029.020A / Rev 0508-GB

Laserliner®
Innovation in Tools

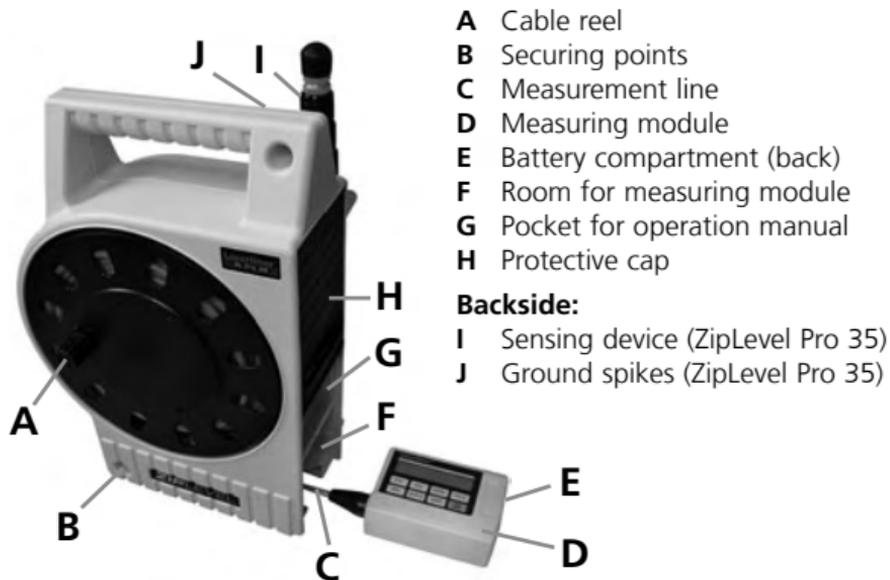GB Operation manual

Professional precision altimeter

The ZipLevel is a professional altimeter which enables you to scale and level on your own also around corners with accuracy within 3 mm. You have a working area up to + 6 m vertical and up to 70 m, respectively 50 m (with ZipLevel 25) in diameter. The digital measuring module shows all your measurements and is easy to operate. The extremely sturdy measurement cable with patented gas-liquid-system reliably works from -30 °C up to +70 °C.

Warranty

The warranty period is 2 years from the date of purchase. The warranty covers all material or manufacturing defects occurring during this time. The following are excluded from warranty: Damage due to improper use (e.g. operation with wrong type of current/voltage, connection to unsuitable power source, fall onto hard surface, etc.) or improper storage, normal wear and tear, and defects which only insignificantly impair the value or suitability for use. Any tampering by unauthorised persons will render this warranty void. In the event that you need to claim warranty, please take the complete device together with all information and the invoice to one of our dealers or send it in to Umarex-Laserliner.

Accessories: Only with the **ZipLevel Pro 35** sensing device, cover and ground spikes are included. For the **ZipLevel 25** these accessories are also available!

ZipLevel

A Cable reel
B Securing points
C Measurement line
D Measuring module
E Battery compartment (back)
F Room for measuring module
G Pocket for operation manual
H Protective cap

Backside:
I Sensing device (ZipLevel Pro 35)
J Ground spikes (ZipLevel Pro 35)

Inserting batteries into the measuring module:

• Open the battery compartment (E) and insert the batteries according to the installation symbol. Pay attention to the correct polarity. Close the battery compartment again. Remove the protective cover (with ZipLevel Pro 35 only).

Advice: Do not put used batteries into the household rubbish. They can be handed in at a collecting point for old batteries respectively hazardous waste

Console:

The keys **HOLD** and **ON/OFF** react instantaneously, all the other keys have to be pressed for 2 seconds in order to activate or deactivate the particular function. The functions are also fitted with audible signals (clicking and bleeping) which makes it easier to work overhead or in non visible areas.

Important:

The ZipLevel memorizes the last accomplished function. When you turn the instrument on again and intend to leave the function, press the accordant key for **2 seconds**.

Hold the Function keys for 2 seconds!!!

ZipLevel

Quick start of the ZipLevel

Open the bottom protective cap of the basic unit and remove the measuring module. Lay the basic unit on the floor with the back facing down. Slowly pull a sufficient length of line off the cable reel. The altitude will be transferred from the basic unit to the measuring module.

