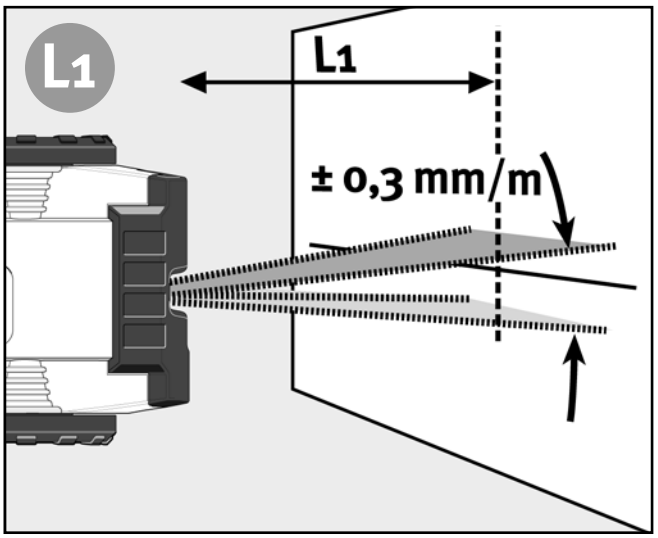
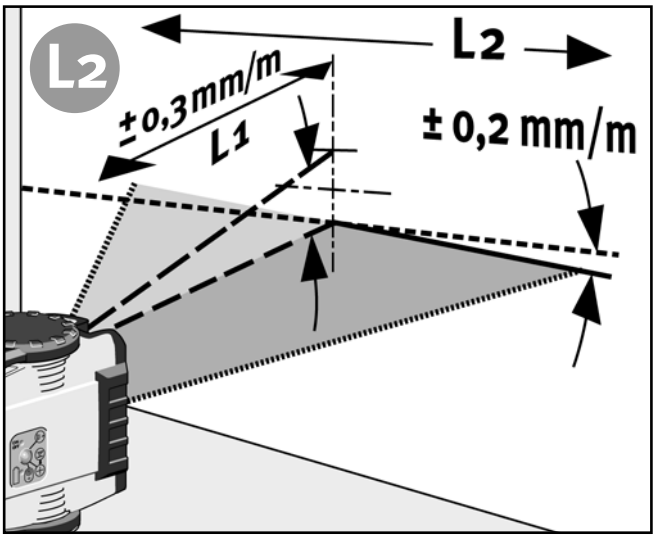
STABILA®

