

Entsorgung

Messwerkzeuge, Zubehör und Verpackungen sollen einer umweltgerechten Wiederverwertung zugeführt werden.

Werfen Sie Messwerkzeuge und Akkus/Batterien nicht in den Hausmüll!

Nur für EU-Länder:



Gemäß der europäischen Richtlinie 2012/19/EU müssen nicht mehr gebrauchsfähige Messwerkzeuge und gemäß der europäischen Richtlinie 2006/66/EG müssen defekte oder verbrauchte Akkus/Batterien getrennt gesammelt und einer umweltgerechten Wiederverwendung zugeführt werden.

Nicht mehr gebrauchsfähige Akkus/Batterien können direkt abgegeben werden bei:

Deutschland

Recyclingzentrum Elektrowerkzeuge
Osteroder Landstraße 3
37589 Kalefeld

Schweiz

Batrec AG
3752 Wimmis BE

Änderungen vorbehalten.

English

Safety Notes



All instructions must be read and observed in order to work safely with the measuring tool. The integrated protections in the measuring tool may be compromised if the measuring tool is not used in accordance with the instructions provided. Never make warning signs on the measuring tool unrecognisable. STORE THESE INSTRUCTIONS IN A SAFE PLACE AND INCLUDE THEM WITH THE MEASURING TOOL WHEN GIVING IT TO A THIRD PARTY.

- ▶ **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 (marked with number 12 in the representation of the measuring tool on the graphics page).**



Laser Radiation Class 2 IEC 60825-1:2014-05<1mW, 630-650 nm
do not stare into beam

- ▶ **If the text of the warning label is not in your national language, stick the provided warning label in your national language over it before operating for the first time.**



Do not direct the laser beam at persons or animals and do not stare into the direct or reflected laser beam yourself, not even from a distance. You could blind somebody, cause accidents or damage your eyes.

- ▶ **If laser radiation strikes your eye, you must deliberately close your eyes and immediately turn your head away from the beam.**
- ▶ **Do not make any modifications to the laser equipment.**
- ▶ **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.
- ▶ **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.



Keep the measuring tool and the rotating mount 13 away from cardiac pacemakers.

The magnets inside the measuring tool and the rotating mount generate a field that can impair the function of cardiac pacemakers.

- ▶ **Keep the measuring tool and the rotating mount 13 away from magnetic data media and magnetically sensitive equipment.** The effect of the magnets inside the measuring tool and the rotating mount 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 On/Off switch
- 3 Battery capacity indicator
- 4 Working without automatic levelling indicator

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- 5 Button for "laser point" operating mode
- 6 Button for "laser line" operating mode
- 7 Battery lid
- 8 Guide groove
- 9 Tripod mount 1/4"
- 10 Tripod mount 5/8"
- 11 Serial number
- 12 Laser warning label
- 13 Rotating mount (RM 1)
- 14 Guide rail
- 15 Fastening slot
- 16 Magnets
- 17 Ceiling clip*
- 18 Universal holder (BM 1)*
- 19 Protective pouch*
- 20 Case*
- 21 Inlay*
- 22 Laser target plate*
- 23 Construction tripod (BT 150)*
- 24 Telescopic rod (BT 350)*
- 25 Laser viewing glasses*

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

Technical Data

Point and line laser	GCL 2-15
Article number	3 601 K66 E..
Working range ¹⁾	
– Laser line	15 m
– Upward laser point	10 m
– Downward laser point	10 m
Levelling accuracy	
– Laser lines	±0.3 mm/m
– Laser points	±0.7 mm/m
Self-levelling range, typically	± 4°
Levelling duration, typically	< 4 s
Operating temperature	– 10 °C ... + 50 °C
Storage temperature	– 20 °C ... + 70 °C
Relative air humidity, max.	90 %
Laser class	2
Laser type	630 – 650 nm, < 1 mW
C ₆	1
Divergence	
– Laser point	0.8 mrad (full angle)
– Laser line	0.5 mrad (full angle)
Tripod mount	1/4", 5/8"
Batteries	3 x 1.5 V LRO6 (AA)

1) The working range can be decreased by unfavourable environmental conditions (e.g. direct sun irradiation).

The measuring tool can be clearly identified with the serial number **11** on the type plate.

