BOSCH GPL 5 Professional Self-Leveling Pointed Laser Level Instruction Manual

Contents

BOSCH GPL 5 Professional Self-Leveling Pointed Laser Level

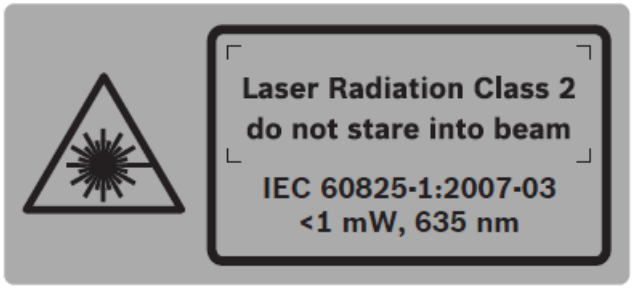
Safety Notes

Point Laser

Working safely with the measuring tool is possible only when the operating and safety information are read completely and the instructions contained therein are strictly followed. Never make warning labels on the measuring tool unrecognisable. SAVE THESE INSTRUCTIONS.

Caution – The use of other operating or adjusting equipment or the application of other processing methods than those mentioned here, can lead to dangerous radiation exposure.

- The measuring tool is provided with a warning label in English (marked with number 5 in the representation of the measuring tool on the graphics page).



- Do not direct the laser beam at persons or animals and do not stare into the laser beam yourself. This measuring tool produces laser class 2 laser radiation according to IEC 60825-1. This can lead to persons being blinded.
- Do not use the laser viewing glasses as safety goggles. The laser viewing glasses are used for improved visualisation of the laser beam, but they do not protect against laser radiation.
- Do not use the laser viewing glasses as sunglasses or in traffic. The laser viewing glasses do not afford complete UV protection and reduce colour perception.
- Have the measuring tool repaired only through qualified specialists using original spare parts. This ensures that the safety of the measuring tool is maintained.
- Do not allow children to use the laser measuring tool without supervision. They could unintentionally blind other

persons or themselves.

- Do not operate the measuring tool in explosive environments, such as in the presence of flammable liquids, gases or dusts. Sparks can be created in the measuring tool which may ignite the dust or fumes.

Holder

Keep the holder 8 away from cardiac pacemakers. The magnets 12 generate a field that can impair the function of cardiac pacemakers.

- Keep the holder 8 away from magnetic data medium and magnetically-sensitive equipment. The effect of the magnets 12 can lead to irreversible data loss.

Product Description and Specifications

Please unfold the fold-out page with the representation of the measuring tool and leave it unfolded while reading the operating instructions.

Intended Use

The measuring tool is intended for determining and checking horizontal and vertical lines as well as plumb points.

Product Features

The numbering of the product features shown refers to the illustration of the measuring tool on the graphic page.

1. Exit opening for laser beam
2. Latch of battery lid
3. Battery lid
4. On/Off switch
5. Laser warning label
6. Tripod mount 1/4″
7. Serial number
8. Holder
9. Locking screw for holder
10. Screw holes of holder
11. Opening for strap attachment
12. Magnets
13. 1/4″ tripod mount on holder
14. 5/8″ tripod mount on holder
15. Measuring plate with stand*
16. Protective pouch
17. Laser viewing glasses*
18. Tripod*

    * The accessories illustrated or described are not included as standard delivery.

Technical Data

Point Laser	GPL 5
Article number	3 601 K66 2..
Working range	30 m
Levelling Accuracy	±0.3 mm/m
Self-levelling range (typical) alongside the – longitudinal axis – lateral axis	 ±5° ±3°
Levelling duration, typically	< 4 s
Operating temperature	– 10 °C ... + 40 °C
Storage temperature	– 20 °C ... + 70 °C
Relative air humidity, max.	90 %
Laser class	2
Laser type	635 nm, < 1 mW
Tripod mount	1/4"
Batteries	3 x 1.5 V LR06 (AA)
Operating life time, approx.	24 h
Weight according to EPTA-Procedure 01/2003	0.25 kg
Dimensions (length x width x height)	104 x 40 x 80 mm
Degree of protection	IP 5X

The measuring tool can be clearly identified with the serial number 7 on the type plate.

Assembly

Inserting/Replacing the Battery
Alkali-manganese batteries are recommended for the measuring tool.
To open the battery compartment 3, turn the latch 2 in clockwise direction to position and pull off the battery lid. Insert the batteries provided. When inserting, pay attention to the correct polarity according to the representation on the inside of the battery compartment.
Position the battery lid to the bottom of the housing and then push it upward. To lock the battery lid, turn the latch 2 in anticlockwise direction to the position.
When the laser beams flash slowly during operation, the batteries are low. When the flashing begins, the measuring tool can be operated for approx. 8 h.
Always replace all batteries at the same time. Only use batteries from one brand and with the identical capacity.

