EN

GeoDist®600LR

USER MANUAL

www.geo-fennel.de
www.geo-fennel.com
www.geo-fennel.fr

Dear Customer,

Thank you for your confidence in us, having purchased a geo-FENNEL instrument.

For the optimum performance of the instrument, please read this manual carefully and keep it in a convenient place for future reference. This manual contains important safety information that should be read and understood before use.

Technical specification and design are subject to chance without notification.

geo-FENNEL
Precision by tradition.

Contents

CHARACTERISTICS

- Laser distance meter for range and speed measurement
- Outstanding quality, robust and pocket-sized
- Easy to use with only two buttons
- Built-in angle sensor for height differences
- LCD display with crosshairs
- Rubberized housing for protection and enhanced grip

SUPPLIED WITH

- GeoDist®600LR
- Battery CR2 (3V)
- Holster
- User manual

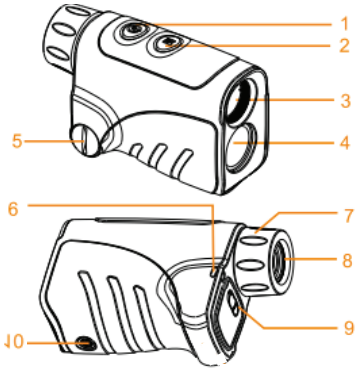
FEATURES

- Single and continious measurement
- Built-in angle sensor for slope angle measurement
- Measurement of horizontal distances
- Measurement of height differences
- Speed measurement up to 300 km/h
- Automatic power-off
- Flagpole scanning - perfect for Golf players
- Golf trajectory compensation
- Measurement in meter and Yard

Technical data

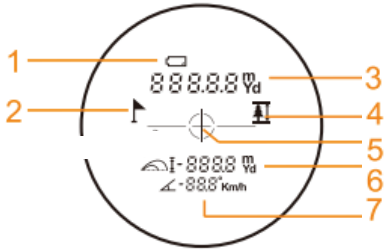
Measuring range	up to 600 m
Accuracy	± 0,5 m
Scope magnification	6 x
Field of view	7°
Objective lens diametre	22 mm
Eyepiece lens diametre	16 mm
Exit pupil diametre	3,7°
Diopter	± 5°
Accuracy of speed measurement	± 1 km/h
Laser class	1 (905 nm)
Temperature range	0 - 40°C
Power supply	1 x CR2 (3V) for approx. 10.000 mesurements
Dimensions	121 x 79 x 45 mm
Weight (with battery)	215 g

FEATURES



1. ON/OFF / measure button
2. Mode / unit button
3. Laser emitting window / objective lens
4. Laser receiving window
5. Battery compartment lock
6. Slot for shoulder strap
7. Eyepiece knob
8. Eyepiece
9. Angle sensor switch
10. 1/4“ thread for tripod

DISPLAY INDICATION

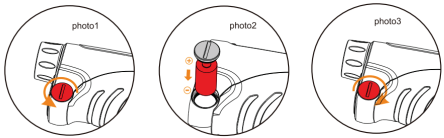


1. Battery status indication
2. Flagpole symbol (golf mode)
3. Distance and unit
4. Vertical height
5. Target (centre circle)
6. Golf trajectory compensation, value measured, unit
7. Slope angle, value measured, speed in km/h

POWER SUPPLY

INSERT THE BATTERIES

Open the battery compartment cover **(5)** by use of a coin. Insert 1 x CR2 battery (ensure correct polarity). Close the battery cover - see the instructions below.



If the battery status indication shows  the battery has to be replaced. Otherwise low battery power may cause wrong measuring results.

We recommend to take off the battery in case you do not use the unit for a longer time.

OPERATION

Aim the GeoDist®600LR towards the object to be measured and focus the eyepiece with knob **(7).**

POWER ON AND OFF THE INSTRUMENT

Power on the unit with button "⏻". After 8 seconds without activity the instrument will power off automatically.

ANGLE CALIBRATION

This instrument has been calibrated by the factory. In case of wrong measuring results it should be re-calibrated manually. Power off the unit and keep the power button pressed for 2 seconds to enter into the calibration mode. „ANGLE CAL“ will appear in the display. Hold the instrument straight for some seconds to complete the calibration. In case the calibration fails the instrument will power off and return to the factory calibration.

GENERAL

Before carrying out measurements focus the eyepiece. If the unit shows „---“ the target reflection is too weak or the target is beyond the measuring range.