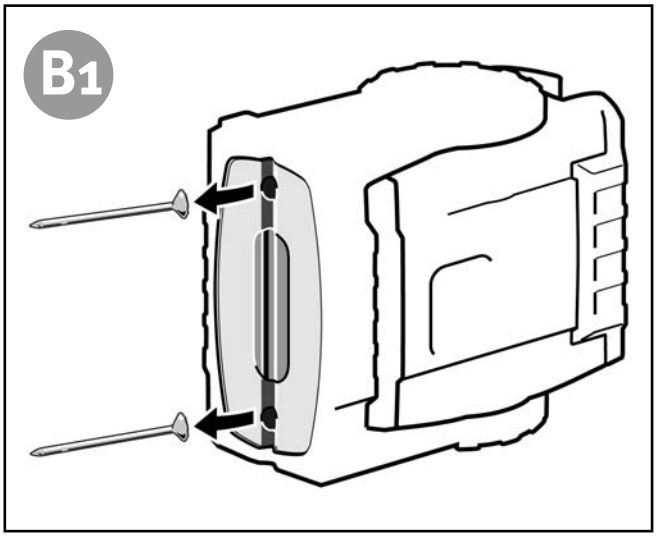
...sets standards

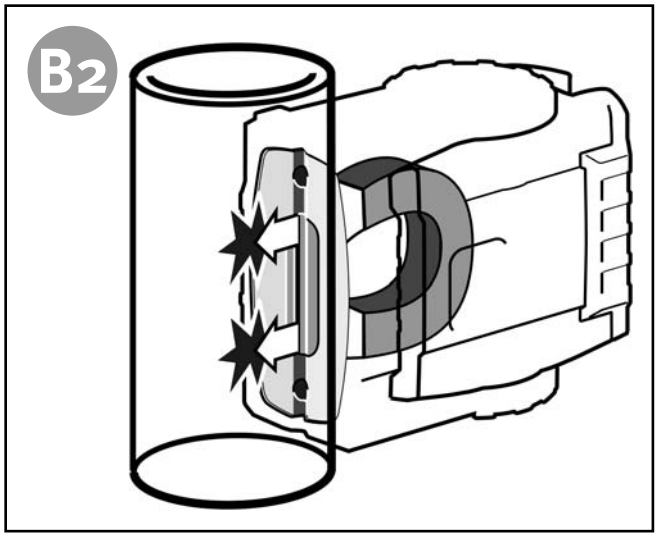
Laser LAX-200

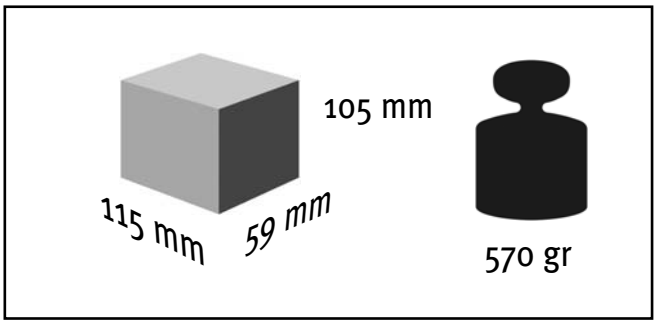
GB Operating instructions

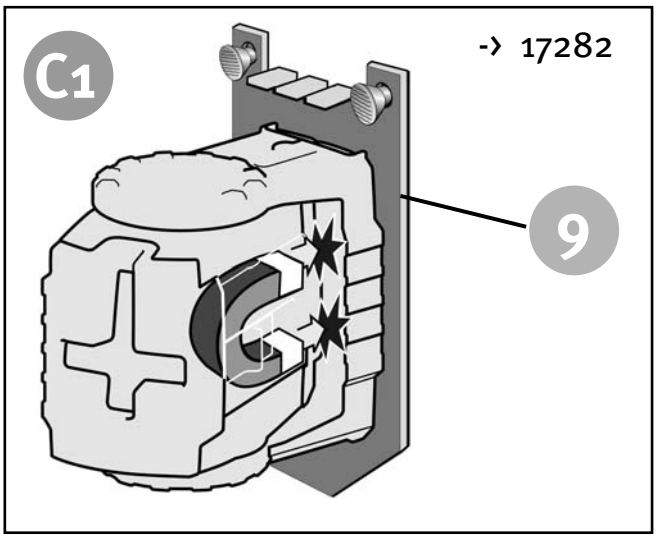

L1
L1
± 0,3 mm/m

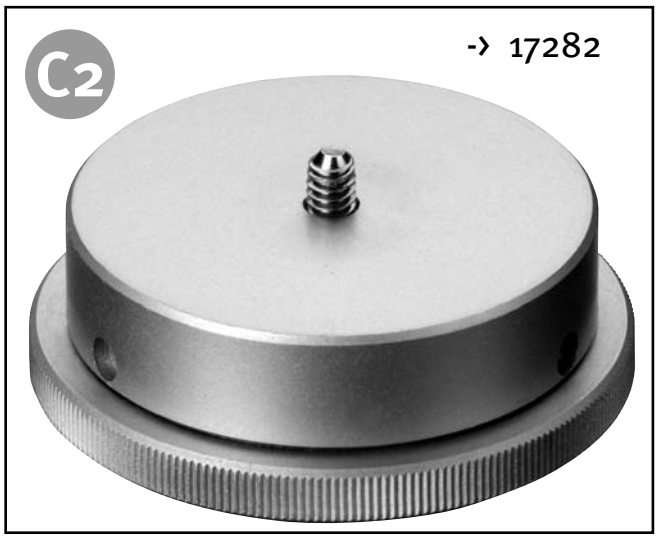

L2
±0,3mm/m
L1
± 0,2 mm/m

