

PLR 15

Robert Bosch GmbH
Power Tools Division
70745 Leinfelden-Echterdingen
Germany

www.bosch-pt.com

2 609 140 991 (2013.05) O / 136 WEU

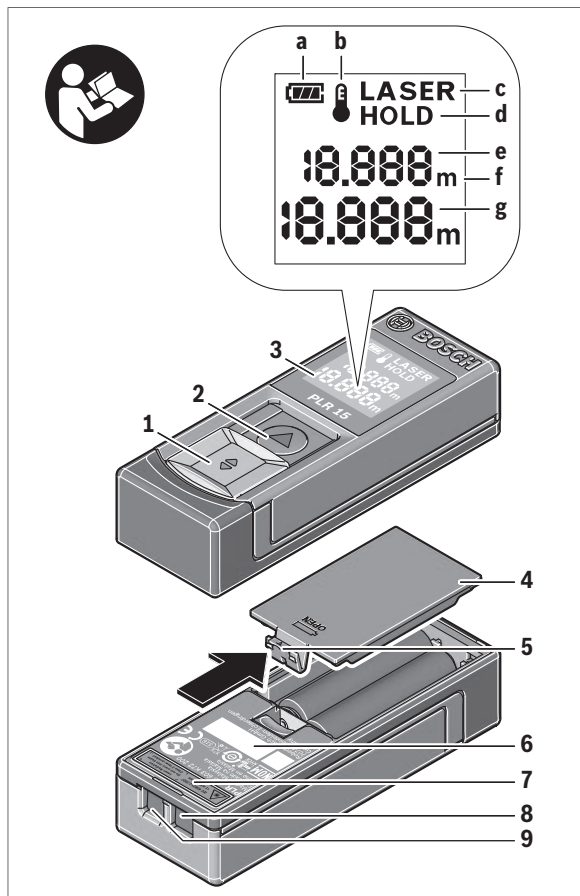


2 609 140 991

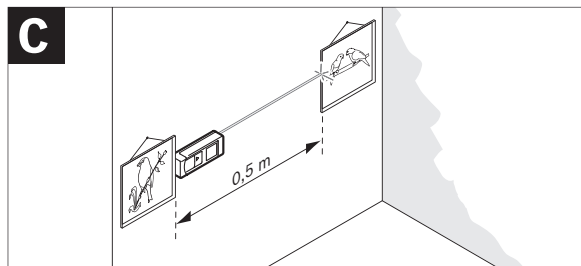
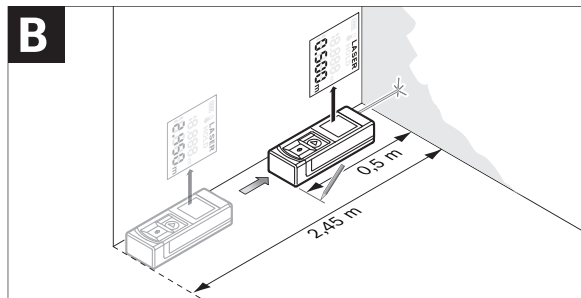
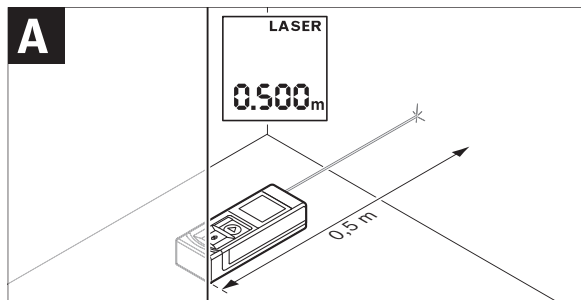


- | | |
|-------------------------------------------------|-------------------------------------|
| de Originalbetriebsanleitung | tr Orijinal işletme talimatı |
| en Original instructions | ar تعليمات التشغيل الأصلية |
| fr Notice originale | |
| es Manual original | |
| pt Manual original | |
| it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





4 |



14 | English

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



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.

English | 15

- ▶ **The measuring tool is provided with a warning label (marked with number 7 in the representation of the measuring tool on the graphics page).**



- ▶ **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 laser beam yourself.** This measuring tool produces laser class 2 laser radiation according to IEC 60825-1. This can lead to persons being blinded.
- ▶ **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.

Product Description and Specifications

Intended Use

The measuring tool is intended for measuring distances, lengths, heights, and clearances. The measuring tool is suitable for measuring indoors.

