

WEU

WEU



Robert Bosch GmbH
Power Tools Division
70745 Leinfelden-Echterdingen
Germany

www.bosch-pt.com

1 619 929 J68 (2011.07) T / 56 WEU



1 619 929 J68

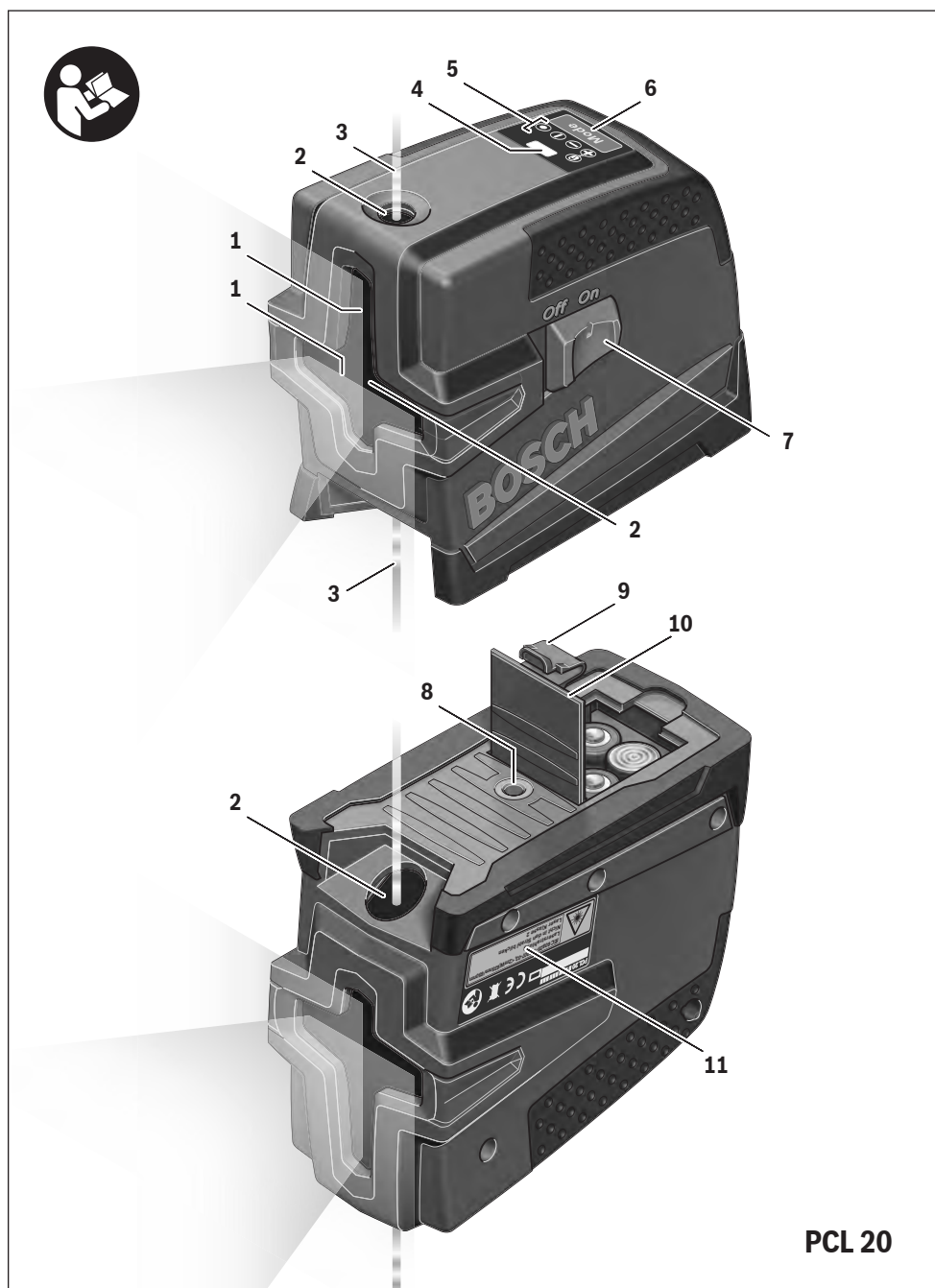
PCL 20