Point and line laser

GCL 2-15

Operating duration in operating mode	
– Cross-line and point operation	6 h
– Cross-line operation	8 h
– Line and point operation	12 h
– Line operation	16 h
– Point operation	22 h

Weight according to EPTA-Procedure 01:2014	0.49 kg
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Dimensions	
– without rotating mount	146 x 83 x 117 mm
– with rotating mount	Ø 201 x 197 mm

Degree of protection	IP 54 (dust and splash water protected)
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1) The working range can be decreased by unfavourable environmental conditions (e.g. direct sun irradiation).

The measuring tool can be clearly identified with the serial number **11** on the type plate.

Assembly

Inserting/Replacing the Batteries

Alkali-manganese batteries are recommended for the measuring tool.

- Fold open the battery lid **7** and insert the batteries. When inserting, pay attention to the correct polarity according to the representation on the inside of the battery compartment.

If the batteries become weak, the battery capacity indicator **3** will flash green. The laser lines will also flash every 10 mins for approx. 5 s. The measuring tool can be operated for approx. 1 hour after the first flashing. If the batteries become empty, the laser lines will flash again directly before automatic shut-off.

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 self-discharge.

Working with the Rotating Mount RM 1 (see figures A1 – A2)

You can use the rotating mount **13** to rotate the measuring tool 360° around a central, always visible plumb point. This enables you to set up the laser lines precisely, without having to change the position of the measuring tool.

- Place the measuring tool with the guide groove **8** on the guide rail **14** of the rotating mount **13** and slide the measuring tool to the stop onto the platform.
To disconnect, pull the measuring tool in the opposite direction from the rotating mount.

Positioning possibilities of the rotating mount:

- standing on a flat surface,
- screwed to a vertical surface,
- on metallic surfaces using the magnets **16**,
- on metallic ceiling strips using the ceiling clip **17**.

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 a 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 to or falling down of the measuring tool.** Damage to the measuring tool can impair its accuracy. After heavy impact or shock, compare the laser lines or plumb beams with a known horizontal or vertical reference line or with already checked plumb points.
- ▶ **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 save energy, only switch the measuring tool on when you are using it.

- ▶ **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.
- To **switch on** the measuring tool, slide the On/Off switch **2** to position “**On**” (for working without automatic levelling) or to position “**On**” (for working with automatic levelling).
As soon as it is switched on, the measuring tool emits laser lines from the exit openings **1**.
- To **switch off** the measuring tool, slide the On/Off switch **2** to position “**Off**”.
The pendulum unit is locked when the tool is switched off.

When exceeding the maximum permitted operating temperature of 50 °C, the measuring tool switches off to protect the laser diode. After cooling down, the measuring tool is ready for operation and can be switched on again.

Automatic Shut-off

When no button on the measuring tool is pressed for approx. 120 minutes, the measuring tool automatically switches off to save the batteries.

- To switch the measuring tool back on after automatic shut-off, you can either slide the On/Off switch **2** to position “**Off**” first and then switch the measuring tool back on, or press either button **5** or button **6**.

Deactivating the Automatic Shut-off:

- To deactivate automatic shut-off, hold down button **6** for at least 3 s with the measuring tool switched on. If automatic shut-off is deactivated, the laser lines will flash briefly as confirmation.

Note: If the operating temperature exceeds 45°C, automatic shut-off can no longer be deactivated.

Activating the Automatic Shut-off:

- To activate the automatic shut-off, switch the measuring tool off and then on again.

Setting the operating mode (see figures B1 – F1)











The measuring tool has several operating modes between which you can switch at any time:

- **Cross-line and point operation:** The measuring tool generates a horizontal and a vertical laser line facing forward, a vertical laser point facing upward and a vertical laser point facing downward.
The laser lines cross at a 90° angle.
- **Point operation:** The measuring tool generates a vertical laser point facing upward and a vertical laser point facing downward.
- **Horizontal line operation:** The measuring tool generates a horizontal laser line facing forward.
- **Vertical line operation:** The measuring tool generates a vertical laser line facing forward.
If the measuring tool is positioned in the room, the vertical laser line is displayed on the ceiling beyond the upper laser point.
If the measuring tool is positioned directly against a wall, the vertical laser line generates an almost completely all-round laser line (360° line).