- Remove the batteries from the measuring tool when not using it for extended periods. When storing for extended periods, the batteries can corrode and discharge themselves.

Operation

Initial Operation

- Protect the measuring tool against moisture and direct sun light.
- Do not subject the measuring tool to extreme temperatures or variations in temperature. As an example, do not leave it in vehicles for long time. In case of large variations in temperature, allow the measuring tool to adjust to the ambient temperature before putting it into operation.
  In case of extreme temperatures or variations in temperature, the accuracy of the measuring tool can be impaired.
- Avoid heavy impact or falling of the measuring tool.
  After heavy exterior impact on the measuring tool, an accuracy check should always be carried out before continuing to work (see “Levelling Accuracy”).
- Switch the measuring tool off during transport. When switching off, the levelling unit, which can be damaged in case of intense movement, is locked.
  Switching On and Off
  To switch on the measuring tool, push the On/Off switch 4 upward so that “I” is indicated on the switch.
  Immediately after switching on, the measuring tool sends a laser beam out of each exit opening 1.
- Do not point the laser beam at persons or animals and do not look into the laser beam yourself, not even from a large distance.
  To switch off the measuring tool, push the On/Off switch 4 downward so that “0” is indicated on the switch.
  When switching off, the levelling unit is locked.

Setting the Automatic Switch-off
By default, the measuring tool automatically shuts off
20 minutes after being switched on.
The automatic switch-off can be set from 20 minutes to 8 hours. For this, switch the measuring tool on, then immediately
off, and then on again within 4 s. To confirm the change, all laser beams will flash quickly for 2 s after switching on the second time.

- Do not leave the switched on measuring tool unattended and switch the measuring tool off after use. Other persons could be blinded by the laser beam.
  When switching on the measuring tool the next time, the automatic switch-off is set to 20 minutes again.

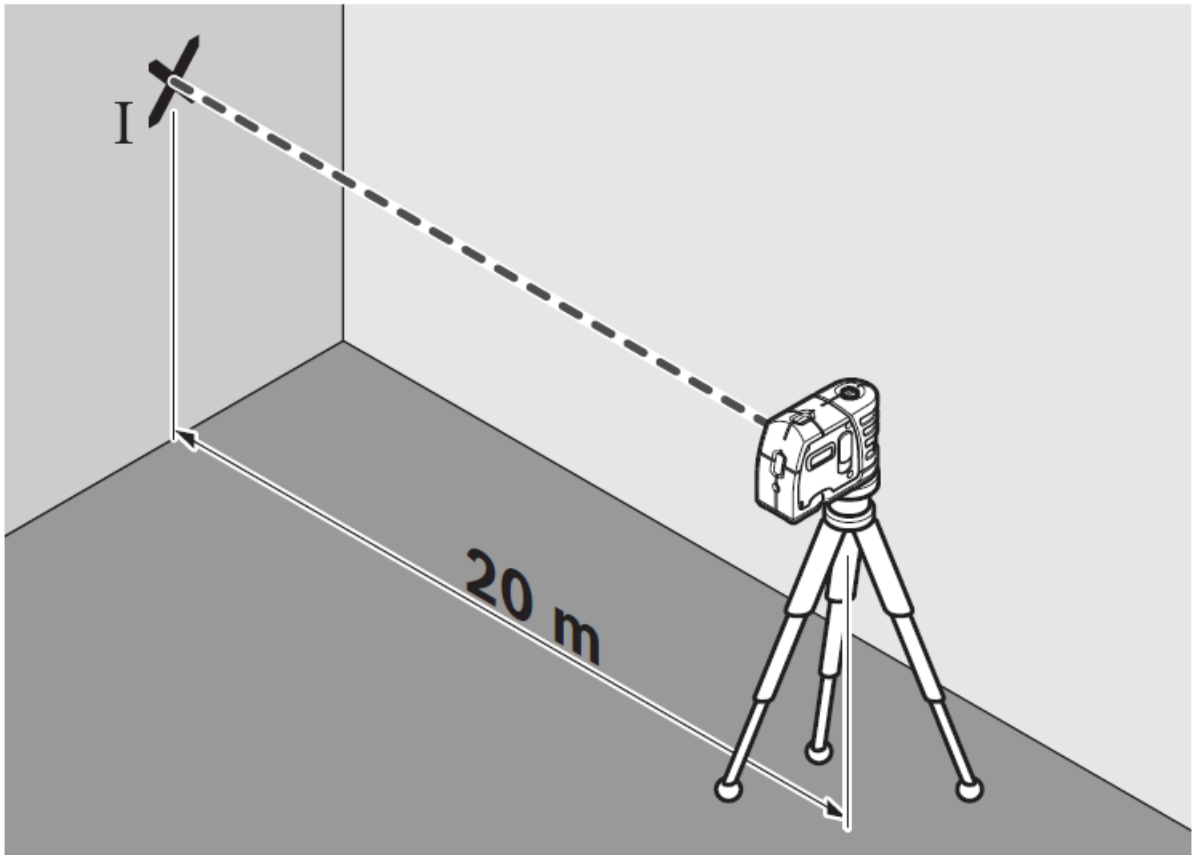
Working with Automatic Levelling
Position the measuring tool on a level and firm support, attach it to the holder 8 or to the tripod 18.
After switching on, the automatic levelling function automatically compensates irregularities within the self-levelling range from ±5° (longitudinal axis) and ±3° (lateral axis). The levelling is finished as soon as the laser points do not move any more.
If the automatic levelling function is not possible, e.g. because the surface on which the measuring tool stands deviates by more than 5° or 3° from the horizontal plane, the laser beams flash rapidly. In this case, bring the measuring tool to the level position and wait for the self-levelling to take place.
As soon as the measuring tool is within the self-levelling range of ±5° or ±3° respectively, all laser beams light up continuously again.
In case of ground vibrations or position changes during operation,the measuring tool is automatically levelled in again. To avoid errors by moving the measuring tool, check the position of the laser beams with regard to the reference points upon re-levelling.