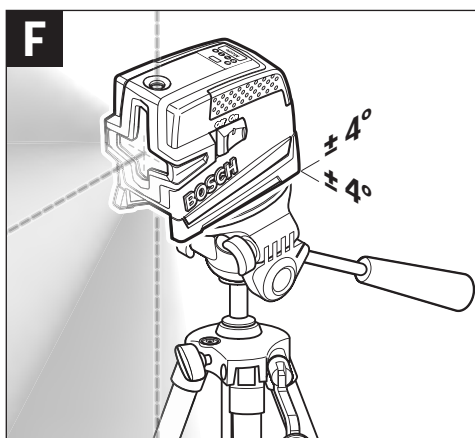
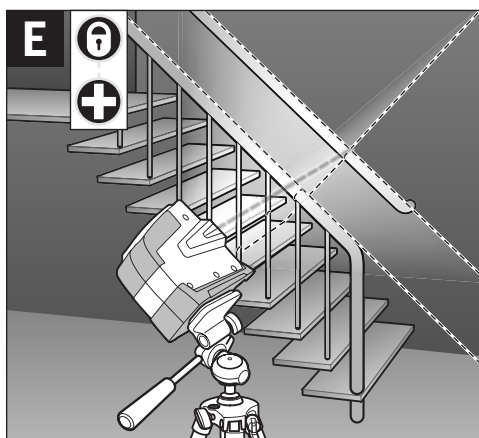
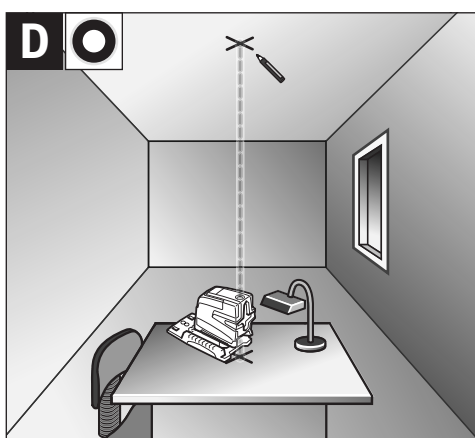
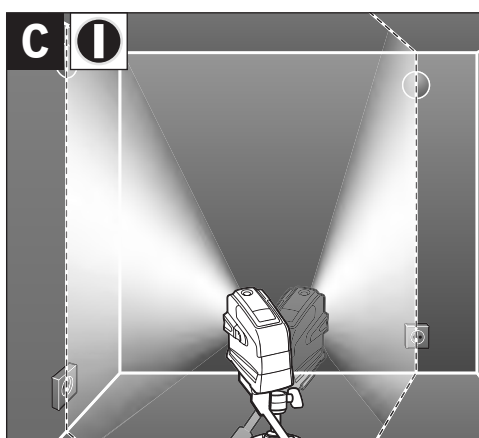
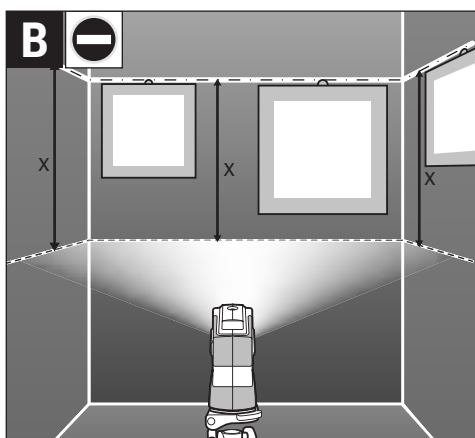
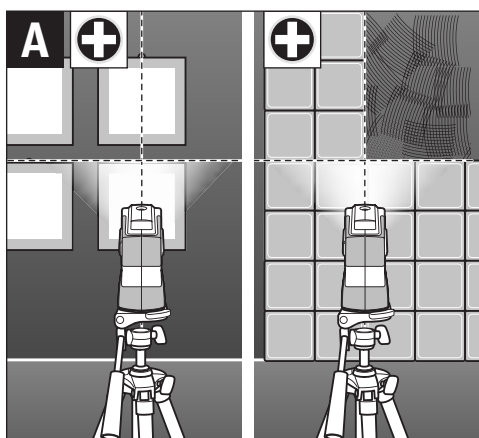