The measuring range depends on the reflectivity of the target such as colour, surface, size, slope angle. Bright colours, shining surfaces, large targets, flat angles will increase the measuring range. Also the lighting condions will affect the range: the less light the farther the measuring range.

The instrument emits an invisible laser beam through-out the laser emitting window which will be reflected from the object to be measured and received through the laser receiving window. The unit determins the distance by a time calculation.

To carry out a measurement aim at the target; it should be centred within the centre circle.

Once the crosshair appears around the centre circle when carrying out a measurement the laser beam is active. As soon as a distance has been determined release the measuring button. Now the laser detection is finished (the crosshair disappears).

If you use **the angle sensor (9)**

1. the slope angle to the target will be displayed
2. the angle-compensated distance will be determined and displayed (application i.e. golf).

Maximum compensation range of the slope sensor: ± 20°

SELECT THE MEASURING UNIT

Keep button **(M)** pressed for 2 seconds to select the measuring unit (m or Yd).

CARRY OUT MEASUREMENTS (switch 9 is on the right)

Press button " ⏻ " to carry out a single measurement.

Keep button " ⏻ " pressed for 2 seconds to start the continuous measuring mode and release the button to de-activate this mode.

DISTANCE, HEIGHT AND SLOPE ANGLE MEASUREMENT

Slide switch **(9)** to the left.

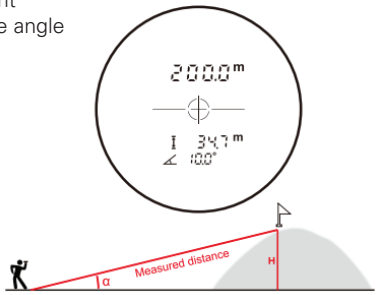
Aim at the target and press button **(M)** until appears in the display.

Press button "⏻" to carry out a single measurement.

Keep button "⏻" pressed for 2 seconds to start the continuous measuring mode.

Following information will be displayed:

- distance to the target
- height
- slope angle



VERTICAL HEIGHT MEASUREMENT

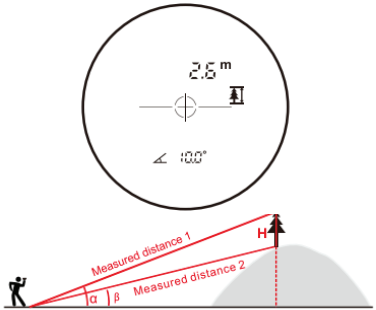
Slide switch **(9)** to the left.

Press button **(M)** until appears in the display.

Aim at the highest point of the object to be measured and press button "⏻". Aim at the lowest point of the object to be measured and press button "⏻".

Following information will be displayed:

- height of the object to be measured
- slope angle



GOLF TRAJECTORY MODE

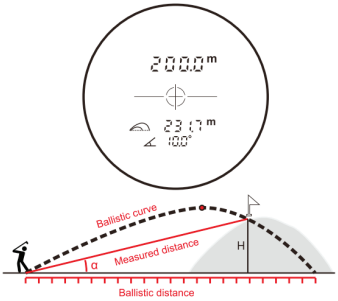
Slide switch **(9)** to the left.

Press button "⏻" to carry out a single measurement.

Keep button "⏻" pressed for 2 seconds to start the continuous measuring mode.

Following information will be displayed:

- distance to the target
- trajectory distance = angle-compensated distance (i. e. an upward slope or a descent)
- slope angle



GOLF TRAJECTORY SCAN MODE

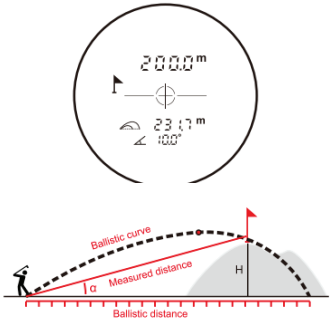
Slide switch **(9)** to the left.

Aim at the target and press button **(M)** until the flagpole symbol flashes ⚑

Now slowly scan both sides of the target; after 1,5 seconds the flagpole symbol stops flashing.