Levelling Accuracy
Influences on Accuracy

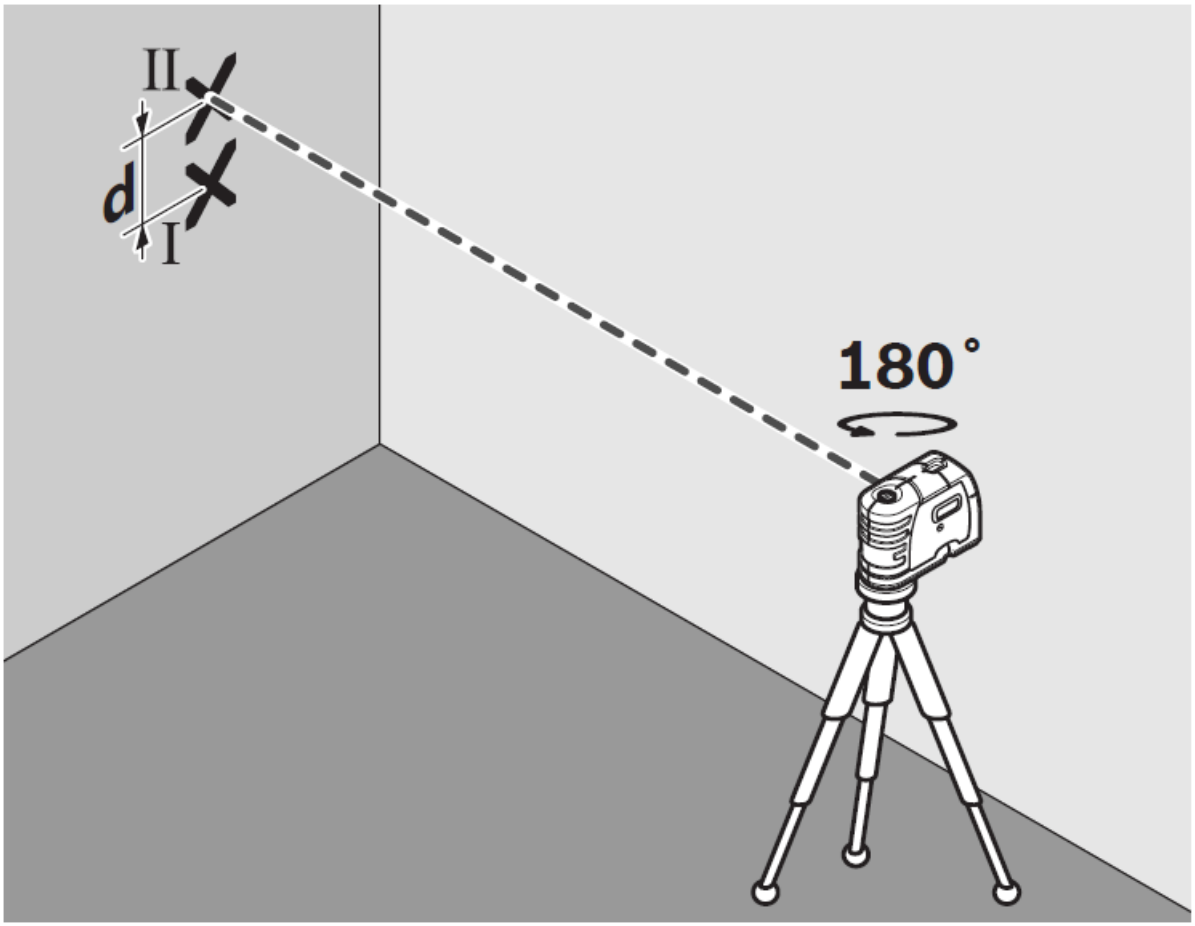
The ambient temperature has the greatest influence. Especially temperature differences occurring from the ground upward can divert the laser beam.
As thermal fluctuation is largest close to the ground, the measuring tool, if possible, should be mounted on a commercially available tripod and placed in the centre of the working area.
Apart from exterior influences, device-specific influences (such as heavy impact or falling down) can lead to deviations.
Therefore, check the accuracy of the measuring tool each time before starting your work.
Should the measuring tool exceed the maximum deviation during one of the tests, please have it repaired by a Bosch after-sales service.
When the levelling accuracy of the horizontal laser beams for the lateral and longitudinal axis is within the maximum allowable deviation, then the levelling accuracy for the plumb beams (vertical axis) is thus also checked.

