

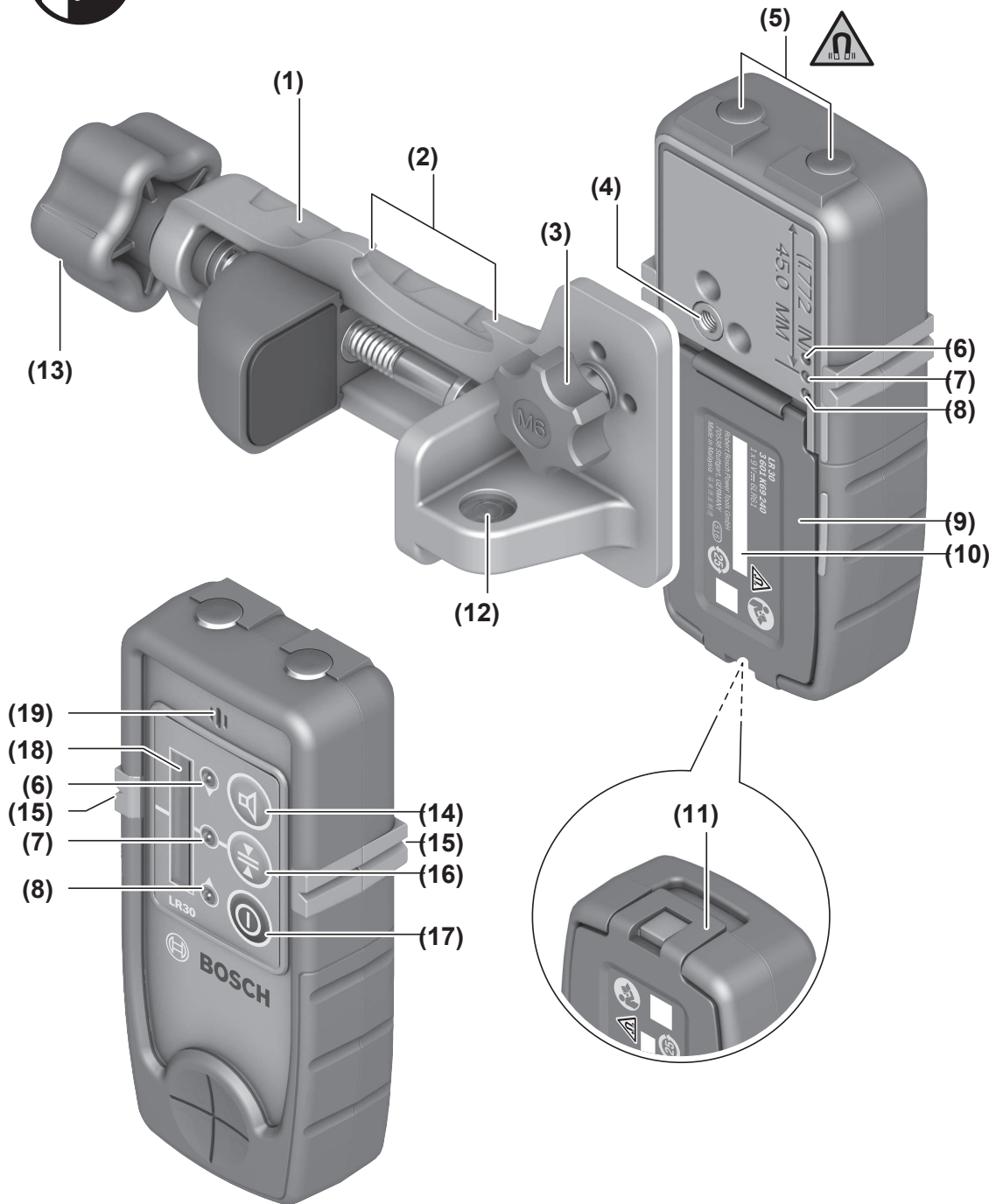


LR 30 Professional

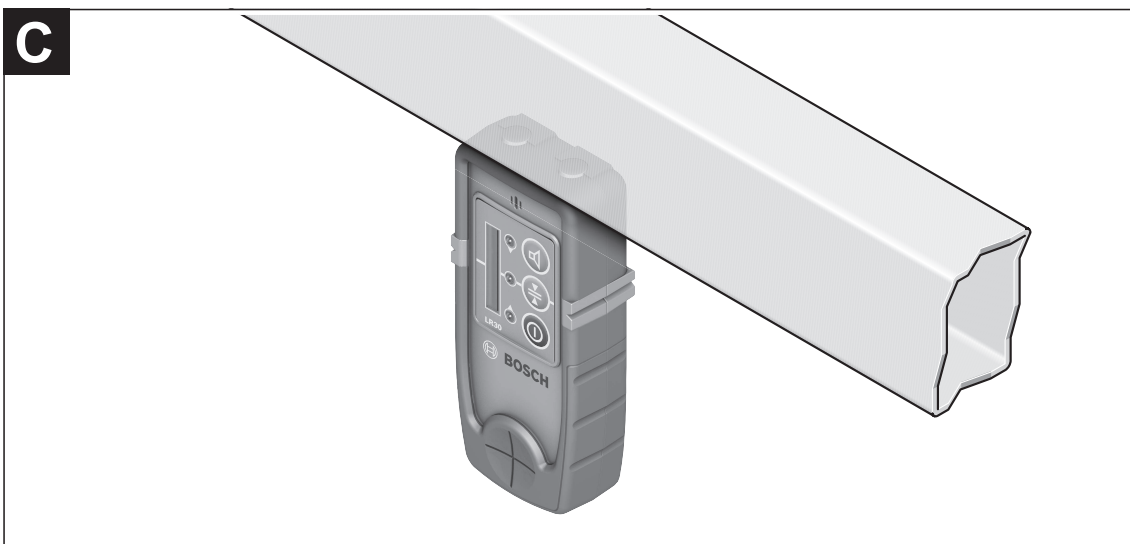
