



User Guide

BMI – multiLASER 3D

Self-Leveling 3D – Line laser with red pulsed laser lines (Model R) and green pulsed laser lines (Model G)



Contents

1. - Introduction	page 2
2. USER -Safety	page 2
3. Operation and functions	page 3
4. Working with the BMI – multiLASER 3D	page 4
4.1 Switch on of the device	page 4
4.2 Selection of laser-lines	page 4
5. Power supply / Battery - Replacement	page 5
6. Checking the accuracy	page 6
6.1 Horizontal laserline	page 6
6.2 Vertical laserline	page 7
7. Technical Data -BMI multilaser 3D	page 6/7

1. Introduction

Der **BMI – multiLASER 3D** is a fully automated, self-leveling laser with three visible laser-lines in red for the model R and with green laser lines for the model G.

- one 360° - horizontal line
- two 360° - vertical lines

All three laser lines are at **right angles** to each other which can be switched separately.

To increase the range for outdoors working, the use of a laser receiver is recommended.

For this application, the laser lines can be pulsed.

2. Laser -Safety

The **BMI – multiLASER 3D** conforms to laser Class 2 based on EN 60825-1 with a wave length of 635 nm with a max.output of < 1 mW.

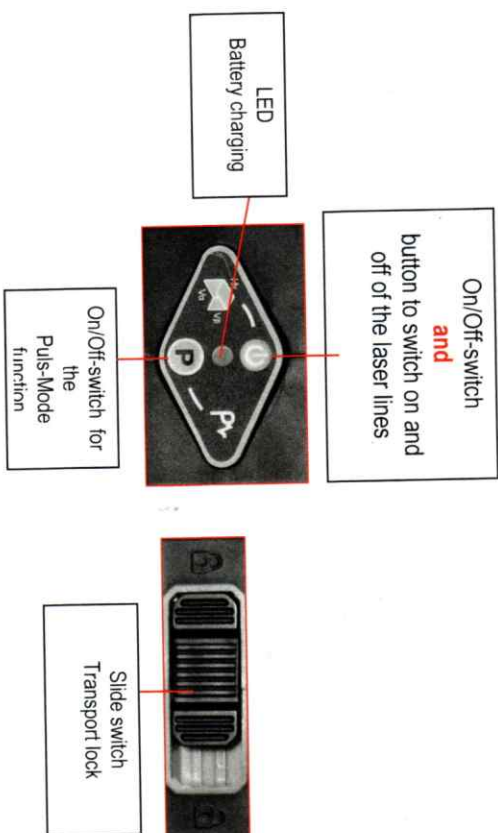
Safety Advice

- DO NOT REMOVE WARNING SYMBOL!
- NEVER STARE DIRECTLY INTO THE BEAM!
- NEVER AIM THE LASER AT OTHERS EVEN MORE A LONG RANGE!
- DO NOT INSTALL OR ADJUST THE LASER ON EYE LEVEL!
- DO NOT OPEN THE DEVICE!

Do not disassemble or attempt to service the **BMI-multiLASER 3D**. Doing so will void the warranty.

The **BMI-multiLASER 3D** complies with protection class IP44 and splash proof. It should not be used under rainy conditions.

3. Operation and Functions



Accessories as standard and optional



Charger
Art.-N°: 654923Z
Standard for Model R and G



Leveling plate with fine adjustment
Art.-N°: 654920Z
Optional for Model R, standard for Model G



Multifunction adapter
Art.-N°: 654921Z
Optional for Model R, standard for Model G



Wall Clamp
Art.-N°: 654922Z
Optional for Model R, standard for Model G




Receiver
Art.-N°: 654904GZ
Optional for Model R and G




Holding clamp for Receiver
Art.-N°: 654916Z
Optional for Model R and G

4. Working with the BMI – multiLASER 3D

4.1 Working in self-leveling mode

Move slide switch transport lock on symbol  and press the on / off button 1x
The device is now a self-leveling mode
The horizontal 360° - Laser -line is turned on



Notice: If the device is an inclined position outside of its self-leveling mode, and intermittent beep and the laser line will switch off.
Move slide switch transport lock on symbol  and press the on / off button 1x



LED under the on / off button indicates the respective state of the battery (see also 5. Power supply)

- **The device is switched off and charging**
 - LED flashes green when the battery is being charged
 - LED lights up green when the battery is full
- **The device is switched on and working in battery mode**
 - LED lights red when the battery has enough capacity
 - flashes red when the battery is charging
- **The device is switched on and works in network operation**
 - glows green when the battery is full
 - flashes red / green alternately when the battery is charging




If the device is located too far out of the self-leveling range of $\pm 3^\circ$, the laser lines flash quickly.
In this case, remove the inclined position. The device will then automatically level out again.