Checking the Horizontal Levelling Accuracy of the Lateral Axis
A free measuring distance of 20 m on a firm surface in front of a wall is required for the check.

- Mount the measuring tool onto the holder or a tripod, or place it on a firm and level surface at a distance of 20 m to the wall. Switch the measuring tool on.



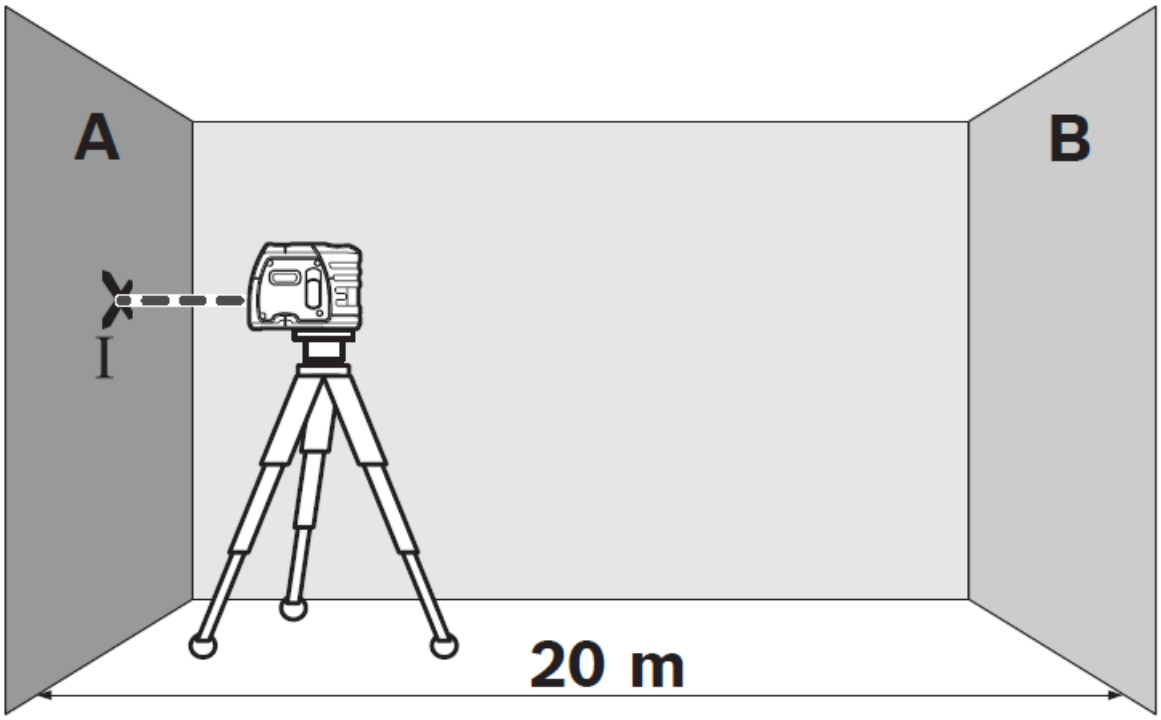
- Direct one of the two lateral laser beams, that run alongside the lateral axis of the measuring tool, at the wall. Allow the measuring tool to level in. Mark the centre of the laser beam on the wall (point I).



- Rotate the measuring tool by approx. 180° without changing its height. Allow it to level in and mark the centre point of the other lateral laser beam on the wall (point II). Take care that point II is as vertical as possible above or below point I.
- The difference d of both marked points I and II on the wall results in the actual height deviation of the measuring tool alongside the lateral axis.
  On the measuring distance of 2 x 20 m = 40 m, the maximum allowable deviation is:
  40 m x ±0,3 mm/m = ±12 mm.
  Thus, the difference d between points I and II may not exceed 12 mm (max.).