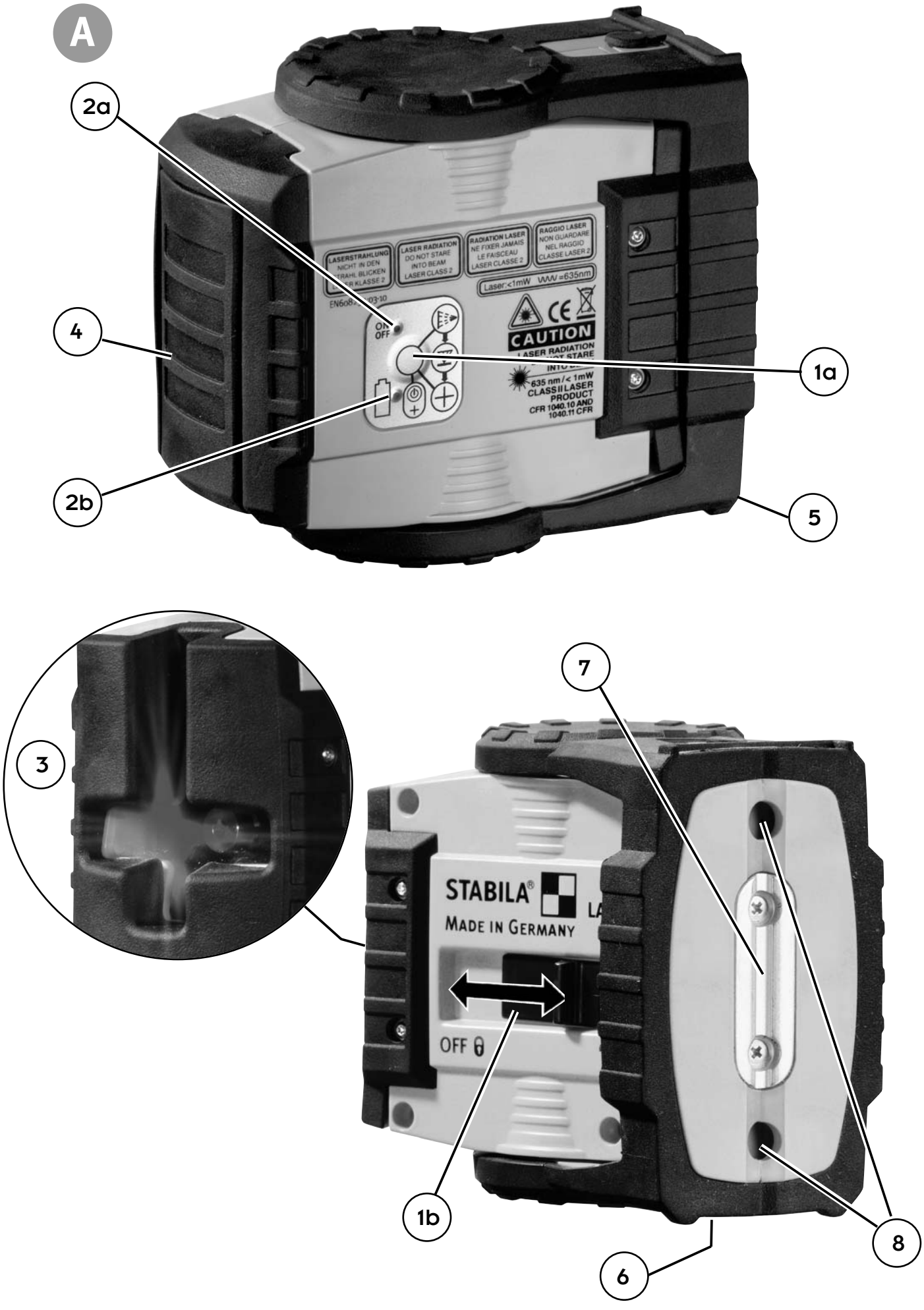

B1

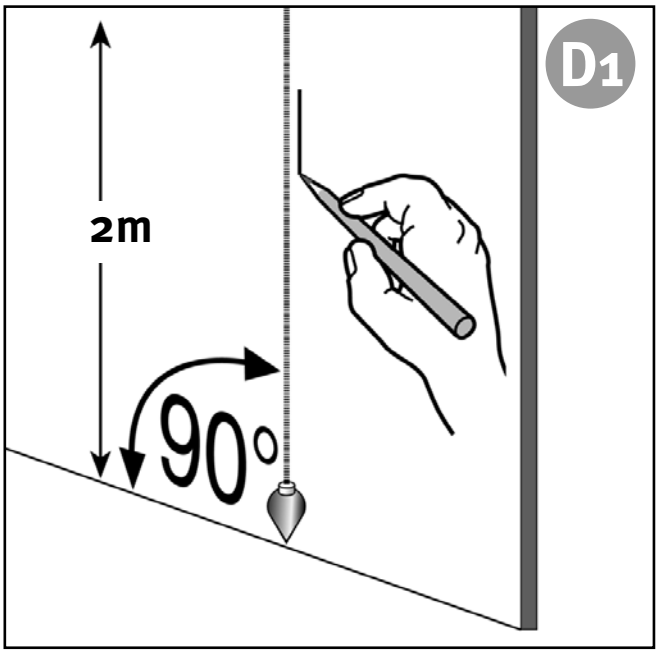

B2

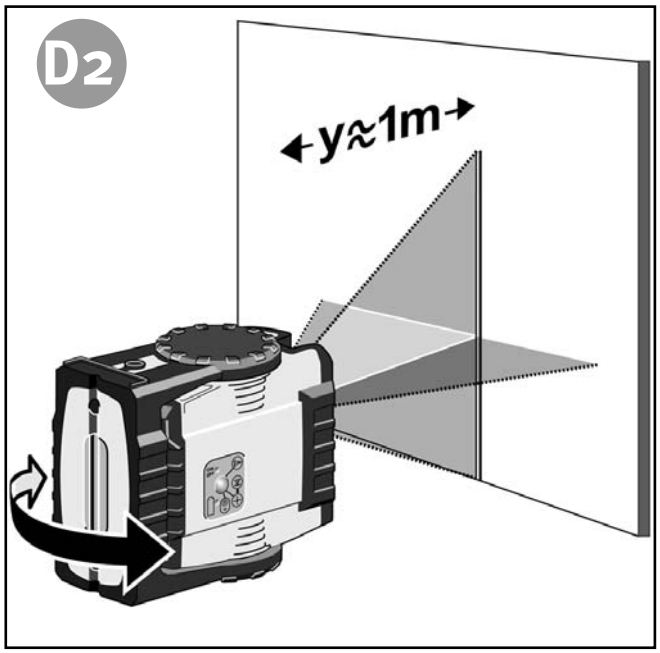

105 mm
115 mm
59 mm
570 gr

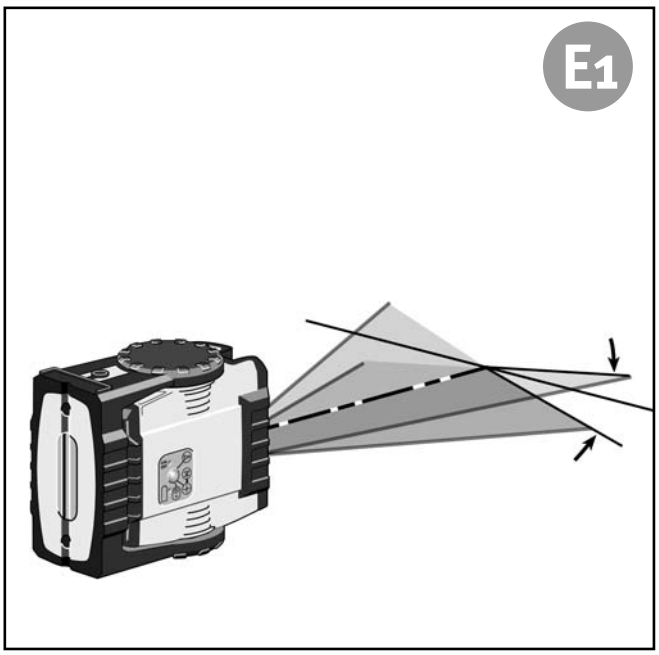

C1
-› 17282
9

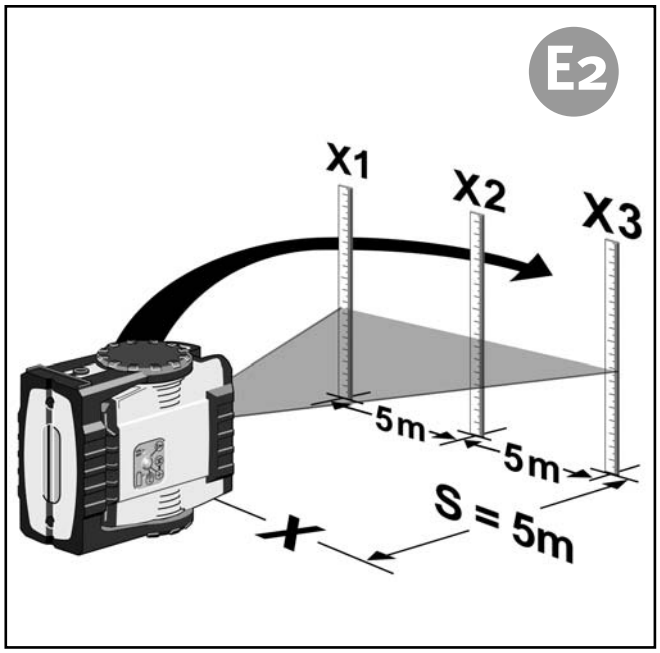

C2
-› 17282

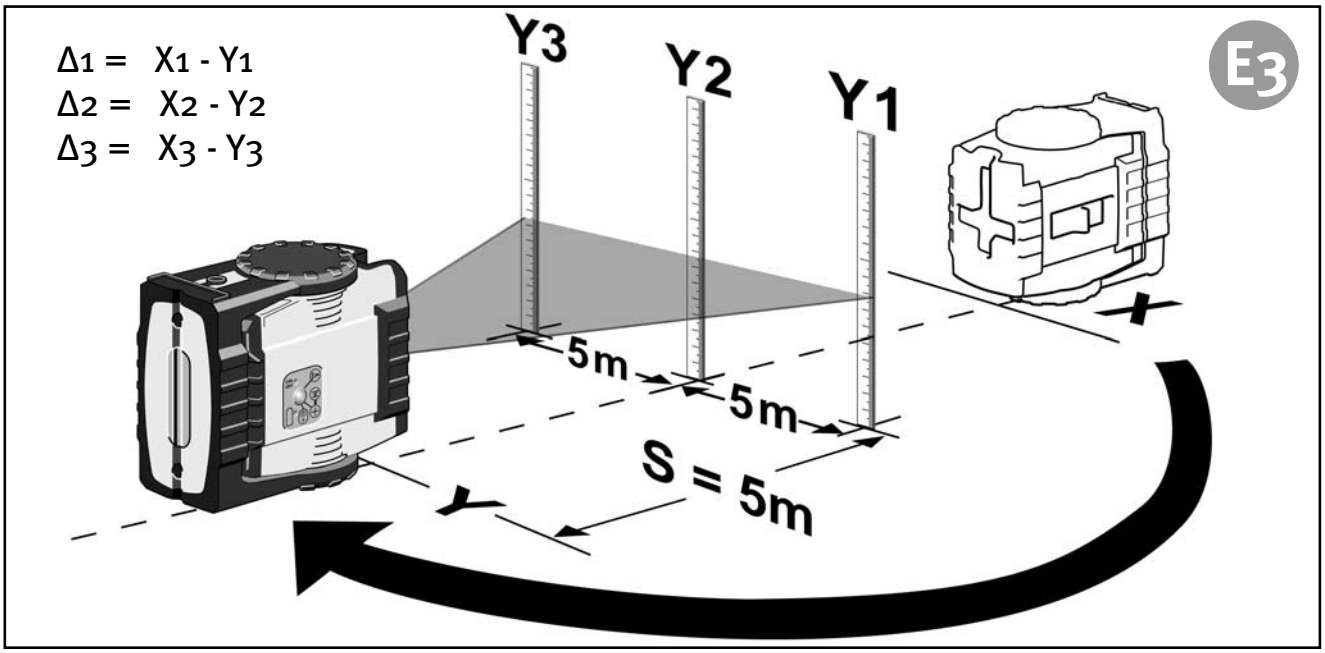

A
2a
4
1a
2b
5
LASERSTRAHLUNG
LASER RADIATION
DO NOT STARE INTO BEAM
LASER CLASS 2
RADIATION LASER
NE FIXER JAMAIS LE FAISCEAU
LASER CLASSE 2
RAGGIO LASER
NON GUARDARE NEL RAGGIO
CLASSE LASER 2
Laser:<1mW
CAUTION
635 nm/< 1mW
CLASS II LASER
PRODUCT
CFR 1040.10 AND
1040.11 CFR
3
7
STABILA®
MADE IN GERMANY
OFF
1b
8
6