When working outdoors and with poor visibility of the laser lines, it is recommended to use a laser receiver (optional accessory).
By pressing the "Pulse mode" button (Fig. Page 3), the laser lines are pulsed and thus recognizable for a laser receiver.
Press the "Pulse mode" button again to switch it off again.
If the device is in pulse mode, the brightness of the laser lines is reduced!

Switching off the BMI - multiLASER 3D

The device can only be switched off with the transport lock activated.
To do this, move the transport safety slide switch to the symbol  and keep the on / off button depressed for approx. 2 seconds.



4.2 Choosing the laser lines

The laser lines can be switched on by pressing the on / off button while the device is switched on
switched off and on (Fig. page 3):

Press X 1 : the vertical line across the device's longitudinal axis is switched off
Press X 2 : the vertical line in the direction of the device longitudinal axis is switched off
Press X 3: the horizontal line is switched off
Press X 4: only the horizontal line is lit.
Press X 5: only the vertical line in the direction of the device's longitudinal axis lights up
Press X 6: only the vertical line across the device's longitudinal axis lights up
Press X 7: times: all 3 lines light up

5. Power supply

The power supply of the BMI - multiLASER 3D is provided by a rechargeable lithium-ion battery.

The plug-in power adapter with USB cable (5V - 2.1A output) required for charging is included in delivery.



During charging time, it is possible to work with the BMI - multiLASER 3D to be

LED charge indicator (Fig. Page 3)

- **The device is switched off and charging**
 - LED flashes green when the battery is being charged
 - LED lights up green when the battery is full
- **The device is switched on and working in battery mode**
 - LED lights red when the battery has enough capacity
 - flashes red when the battery is charging
- **The device is switched on and works in network operation**
 - glows green when the battery is full
 - flashes red / green alternately when the battery is charging

Exchange of battery :

The cover for the battery compartment is located at the bottom of the device.

When inserting the battery, pay attention to the position of the contacts!

For replacement batteries (4,2V - 5200 mAh)

Please contact BMI Tel.: 0049 (0) 9151 73010
Art.-N°: 654924Z



6. Accuracy Check

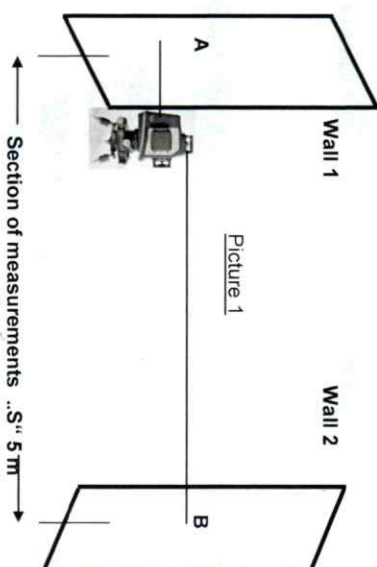


Before the activation, a drop or a hit we recommend to run a check up of the device; otherwise the manufacturer's liability is expired.

5.1 Checking accuracy of the horizontal laser line and laser dots pointing right, left and forward

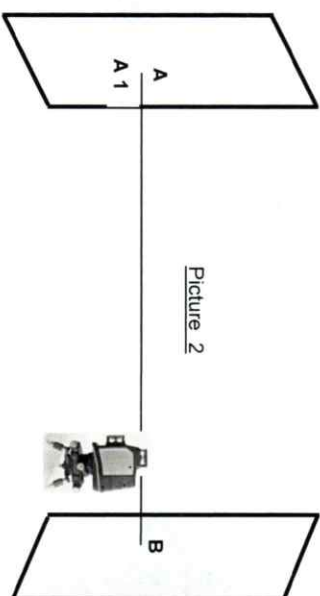
Mount the device on the multi-functional adapter.

Select 2 walls in a distance of a minimum of 5m from each other.



Section of measurements „S“ 5 m

- (1) Place the device with a distance of ca. 10 cm in front of Wall 2.
- (2) Disengage the transport lock, press **button 1**. The device levels out automatically.
- (3) Mark the intersection of horizontal and vertical lines of the cross line (Marking pointA)
- (4) Turn the device around 180° without changing the height. (picture 1) Mark the intersection of the cross line (Marking point B).
- (5) Put the device with a distance of ca. 10 cm in front of Wall 2. Mark intersection of horizontal and vertical lines of the cross line (Marking point B)



Picture 2

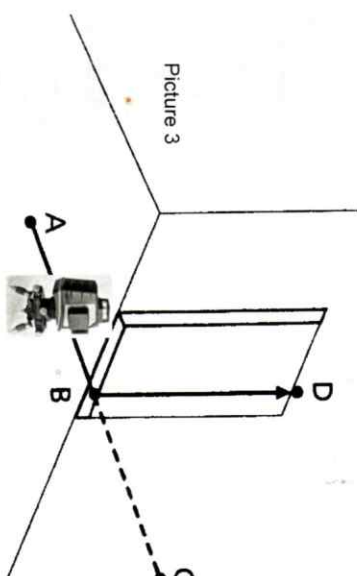
- (6) Measure the height difference between the „A“ und „A1“.
- (7) Turn the device by 90° and repeat the procedure (point t 1 to v).