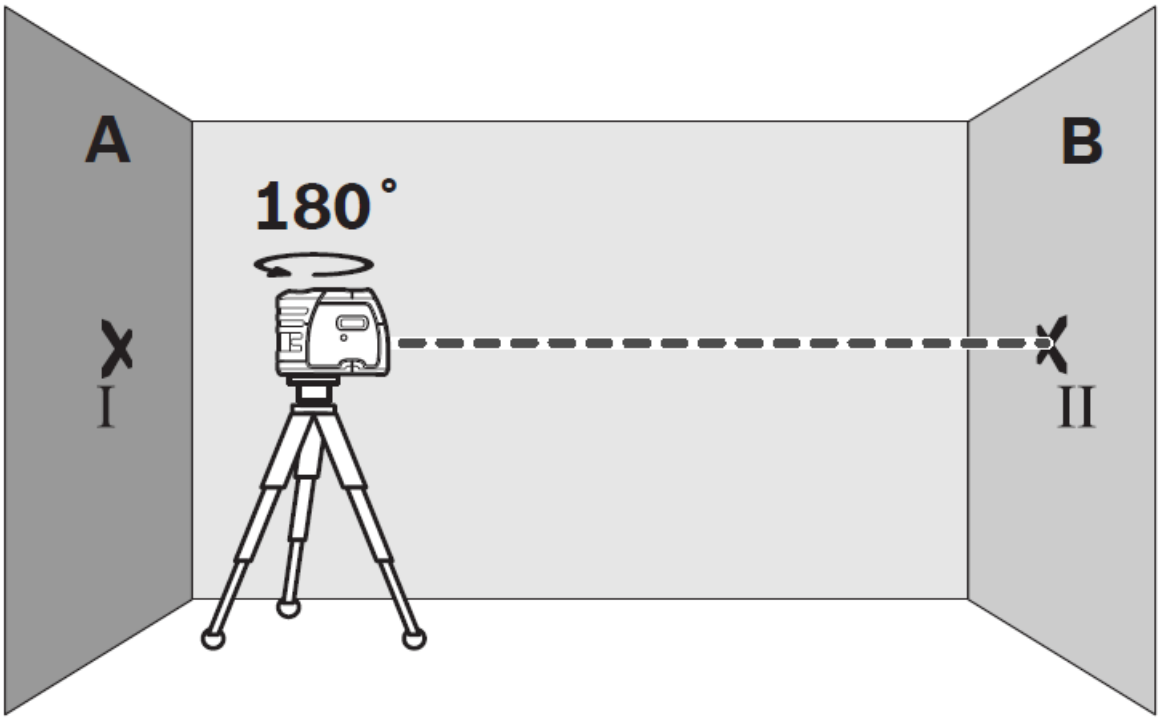
Checking the Horizontal Levelling Accuracy of the Longitudinal Axis
A free measuring distance of 20 m on a firm surface between two walls A and B is required for the check.

- Mount the measuring tool onto the holder or a tripod, or place it on a firm and level surface close to wall A. Switch the measuring tool on.

