

# Automatic Universal-Laser UL-89L



## Uncompromising versatility

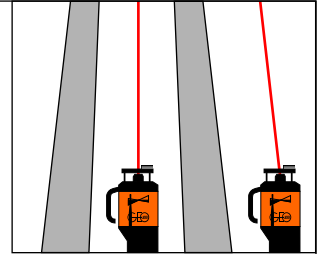
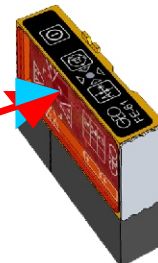
- Plumb Laser
- Aligning Laser
- Levelling Laser
- Two-Axis Inclination Laser
- + much more



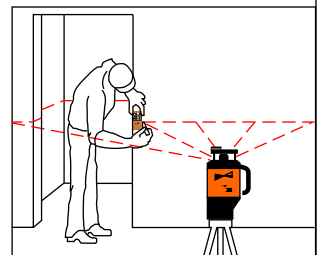
- search for alignment
- find alignment
- lock alignment automatically



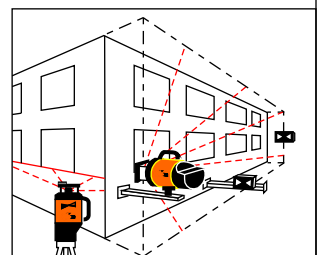
FE-61



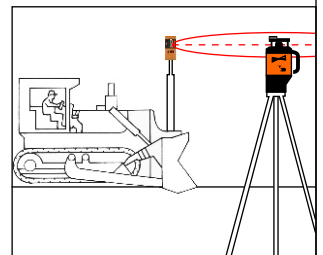
Tower building



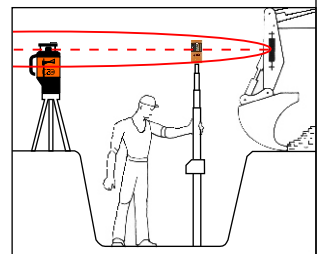
Interior works



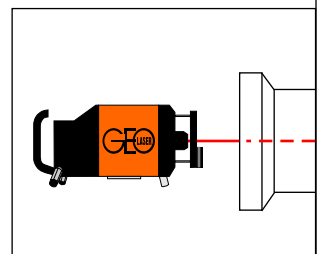
Facade building



Civil engineering



Underground engineering



Pipe laying

one for all ...

# Automatic Universal Laser UL-89L

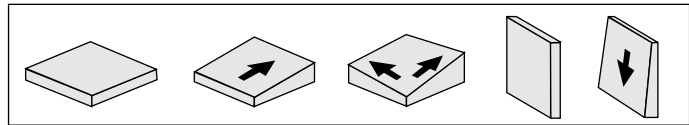
## Versatile use - simplest operation

### The UL-89L

is a multifunction laser with inclination setting for horizontal and vertical use capable of electronic self-levelling over three axes.

It emits a laser beam, which turns into a light plane as it rotates.

Another laser beam is available exactly square to it.



### Big on performance:

- **Fully automatic**

Automatic levelling, locking of the Y-axis, inclination zeroing, direction centring and cut-out in case of undervoltage or jerky movements.

- **Robust metal housing**

Anodised, plastic-coated, filled with nitrogen, 100% watertight.

- **Automatic fixing of the laser light plane**

Laser and receiver correspond via radio circuit. By pressing the corresponding button at laser or at receiver the laser starts to search for the receiver. As soon as the rotating laser beam hits the receiver, it is directed to the centre and fixed there. Accuracy: to  $\pm 1$  mm/100 m.

- **Inclination measurement parallel to ground**

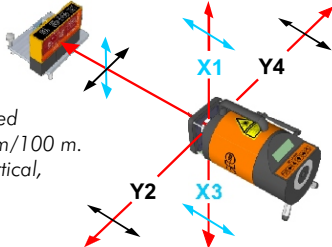
Even if the inclination is not known, it simply can be adapted to the ground in the Y-axis with the FE-53.

- **Automatic fixing of the plumb beam**

As soon as the laser beam hits the locking receiver FE-61, it is automatically directed to the position fixed before.

Deviations are detected and corrected immediately. Accuracy up to  $\pm 1$  mm/100 m.

Operation is possible horizontal, vertical, in alignment, with every inclination and even on swaying platforms.



- **Increased safety**

Control lamp with blinking warning system for levelling, operating status and undervoltage. Automatic laser cut-out in case of jerky movement (bumps). Inclination, direction and rotational speed setting protected against change.

