

Operating Instructions

Zenith Plummet: LL30+/ 31+
Nadir Plummet: LL32+/ 33+



1. Description

The laser emits an automatically levelled plumb laser beam as reference axis. This laser beam is, for example, represented as dot on a target. If the target is connected to a sliding moulding, the moulding can be controlled according to the position of the laser dot. The LL is a special laser for all types of plumbing operations. Its possible uses are virtually unlimited.

1.1 Robust Light Metal Housing, 100 % watertight

Plastic-coated, swept and filled with nitrogen

1.2 Handle

For easy handling, safe transport and simple set-up.

1.3 Laser Warning Sign

LL30+/ 32+: Laser class 2, ≤ 1 mW
LL31+/ 33+: Laser class 3R, < 5 mW

1.4 Keyboard

Clear layout. Big, user-friendly, self-explanatory keys.

1.5 Identification

1.6 Charging Socket

Behind the dust guard cap.

1.7 Box Level

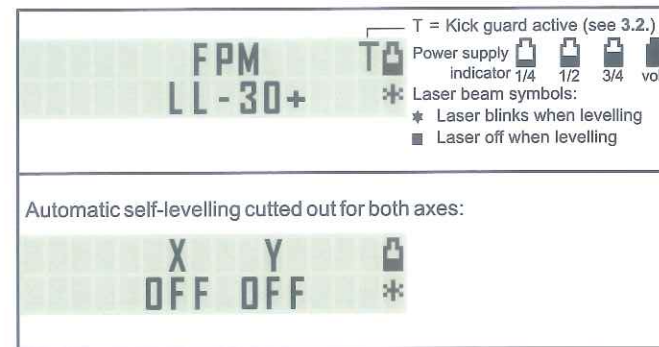
Build-up assistance LL32+/ 33+

1.8 Bulging Ground Area, niro St.

Protects against damages of coat and guarantees a secure stand. Central fastening thread 5/8".

1.9 LCD Display

Clearly legible, illuminated display for on/off, company data, device data, duty type and battery level.



1.10 Box Level

Build-up assistance LL30+/ 31+

2. Buttons



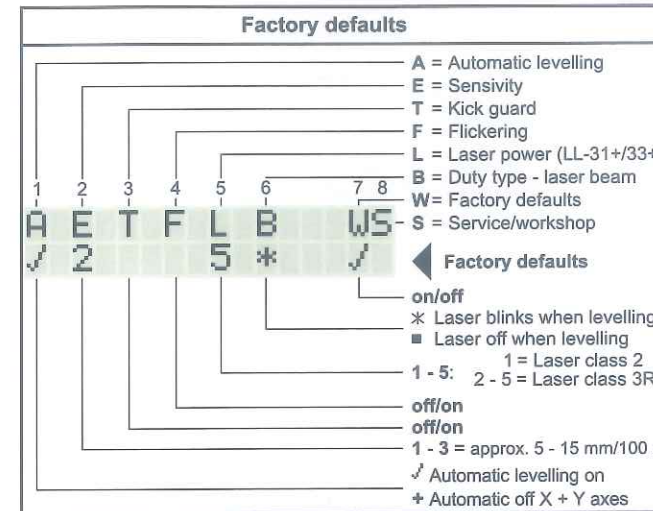
2.1 = ON/OFF Button

The device is switched on by pressing this button. The device and company data are shown, followed by the LCD operation display (see 1.9). The device is levels itself automatically. After the levelling phase the laser beam and laser beam symbol stop blinking. If this does not happen, the device must be moved into the levelling range by tilting it forwards. The display illumination switches off automatically after approx. 30 seconds. The illumination is switched on again by pressing the ON/OFF button shortly. To switch off the device, press the ON/OFF button until "Auf Wiedersehen!" appears.



2.2 = Select Menu Level

Keep the button pressed until the adjustment menu is shown:



2.3 = Select Letter
The selected letter begins to blink.
Y axes inclination setting (see 3.1)



2.4 = Change Settings
X axes inclination setting (see 3.1)



= Back to Operating Display

3. Device Settings

3.1 Automatic Levelling Cut-Out

= Automatic levelling switched on (factory defaults)
= Automatic self-levelling cut out for both axes.
X-AOFF + Y-AOFF is indicated on the display.

When the automatic is cut out, the laser can be positioned just as you like it. For electromotive fine/coarse adjustment of the laser beam, push the respective arrow buttons. Longer pushing changes the direction with increasing speed.

3.2 Sensitivity Setting (Wind/Vibration)

The self-levelling function corrects even the smallest deviation. Additionally the laser beam and the laser beam symbol at the operating mode display blink when the limit values of step 1 to 3 are exceeded, i. e. by influence of wind and/or vibration.

1 = 0.005 % no effect
2 = 0.010 % weak effect (factory defaults)
3 = 0.015 % strong effect

3.3 Kick Guard (Automatic Laser Cut-Out)

= Kick guard switched on. It becomes active after 30 sec. A T appears in front of the battery symbol at the operating mode display. This means the laser is switched off automatically as a precautionary measure in the event of a jerky movement (bump). The T then begins to blink. The laser needs to be switched on again and the positioning checked and corrected, if necessary.

= Factory defaults: Kick guard switched off.

3.4 Laser Beam Flickering

= Flickering off (factory defaults)

= Flickering on. Flickering makes the laser beam significantly easier to see in unfavourable light conditions.

3.5 Laser Power (only LL-31+/33+)

The laser power can be regulated in 5 steps from < 1 mW to 5 mW.

= < 1 mW

= step 5, equivalent to < 5 mW (factory defaults)

3.6 Operating Mode Laser Beam

= Laser beam and laser beam symbol blink on the operating mode display when levelling (factory defaults).

= Laser beam is turned off when levelling. However the symbol blinks on the operating mode display.

3.7 Factory Defaults

= All set to factory defaults.

3.8 Service/Workshop Notice

First off all, a phone no. for service/help appears. Then authorized personnel only must enter a numerical code in order to access the adjustment mode.

Congratulations on the purchase of your new FPM laser plummet!

This manual includes important safety information adding up to the general information on how to use the laser plummet.

Please note: Read the safety instructions on the supplement page 1 - 3 first.

Please read the operating instructions carefully before using the laser.

FPM Holding GmbH

Hainichener Str. 2a | 09599 Freiberg | Tel.: +49 (0) 3731 271 435 | Email: info@fpm.de

