

Automatic Plumb Laser

Plumb-up Laser: LL-90L/LL-91L

Plumb-down Laser: LL-92L/LL-93L



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Automatic Plumb Laser

plumbing quickly and safely means: inexpensive

Functional description

The automatic plumb laser LL-90L/-91L is a laser for plumbing up, the automatic plumb laser LL-92L/-93L is a laser for plumbing down, capable of electronic self-levelling over two axes. The plumb lasers of the 90 generation have a green laser beam which is much better visible, especially at daylight.

Performance features

● LL-90L/-92L

Laser class 2, laser power < 1 mW.
No special safety precautions necessary.
The easy standard laser class.
Laser power adjustable in two steps.

● LL-91L/93L

Laser class 3R, laser power < 5 mW, high-power version.
Laser power adjustable in five steps.

● Fully automatic

Automatic levelling and cut-out in case of low battery or jerky movement.

● Automatic function can be switched off

Therefore inclination adjustment by points of reference is possible.

● Illuminated, clearly legible LCD display

Self-explanatory, for on/off, device data, company data, lock function, operating status, battery level and menu.

● Robust metal housing, 100 % watertight

Plastic-coated, swept and filled with nitrogen.

● Special laser beam quality

Diode laser with visible beam, high-powered lens, high life expectancy and low power consumption.

● Lithium ion rechargeable battery

Operation time to 50/34 hours with one charge.
Rechargeable in max. 5 hours without having to take out the battery.

● Increased safety

Control indicators with blinking warning system for levelling, operating status and low battery.

● Uncompromisingly easy

All you have to do is switch on/off. The rest is done by the LL-90 automatically.

● Checking and adjustment

Easily possible at the building site as well. The device does not have to be opened for adjustment.

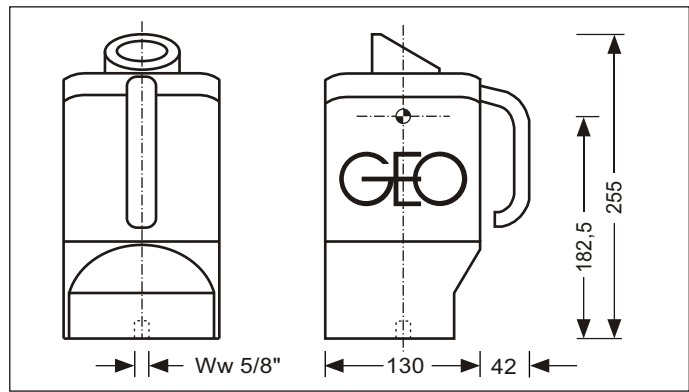
GEO quality guarantee

The new generation of lasers is the result of years of experience in the research, development and production of laser devices for the construction industry.

Technical specifications

Laser class LL-90L/-92L: 2, < 1 mW
Laser class LL-91L/-93L: 3R, < 5 mW
Laser: diode laser, visible green, 520 nm
Beam diameter: 13 mm at laser
Range LL-90L/-92L: to 200 m
Range LL-91L/-93L: to 500 m
Self-levelling range: $\pm 5\%$
Permissible deviation: $\pm 5\text{ mm}/100\text{ m}$
Operating time with 7.4 V DC Li Ion recharge. battery
. LL-90L/-92L: to 50 hours
. LL-91L/-93L: to 34 hours
External power supply: 11 to 14 V DC with cable 0117.02
Low battery cut-out: yes
Watertight: to 3.5 m
Temperature range: -10°C to $+50^\circ\text{C}$
Weight: 3.4 kg
Adjustment: possible in the field without having to open the device
Guarantee: 24 months

Dimensional sketch



Standard delivery package

| No. | Order No. | Type | Description |
|-----|------------|--------|---|
| 1 | 0001.4xx | LL-8x | Plumb laser |
| 2 | 0037.18 | NE-80 | Power supply/Battery charger |
| 3 | 0077.36 | | Transport case |
| 4 | 0094.00.1 | | 5/8"-hexagon bolt with nut and washer |
| 5 | 0002.003 | LL-ZT | Target with coordinates grid |
| 1-5 | 0001.407.1 | LL-90L | with standard delivery package |
| or | 0001.417.1 | LL-91L | with standard delivery package |
| or | 0001.427.1 | LL-92L | with standard delivery package |
| or | 0001.437.1 | LL-93L | with standard delivery package |
| - | 8675.11 | | Extra Charge, Deviation: $\pm 2.5\text{ mm}/100\text{ m}$ |



Optional accessories

| No. | Order No. | Type | Description |
|-----|-----------|-------|---|
| 1 | 0117.02 | | 12 V cable, 1,8 m, laser <-> battery connect. |
| 2 | 0061.07 | ST-08 | Plumb tripod |
| 3 | 0061.15 | BS-20 | Ground tripod |
| 4 | 0056.00.2 | | Quick-Fix base plate |
| 5 | 0056.00.1 | | Standard tripod adapter with centre spigot |
| 6 | 8803.06 | KA-84 | Claw adaptor, swivelling, system Leica/Wild |
| 7 | 8869.00 | DF-TZ | Tribrach, system Trimble/Zeiss |
| 8 | 0033.13 | | Plumb-down laser adaption |



GEO - partner of the construction industry for 50 years

from:



Designed, developed and
made in Germany

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