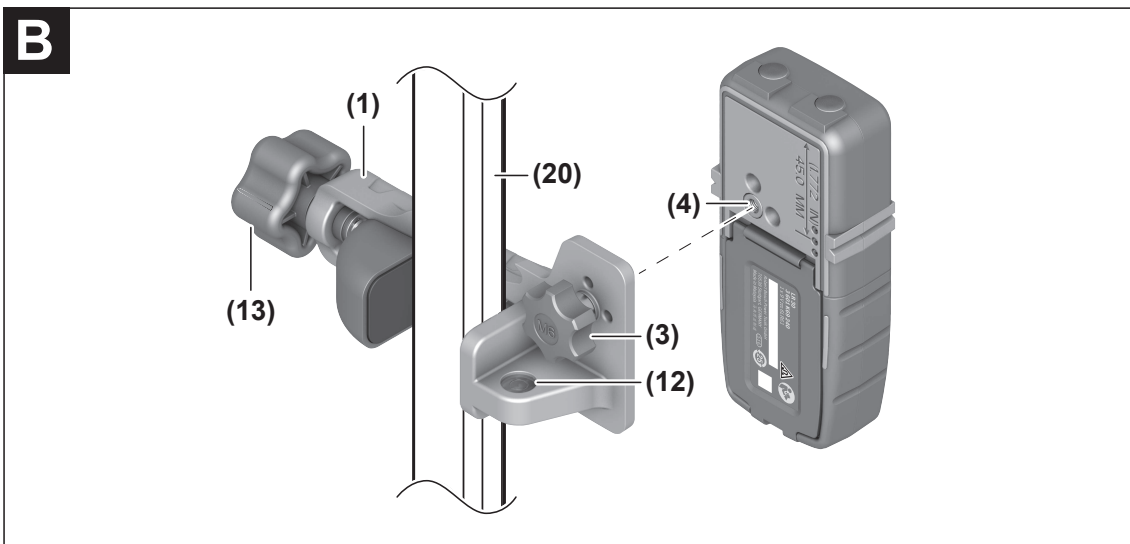
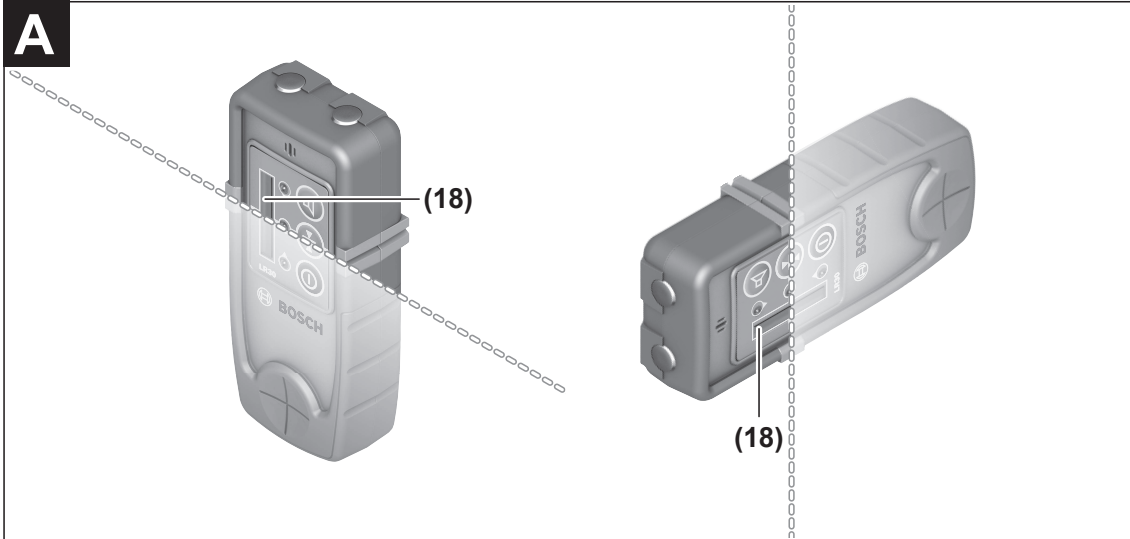