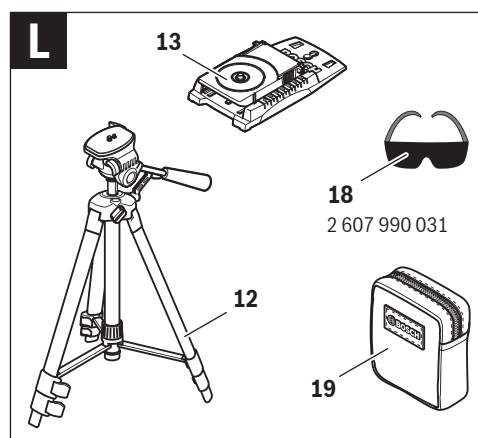
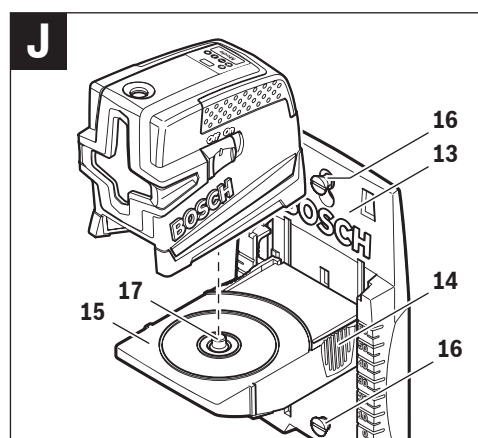
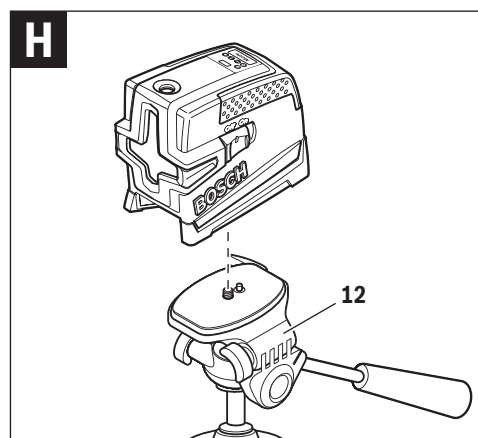
de Originalbetriebsanleitung
en Original instructions
fr Notice originale
es Manual original
pt Manual original
it Istruzioni originali
nl Oorspronkelijke gebruiksaanwijzing
da Original brugsanvisning

sv Bruksanvisning i original
no Original driftsinstruks
fi Alkuperäiset ohjeet
el Πρωτότυπο οδηγιών χρήσης
tr Orijinal işletme talimatı
ar تعليمات التشغيل الأصلية
fa راهنمای طرز کار اصلی









Deutschland

Robert Bosch GmbH
Servicezentrum Elektrowerkzeuge
Zur Luhne 2
37589 Kalefeld – Willershausen
Tel. Kundendienst: +49 (1805) 70 74 10*
Fax: +49 (1805) 70 74 11*
(*Festnetzpreis 14 ct/min, höchstens 42 ct/min aus Mobilfunknetzen)
E-Mail: Servicezentrum.Elektrowerkzeuge@de.bosch.com
Tel. Kundenberatung: +49 (1803) 33 57 99
(Festnetzpreis 9 ct/min, höchstens 42 ct/min aus Mobilfunknetzen)
Fax: +49 (711) 7 58 19 30
E-Mail: kundenberatung.ew@de.bosch.com

Österreich

Tel.: +43 (01) 7 97 22 20 10
Fax: +43 (01) 7 97 22 20 11
E-Mail: service.elektrowerkzeuge@at.bosch.com

Schweiz

Tel.: +41 (044) 8 47 15 11
Fax: +41 (044) 8 47 15 51

Luxemburg

Tel.: +32 2 588 0589
Fax: +32 2 588 0595
E-Mail: outillage.gereedschap@be.bosch.com

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 2002/96/EG müssen nicht mehr gebrauchsfähige Messwerkzeuge und gemäß der europäischen Richtlinie 2006/66/EG müssen defekte oder verbrauchte Akkus/Batterien getrennt gesammelt und einer umweltgerechten Wiederverwertung zugeführt werden.