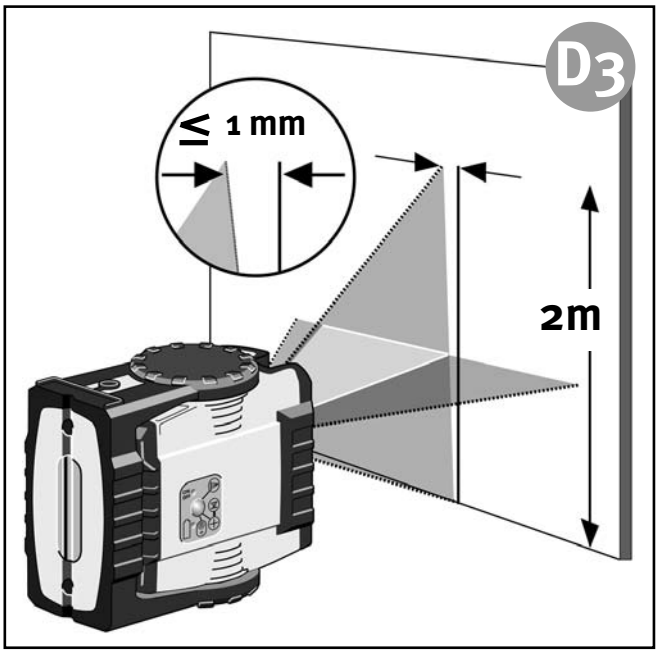

D1
2m
90°

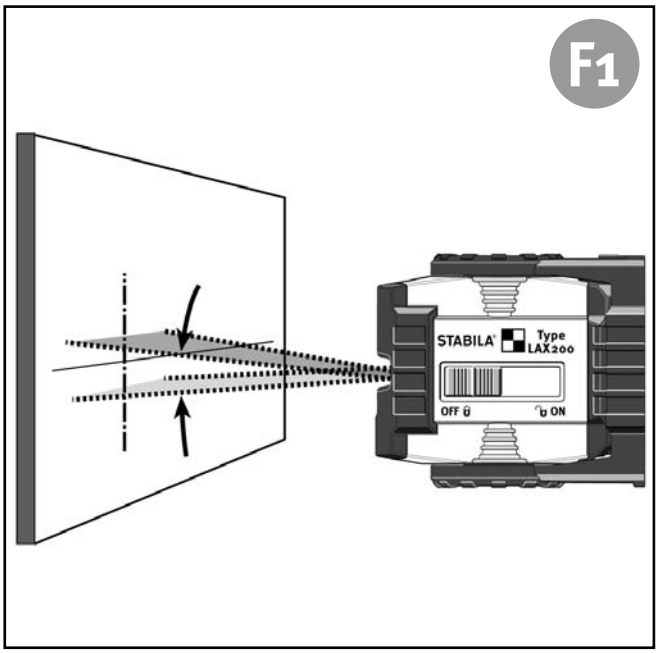

D2
y≈1m

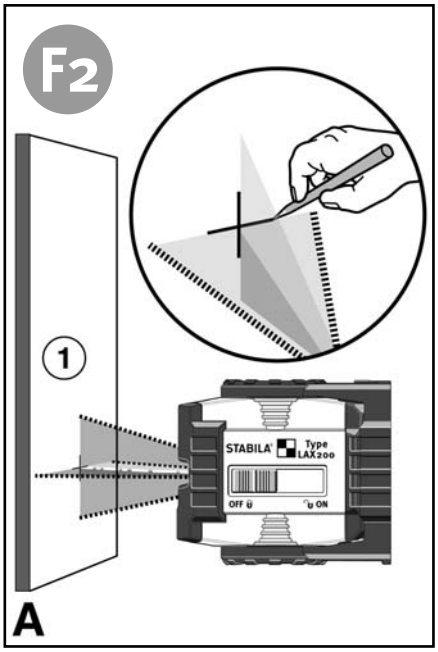

E1

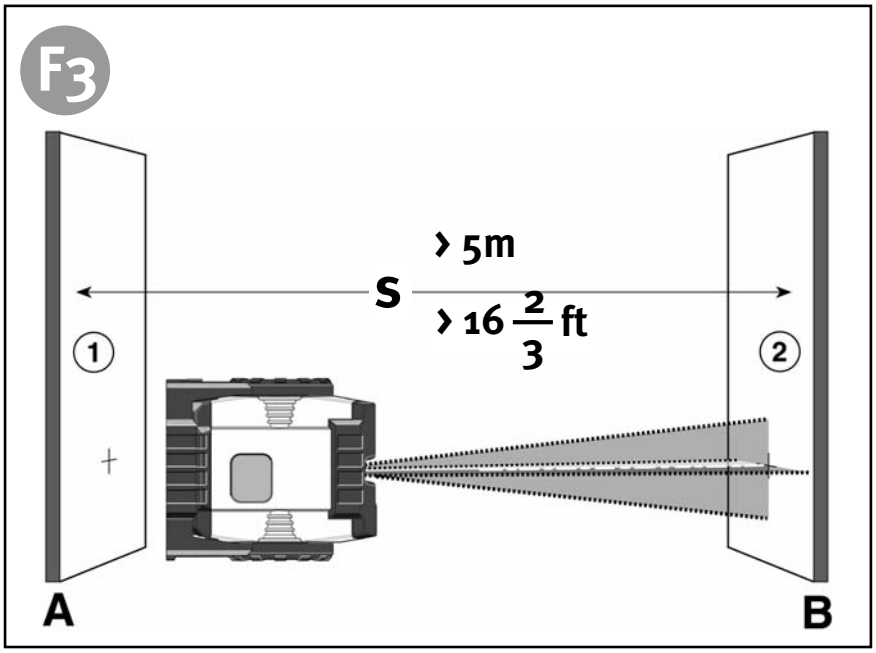

E2
X1
X2
X3
5m
5m
S = 5m

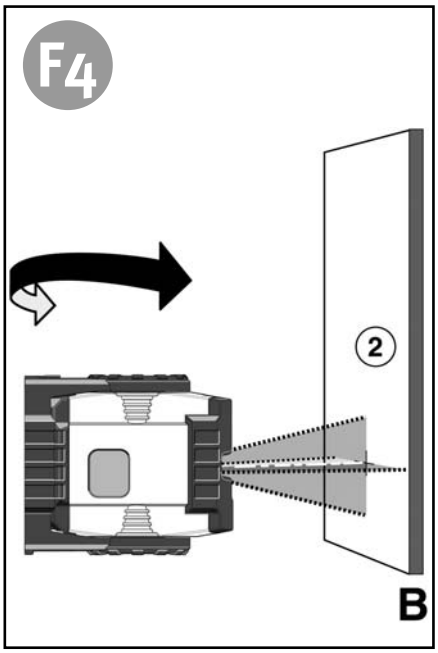

E3
Δ1 = X1 - Y1
Δ2 = X2 - Y2
Δ3 = X3 - Y3
Y3
Y2
Y1
5m
5m
S = 5m

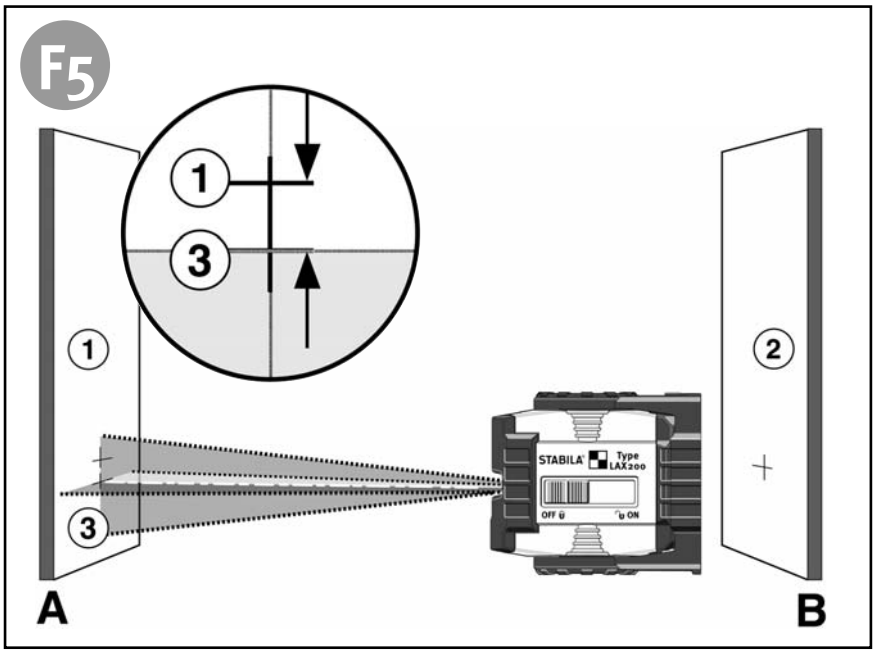

D3
≤ 1 mm
2m


F1
STABILA Type LAX200
OFF
ON


F2
1
STABILA Type LAX200
OFF
ON
A


F3
s
› 5m
› 16 2/3 ft
1
2
A
B


F4
2
B


F5
1
3
1
2
3
STABILA Type LAX200
OFF
ON
A
B

GB

Operating instructions

The STABILA-LAX-200 is an easy-to-use crossed line laser. It is self-levelling in the range ± 4.5° and enables levels to be determined quickly and accurately. The vertically and horizontally projected laser lines provide exact alignment / working . The different parts of this set enable a tripod or a long support pole to be constructed to suspend the instrument between the floor and the ceiling. The pulsed laser-line enables working over larger distances using a special laser-line-receiver (see line receiver manual) .

We have endeavoured to explain the unit's handling and functioning in as clear and comprehensible manner as possible. If, however, you still have any unanswered questions, we should be pleased to provide advice over the telephone at any time on the following telephone number:

0049 / 63 46 / 3 09 - 0

A

Main components

(1a) On/off button

(1b) ON / OFF switch (for protecting during transport)

(2) LEDs for displaying

(2a) Operating mode ON or READY

(2b) Battery voltage