To protect against theft, the name of the owner can be saved in the device.

- **Laser beam**

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

- **Manual rotor adjustment**

Easy operation for exact positioning of the laser beam, rotor fixing and plumbing down with bubble level in rotor head.

- **Lithium ion rechargeable battery**

Operation time to 27 hours with one charge.

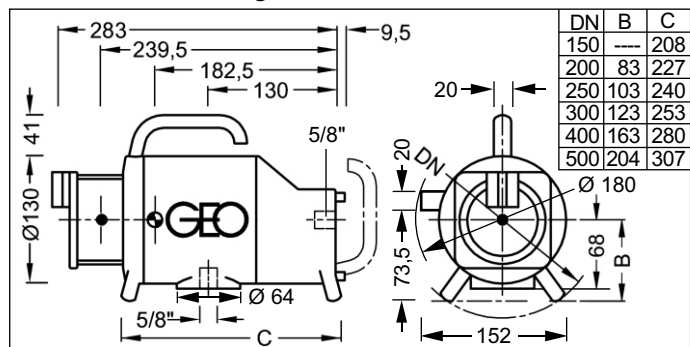
- **Wireless control FB-10 (optional)**

Complete laser operation up to a distance of 250 m.

- **Reliable system accessories**

for the best possible operation.

### Dimensional drawing



### Technical specifications

Laser class/Laser type: . . . . . 3R, < 5 mW/diode, visible red, 635 nm

Range depending on circumstances and receiver: . . . . . to 250 m,  $\varnothing$  500 m

Inclination range: . . . . . X axis - 5 % to + 20 %

Inclination range: . . . . . hz. mounting by tilting forward, X axis - 10 % to + 20 %

Inclination range/direction setting range: . . . . . Y axis - 5 % to + 5 %

Inclination range with rotation of device: . . . . . X axis  $\pm 20$  % / Y axis  $\pm 5$  %

Self-levelling range: . . . . . over the complete inclination range

Reading precision: . . . . . 0.001 %

Permissible deviation: . . . . .  $\pm 5$  mm/100 m

Speed adjustment: . . . . . from 200 - 1000 rpm

Locking automatic laser light plane: . . . . . up to 200 m with receiver FE-53

Locking automatic plumb beam: . . . . . up to 100 m with receiver FE-61

Operating time with 7.4 V DC Li Ion recharge. battery: . . . . . to 27 hours

External power supply: . . . . . 11 to 14 V DC with cable 0117.02

Low battery cut-out: . . . . . yes

Watertight: . . . . . to 0.35 m

Temperature range: . . . . . - 10° C to + 50° C

Dimensions/weight: . . . . .  $\varnothing$  130 mm, length 295 mm/3.6 kg

Guarantee: . . . . . 24 months

### Standard delivery package

No.	Order No.	Type	Description
01	0001.295	UL-89L	Universal laser
02	0037.18	NE-80	Power supply/Battery charger
03	0019.07		Leg set DN 200 (2 x sliding leg/ 2 x fixing leg)
04	0077.36.002		Double headed wrench 10/13
05	0077.36.003		hexagon key SW 4
06	0077.36		Transport case
1-6	0001.295.1		UL-89L with standard delivery package

### Pipe laser, optional accessories

No.	Order No.	Type	Description
01	0016.07	KL-04	Target frame
02	0016.07.002		Plexi target DN 150 - 300
03	0016.07.003		Plexi target DN 400 - 500
04	0019.08		Leg set DN 250 (2 x sliding leg/ 2 x fixing leg)
05	0019.09		Leg set DN 300 (2 x sliding leg/ 2 x fixing leg)
06	0019.10		Leg set DN 400 (2 x sliding leg/ 2 x fixing leg)
07	0019.11		Leg set DN 500 (2 x sliding leg/ 2 x fixing leg)
08	0019.90		Leg adapter for mounting with 3 legs
1-8	0127.01.1	KL-AU	Pipe laying equipment for UL-89L

### Rotary laser, optional accessories

09	1035.29		Lightning 2 laser receiver
10	1035.27	Storm	Laser receiver with digital data display
11	0009.39.1	LE-72	Laser receiver with digital data display
12	0009.36.1	FE-53	Locking receiver for laser light plane
13	0009.70.1	FE-61	Locking receiver for plumb beam
14	0026.07	FB-10	Two-way radio control
15	0045.04	DS-80	Rotation axis

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