- en Original instructions
- zh 正本使用说明书
- zh 原始使用說明書
- ko 사용 설명서 원본
- th หนังสือคู่มือการใช้งานฉบับ ต้นแบบ
- id Petunjuk-Petunjuk untuk Penggunaan Orisinal
- vi Bản gốc hướng dẫn sử dụng

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English

Safety instructions



All instructions must be read and observed. The safeguards integrated into the measuring tool may be compromised if the measuring tool is not used in accordance with these instructions. **STORE THESE INSTRUCTIONS IN A SAFE PLACE.**

- ▶ **Have the measuring tool serviced only by a qualified specialist using only original replacement parts.** This will ensure that the safety of the measuring tool is maintained.
- ▶ **Do not use the measuring tool in explosive atmospheres which contain flammable liquids, gases or dust.** Sparks may be produced inside the measuring tool, which can ignite dust or fumes.
- ▶ **When operating the measuring tool, loud signal tones may sound under certain circumstances. For this reason, keep the measuring tool away from your ears and from other persons.** The loud sound can damage hearing.



Keep the magnet away from implants and other medical devices, e.g. pacemakers or insulin pumps. The magnet generates a field that can impair the function of implants and medical devices.

- ▶ **Keep the measuring tool away from magnetic storage media and magnetically-sensitive devices.** The effect of the magnets can lead to irreversible data loss.

Product Description and Specifications

Please observe the illustrations at the beginning of this operating manual.