(3) Exit aperture for the horizontal and vertical laser lines

(4) Battery compartment cover

(5) Protective cover

(6) 1/4" threaded connector for tripod

(7) Magnets

B1 (8) Fastening holes for: Nails / screws

B2 Accessories not included in price -› 17282

C1 (9) Adapter wall bracket

C2 Adapterscrew 5/8” -› 1/4”

Recycling programme for our EU customers:

In accordance with the WEEE regulations, STABILA provides a disposal programme for electronic products at the end of their service life.
For more details, please contact:
www.STABILA.de / Recycling
or:
0049 / 6346 / 309-0

NB:
In Class II laser equipment, your eyes are protected from accidental, short-term exposure to the laser beam by the lid-closing reflex and/or the reflex reaction to turn one's head. This equipment can therefore be used without additional protective measures. Nevertheless, you should not look directly into the laser beam.

EN 60825-1 : 03 10

Do not let the unit fall into children's hands!

The laser goggles enclosed with these units are not safety goggles. They are designed to make the laser light easier to see.

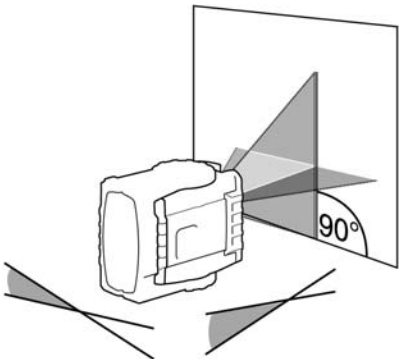
The use of operating and adjustment equipment other than that indicated here or the use of other procedures can lead to dangerous exposure to radiation.

Main applications:

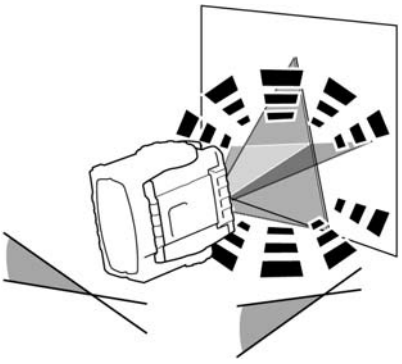
Operating modes

The LAX 200 can be used in 2 operating modes.

1. as a self-levelling line laser



2. as a laser instrument for marking applications without the levelling function.

