 | | IPX 4 |
| Least Count | 0.1mm/1mm (0.001ft/0.01ft) selectable | | | Dimensions | 196(H)×158(W)×232(L)mm 7.7(H)×6.2(W)×9.1(L)inch | | 196(H)×158(W)×232(L)mm 7.7(H)×6.7(W)×9.1(L)inch |
| DISTANCE MEASUREMENT | | | | Weight 2.3kg 2.4kg | | | |
| Least Count | 1cm (0.02ft) | | | (including battery) | | | |
| Accuracy (D=Measuring Distance: m) | | | | STAFF | | | |
| w/Glass Fiber Staff | ±(0.1%×Dm) (D>10m) ±10mm (D≤10m) | | | Glass Fiber staff SG-3M | | Length: 3m [9.84ft] (Slide Type: 2 pcs) | |
| w/Aluminum Staff (SA-5M) | ±(0.15%×Dm) (D>10m) ±15mm (D≤10m) | | | Aluminum staff SA-5M | | Length: 5m [16.40ft] (Slide Type: 3 pcs) | |
| | | | | Glass Fiber 5m | | Length: 5m [16.40ft] (Slide Type: 3 pcs) | |

STANDARD SET COMPONENTS

- Instrument DL-103/103AF1 pc (with lens cap)
- Carrying Case1 set
- Plastic Rain Cover1 pc
- Silicon Cloth1 pc
- Plumb Bob Set1 set
- Hexagonal Wrench1 pc
- Instruction Manual1 pc
- AA size dry battery4 pcs



Selectable Focusing Method (DL-103AF)

• Designs and specifications herein are subject to change without notice.

Important In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.



75-1 Hasunuma-cho, Itabashi-ku, Tokyo 174-8580, Japan Phone: 3-3558-2520 Fax: 3-3960-4214 www.topcon.co.jp



TOPCON CORPORATION

TOPCON AMERICA CORPORATION

CORPORATE OFFICE
37 West Century Road, Paramus, NJ 07652, U.S.A.
Phone: 201-261-9450 Fax: 201-387-2710 www.topcon.com

TOPCON CALIFORNIA
3380 Industrial Blvd., Suite 105, West Sacramento, CA 95691, U.S.A.
Phone: 916-374-8575 Fax: 916-374-8329

TOPCON MIDWEST
891 Busse Road, Elk Grove Village, IL 60007, U.S.A.
Phone: 847-734-1700 Fax: 847-734-1712

TOPCON LASER SYSTEMS, INC.
5758 West Las Posillas Blvd., Pleasanton, CA 94568, U.S.A.
Phone: 925-460-1300 Fax: 925-460-1315 www.topconlaser.com

TOPCON EUROPE B.V.
Esse Baan 11, 2908 LJ Capelle a/d IJssel, The Netherlands.
Phone: 010-4585077 Fax: 010-4585045 www.topcon-europe.com

TOPCON BELGIUM
Preenakker 8, 1785 Merchtem, Belgium
Phone: 052-37.45.48 Fax: 052-37.45.79

TOPCON DEUTSCHLAND G.m.b.H.
Weidkamp 180, 45356 Essen, GERMANY
Phone: 0201-8619-100 Fax: 0201-8619-111 ps@topcon.de
www.topcon.de

TOPCON S.A.R.L.

89, Rue de Paris, 92585 Clichy, Cedex, France.
Phone: 33-1-41069490 Fax: 33-1-47390251 topcon@topcon.fr

TOPCON ESPAÑA S.A.

HEAD OFFICE
Frederic Mompos 5, ED. Euro 3, 08960, Sant Just Desvern Barcelona, Spain.
Phone: 93-473-4057 Fax: 93-473-3932 www.topconesp.com

MADRID OFFICE
Avenida Burgos, 16E, 1° 28036, Madrid, Spain.
Phone: 91-302-4129 Fax: 91-383-3890

TOPCON SCANDINAVIA A. B.

Neogatan 2 S-43151 Molndal, SWEDEN
Phone: 031-7109200 Fax: 031-7109249

TOPCON (GREAT BRITAIN) LTD.

HEAD OFFICE
Topcon House Kennet Side, Bone Lane, Newbury, Berkshire RG14 5PX U.K.
Phone: 44-1635-551120 Fax: 44-1635-551170
survey.sales@topcon.co.uk laser.sales@topcon.co.uk

TOPCON SINGAPORE PTE. LTD.

Alexandra Distripark Block 4, #05-15, Pasir Panjang Road, Singapore 118491
Phone: 2780222 Fax: 2733540 www.topcon.com.sg

TOPCON AUSTRALIA PTY. LTD.

408 Victoria Road, Gladestville, NSW 2111, Australia
Phone: 02-9817-4666 Fax: 02-9817-4654 www.topcon.com.au

TOPCON INSTRUMENTS (THAILAND) CO., LTD.

77/162 Sinn Sathorn Tower, 37th Fl.,
Krungthoburi Rd., Klongtongjai, Klongsarn, Bangkok 10600 Thailand.
Phone: 662-440-1152-7 Fax: 662-440-1156

TOPCON INSTRUMENTS (MALAYSIA) SDN. BHD.

Lot 226 Jalan Negara 2, Pusat Bandar Taman Melawati,
Taman Melawati, 53100, Kuala Lumpur, Malaysia.
Phone: 03-41079901 Fax: 03-41079796

TOPCON KOREA CORPORATION

Hyobong Bldg., 1306-1, Seocho-Dong, Seocho-Gu, Seoul, Korea.
Phone: 02-3482-9231 Fax: 02-3481-1929 www.topcon.com.kr

TOPCON OPTICAL (H.K.) LIMITED

2/F., Meeco Industrial Bldg., No. 53-55 Au Pui Wan Street, Fo Tan Road,
Shatin, N.T., Hong Kong
Phone: 2690-1328 Fax: 2690-2221 www.topcon.com.hk

TOPCON CORPORATION BEIJING OFFICE

Room No. 962 Poly Plaza Building, 14 Dongzhimen Nandajie,
Dongcheng District, Beijing, 100027, China
Phone: 10-6501-4191-2 Fax: 10-6501-4190

TOPCON CORPORATION BEIRUT OFFICE

P. O. BOX 70-1002 Antelias, BEIRUT-LEBANON
Phone: 961-4-523525/961-4-523526 Fax: 961-4-521119

TOPCON CORPORATION DUBAI OFFICE

Office No. 102, Khalaf Rashid Al Naily Bldg., 245 Abu Hail Road, Deira, Dubai, UAE
Phone: 971-4-2696511 Fax: 971-4-2695272