All modes except for point operation can be selected both with and without automatic levelling.

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Working with Automatic Levelling

Sequence of actions	Horizontal line operation	Vertical line operation	Point operation	Indicator 3 for battery capacity	Indicator 4 for working without automatic levelling	Figure
On/Off switch 2 in position “ On ”	● Cross-line operation	●	●	 green		B1
Press button for “laser line” operating mode 6 once	●	–	●	 green		C1
Press button for “laser line” operating mode 6 twice	–	●	●	 green		D1
Press button for “laser line” operating mode 6 three times	–	–	●	 green		E1
Press button for “laser line” operating mode 6 four times	● Cross-line operation	●	●	 green		B1









Point operation can be activated or deactivated regardless of the line operation setting:

Press button for “laser point” operating mode 5 once	● / –	● / –	–	 green	
Press button for “laser point” operating mode 5 twice	● / –	● / –	●	 green	

If the measuring tool is outside of the self-levelling range, the laser lines and/or points will flash quickly.

If during work with automatic levelling you switch to the “working without automatic levelling” mode (On/Off switch **2** in position “**On**”) the first combination of this mode’s indicators is always activated.

Working without Automatic Levelling

Sequence of actions	Horizontal line operation	Vertical line operation	Point operation	Indicator 3 for battery capacity	Indicator 4 for working without automatic levelling	Figure
On/Off switch 2 in position “ On ”	● Cross-line operation	●	–	 green	 red	F1
Press button for “laser line” operating mode 6 once	●	–	–	 green	 red	
Press button for “laser line” operating mode 6 twice	–	●	–	 green	 red	
Press button for “laser line” operating mode 6 three times	● Cross-line operation	●	–	 green	 red	F1

The laser lines flash slowly in the “working without automatic levelling” mode.

If during work without automatic levelling you switch to the “working with automatic levelling” mode (On/Off switch **2** in position “**On**”) the first combination of this mode’s indicators is always activated.

Automatic Levelling

Working with Automatic Levelling (see figures **B1 – E1**)

- Position the measuring tool on a level, firm support or attach it to the rotating mount **13**.
- For work with automatic levelling, slide the On/Off switch **2** to position “**On**”.

After switching on, the levelling function automatically compensates irregularities within the self-levelling range of $\pm 4^\circ$.

The measuring tool is levelled in as soon as the laser lines no longer flash.

If the automatic levelling function is not possible, e.g. because the surface on which the measuring tool stands deviates by more than 4° from the horizontal plane, the laser beams flash. In this case, bring the measuring tool to the level position and wait for the self-levelling to take place.

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.

Working without Automatic Levelling (see figure F1)

- For work without automatic levelling, slide the On/Off switch **2** to position “**On**”. When automatic levelling is switched off, the laser lines flash continuously.

When automatic levelling is switched off, you can hold the measuring tool freely in your hand or place it on an inclined surface. The laser beams no longer necessarily run vertical to each other.

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.

In addition to external influences, device-specific influences (e.g. falls or heavy impacts) can also lead to deviations. For this reason, check the levelling accuracy each time before beginning work.

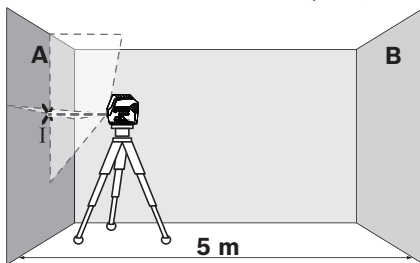
First, check both the height as well as the levelling accuracy of the horizontal laser line, then the levelling accuracy of the vertical laser line.

Should the measuring tool exceed the maximum deviation during one of the tests, please have it repaired by a Bosch after-sales service.

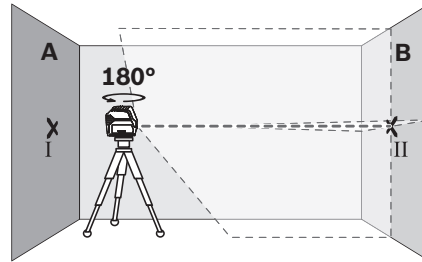
Checking the Height Accuracy of the Horizontal Line

For this check, a free measuring distance of 5 m on a firm surface between two walls A and B is required.

