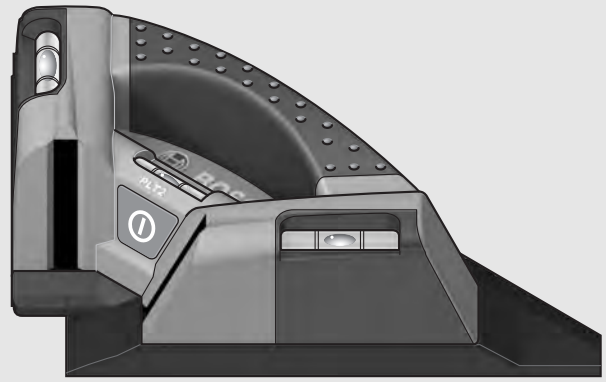


Robert Bosch GmbH
Power Tools Division
70745 Leinfelden-Echterdingen
Germany

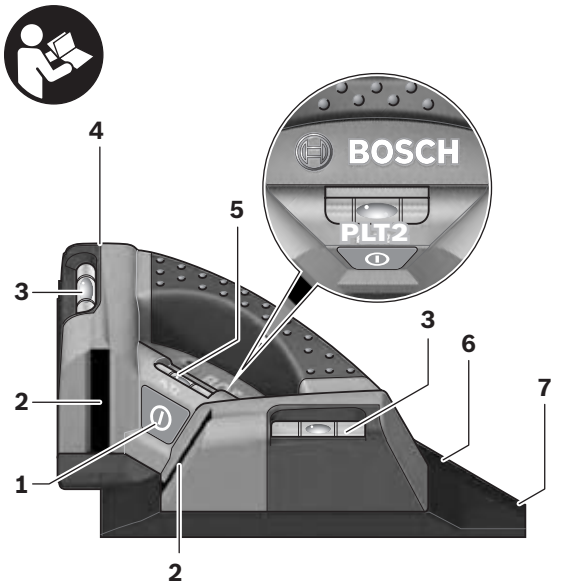
www.bosch-pt.com

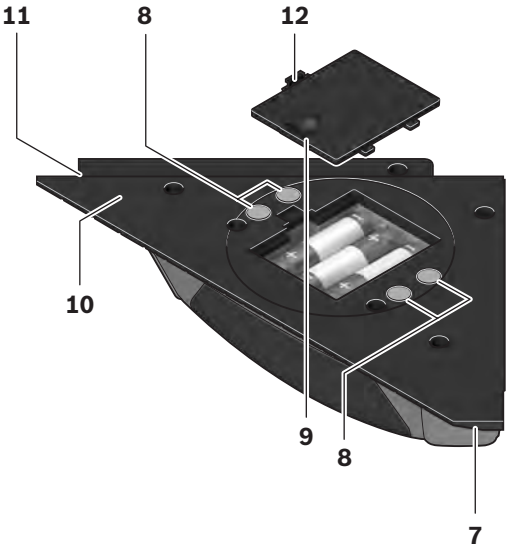
1 609 929 T81 (2009.08) T / 104 **WEU**

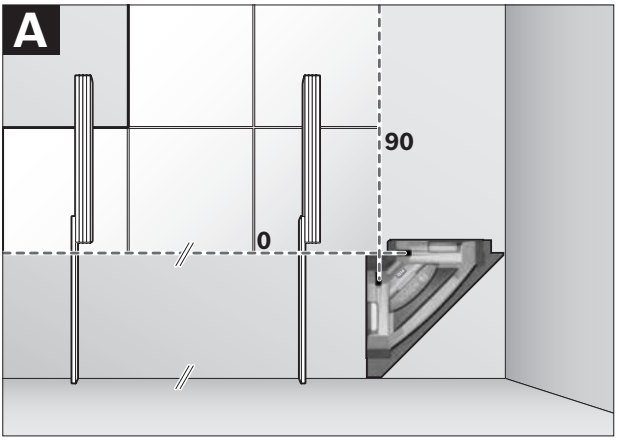
PLT 2

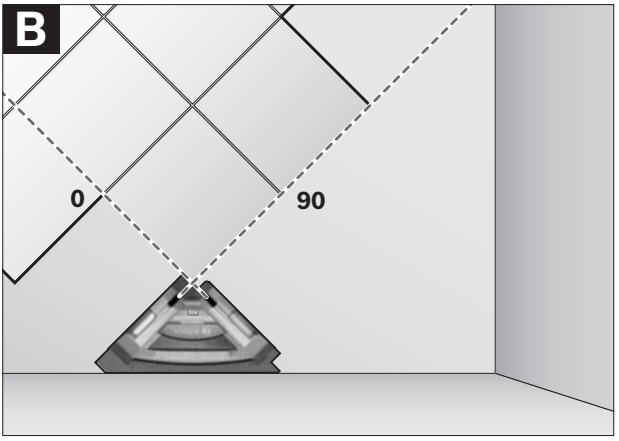
BOSCH

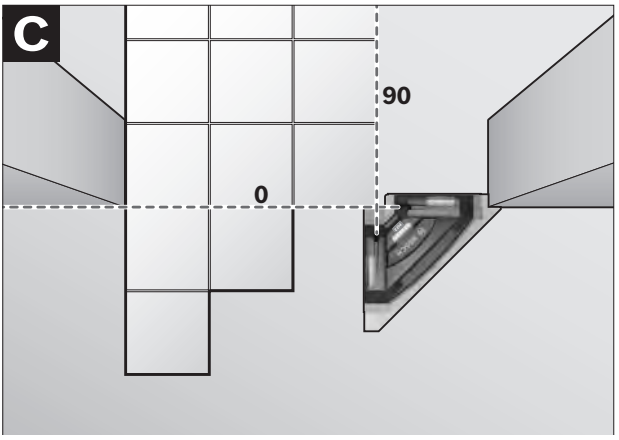
de Originalbetriebsanleitung
en Original instructions
fr Notice originale
es Manual original
pt Manual original
it Istruzioni originali
nl Oorspronkelijke gebruiksaanwijzing
da Original brugsanvisning
sv Bruksanvisning i original
no Original driftsinstruks
fi Alkuperäiset ohjeet
el Πρωτότυπο οδηγιών χρήσης
tr Orijinal işletme talimatı

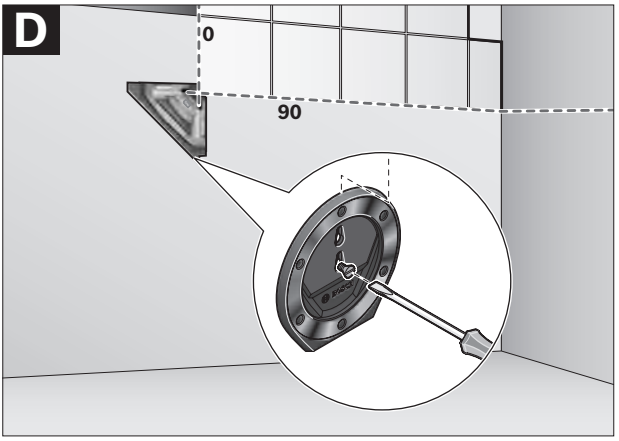


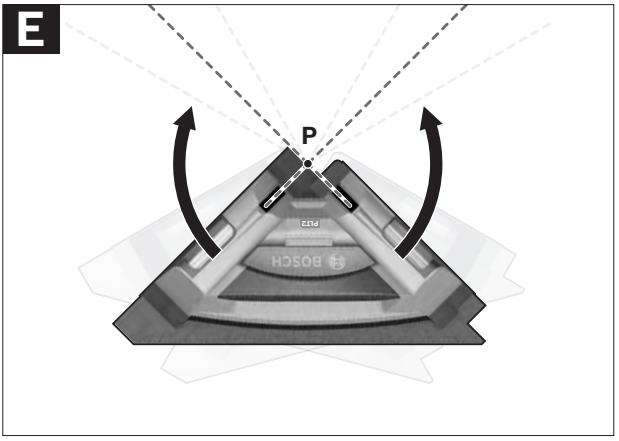


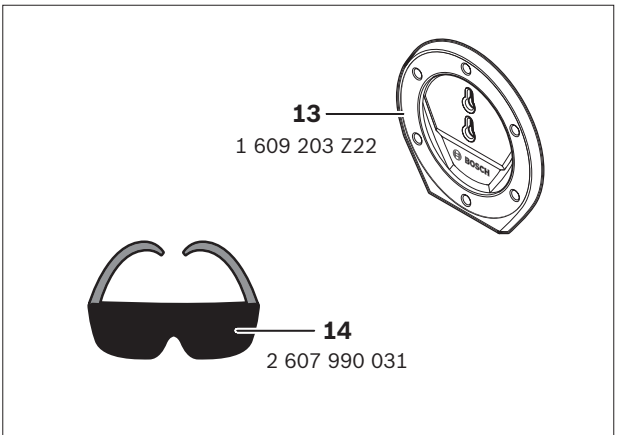












Safety Notes

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 delivered with a warning label in German language (marked with the number 4 in the representation of the measuring tool on the graphic page).

- **Before putting into operation for the first time, attach the supplied sticker in your national language over the German text on the warning label.**
- **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 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 away from cardiac pacemakers. The magnets **8** generate a field that can impair the function of cardiac pacemakers.

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

Functional Description

Intended Use

The measuring tool is intended for horizontal and diagonal alignment of tiles and laminate flooring panels.

The measuring tool 3 603 F64 000 is suitable for operation exclusively in enclosed work sites.