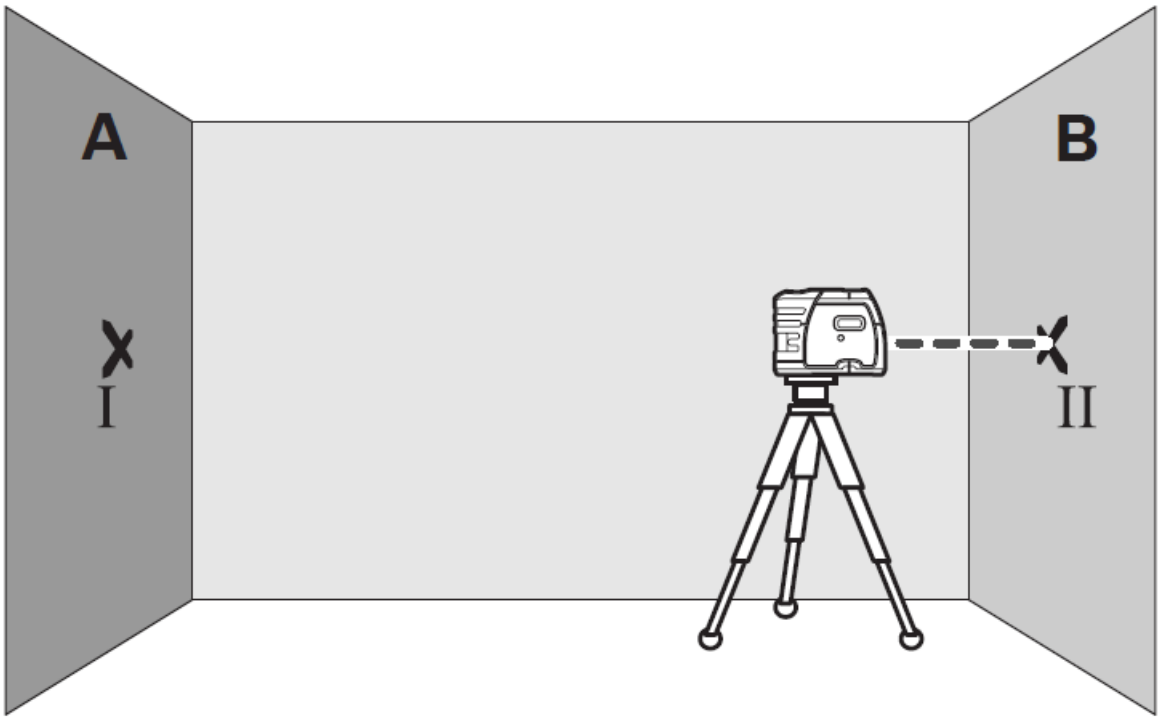


- Direct the horizontal laser beam, which runs parallel to the longitudinal axis of the measuring tool, at the close wall A.

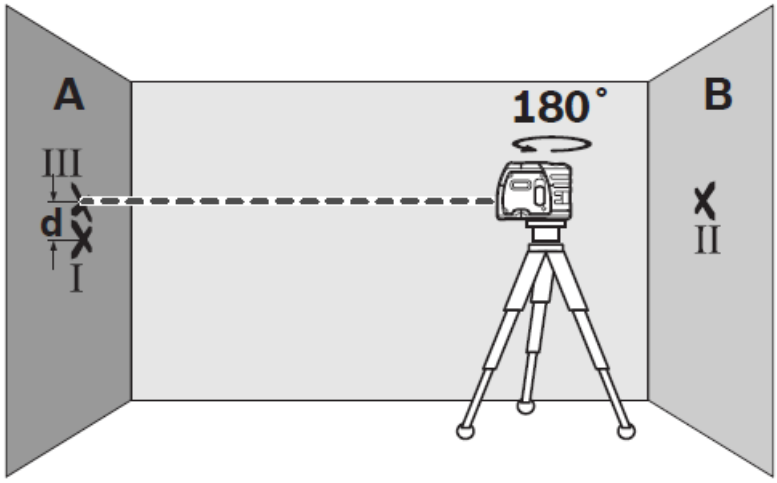
  Allow the measuring tool to level in. Mark the centre of the laser beam on the wall (point I).



- Turn the measuring tool around by 180°, allow it to level in and mark the centre point of the laser beam on the opposite wall B (point II).
- Without turning the measuring tool, position it close to wall B. Switch the measuring tool on and allow it to level in.



- Align the height of the measuring tool (using the tripod or by underlaying, if required) in such a manner that the centre point of the laser beam is projected exactly against the previously marked point II on wall B.



- Rotate the measuring tool by 180° without changing the height. Allow it to level in and mark the centre point of the laser beam on wall A (point III). Take care that point III is as vertical as possible above or below point I.
- The difference d of both marked points I and III on wall A results in the actual height deviation of the measuring tool alongside the Longitudinal axis.
  On the measuring distance of 2 x 20 m = 40 m, the maximum allowable deviation is: 40 m x ±0,3 mm/m = ±12 mm.
  Thus, the difference d between points I and III may not exceed 12 mm (max.).

Working Advice

- **Always use the centre of the laser point for marking.**
  The size of the laser point changes with the distance.

Attaching with the Holder
To fasten the measuring tool on the holder 8, screw the locking screw 9 of the holder into the 1/4″ tripod mount 6 on the measuring tool and tighten. To rotate the measuring tool on the holder, slightly loosen the screw 9.

- Rotate the measuring tool on the holder 8 sideward or toward the rear to make the bottom plumb beam visible.
- Rotate the measuring tool on the holder 8 to project heights with the horizontal laser beam.

  With the holder 8, the measuring tool can be attached as follows:
- Mount the holder 8 to the tripod 18 or a commercially available camera tripod via the 1/4″ tripod mount 13. For fastening to a commercially available construction tripod, use the 5/8″ tripod mount 14.
- The holder 8 can be fastened to steel parts via the magnets 12.
- The holder 8 can be fastened to drywalls or wood walls with screws. For this, insert screws with a minimum length of 60 mm into the screw holes 10 of the holder.
- The holder 8 can also be fastened to pipes or similar beams using a commercially available strap by threading it through the opening 11 for strap attachment.

Working with the Tripod (Accessory)
A tripod 18 offers a stable, height-adjustable measuring support.
Place the measuring tool via the tripod mount 6 onto the 1/4″ male thread of the tripod and screw the locking screw of the tripod tight.