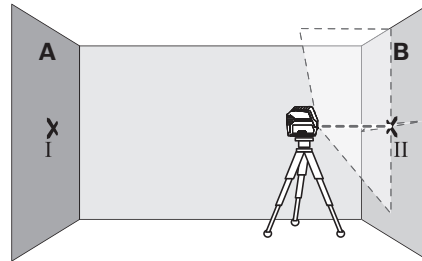
- Mount the measuring tool onto a tripod or place it on a firm and level surface close to wall A. Switch on the measuring tool. Select cross-line operation with automatic levelling.
- Direct the laser against the close wall A and allow the measuring tool to level in. Mark the centre of the point where the laser lines cross each other on the wall (point I).



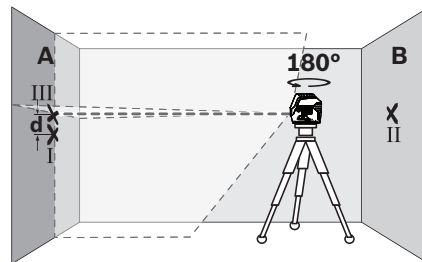
- Turn the measuring tool by 180°, allow it to level in and mark the cross point of the laser lines on the opposite wall B (point II).



- 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 a tripod or by underlaying, if required) in such a manner that the cross point of the laser lines is projected against the previously marked point II on the wall B.



- Without changing the height, turn around the measuring tool by 180°. Direct it against the wall A in such a manner that the vertical laser line runs through the already marked point I. Allow the measuring tool to level in and mark the cross point of the laser lines on the wall A (point III).



- The difference **d** of both marked points I and III on wall A indicates the actual height deviation of the measuring tool.

The maximum permitted deviation d_{\max} can be calculated as follows:

d_{\max} = double the distance between the walls x 0.3 mm/m

Example: If the distance between the walls is 5 m, the maximum deviation is

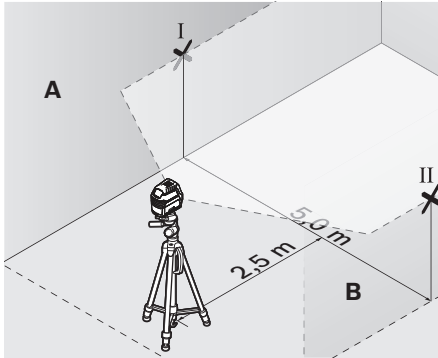
$d_{\max} = 2 \times 5 \text{ m} \times 0.3 \text{ mm/m} = 3 \text{ mm}$. The marks must therefore be maximum 3 mm apart.

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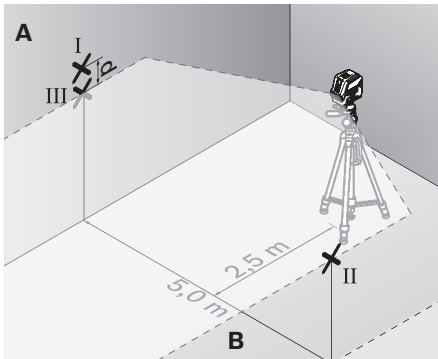
Checking the Levelling Accuracy of the Horizontal Line

For the check, a free surface of approx. 5 x 5 metres is required.

- Set up the measuring tool on a firm, level surface between both walls A and B. Allow the measuring tool to level in while in horizontal operation.
- At a distance of 2.5 metres from the measuring tool, mark the centre of the laser line (point I on wall A and point II on wall B) on both walls.



- Set up the measuring tool 5 metres away turned by 180° and allow it to level in.
- Align the height of the measuring tool (using a tripod or by underlaying, if required) in such a manner that the centre of the laser line is projected exactly against the previously marked point II on wall B.
- Mark the centre of the laser line as point III (vertically above or below point I) on the wall A.



- The difference **d** of both marked points I and III on wall A indicates the actual deviation of the measuring tool from the level plane.

