

Dear customer,

Thank you for your confidence in us having purchased a **geo-FENNEL** instrument.  
This manual will help you to operate the instrument appropriately.

Please read the manual carefully - particularly the safety instructions. A proper use only guarantees a longtime and reliable operation.

geo-FENNEL  
Precision by tradition.

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A SUPPLIED WITH

- Point and line laser CrossPointer5 GREEN SP
- Multi-functional mount
- Li-Ion battery
- Intelligent charger
- Battery case for alkaline batteries
- Magnetic target
- Container
- User manual



## FEATURES

- 2 laser lines form a green laser cross
- 5 laser points: back, left, right, ceiling, floor
- Laser points rotate 360° around vertical axis
- Plumbing function
- Self-levelling function can be switched off for manual use
- Audible and visual alarm when out of level
- Use with receiver (optional)
- Multi-functional mount
  - height adjustable
  - for wall-hanging with screw
  - strap attachment
  - strong magnets on back face
- 1/4" and 5/8" thread for use with tripods

## Technical Data

Self-levelling range	± 3°
Accuracy	±3 mm / 10 m
Line laser function	
· Working range without receiver	50 m* (radius)
· with receiver (optional)	80 m (radius)
· Sector angle Hz line	180°
· Sector angle V line	160°
Point laser function	5 laser points
· Working range without receiver	50 m
Power supply	Li-Ion
Operating time	
· all laser lines and points	6 h
· all laser lines	8 h
· all laser points	24 h
Dust / water protection	IP 54
Laser diode / laser class	green / 2
Temperature range	-10°C - +45°C
Weight (instrument with batteries)	0,7 kg

\*depending on the room illumination

## B POWER SUPPLY

### ALKALINE BATTERIES

Open the battery compartment cover of the laser (4) and withdraw the alkaline battery box. Insert 4 x AA alkaline batteries (ensure correct polarity) and insert the battery box into the laser. Close the battery compartment cover. If the ON/OFF LED flashes the batteries have to be exchanged (full set) or the rechargeable battery has to be recharged.

### RECHARGEABLE BATTERY (KIT)

Open the battery compartment cover of the laser (4) and insert the rechargeable Li-Ion battery. Close the battery compartment cover. **In order to charge the Li-Ion battery same has to be withdrawn from the laser and it has to be recharged outside.** When the Li-Ion battery has been recharged insert it into the laser again.

The ON/OFF LED serves as battery status indication at the same time. It will start flashing when the battery power becomes low.

The battery status will be shown as below:

- permanent red light = the rechargeable battery is being charged at the moment
- permanent green light = the charging process is completed now

The charger can also be used as permanent power supply.

The connection is made with the outer socket.

**The rechargeable battery will not be charged over this connection!**



## C OPERATING ELEMENTS

1. ON/OFF knob (transport lock)
2. Keypad
3. Laser emitting window
4. Battery compartment cover
5. Hole for hanging position
6. Magnets
7. 1/4" thread of the laser (bottom of the laser)
8. 1/4" and 5/8" thread of the mount
9. Slot for belt fixing
10. Fixing screw for the mount



## KEYPAD

1. ON/OFF LED
2. Button laser lines
3. Receiving mode LED
4. Button laser points
5. MANUAL function LED
6. Button receiving mode / MANUAL function



## OPERATION

D

Setting up the laser:

1. on the floor
2. connect the laser to the mount supplied with the kit and connect it to a tripod
3. fix the magnets of the mount onto a magnetic surface (steel plate)
4. set up the laser in a hanging position by means of the hole of the mount
5. connect the laser to a column by means of the fixing strap

## POWER ON

Power on the laser by turning the ON/OFF knob in position ON. The instrument is now ready for use. An audible and optical (blinking lines) alarm indicates if the instrument was set up outside its compensator range. Set up the instrument on a more even surface.

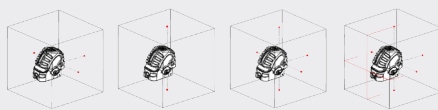
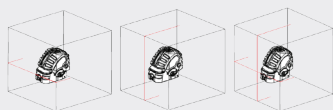
To power the instrument off turn the ON/OFF knob back to the OFF position. The instrument is now powered off.

## NOTE:

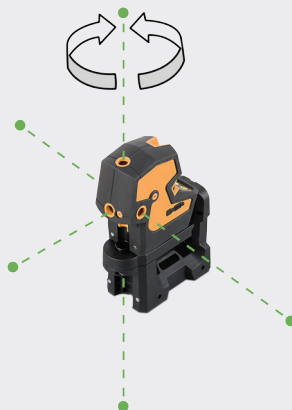
During transport the ON/OFF knob (compensator lock) must be set to OFF. Disregard may lead to damages of the compensator.



## SWITCHABLE LASER LINES AND LASER POINTS



**The laser points rotate 360° around their vertical axis.**



## MANUAL FUNCTION

If the instrument is in OFF position press the button MANUAL function to enter into the MANUAL mode; the ON/OFF LED is illuminated, the MANUAL LED is blinking. Now the instrument can be used in slope mode, the compensator alarm is off. All lines and points can now be switched as described below. Switch off the MANUAL function with this button.

## USE WITH RECEIVER

To prolong the working range or at unfavourable light conditions CrossPointer5 GREEN SP can be used with an optional receiver (not included in this kit).

Switch on the desired laser lines and press the button receiving mode at CrossPointer5 GREEN SP (the LED for the corresponding lines flashes). The selected laser lines can now be detected by the receiver (the visibility of the laser lines is weaker in this mode).

By use of the receiver the working range can be extended up to 80 meters. For more detailed information please see the user manual of the receivers.

Press the button receiving mode again to quit this mode.

## SAFETY NOTES

## E

### 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.

### 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.

### 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

The instrument has the CE mark according to EN 61010-1:2001 + corrig. 1+2.

### 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.

### 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.

## INTENDED USE OF INSTRUMENT

The instrument emits a visible laser beam in order to carry out the following measuring tasks (depending on the instrument): Setting up heights, horizontal and vertical planes, right angles.

## 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.

## LASER CLASSIFICATION

The instrument is a laser class 2 laser product according to DIN IEC 60825-1:2014. It is allowed to use the unit without further safety precautions. The eye protection is normally secured by aversion responses and the blink reflex.

The laser instrument is marked with class 2 warning labels.



### Please note:

**If you return instruments for repair / for adjustment to us please disconnect batteries or rechargeable batteries from the instrument - this is for safety reasons!**  
**Thank you.**