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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# SUPPLIED WITH

## **FLG 6X-GREEN**

- · Line laser FLG 6X-GREEN
- · Multi-functional mount
- Li-lon battery
- · Charger + USB C cable
- · Padded bag
- · User manual



## FLG 6X-GREEN SET

- · Line laser FLG 6X-GREEN
- Multi-functional mount
- Li-lon battery
- · Charger + USB C cable
- Elevating tripod
- Bac
- · User manual



## **CHARACTERISTICS**

- · 3 x 360° laser lines -> form 6 laser crosses
- · Laser lines switchable separately
- · Plumbing function
- Laser plane distance to wall/ceiling min. 12 mm
- · Wall/tripod mount
  - Magnets on the back
  - Strap attachement
  - 5/8" tripod connection
- · Use with receiver (optional)
- · Self-levelling function can be locked for manual use
- · 5/8" + 1/4" connection at the instrument bottom

## **Technical data**

Self-levelling range	± 3°
Accuracy	± 3 mm / 10 m
Laser diode / laser class	green / 2
Working range w/o receiver	30 m* (radius)
Working range with receiver	60 m ** (radius)
Power supply	Li-lon
Operating time	
· 1x 360°	12 h
· 2 x 360°	9 h
· 3 x 360°	7 h
Temperature range	-10°C - +45°C
Dust / water protection	IP 54
Weight (instrument with batteries)	0,76 kg

<sup>\*</sup>depending on the room illumination

<sup>\*\*</sup>depending on the direction of the laser

## **B** POWER SUPPLY

INSERT / CHARGE THE BATTERY

Open the battery compartment cover and insert the Li-Ion battery. Close the battery compartment cover.



The battery status will be displayed by the ON/OFF LED of the laser: When the LED starts flashing the battery must be recharged.

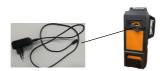


To charge the battery, remove it from the laser and charge it outside of the instrument. When the battery is fully charged, insert it again. The red LED at the battery shows that it is being charged. When the charging is completed the LED will extinguisch.



Permanent power supply:

Connect the charging socket of the laser with the USB cable and the charger and connect it with a plug socket.

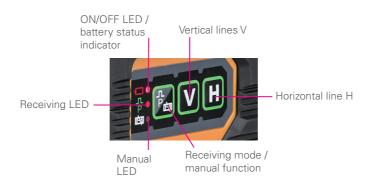


## **FUNCTIONS AND KEYPAD**









# **OPERATION**

Set up the laser:

- 1. Set up the laser on the floor direct
- 2. Set up the laser onto the multi-functional mount and fix 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 lever in position ON. The instrument is now ready for use. An audible and optical alarm (blinking lines) indicates if the instrument was set up outside of the compensator range. Set up the instrument on a more even surface.

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

## NOTE:

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



## SWITCH THE LASER LINIES





Power on the laser and press button H to switch on/off the horizontal laser line.



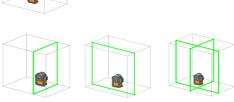
Press button V to switch on the vertical laser line V1.

Press button V once more to switch on the vertical laser line V2.

Press button V again to switch on both laser lines V1 and V2.

Press button V a fourth time = switch off all vertical laser lines.

All laser lines switched on.





#### 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 can now be switched as described above. Power off the MANUAL function again with the button MANUAL function.

## USE WITH RECEIVER

To prolong the working range or at unfavourable light conditions FLG 6X-GREEN 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 the laser (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 60 meters. For more detailed information please see the user manual of the receivers.

Press the button receiving mode again to guit this mode.

## SAFETY NOTES

#### 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 work-manship 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

- 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.
- 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.
- 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.
- 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.