Switch the measuring module on with the **ON/OFF**-key and put the unit with its back or base on the required place of reference. When the display is ready, you will hear 2 short audible bleeps. Press the **ZERO**-key for 2 seconds. Keep the measuring module steady until the figure zero appears on the display. The appliance has now been set.

ADVICE: If the basic unit gets moved, the measuring module needs to be set at the place of reference again.


Back facing down!

Base

Back

Quick start of the ZipLevel

Give a place of reference to the measuring module (press **ZERO**-key) and move it to a different height. The appliance shows the difference in height between the place of reference and the measuring point. Now you can hold the appliance against any point and it always shows you the current height towards the place of reference.

Always use the measuring module with the side, which was used to set **ZERO**. Do not change from one locating side to another without setting to **ZERO** again.

If you want to find out the height between floor and ceiling set the appliance to **ZERO** with its back or bottom side on the floor. Then hold the top, base or back to the ceiling in order to measure. Manually add the height (8,8 cm) or thickness (5,0 cm) of the measuring module to the shown data. Take into account whether you are working with protective cover or not! This feature can also be done automatically with the **ADDER**-function (pp. 16-17).

Typical uses:

measuring point

reference point
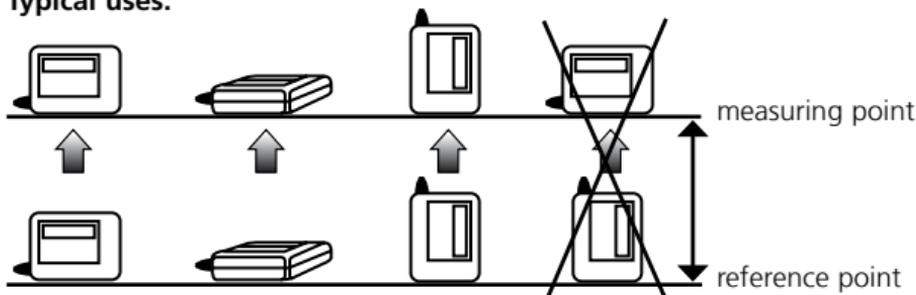
ZipLevel

Keys and functions

ON/OFF

With this key you switch the unit on and off. If no key has been pressed or the measuring module has not been moved within 4 minutes, the unit will switch itself off automatically. After 3 minutes without any activity the unit will sound a warning by giving 2 long bleeps.

HOLD

The HOLD-function is used where you have problems reading the display or where you intend to keep the measured data. The function can be switched on and off by shortly pressing the **HOLD**-key.

Measuring and keeping of the data (see drawing p. 7)**:**
1) First you set the unit at the required point with the **ZERO**-key.
2) Shortly press the **HOLD**-key as long as the measuring module is still being moved. The unit will then give a series of bleeps.
3) Move the measuring module to the place where you intend to measure.
4) Wait until the unit has stabilized and therefore no more bleeps are audible.
5) Retrieve the measuring module. The data of the remote point will be kept on the display. Shortly press HOLD again to leave this function.
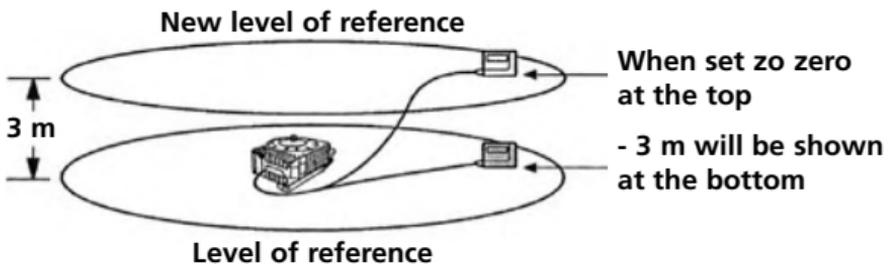
Examples for the HOLD-function:

2. Press HOLD   **1. ZERO**
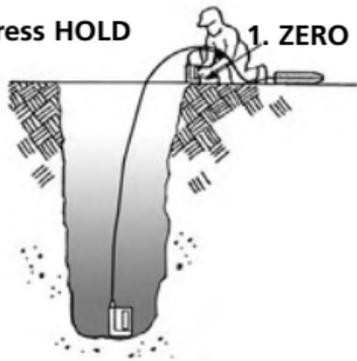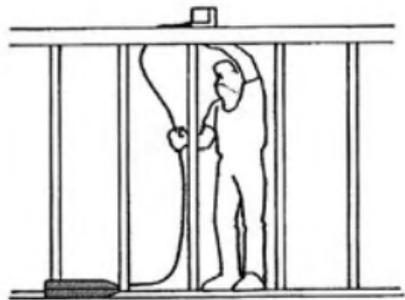
ZERO

Press the **ZERO**-key for 2 seconds in order to make the present height (location of the measuring module) the point of reference. The unit must not be moved in this process!

New level of reference

3 m

When set zo zero at the top

- 3 m will be shown at the bottom

Level of reference

ZipLevel

SCALE

With this you choose the required measurements in millimetres, centimetres or meters. Press the **SCALE**-key for **2 seconds** and hold. Now the gauges the bottom right of the display will change. Release the key once the required measurement appears. The measurement for millimetres is not indicated, cm and m appear on the display.

RES

The ZipLevel is featured with a choice of 3 display accuracies. Press the **RES**-key for **2 seconds** and keep it pressed in order to choose the required resolution. Release the **RES**-key once the required resolution is shown. Your choice is stored now up to next accuracy change.

RES.2	**0,2 cm:** for highest accuracy needs more time to stabilize
RES.5	**0,5 cm:** for medium accuracy needs less time for stabilization
RES1	**1 cm:** for rough measuring quick stabilizing of the results

REC

The ZipLevel can also be used for different calculations and shows an average, minimum and maximum.

1) Press the **REC**-key for **2 seconds**. The word 'REC' appears on the left side of the display.

2) Stabilize the measuring module on the first measuring point and shortly press **HOLD** to keep the data. After that you hear a series of bleeps. Wait until these are finished before you move the module to the next measuring point.

3) Shortly press the **REC**-key to show the average as well as the highest and bottom rate of the series of measurements. After shortly pressing the **REC**-key the letters 'AVG' (average), 'MIN' and 'MAX' will be shown on the display.

4) Press the **REC**-key for **2 seconds** to leave this function. The calculated figures remain saved until you press the **HOLD**-key after recalling the **REC**-function.

Value display

ZipLevel

MARK

With the **MARK**-function you can produce tones to indicate the following states: **a)** a chosen height, **b)** height within a defined scope or **c)** height beyond a defined scope.

1) Start of this function: Get the measuring module into the required height and press the **MARK**-key for **2 seconds**. Keep the unit steady until double lines for the scope are blinking on the display and choose **a)**, **b)** or **c)**.

a) Produce a tone at a chosen height:
Shortly press **MARK** and keep the unit steady to set up the tone.

b) Produce a tone <u>within</u> a defined scope:
Move the measuring module half a scope <u>under</u> the chosen height. Shortly press **MARK** and hold the unit steady to set up the tone.

c) Produce a sound <u>beyond</u> a defined scope:
Move the measuring module half a scope <u>above</u> the chosen height. Shortly press **MARK** and hold the unit steady to set up the tone.
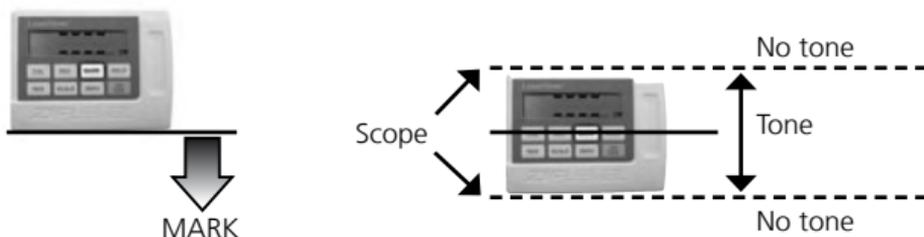
Advice: If you want to leave the MARK-function early, shortly press **MARK** and **ON/OFF** at the same time.
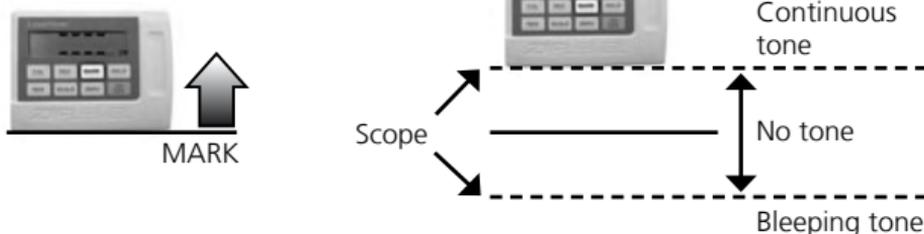
Define scopes:

a) Tone at a certain height: for accurate levelling

MARK

Tone

---

b) Tone within a scope: for less accurate levelling

No tone

Scope

Tone

MARK

No tone

---

c) Tone beyoned a scope:
for rough levelling

Continuous
tone

Scope

No tone

MARK

Bleeping tone

ZipLevel

CAL

The appliance has been calibrated at the factory. Please only calibrate, in case the measuring results are wrong or the letters 'CAL' are blinking on the display. A benchmark of 1.219 m above the base unit is important for the gauging. It will be best to use the sensing device to gauge the appliance (only with ZipLevel Pro 35).

Calibrating the ZipLevel:

1) Put the basic unit on its back onto a level surface and switch the measuring module on.

2) Lay the measuring module on its base or back next to the basic unit. Press the **CAL**-key for **2 seconds**.

3) When ⊑0⅃ is blinking on the display, shortly press **CAL**.

4) When ⊑ 1.2 19⅃ is blinking on the display, raise the measuring module to a height of **1.219 m** above the basic unit and press **CAL** again. The measuring module has to be held stable during the process. The sensing device (only with ZipLevel Pro 35) or a measuring marking should be used as a calibration device.

5) When the display stops blinking and shows 1.219 m the appliance is recalibrated.

Advice: You can leave the calibration function at any time without calibrating! For that you press the **CAL**-key for **2 seconds**.

Calibration in 3 steps:

Step 1: Lay the measuring module on its base or back next to the basic unit and press the **CAL**-key again. **(0)** is blinking on the display.

Step 2: Press **CAL** again. **(121.9)** is blinking on the display.

Step 3: Lift to a height of 1.219 m and press **CAL** again. Hold steadily during the process. Then **(121.9)** is shown on the display.

1,219 m
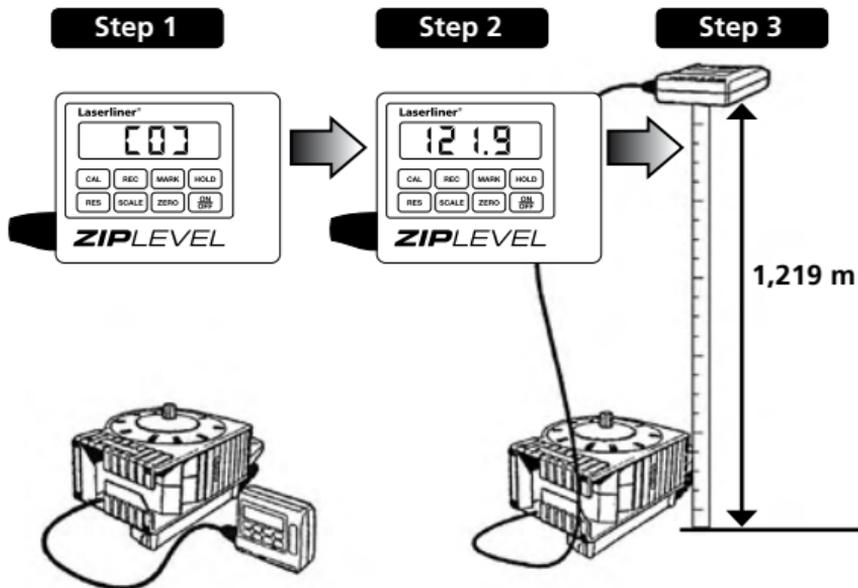
ZipLevel

ADDER (add):

To carry out accurate measurements indoors, the **ADDER**-function automatically adds the height, respectively thickness of the measuring module on the measured data.