Following information will be displayed:

- distance to the target
- trajectory distance = angle-compensated distance (i. e. an upward slope or a descent)
- slope angle

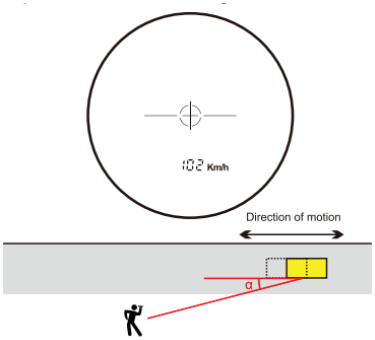


SPEED MEASUREMENT

Slide switch **(9)** to the left.

Press button **(M)** until Km/h appears in the display.

Aim at the object to be measured (as centered as possible) and follow same; meanwhile keep button "⏻" pressed until the speed will be displayed.
The more horizontally the measurement is carried out the more exact the speed will be recorded.



SAFETY NOTES

INTENDED USE OF INSTRUMENT

The instrument emits an invisible laser beam in order to carry out the following measuring tasks: measurement of distances, heights and angles.

CARE AND CLEANING

Handle measuring instruments with care. Clean with soft cloth only after any use. If necessary damp the cloth with some water. If the instrument is wet clean and dry it carefully. Pack it up only if it is perfectly dry. Transport in original container / case only.

SPECIFIC REASONS FOR ERRONEOUS MEASURING RESULTS

Measurements through glass or plastic windows; dirty laser emitting windows; after the instrument has been dropped or hit. Please check the accuracy.
Large fluctuation of temperature: If the instrument will be used in cold areas after it has been stored in warm areas (or the other way round) please wait some minutes before carrying out measurements.

ELECTROMAGNETIC ACCEPTABILITY (EMC)

It cannot be completely excluded that this instrument will disturb other instruments (e.g. navigation systems); will be disturbed by other instruments (e.g. intensive electromagnetic radiation nearby industrial facilities or radio transmitters).

CE-CONFORMITY

This instrument has the CE mark according to EN 61326-2-2:2013, EN 61326-1:2016.

WARRANTY

This product is warranted by the manufacturer to the original purchaser to be free from defects in material and workmanship under normal use for a period of two (2) years from the date of purchase. During the warranty period, and upon proof of purchase, the product will be repaired or replaced (with the same or similar model at manufacturers option), without charge for either parts or labour. In case of a defect please contact the dealer where you originally purchased this product. The warranty will not apply to this product if it has been misused, abused or altered.

Without limiting the foregoing, leakage of the battery, bending or dropping the unit are presumed to be defects resulting from misuse or abuse.

SAFETY INSTRUCTIONS

- Follow up the instructions given in the user manual.
- Do not stare into the beam. The laser beam can lead to eye injury.
  A direct look into the beam (even from greater distance) can cause damage to your eyes.
- Do not aim the laser beam at persons or animals.
- The laser plane should be set up above the eye level of persons.
- Use the instrument for measuring jobs only.
- Do not open the instrument housing. Repairs should be carried out by authorized workshops only. Please contact your local dealer.
- Do not remove warning labels or safety instructions.
- Keep the instrument away from children.
- Do not use the instrument in explosive environment.
- The user manual must always be kept with the instrument.

EXCEPTIONS FROM RESPONSIBILITY

1. The user of this product is expected to follow the instructions given in the user manual. Although all instruments left our warehouse in perfect condition and adjustment the user is expected to carry out periodic checks of the product's accuracy and general performance.
2. The manufacturer, or its representatives, assumes no responsibility of results of a faulty or intentional usage or misuse including any direct, indirect, consequential damage, and loss of profits.
3. The manufacturer, or its representatives, assumes no responsibility for consequential damage, and loss of profits by any disaster (earthquake, storm, flood etc.), fire, accident, or an act of a third party and/or a usage in other than usual conditions.
4. The manufacturer, or its representatives, assumes no responsibility for any damage, and loss of profits due to a change of data, loss of data and interruption of business etc., caused by using the product or an unusable product.
5. The manufacturer, or its representatives, assumes no responsibility for any damage, and loss of profits caused by usage other than explained in the user manual.
6. The manufacturer, or its representatives, assumes no responsibility for damage caused by wrong movement or action due to connecting with other products.

LASER CLASSIFICATION

The instrument is a laser class 1 laser product according to DIN IEC 60825-1:2014.

It is allowed to use the unit without further safety precautions.

$P \leq 1$ mW@ 905 nm.

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07/2018

Technische Änderungen vorbehalten.
All instruments subject to technical changes.
Sous réserve de modifications techniques.

Precision by tradition.