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 HOLD button

16 | English

- 3** Display
- 4** Battery lid
- 5** Latch of battery lid
- 6** Serial number
- 7** Laser warning label
- 8** Reception lens
- 9** Laser beam outlet

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

Display Elements

- a** Battery low indicator
- b** Temperature warning
- c** Laser switched on
- d** Measurement hold
- e** Previous measuring value
- f** Unit of measure
- g** Current measuring value

Technical Data

Digital Laser Rangefinder	PLR 15
Article number	3 603 F72 000
Measuring range (typical)	0.15 – 15 m ^{A)}
Measuring accuracy (typical)	± 3.0 mm ^{B)}
Lowest indication unit	1 mm
Measuring duration	
typical	0.5 s
maximal	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
Laser beam diameter (at 25 °C) and at 10 m distance, approx.	9 mm

English | 17

Digital Laser Rangefinder		PLR 15
Batteries	2 x 1.5 V LR03 (AAA)	
Battery service life in measuring operation, approx.	5 h	
Weight according to EPTA-Procedure 01/2003	0.1 kg	
Dimensions	100 x 36 x 23 mm	

A) The working range increases depending on how well the laser light is reflected from the surface of the target (scattered, not reflective) and with increased brightness of the laser point to the ambient light intensity (interior spaces, twilight). In unfavourable conditions, e.g., with extreme interior illumination or a badly reflecting surface, the measuring range may be limited.

B) In unfavourable conditions, e.g., with extreme interior illumination, badly reflecting surface or the room temperature deviating heavily from 25 °C, the maximum deviation can be up to ± 7 mm per 15 m. In favourable conditions, a deviation influence of ± 0.05 mm/m must be taken into account.

The measuring tool can be clearly identified with the serial number **6** on the type plate.

Assembly

Inserting/Replacing the Batteries

Alkali-manganese batteries are recommended for the measuring tool.

To open the battery lid **4**, press the latch **5** in the direction of the arrow and remove the battery lid. Insert the batteries. When inserting, pay attention to the correct polarity according to the representation on the inside of the battery compartment.

When the battery symbol \Rightarrow appears for the first time on the display, measurements are still possible for approx. 15 minutes. When the battery symbol flashes, the batteries must be replaced; measurements are no longer possible.

Replace all batteries at the same time. Only use same-brand batteries with the identical battery capacity.

18 | English

- ▶ **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

- ▶ **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.
- ▶ **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 to or falling down of the measuring tool.** After severe exterior effects to the measuring tool, it is recommended to carry out a check (see *Checking the Measuring Tool*, page 21) each time before continuing to work.

Switching On and Off

To **switch on** the measuring tool, push the On/Off switch **1** toward the rear. When switching on the measuring tool, the laser beam is switched on. The **LASER** indicator flashes on the display.

To **switch off** the measuring tool, push the On/Off switch **1** toward the front.

Measuring Procedure

After the measuring tool is switched on, continuous measurement takes place. Aim the laser beam at the target surface. The current measuring value **g** is displayed in the bottom line of the display (see figure A). During continuous measurement, the measuring tool can be moved relative to the target, whereby the current measuring value **g** is updated approx. every 0.5 seconds in the bottom line of the display (see figure B). In this manner, as an example, you can move a certain distance away from a wall, while the actual distance can always be read. The **LASER** indicator flashes on the display.

The rear edge of the measuring tool is preset as the reference plane for the measurement.

For a wall to wall measurement, as an example, position the measuring tool with its rear edge against the initial wall.

► **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.**

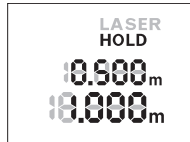
HOLD Function (see Figure B)



Press the **HOLD** button **2** to stop the measuring procedure. The laser beam is switched off and the **HOLD** indication appears on the display. The current measuring value is still displayed in the bottom line of the display, but is no longer continuously updated.



Press the **HOLD** button **2** once more to switch the laser on again. The **LASER** indicator flashes on the display. The previous measuring value is displayed in the top line. The continuously updated/current measuring value is displayed in the bottom line.



Press the **HOLD** button **2** once more to stop the measuring procedure again. The laser beam is switched off and the **HOLD** indication appears on the display. The previous measuring value is displayed in the top line. The current measuring value is displayed in the bottom line, but is no longer continuously updated.

When no button on the measuring tool is pressed for approx. 5 minutes, the measuring tool automatically switches off to save the batteries.