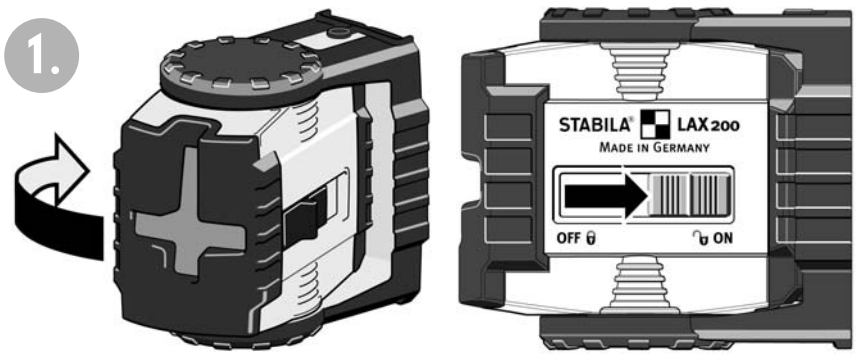


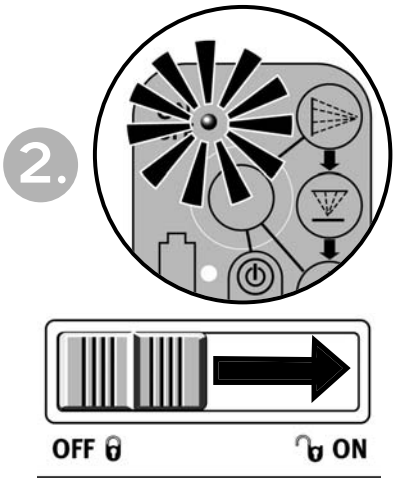
Operating mode with self-levelling

A laser line can be selected in this mode.

Commissioning

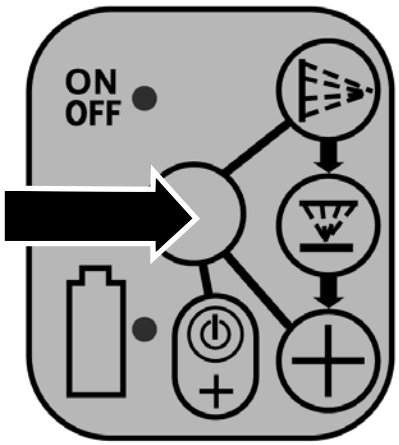
The instrument is switched on with the on/off switch (1b).
Vertical and horizontal lines will appear after switching on.
The laser will automatically level itself.

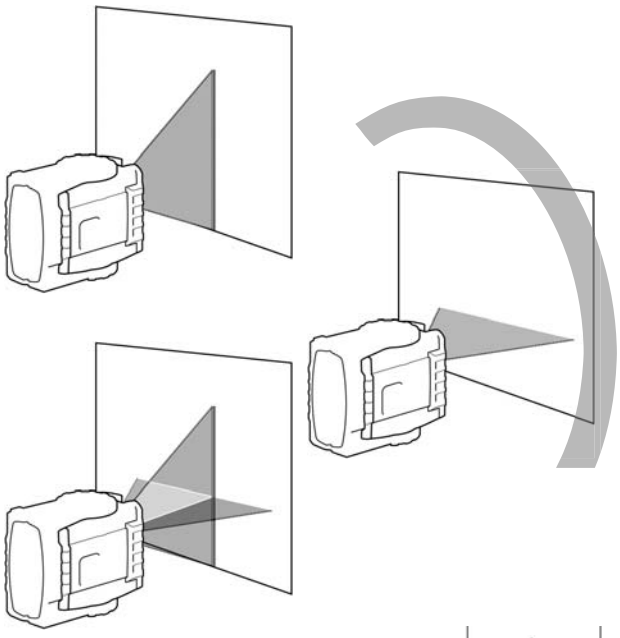




Setting the type of line:

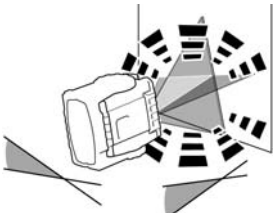
The vertical line, horizontal line and the crossed laser line can be activated in succession by using the selector switch (1a)





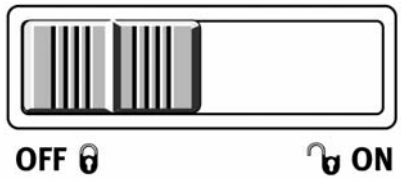
The laser will flash if the inclination is too great.

laser beam **flashing** -› The unit is inclined too much
+ is outside the self-levelling range
+ the laser cannot level itself automatically

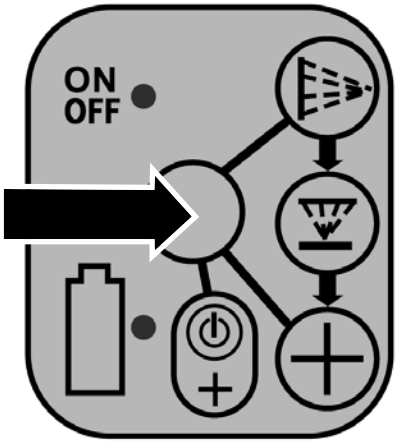


Operating mode without levelling function

The on/off switch (1b) is switched off



In this mode the LAX 200 is only switched on or off with the selector switch (1a).



Checking the calibration

The LAX-200 crossed line laser is designed for use on construction sites and was perfectly adjusted when it left our factory. As with any precision instrument, however, its calibration must be regularly checked. The unit should be checked before starting any new tasks, particularly when the unit has been exposed to strong vibrations. After an impact, the unit should be checked throughout its whole self-levelling range.

Vertical check

D1 You must create a reference to perform this test.
Fasten a plumbline near to the wall.

D2 The laser unit should now be set up in front of this reference mark (distance Y) and the vertical laser line compared with it.

D3 The discrepancy between the centre of the laser line and the reference mark should be no greater than 1 mm over a length of 2 m.