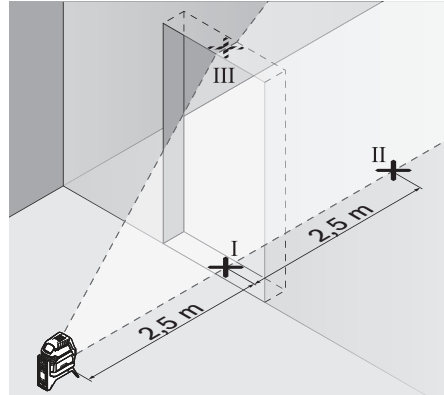
The maximum permitted deviation d_{\max} can be calculated as follows:

$d_{\max} = \text{double the distance between the walls} \times 0.3 \text{ mm/m}$
 Example: If the distance between the walls is 5 m, the maximum deviation is
 $d_{\max} = 2 \times 5 \text{ m} \times 0.3 \text{ mm/m} = 3 \text{ mm}$. The marks must therefore be maximum 3 mm apart.

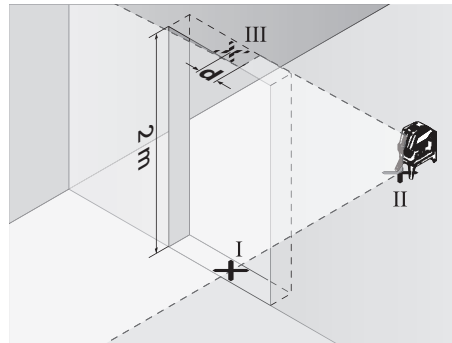
Checking the Levelling Accuracy of the Vertical Line

For this check, a door opening is required with at least 2.5 m of space (on a firm surface) to each side of the door.

- Position the measuring tool on a firm, level surface (not on a tripod) 2.5 m away from the door opening. Allow the measuring tool to level in while in cross-line operation mode, and direct the laser beams at the door opening.
- Mark the centre of the vertical laser line at the floor of the door opening (point I), at a distance of 5 m beyond the other side of the door opening (point II) and at the upper edge of the door opening (point III).



- Position the measuring tool on the other side of the door opening directly behind point II. Allow the measuring tool to level in and align the vertical laser line in such a manner that its centre runs exactly through points I and II.



- The difference **d** between point III and the centre of the laser line at the upper edge of the door opening results in the actual deviation of the measuring tool from the vertical plane.
- Measure the height of the door opening.

The maximum permitted deviation d_{\max} is calculated as follows:

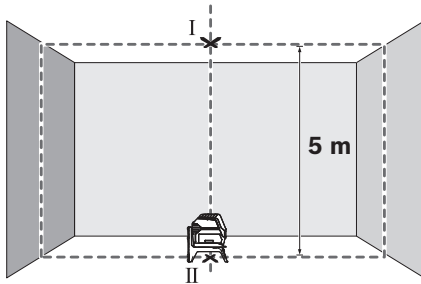
$d_{\max} = \text{double height of the door opening} \times 0.3 \text{ mm/m}$

Example: With a door opening height of 2 metres, the maximum permitted deviation is
 $d_{\max} = 2 \times 2 \text{ m} \times 0.3 \text{ mm/m} = 1.2 \text{ mm}$. Thus, the marks must not be more than 1.2 mm apart.

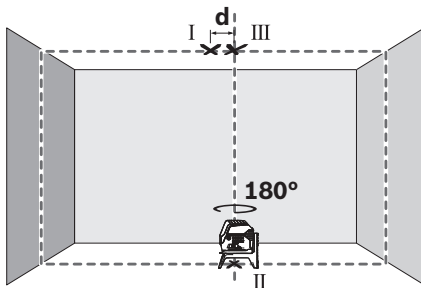
Checking plumb accuracy

For this check, a free measuring distance of approx. 5 m between floor and ceiling on a firm surface is required.

- Mount the measuring tool onto the rotating mount and place it on the floor.
- Switch the measuring tool on and allow it to level.
- Mark the centre of the upper crossing point on the ceiling (point I). Also mark the centre of the bottom laser point on the floor (point II).



- Rotate the measuring tool 180°. Position it so that the centre of the lower laser point is on the point II which has already been marked. Allow the measuring tool to level. Mark the centre of the upper laser point (point III).



- The difference d of both marked points I and III on the ceiling results in the actual deviation of the measuring tool to the plumb line.