When a measuring value was held using the **HOLD** function, it is retained after the automatic shut-off. After switching the measuring tool on again by pressing the **HOLD** button **2**, the previous measuring value is indicated in the top line of the display.

20 | English

Working Advice**General Information**

The reception lens **8** and the laser beam outlet **9** must not be covered when taking a measurement.

Measurement takes place at the centre of the laser beam, even when target surfaces are sighted at an incline.

Influence Effects on the Measuring Range

The measuring range depends on the light conditions and the reflection properties of the target surface.

Influence Effects on the Measuring Result

Due to physical effects, faulty measurements cannot be excluded when measuring on different surfaces. Included here are:

- Transparent surfaces (e.g., glass, water),
- Reflecting surfaces (e.g., polished metal, glass),
- Porous surfaces (e.g. insulation materials),
- Structured surfaces (e.g., roughcast, natural stone).

Also, air layers with varying temperatures or indirectly received reflections can affect the measured value.

Troubleshooting Causes and Corrective Measures

Cause	Corrective Measure
Temperature warning indicator (b) flashing; measurement not possible	
Measuring tool not within the operating temperature range between -10 °C and $+40\text{ °C}$.	Wait until the measuring tool has reached the operating temperature
Battery low indicator (a) appears	
Battery voltage decreasing (measurement still possible).	Replace batteries
Battery low indicator (a) flashing; measurement not possible	
Battery voltage too low	Replace batteries
All indicators on the display flash	
The measuring tool is defective.	Contact the Customer Service

Cause	Corrective Measure
The laser beam outlet 9 or the reception lens 8 are misted up (e. g. due to a rapid temperature change).	Wipe the laser beam outlet 9 and/or the reception lens 8 dry using a soft cloth

The Err indication is displayed after pressing the HOLD button

Unreliable measuring result

The target surface does not reflect correctly (e. g. water, glass).

The laser beam outlet 9 or the reception lens 8 are covered.	Cover off the target surface
	Make sure that the laser beam outlet 9 or the reception lens 8 are unobstructed

Measuring result not plausible

Obstruction in path of laser beam	Laser point must be completely on target surface.
-----------------------------------	---------------------------------------------------

The measuring tool monitors the proper function for each measurement. When a defect is detected, all indicators on the display flash. In this case, or when the corrective measures listed above cannot correct the error, have your dealer forward the measuring tool to an authorised Bosch after-sales service.

Checking the Measuring Tool

The accuracy of the measuring tool can be checked as follows:

Select a permanently unchangeable measuring section with a length of approx. 3 to 10 metres; its length must be precisely known (e. g. the width of a room or a door opening). The measurement should be carried out under favourable conditions, meaning, the measuring distance must be indoors and the target surface for the measurement must be smooth and reflect well.

Measure the distance 10 times after another.

Under favourable conditions, the deviation of the individual measurements from the mean value must not exceed ± 3.5 mm (max.) over the complete measuring distance. Log the measurements, so that you can compare their accuracy at a later point of time.



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.

Maintain the reception lens **8** in particular, with the same care as required for eye glasses or the lens of a camera.

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.

For repairs, send in the measuring tool in.

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 type plate of the measuring tool.

Great Britain

Robert Bosch Ltd. (B.S.C.)

P.O. Box 98

Broadwater Park

North Orbital Road

Denham

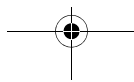
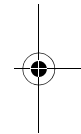
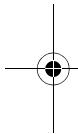
Uxbridge

UB 9 5HJ

Tel. Service: (0844) 7360109

Fax: (0844) 7360146

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

Australia, New Zealand and Pacific Islands

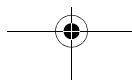
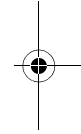
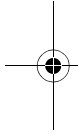
Robert Bosch Australia Pty. Ltd.
Power Tools
Locked Bag 66
Clayton South VIC 3169
Customer Contact Center
Inside Australia:
Phone: (01300) 307044
Fax: (01300) 307045
Inside New Zealand:
Phone: (0800) 543353
Fax: (0800) 428570
Outside AU and NZ:
Phone: +61 3 95415555
www.bosch.com.au

Republic of South Africa

Customer service
Hotline: (011) 6519600

Gauteng BSC Service Centre

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





24 | English



KZN BSC Service Centre

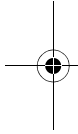
Unit E, Almar Centre
143 Crompton Street
Pinetown
Tel.: (031) 7012120
Fax: (031) 7012446
E-Mail: bsc.dur@za.bosch.com

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.