Intended Use

The laser receiver is intended to quickly find rotating laser beams of the wavelength specified in the technical data. The laser receiver is suitable for indoor and outdoor use.

Product Features

The numbering of the product features refers to the illustration of the laser receiver on the graphics page.

- (1) Holder
- (2) Centre line reference on the holder
- (3) Fastening screw of the holder
- (4) Mount for holder
- (5) Magnets
- (6) "Laser beam below centre line" LED direction indicator

- (7) LED for centre line
 - (8) "Laser beam above centre line" LED direction indicator
 - (9) Battery compartment cover
 - (10) Serial number
 - (11) Battery compartment cover locking mechanism
 - (12) Spirit level for holder
 - (13) Rotary knob of holder
 - (14) Audio signal button
 - (15) Centre mark
 - (16) Button for adjusting the reception accuracy
 - (17) On/off button
 - (18) Laser beam reception area
 - (19) Speaker
 - (20) Measuring rod^{A)}
- A) **Accessories shown or described are not included with the product as standard. You can find the complete selection of accessories in our accessories range.**

Technical Data

Laser receiver	LR 30
Article number	3 601 K69 2..
Receivable wavelength	635–650 nm
Working range ^{A)} with rotary laser	1–150 m
Reception angle	45°
Receivable rotation speed	150/300/600 min ⁻¹
Reception accuracy ^{B)} ^{C)}	
– "Exact"	±1.5 mm
– "Mid-range"	±3 mm
Operating temperature	–10 °C to +50 °C
Storage temperature	–20 °C to +70 °C
Max. altitude	2000 m
Relative air humidity max.	90 %
Pollution degree according to IEC 61010-1	2 ^{D)}
Battery	1 × 9 V 6LR61
Approx. operating time	30 h
Weight according to EPTA-Procedure 01:2014	0.34 kg

Laser receiver	LR 30
Dimensions (length × width × height)	131 × 57 × 29 mm

- A) The working range may be reduced by unfavourable environmental conditions (e.g. direct sunlight).
- B) Dependent on the distance between the laser receiver and the rotary laser and on the laser class and laser type of the rotary laser
- C) The reception accuracy may be reduced by unfavourable environmental conditions (e.g. direct sunlight).
- D) Only non-conductive deposits occur, whereby occasional temporary conductivity caused by condensation is expected.

For clear identification of your laser receiver, see the serial number **(10)** on the type plate.

Fitting

Inserting/changing the battery

Alkali-manganese batteries are recommended for the laser receiver.

Pull the locking mechanism **(11)** of the battery compartment cover outwards and lift up the battery compartment cover **(9)**. Insert the battery.

Ensure that the polarity is correct.

If the battery becomes weak, an audio signal will sound and all LEDs will flash. The laser receiver then automatically switches itself off.

- ▶ **Take the battery out of the laser receiver when you are not using it for a prolonged period of time.** When it is stored in the laser receiver for longer periods, the battery can corrode and discharge itself.

Operation

Starting operation

- ▶ **Protect the laser receiver against moisture and direct sunlight.**
- ▶ **Do not subject the laser receiver 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 laser receiver to adjust to the ambient temperature before putting it into operation. In case of extreme temperatures or variations in temperature, the accuracy of the laser receiver can be impaired.

Setting up the laser receiver (see figure A)

Place the laser receiver at least **1 m** away from the rotary laser. For rotary lasers with multiple operating modes, select the horizontal or vertical operation with the highest rotational speed.

Position the laser receiver so that the laser beam can reach the reception area **(18)**. Align it so that the laser beam runs straight through the reception area (as shown in the figure).

Switching On and Off

- ▶ **A loud audio signal sounds when switching on the laser receiver. Therefore, keep the laser receiver**

away from your ear or other persons when switching it on. The loud sound can damage hearing.

To **switch on** the laser receiver, press the on/off button **(17)**. All LEDs light up briefly and an audio signal sounds.