Advice about the protective cover (only with ZipLevel Pro 35):

You need to state whether you are working with or without protective cover ('Boot on'/'Boot off'). Press **HOLD** to keep the data.
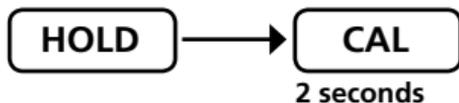
Then press **CAL**-key for **2 seconds** and hold. Display alternately shows 'bon' and 'boff'. Release at either 'Boot on' or 'Boot off'. Press **HOLD** again to leave this function. This choice is saved for further measuring!

Access to the ADDER-funktion:

1) Set the required point of reference with the **ZERO**-key.

2) Press **HOLD** and move the measuring module to the required measuring point (e.g. from the floor to the ceiling). You hear short bleeps. Keep the measuring module stable on the measuring point. The bleeps will stop when the figure is configured.

3) Now press the **MARK**-key to add the height of the measuring module or press the **REC**-key for **2 seconds** to add the thickness of the measuring module.

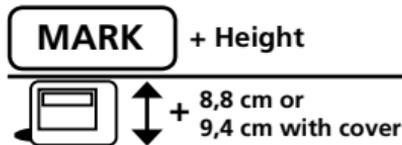Press the **HOLD**-key to leave the function.

„Boot on" / „Boot off":

$$\boxed{\text{HOLD}} \longrightarrow \boxed{\text{CAL}}$$
2 seconds

Choose „Boot on"
or „Boot off"!

ADDER-function:

3.
$$\boxed{\text{MARK}} + \text{Height}$$
+ 8,8 cm or
9,4 cm with cover

2.
HOLD

1.
ZERO

Base   Back

3.
$$\boxed{\text{REC}} + \text{Thickness}$$
+ 5 cm or
5,6 cm with cover

2.
HOLD

1.
ZERO

Base   Back

ZipLevel
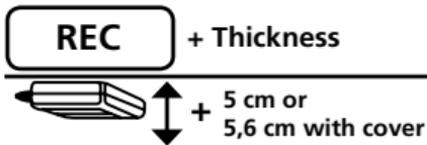
TIPS FOR USERS

1) Check the point of reference often when carrying out critical/serious levelling jobs or press **ZERO** often at the point of reference. (CAL is not necessary for levelling!) Hold the height differences between line, basic unit and measuring module as low as possible.

2) If possible, avoid high differences in temperature between line and measuring module (e.g. sun and shade).

3) Avoid unnecessary kinks over objects.

4) Avoid pulling hard, whipping or stepping on the line without checking the point of reference or setting to zero.

5) The display blinks '**8888**' at use beyond the specified altitude range. Beyond the temperature range under -30 °C or over +70 °C '**CAL**' is continuously shown.

6) As the ZipLevel shows the last carried out function when switched on, please make sure that you leave the function after every measuring. Hold the relevant key for **2 seconds** and you leave the function.

7) Wischen Sie bei matschigen Bedingungen die Messleitung vor dem Aufwickeln mit einem Tuch ab.

8) Does **--0--** respectively **„CAL"** show up, press the **ZERO**-key as soon as possible respectively calibrate the appliance.

Technical facts

Vertical measuring range	12 m (6 m over and under the basic unit)
Horizontal measuring range	± 35 m ZipLevel Pro 35 (70 m Ø)
	± 25 m ZipLevel 25 (50 m Ø)
Levelling precision	2 mm
Height-measuring accuracy	0,2 % of the shown data up to 3 m, resp. 0,35 % of the shown data over 3 m
Scale/measurements	mm, cm, m
Saving of data and setting	unlimited, even without battery
Shock-resistance dropping test on concrete	Measuring module 1,5 m
	Basic unit 0,9 m
Water resistance	Rain proof; must not be immersed
Operating time 9 V Block	60 operating hours
Weight	3,5 kg
Working an storing temperature	-30°C ... + 70°C

ZipLevel

$\mathsf{C}\,\mathsf{E}$

Service- and shipping address:

**UMAREX GmbH & Co. KG
– Laserliner –
Möhnestraße 149,
D-59755 Arnsberg, Germany
Tel.: +49 2932 638-300, Fax: -333
laserliner@umarex.com**

**UMAREX GmbH & Co. KG
– Laserliner –
Donnerfeld 2
D-59757 Arnsberg, Germany
Tel.: +49 2932 638-300, Fax: -333
www.laserliner.com**

Laserliner®
Innovation in Tools