The maximum permitted deviation d_{\max} can be calculated as follows:

$d_{\max} = \text{double the distance between floor and ceiling} \times 0.7 \text{ mm/m}$

Example: If the distance from the floor to the ceiling is 5 m, the maximum deviation is

$d_{\max} = 2 \times 5 \text{ m} \times 0.7 \text{ mm/m} = 7 \text{ mm}$. The marks must therefore be maximum 7 mm apart.

Working Advice

- ▶ For marking, always use only the centre of the laser point or the laser line. The size of the laser point as well as the width of the laser line change with distance.

Working with the Tripod (Accessory)

A tripod offers a stable, height-adjustable measuring support. Position the measuring tool with the 1/4" tripod mount **9** onto the thread of the tripod or a commercially available camera tripod. For fastening to a commercially available construction tripod, use the 5/8" tripod mount **10**. Tighten the measuring tool with the tripod mounting stud.

- Adjust the tripod roughly before switching on the measuring tool.

Fastening with the Universal Holder (Accessory) (see figure H)

With the universal holder **18**, you can fasten the measuring tool, e.g., to vertical surfaces, pipes or magnetisable materials. The universal holder is also suitable for use as a ground tripod and makes the height adjustment of the measuring tool easier.

- Adjust the universal holder roughly before **18** switching on the measuring tool.

Working with the Laser Target Plate (see figure H)

The laser target plate **22** increases the visibility of the laser beam under unfavourable conditions and at large distances.

The reflective part of the laser target plate **22** improves the visibility of the laser line. Thanks to the transparent part, the laser line is also visible from the back side of the laser target 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.

Work Examples (see figures B2 – F2, H and I)

Applicational examples for the measuring tool can be found on the graphics pages.

Always position the measuring tool close to the surface or edge you want to check, and allow it to level in prior to each measurement.

Always measure the distances between the laser beam and a surface or edge at two points as far as possible away from each other.

Maintenance and Service

Maintenance and Cleaning

- 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 or fibres.

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After-sales Service and Application Service

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

Bosch's application service team will gladly answer questions concerning our products and their accessories.

In all correspondence and spare parts orders, please always include the 10-digit article number given on the nameplate of the product.

Great Britain

Robert Bosch Ltd. (B.S.C.)
P.O. Box 98
Broadwater Park
North Orbital Road
Denham
Uxbridge
UB 9 5HJ

At www.bosch-pt.co.uk you can order spare parts or arrange the collection of a product in need of servicing or repair.

Tel. Service: (0344) 7360109

E-Mail: boschservicecentre@bosch.com

Ireland

Origo Ltd.
Unit 23 Magna Drive
Magna Business Park
City West
Dublin 24
Tel. Service: (01) 4666700
Fax: (01) 4666888

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Phone: +61 3 95415555
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Republic of South Africa**Customer service**

Hotline: (011) 6519600

Gauteng – BSC Service Centre

35 Roper Street, New Centre
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Tel.: (011) 4939375
Fax: (011) 4930126
E-Mail: bsctools@icon.co.za

KZN – BSC Service Centre

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Pinetown
Tel.: (031) 7012120
Fax: (031) 7012446
E-Mail: bsc.dur@za.bosch.com

Western Cape – BSC Service Centre

Democracy Way, Prosperity Park
Milnerton
Tel.: (021) 5512577
Fax: (021) 5513223
E-Mail: bsc@zsd.co.za

Bosch Headquarters

Midrand, Gauteng
Tel.: (011) 6519600
Fax: (011) 6519880
E-Mail: rbsa-hq.pts@za.bosch.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 2012/19/EU, 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

At www.bosch-pt.co.uk you can order spare parts or arrange the collection of a product in need of servicing or repair.

Tel. Service: (0344) 7360109

E-Mail: boschservicecentre@bosch.com

Subject to change without notice.