Once the laser receiver has been switched on, the audio signal is switched on and the measuring accuracy is set to "exact".

To **switch off** the laser receiver, press the on/off button **(17)** again. Before the tool switches off, all the LEDs will light up briefly.

If no button on the laser receiver is pressed for approx. **6 min** and no laser beam reaches the reception area **(18)** for **6 min**, the laser receiver will automatically switch itself off to preserve battery life. Switch-off is indicated by all the LEDs lighting up briefly.

Selecting the setting of the centre line indicator

You can use the button for adjusting the reception accuracy **(16)** to specify the accuracy with which the position of the laser beam is indicated as "centred" on the reception area:

- **Reception accuracy "exact":** An audio signal sounds and the centre line LED **(7)** flashes for confirmation.
- **Reception accuracy "mid-range":** Two audio signals sound and the LED direction indicators "Laser beam above centre line" **(8)** and "Laser beam below centre line" **(6)** flash for confirmation.

Direction Indicators

The position of the laser beam in the reception area **(18)** is indicated as follows:

- By the direction LEDs "Laser beam above centre line" **(8)**, "Laser beam below centre line" **(6)** or centre line indicator **(7)** on the front and back of the laser receiver,
- optionally by the audio signal.

Laser receiver too low: If the laser beam hits the upper half of the reception area **(18)**, the "Laser beam above centre line" LED direction indicators **(8)** light up.

If the audio signal is switched on, it will be emitted in a slow rhythm.

Move the laser receiver upwards in the direction of the arrow.

Laser receiver too high: If the laser beam hits the lower half of the reception area **(18)**, the "Laser beam below centre line" LED direction indicators **(6)** light up.

If the audio signal is switched on, it will be emitted as a fast beeping sound.

Move the laser receiver downwards in the direction of the arrow.

Laser receiver centred: If the laser beam hits the reception area **(18)** at the height of the centre mark **(15)**, then the centre line LEDs **(7)** light up.

If the audio signal is switched on, a continuous tone sounds.

Laser Beam Indicator Audio Signal

The position of the laser beam on the reception area **(18)** can also be indicated by an audio signal.

To switch the audio signal on or off, press the audio signal button **(14)**.

Independent of the audio signal setting, a short audio signal sounds each time a button is pressed on the laser receiver.

Practical Advice

Marking

You can mark the height of the laser beam at the centre mark **(15)** on the left and right of the laser receiver when the beam hits the centre of the reception area **(18)**.

When marking, take care to align the laser receiver so that it is exactly vertical (with a horizontal laser beam) or horizontal (with a vertical laser beam), as otherwise the marks are off-set with respect to the laser beam.

Attaching using the holder (see figure B)

You can use the holder **(1)** to attach the laser receiver to a measuring rod **(20)** (accessory) as well as to other auxiliary tools with a width of up to **65** mm.

Screw the holder **(1)** to the mount **(4)** on the rear side of the laser receiver with the fastening screw **(3)**.

Loosen the rotary knob **(13)** on the holder, slide the holder onto the measuring rod **(20)** and retighten the rotary knob **(13)**.

You can use a spirit level **(12)** to ensure that the holder **(1)** is horizontally aligned along with the laser receiver. If a laser receiver is mounted at an angle, it will give incorrect measurements.

The centre line reference **(2)** on the holder is situated at the same height as the centre marking **(15)** and can be used for marking the laser beam.

Attaching using a magnet (see figure C)

If an attachment is not required to be especially secure, the laser receiver can be attached to steel parts using the magnets **(5)**.

Maintenance and Service

Maintenance and Cleaning

Always keep the laser receiver clean.

Do not immerse the laser receiver in water or other liquids.

Wipe off any dirt using a damp, soft cloth. Do not use any detergents or solvents.

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. You can find explosion drawings and information on spare parts at

The Bosch product use advice team will be happy to help you with any questions about 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.