If the height differences are as follows, the device is OK:

Measure „Section“	Max. permissible distance A – A1
5 m	2 mm
10 m	4 mm

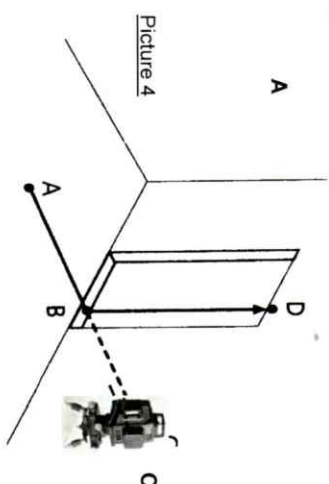
6.2 Checking the accuracy of the vertical laser line

- (1) Select a door frame of at least a 2.5 m open space on side of the door (picture 3).



Picture 3

- (2) Place the device with a 2.5 m distance from the middle of door frame on point A.
- (3) Disengage the transport safety lock, press **button 1**. The device levels out automatically.
- (4) Mark the point „B“ centered underneath the door frame.
- (5) Mark a point „C“ within a 5 m distance from point „A“.
- (6) Mark a point „D“ within the door lintel.
- (7) Place the device on the point „C“ and set up the Laser line exact on the point „B“.
- (8) Measure now the gap the laser line from the marked



Picture 4

If the distance is less than 1 mm, the device is OK.

To check the 2nd vertical laser line (vertical line transverse to the device longitudinal axis), repeat the procedure (points 1 to 8)

7. Technical Data

Lasertype:	Model R	Model G
Output power:	diode laser, wavelength 635 nm	520 nm
Leveling :	≤ 1 mW; Laserclass 2M (EN 60825-1)	
Leveling range:	fully automatic (pendulum))	
Accuracy Line horizontal/vertical:	± 3°	
Range :	± 0,2 mm / m	
- with receiver (optional accessories):	Depending on lighting conditions	
Operating temperature :	-10° till + 50° C	20 m > 50 m 30 m > 50 m
Power supply:	Lithium-Ionen-battery (4,2 V - 5200 mAh) Plug in power (5V - 2,1A) mit USB-charging cable included	
Operating time :		
Protection class :	IP 54	≥ 8 h. ≥ 4 h.
Tripod connection thread device:	1/4 inch / 5/8inch	
Tripod connection thread adapter:	1/4inch I / 5/8 inch	

German
Verbraucher sind gesetzlich verpflichtet Altkarten zu einer geeigneten Sammelstelle/Verkaufsstelle/Versandlager zu bringen. Die durchgeschlitzene Mülltonne bedeutet: Batterien und Akkus dürfen nicht in den Hausmüll. Pb, Cd und Hg bezeichnen Inhaltsstoffe die oberhalb der gesetzlichen Werte liegen.

English

Consumers are legally required to dispose of batteries at suitable collection points, vending points or dispatch bays. The crossed-out wheeled bin means that batteries must not be disposed of in the household waste. Pb, Cd and Hg designate substances that exceed the legal limits.

French

La législation exige des consommateurs le dépôt des piles usagées dans un lieu de collecte approprié, un point de vente ou un entrepôt d'expédition. Le pictogramme barré signifie qu'il est interdit de jeter les piles et les batteries avec les ordures ménagères. Pb, Cd et Hg désignent les substances dont les valeurs dépassent les limites légales.

Italian

Per legge, i consumatori sono obbligati a depositare le batterie esauste presso i punti di raccolta, i punti di vendita o i magazzini di spedizione. Il simbolo del contenitore del rifiuto barrato indica che è vietato smaltire le batterie con i rifiuti domestici. Pb, Cd e Hg indicano le sostanze presenti con valori superiori alle norme.

Spanish

Los usuarios están obligados por ley a depositar las pilas usadas en un punto de recogida adecuado, punto de venta/centro de envío. El contenedor de basura tachado significa la pilas no deben desecharse en la basura doméstica. Pb, Cd y Hg designan sustancias que se encuentran por encima de los valores establecidos por ley.

BMI – Messeuge

Bayerische Maßindustrie

A. Keller GmbH

Rosengasse 12 91217 Hersbruck Tel.: 0049 (0)9151 7301 – 0 www.bmi.de