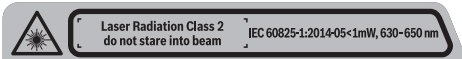
Français

Avertissements de sécurité



Pour une utilisation sans danger et en toute sécurité de l'appareil de mesure, lisez attentivement toutes les instructions et tenez-en compte. Si l'appareil de mesure n'est pas utilisé conformément aux présentes instructions, les dispositifs de protection intégrés dans l'appareil sont susceptibles d'être endommagés. Faites en sorte que les étiquettes d'avertissement se trouvant sur l'appareil de mesure restent toujours lisibles. **CONSERVEZ CES INSTRUCTIONS DANS UN LIEU SÛR ET REMETTEZ-LES À TOUT NOUVEL UTILISATEUR DE L'APPAREIL DE MESURE.**

- ▶ **Attention – si d'autres dispositifs d'utilisation ou d'ajustage que ceux indiqués ici sont utilisés ou si d'autres procédés sont appliqués, ceci peut entraîner une exposition dangereuse au rayonnement.**
- ▶ **Cet appareil de mesure est fourni avec une plaque d'avertissement (dans la représentation de l'appareil de mesure se trouvant sur la page des graphiques elle est marquée du numéro 12).**



- ▶ **Avant la première mise en service, recouvrir le texte de la plaque d'avertissement par l'autocollant fourni dans votre langue.**



Ne pas diriger le faisceau laser vers des personnes ou des animaux et ne jamais regarder soi-même dans le faisceau laser. Vous risquez sinon d'éblouir des personnes, de causer des accidents ou de blesser les yeux.

- ▶ **Au cas où le faisceau laser frappe un œil, fermez immédiatement les yeux et déplacez la tête pour l'éloigner du faisceau. Ne jamais apporter de modifications au dispositif laser.**
- ▶ **Ne jamais apporter de modifications au dispositif laser.**
- ▶ **Ne pas utiliser les lunettes de vision du faisceau laser en tant que lunettes de protection.** Les lunettes de vision du faisceau laser servent à mieux visualiser le faisceau laser, elles ne protègent cependant pas du rayonnement laser.
- ▶ **Ne pas utiliser les lunettes de vision du faisceau laser en tant que lunettes de soleil ou en circulation routière.** Les lunettes de vision du faisceau laser ne protègent pas parfaitement contre les rayons ultra-violet et réduisent la perception des couleurs.
- ▶ **Ne faire réparer l'appareil de mesure que par une personne qualifiée et seulement avec des pièces de rechange d'origine.** Ceci permet d'assurer la sécurité de l'appareil de mesure.

- ▶ **Ne pas laisser les enfants utiliser l'appareil de mesure laser sans surveillance.** Ils risqueraient d'éblouir d'autres personnes par mégarde.
- ▶ **Ne pas faire fonctionner les appareils de mesure en atmosphère explosive, par exemple en présence de liquides inflammables, de gaz ou de poussières.** L'appareil de mesure produit des étincelles qui peuvent enflammer les poussières ou les vapeurs.



Tenir l'appareil de mesure et le support pivotant 13 éloignés des stimulateurs cardiaques. Les aimants de l'appareil de mesure et du support pivotant génèrent un champ magnétique susceptible d'altérer le fonctionnement de stimulateurs cardiaques.

- ▶ **Tenir l'appareil de mesure et le support pivotant 13 éloignés de supports de données magnétiques et d'appareils sensibles aux champs magnétiques.** Les aimants de l'appareil de mesure et du support pivotant peuvent provoquer des pertes de données irréversibles.

Description et performances du produit

Dépliez le volet sur lequel l'appareil de mesure est représenté de manière graphique. Laissez le volet déplié pendant la lecture de la présente notice d'utilisation.

Utilisation conforme

L'appareil de mesure est conçu pour déterminer et vérifier des lignes horizontales et verticales ainsi que des points d'aplomb.

Éléments de l'appareil

La numérotation des éléments de l'appareil se réfère à la représentation de l'appareil de mesure sur la page graphique.

- 1 Orifice de sortie du faisceau laser
- 2 Interrupteur Marche/Arrêt
- 3 Affichage de l'autonomie de la batterie
- 4 Mode Opérateur sans nivellement automatique
- 5 Touche de fonction « Point laser »
- 6 Touche de fonction « Ligne laser »
- 7 Couvercle du compartiment à piles
- 8 Rainure de guidage
- 9 Raccord de trépied 1/4"
- 10 Raccord de trépied 5/8"
- 11 Numéro de série
- 12 Plaque signalétique du laser
- 13 Support pivotant (RM 1)
- 14 Glissière de guidage
- 15 Trou oblong de fixation
- 16 Aimants
- 17 Attaches de plafond*
- 18 Support de fixation universelle (BM 1)*
- 19 Etui de protection*
- 20 Coffret*