Product Features

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

1 On/Off switch
2 Exit opening for laser beam
3 Spirit levels for vertical and horizontal alignment
4 Laser warning label
5 Spirit level for diagonal alignment
6 90° scale with 5° graduation
7 T-edge for alignment
8 Magnets
9 Battery lid
10 Bottom plate
11 L-edge for alignment
12 Latch of battery lid
13 Wall holder
14 Laser viewing glasses*

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

Technical Data

Tile laser	PLT 2
Article number	3 603 F64 000
Working range	7 m[1)]
Angular accuracy	±0.5 mm/m
Operating temperature	+5 °C ... +40 °C
Storage temperature	– 20 °C ... +70 °C
Relative air humidity, max.	90 %
Laser class	2
Laser type	635 nm, <2 mW
C_6	>2
Batteries	3 x 1.5 V LR6 (AA)
Operating life time, approx.	15 h
Weight according to EPTA-Procedure 01/2003	360 g
Dimensions	240 x 128 x 59 mm

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

Please observe the article number on the type plate of your measuring tool. The trade names of the individual measuring tools may vary.

Assembly

Inserting/Replacing the Battery

Alkali-manganese batteries are recommended for the measuring tool.

To open the battery lid **9**, press on the latch **12** and fold the battery lid up. Insert the batteries. When inserting, pay attention to the correct polarity according to the representation on the inside of the battery compartment.

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 longer periods. In case of large variations in temperature, allow the measuring tool to adjust to the ambient temperature before putting it into operation.
- **Avoid heavy impact to or falling down of the measuring tool.** Damage to the measuring tool can impair its accuracy. After heavy impact or falling down, check the angle accuracy between the 0° and 90° laser line with the angle of a precision square.

Switching On and Off

To **switch on** the measuring tool, briefly press the On/Off switch **1**. Immediately after switching on, the measuring tool sends out the two laser lines at 0° and 90°.

- **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 **1** again.

- **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.

Working Advice

- **Always place the measuring tool level on the floor or fasten it plane against the wall.** When placing down or fastening unevenly, the angle will not be precisely 90°.
- **When laying floor tiles, do not use spirit levels 3 and 5 for levelling of the measuring tool.** Spirit levels **3** and **5** are used only for alignment against walls. When laying floor tiles, the bubbles of the spirit levels can be within the marks, without the measuring tool being level.
- **Always use the centre of the laser line for marking.** The width of the laser line changes with the distance.
- **Never use the laser lines that the measuring tool standing on the floor projects on the wall for alignment.** The measuring tool is not self-levelling. Therefore, the line on the wall is distorted.

- ▶ **The reference point for alignment of tiles is the intersecting point P of the laser lines, directly in front of the measuring tool. To project an angle, the measuring tool must be rotated at this intersecting point, see figure E.**
- ▶ **Position the measuring tool only on a clean wall holder 13.** The measuring tool cannot stand level on an uneven, soiled wall holder surface, which could lead to faulty measuring results.

Positioning the Measuring Tool

When **working on the floor**, place down the measuring tool with the bottom plate **10** facing the floor. Place the T-edge **7** of the tool against a wall so that the 0° laser line runs parallel to the reference line (e.g. a wall), see **figure A**. Measure the clearance between laser line and reference line directly at the measuring tool and as far away as possible from the measuring tool. Align the measuring tool in such a manner that both clearances are equal.

When **working on a wall**, firstly fasten the wall holder **13** to the wall, e.g. by placing the wall holder via an opening onto a screw that lightly projects out of the wall. Then tighten the screw to secure the wall holder, see **figure D**. Fasten the measuring tool with the magnets **8** via the bottom plate **10** against the wall holder **13**.

Spirit levels **3** and **5** aid in precisely positioning the laser line against the wall.

– For **horizontal alignment**, the bubble must be within the marks of the spirit level **3** which lays in the extension of the horizontal laser line, see **figure A**.
– For **diagonal alignment**, the bubble must be within the marks of spirit level **5**, see **figure B**.

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.

Work Examples

Laying of Square Tiles (see figure A)

Position the measuring tool in a corner in such a manner that the 0° laser line runs parallel to a wall and the T-edge **7** of the measuring tool faces against the wall. Lay the first square tile in such a manner that any right-angled side of the tile is seated flush on the 0° and the 90° laser line.

Laying with Diagonal Pattern (see figure B)

Position the measuring tool in such a manner that the 90° scale **6** faces directly against a wall. Begin with the first diagonal tile at intersecting point P.

Laying from Edges (see figure C)

Position the measuring tool with the L-edge **11** facing against the edge from which on you want to lay the tiles. The 90° laser line should run parallel to this edge. The 0° laser line now marks the bottom tile row.

Tile laying in Kitchenettes (see figure D)

Firstly, determine the height at which the first tile row is supposed to begin. Attach the measuring tool vertically to the wall so that the 90° laser line displays the bottom edge of the first tile row.

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 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.

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

Disposal

Measuring tools, accessories and packaging should be sorted for environmental-friendly recycling.

Only for EC countries:

Do not dispose of measuring tools into household waste!
According the European Guideline 2002/96/EC for Waste Electrical and Electronic Equipment and its implementation into national right, measuring tools that are no longer usable must be collected separately and disposed of in an environmentally correct manner.

Battery packs/batteries:

Do not dispose of battery packs/batteries into household waste, fire or water. Battery packs/batteries should be collected, recycled or disposed of in an environmental-friendly manner.

Only for EC countries:
Defective or dead out battery packs/batteries must be recycled according the guideline 91/157/EEC.

Battery packs/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.