Working with the Measuring Plate (Accessory)
With the measuring plate 15, it is possible to project the laser mark onto the floor or the laser height onto a wall. With the zero field and the scale, the offset or drop to the required height can be measured and projected at another location.
This eliminates the necessity of precisely adjusting the measuring tool to the height to be projected.
The measuring plate 15 has a reflective coating that enhances the visibility of the laser beam at greater distances or in intense
sunlight. The brightness intensification can be seen only when viewing, parallel to the laser beam, onto the measuring plate.

Laser Viewing Glasses (Accessory)
The laser viewing glasses filter out the ambient light. This makes the red light of the laser appear brighter for the eyes.

- Do not use the laser viewing glasses as safety goggles.

  The laser viewing glasses are used for improved visualisation of the laser beam, but they do not protect against laser radiation.
- Do not use the laser viewing glasses as sun glasses or in traffic. The laser viewing glasses do not afford complete UV protection and reduce colour perception.

Maintenance and Service

Maintenance and Cleaning
Store and transport the measuring tool only in the supplied protective pouch.
Keep the measuring tool clean at all times.
Do not immerse the measuring tool in water or other fluids.
Wipe off debris using a moist and soft cloth. Do not use any cleaning agents or solvents.
Regularly clean the surfaces at the exit opening of the laser in particular, and pay attention to any fluff of fibres.
If the measuring tool should fail despite the care taken in manufacturing and testing procedures, repair should be carried out by an authorised after-sales service centre for Bosch power tools. Do not open the measuring tool yourself.
In all correspondence and spare parts orders, please always include the 10-digit article number given on the type plate of the measuring tool.
In case of repairs, send in the measuring tool packed in its protective pouch 16.

After-sales Service and Customer Assistance
Our after-sales service responds to your questions concerning maintenance and repair of your product as well as spare parts. Exploded views and information on spare parts can also be found under:
www.bosch-pt.com
Our customer service representatives can answer your questions concerning possible applications and adjustment of products and accessories.

Great Britain
Robert Bosch Ltd. (B.S.C.)
P.O. Box 98
Broadwater Park
North Orbital Road
Denham
Uxbridge
UB 9 5HJ
Tel. Service: +44 (0844) 736 0109
Fax: +44 (0844) 736 0146
E-Mail: **boschservicecentre@bosch.com**

Ireland
Origo Ltd.
Unit 23 Magna Drive
Magna Business Park
City West
Dublin 24
Tel. Service: +353 (01) 4 66 67 00
Fax: +353 (01) 4 66 68 88

Australia, New Zealand and Pacific Islands
Robert Bosch Australia Pty. Ltd.
Power Tools
Locked Bag 66
Clayton South VIC 3169
Customer Contact Center
Inside Australia:
Phone: +61 (01300) 307 044
Fax: +61 (01300) 307 045
Inside New Zealand:
Phone: +64 (0800) 543 353
Fax: +64 (0800) 428 570
Outside AU and NZ:
Phone: +61 (03) 9541 5555
www.bosch.com.au

Republic of South Africa
Customer service
Hotline: +27 (011) 6 51 96 00

Gauteng – BSC Service Centre
35 Roper Street, New Centre
Johannesburg
Tel.: +27 (011) 4 93 93 75
Fax: +27 (011) 4 93 01 26
E-Mail: **bsctools@icon.co.za**

KZN – BSC Service Centre

Unit E, Almar Centre
143 Crompton Street
Pinetown
Tel.: +27 (031) 7 01 21 20
Fax: +27 (031) 7 01 24 46
E-Mail: **bsc.dur@za.bosch.com**

Western Cape – BSC Service Centre
Democracy Way, Prosperity Park
Milnerton
Tel.: +27 (021) 5 51 25 77
Fax: +27 (021) 5 51 32 23
E-Mail: **bsc@zsd.co.za**

Bosch Headquarters
Midrand, Gauteng
Tel.: +27 (011) 6 51 96 00
Fax: +27 (011) 6 51 98 80
E-Mail: **rbsa-hq.pts@za.bosch.com**

People's Republic of China
China Mainland
Bosch Power Tools (China) Co., Ltd.
567, Bin Kang Road
Bin Jiang District 310052
Hangzhou, P.R.China
Service Hotline: 400 826 8484
Fax: +86 571 8777 4502
E-Mail: **contact.ptcn@cn.bosch.com**
www.bosch-pt.com.cn

HK and Macau Special Administrative Regions
Robert Bosch Hong Kong Co. Ltd.
21st Floor, 625 King's Road
North Point, Hong Kong
Customer Service Hotline: +852 2101 0235
Fax: +852 2590 9762
E-Mail: **info@hk.bosch.com**
www.bosch-pt.com.hk

Indonesia
PT. Multi Mayaka
Kawasan Industri Pulogadung
Jalan Rawa Gelam III No. 2
Jakarta 13930
Indonesia
Tel.: +62 (21) 46 83 25 22
Fax: +62 (21) 46 82 86 45/68 23
E-Mail: **sales@multimayaka.co.id**
www.bosch-pt.co.id