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

Deutschland

Recyclingzentrum Elektrowerkzeuge
Osteroder Landstraße 3
37589 Kalefeld

Schweiz

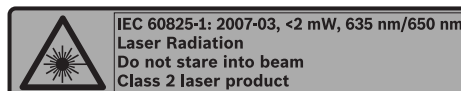
Batrec AG
3752 Wimmis BE

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.
- **The measuring tool is delivered with a warning label in German language (marked with the number 11 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.

Product Description and Specifications**Intended Use**

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

The measuring tool is suitable exclusively for operation in enclosed working sites.

10 | English

Product Features

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

- 1 Laser line
- 2 Exit opening for laser beam
- 3 Plumb beam
- 4 Automatic levelling indicator
- 5 Operating-mode indication
- 6 Operating mode button
- 7 On/Off switch
- 8 Tripod mount 1/4"
- 9 Latch of battery lid
- 10 Battery lid
- 11 Laser warning label
- 12 Tripod*
- 13 Wall holder*
- 14 Unlocking buttons of the holding plate
- 15 Holding plate of the wall mount
- 16 Fastening screw for wall mount
- 17 1/4" screw of wall mount
- 18 Laser viewing glasses*
- 19 Protective pouch

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

Technical Data

Cross-line Laser		PCL 20
Article number		3 603 K08 2..
Working range to approx.		10 m
Levelling accuracy		
– Laser line		±0.5 mm/m
– Plumb beam (upward)		±0.5 mm/m
– Plumb beam (downward)		±1 mm/m
Self-levelling range, typically		±4°
Levelling duration, typically		4 s
Operating temperature		+5 °C... +40 °C
Storage temperature		–20 °C... +70 °C
Relative air humidity, max.		90 %
Laser class		2
Laser type		
– Laser line		635 nm, < 2 mW
– Plumb beam		650 nm, < 2 mW
C ₆ (laser line)		10
Tripod mount		1/4"
Batteries		4 x 1.5 V LR06 (AA)
Rechargeable batteries		4 x 1.2 V HR06 (AA)
Operating life time, approx.		40 h
Weight according to EPTA-Procedure 01/2003		0.5 kg
Dimensions (length x width x height)		123 x 67 x 110 mm
Please observe the article number on the type plate of your measuring tool. The trade names of the individual measuring tools may vary.		

1 619 929 J68 | (26.7.11)

Assembly

Inserting/Replacing the Battery

Using alkali-manganese or rechargeable batteries is recommended for operation of the measuring tool.

To open the battery lid **10**, press on the latch **9** and fold the battery lid up. Insert the batteries/rechargeable batteries. When inserting, pay attention to the correct polarity according to the representation on the inside of the battery lid.

Always replace all batteries/rechargeable batteries at the same time. Do not use different brands or types of batteries/rechargeable batteries together.

► **Remove the batteries/rechargeable batteries from the measuring tool when not using it for longer periods.**

When storing for longer periods, the batteries/rechargeable 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 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 **switch on** the measuring tool, push the On/Off switch **7** to the **"On"** position. Immediately after switching on, the measuring tool sends out the two laser lines **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, slide the On/Off switch **7** to the **"Off"** position. When switching off, the levelling unit is locked.

► **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.






Operating Modes (see figures A – E)

After switching on, the measuring tool is in cross-line operating mode with automatic levelling.

To change the operating mode, press the **"Mode"** button **6** until the requested operating mode is indicated by the corresponding illuminated operating-mode indication **5**.