Philippines
Robert Bosch, Inc.
28th Floor Fort Legend Towers,
3rd Avenue corner 31st Street,
Fort Bonifacio Global City,

1634 Taguig City, Philippines
Tel.: +63 (2) 870 3871
Fax: +63 (2) 870 3870
matheus.contiero@ph.bosch.com
www.bosch-pt.com.ph

Bosch Service Center:
9725-27 Kamagong Street
San Antonio Village
Makati City, Philippines
Tel.: +63 (2) 899 9091
Fax: +63 (2) 897 6432
rosalie.dagdagan@ph.bosch.com

Malaysia
Robert Bosch (S.E.A.) Sdn. Bhd.
No. 8A, Jalan 13/6
G.P.O. Box 10818
46200 Petaling Jaya
Selangor, Malaysia
Tel.: +60 (3) 7966 3194
Fax: +60 (3) 7958 3838
cheehoe.on@my.bosch.com
Toll-Free: 1800 880 188
www.bosch-pt.com.my

Thailand
Robert Bosch Ltd.
Liberty Square Building
No. 287, 11 Floor
Silom Road, Bangrak
Bangkok 10500
Tel.: +66 (2) 6 31 18 79 – 18 88 (10 lines)
Fax: +66 (2) 2 38 47 83
Robert Bosch Ltd., P. O. Box 2054
Bangkok 10501, Thailand

Bosch Service – Training Centre
2869-2869/1 Soi Ban Kluay
Rama IV Road (near old Paknam Railway)
Prakanong District
10110 Bangkok
Thailand
Tel.: +66 (2) 6 71 78 00 – 4
Fax: +66 (2) 2 49 42 96
Fax: +66 (2) 2 49 52 99

Singapore
Robert Bosch (SEA) Pte. Ltd.
11 Bishan Street 21
Singapore 573943
Tel.: +65 6571 2772
Fax: +65 6350 5315
leongheng.leow@sg.bosch.com
Toll-Free: 1800 333 8333
www.bosch-pt.com.sg

Vietnam
Robert Bosch Vietnam Co. Ltd
10/F, 194 Golden Building
473 Dien Bien Phu Street
Ward 25, Binh Thanh District
84 Ho Chi Minh City
Vietnam
Tel.: +84 (8) 6258 3690 ext. 413
Fax: +84 (8) 6258 3692
hieu.lagia@vn.bosch.com
www.bosch-pt.com

Disposal
Measuring tools, accessories and packaging should be sorted for environmental-friendly recycling.
Do not dispose of measuring tools and batteries/rechargeable batteries into household waste!

Only for EC countries:
According to the European Guideline
2002/96/EC, measuring tools that are no longer usable, and according to the European Guideline 2006/66/EC, defective or used battery packs/batteries, must be collected separately and disposed of in an environmentally correct manner.
Batteries no longer suitable for use can be directly returned at:

Great Britain
Robert Bosch Ltd. (B.S.C.)
P.O. Box 98
Broadwater Park
North Orbital Road
Denham
Uxbridge
UB 9 5HJ
Tel. Service: +44 (0844) 736 0109
Fax: +44 (0844) 736 0146
E-Mail: boschservicecentre@bosch.com
Subject to change without notice.

Documents / Resources

	BOSCH GPL 5 Professional Self-Leveling Pointed Laser Level [pdf] Instruction Manual GPL 5 Professional, Self-Leveling Pointed Laser Level, Pointed Laser Level, GPL 5 Profession al, Laser Level

References

- Invented for life | Bosch Global
- bosch-powertools.com.ua
- bosch-pt.by
- Bosch Power Tools | Bosch Power Tools
- Bosch Power Tools | ■■ ■■ ■■
- Select your country | Bosch Power Tools
- __
- ____ | ____

- Bosch Power Tools | Bosch Power Tools
- Bosch Power Tools | Bosch Power Tools
- Bosch Power Tools | Bosch Power Tools
- Bosch Power Tools | Bosch Power Tools
- Ηλεκτρικά εργαλεία Bosch | Ηλεκτρικά εργαλεία Bosch
- bosch-pt.kz
- bosch-pt.ru
- Bosch România | Bosch în România
- Начало | Бош в България
- ■■■■ ■■■■■■■■■ | ■■■■ ■■■■■■■■■
- Invented for life | Bosch Global
- Home | Bosch in Australia
- Domovská stránka | Bosch Česká republika
- Innostavia tuotteita ja palveluita | Bosch Suomessa
- Strona główna | Bosch w Polsce
- Domov | Bosch Slovensko
- PT Learning Campus - Powertools
- PT Learning Campus - Powertools