Bosch Power Tools

The following operating modes are available:

Indication	Operating Mode
 (green)	Cross-line operation with automatic levelling (see figure A): The measuring tool generates both a horizontal and a vertical laser line; their levelling is monitored.
 (green)	Horizontal operation with automatic levelling (see figure B): The measuring tool generates a horizontal laser line; its levelling is monitored.
 (green)	Vertical operation with automatic levelling (see figure C): The measuring tool generates a vertical laser line; its levelling is monitored.
 (green)	Plumb beam with automatic levelling (see figure D): The measuring tool generates two plumb beams running vertically upward and downward; their levelling is monitored.
 (red/ green)	Cross-line operation without automatic levelling (see figure E): The measuring tool generates two crossed laser lines that can be aligned as requested, and must not run vertical to each other.

Automatic Levelling

Working with Automatic Levelling (see figure F – G)

Position the measuring tool on a level and firm support, attach it to the wall mount **13** or to a tripod **12**.

Select one of the operating modes with automatic levelling.

After switching on, the levelling function automatically compensates irregularities within the self-levelling range of $\pm 4^\circ$. The levelling is finished as soon as the laser lines or plumb beams do not move any more. The indication **5** of the current operating mode lights up green.

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 automatic levelling indicator **4** lights up red and the laser is automatically switched off. 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 $\pm 4^\circ$ again, the operating-mode indication **5** lights up green and the laser is switched on.

When not within the self-levelling range of $\pm 4^\circ$, working with automatic levelling is not possible, because it cannot be assured that the laser lines run at a right angle to each other.

In case of ground vibrations or position changes during operation, the measuring tool is automatically levelled in again. To avoid errors, check the position of the laser lines or plumb beams with regard to the reference points upon re-levelling.

Working without Automatic Levelling

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

Working Advice

Working with the Tripod (see figure H)

A tripod **12** offers a stable, height-adjustable measuring support. Place the measuring tool via the tripod mount **8** onto the 1/4" male thread of the tripod and screw the locking screw of the tripod tight.

Working with the Wall Mount (Accessory)

With the wall mount **13**, the measuring tool can be securely attached at any height.

Mounting the wall mount (see figure I): For fastening to a wall, the holding plate **15** must be folded out. Press pushbuttons **14** on both sides of the holding plate **(a)**, fold the holding plate up **(b)**, lightly push it downward and allow it to latch **(c)**. For height adjustment of the measuring tool, the holding plate **15** can be moved up or down within a range of 6 cm. For this, press the pushbuttons **14** on both sides of the holding plate, slide the holding plate to the requested height and allow it to latch again. The scale on the side of the wall mount aids the height adjustment.

Fastening the wall mount (see figure J): Fasten the wall mount **13** as vertical as possible to a wall with the holding plate **15** folded up. Secure it safely against slipping off, e.g., with two fastening screws **16** (commercially available). Screw the 1/4" screw **17** of the wall mount into the tripod mount **8** of the measuring tool.

Using as a table stand (see figure K): In the plumb beam operating mode, the visibility of the bottom plumb beam **3** can be improved by not placing the measuring tool directly on a surface, but by inserting it in the folded together wall mount **13**.

For this, place the wall mount as horizontal as possible onto a firm and level support. Press pushbuttons **14** at the holding plate **15 (a)**. Slide the holding plate to the stop against the upper end of the wall mount **(b)**. Fold the holding plate downward **(c)**. Screw the 1/4" screw **17** of the wall mount into the tripod mount **8** of the measuring tool. Then, allow the holding plate to latch in the wall mount.

Turn the mounted measuring tool in such a manner that the bottom plumb beam **3** faces downward. If required, lightly fold up the holding plate again to loosen the 1/4" screw **17** for alignment of the measuring tool.

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.

12 | English

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 **19**.

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 (21) 02 02 35
 Fax: +852 (25) 90 97 62
 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
 rosalia.dagdagan@ph.bosch.com

Malaysia

Robert Bosch (S.E.A.) Pte. Ltd.
 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.