Horizontal checking

1. Horizontal checking - Line level

Two parallel wall surfaces at least 5 m apart are required for the horizontal check.

F1 1. Set the LAX-200 on a smooth level surface or on the tripod with the front facing the wall.

2. Switch the unit on.

F2 3. Mark the position of the visible laser line cross on the wall A (point 1).

F3 4. Turn the complete unit 180° without altering the height of the laser.

5. Mark the position of the visible laser line cross on the wall B (point 2).

F4 6. Now move the unit directly in front of wall B.

7. Set the unit's height so that the laser dot's height matches that of point 2.

F5 8. Without changing the height of the laser, rotate it 180° to place the beam near the mark on the first wall (step 3 / point 1).

Measure the vertical distance between point 1 and point 3. The difference must not be greater than

S	Maximum permissible figure
5 m	3,0 mm
10 m	6,0 mm
15 m	9,0 mm
20 m	12,0 mm

2. Horizontal checking - inclination of the laser line

Check the laser line for inclination and perfectly straight projection E1

1. Mark three points (1, 2 and 3) on the floor at a distance of 5 m from each other; the points must be in a perfectly straight line.
2. Position the laser at distance S = 5 m from the line and exactly in front of the middle point you marked = position X
3. Switch the unit on.
4. Measure the height of the laser line at the points. Measurements X1 - X3 E2
5. Reposition the instrument.
6. Position the laser at distance S = 5 m from the line and exactly in front of the middle point you marked = position Y E3
7. Measure the height of the laser line at the points. Measurements Y1-Y3

$\Delta 1 = X1 - Y1$ $\Delta 2 = X2 - Y2$ $\Delta 3 = X3 - Y3$

The following applies for the differences:

Δges 1 = $\Delta 1 - \Delta 2$ **± 2mm**

Δges 3 = $\Delta 3 - \Delta 2$ **± 2mm**

When calculating, always take note of the preceding sign!

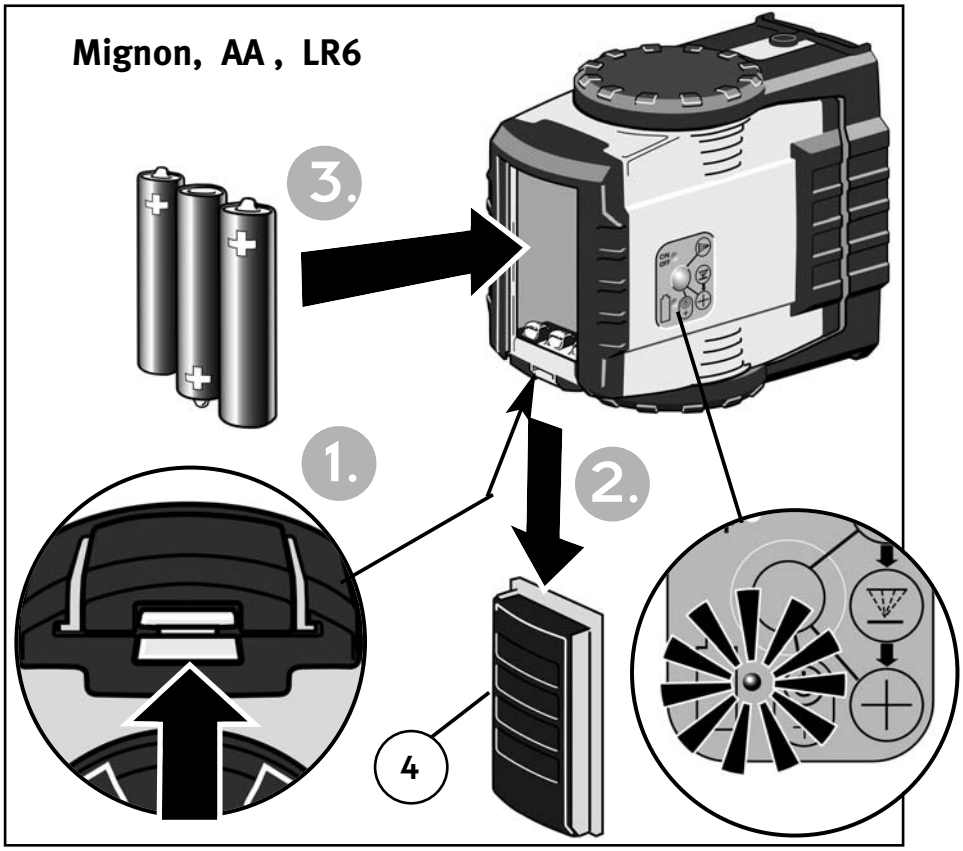
S	Δges 1 or Δges 2
5m	2,0 mm
7,5m	3,0 mm
10m	4,0mm

Replacing the batteries

Slide the battery cover (4) in the direction of the arrow and insert new batteries in accordance with the symbols in the battery compartment.

3 x 1,5V
alkaline mignoncells,
size AA, LR6

Suitable batteries can also be used.



Tip:

Remove the batteries if the unit will not be used for a long period !

Do not store the laser when wet. Dry the laser and case before putting the laser away.

Do not submerge the laser !

Do not unscrew !

Care and maintenance

- Dirty lens glass on the beam emitter detracts from the quality of the beam. It should be cleaned with a soft cloth.
- Clean the laser unit with a damp cloth. Do not spray or immerse the unit! Do not use solvents or thinners!

Like any precision instrument, handle the LAX-200 crossed line laser carefully and cautiously.

Technical data

Laser type:	Red diode laser, pulsed line-laser wavelength 630-660 nm	
Output:	‹ 1 mW, Laser Class 2 to EN 60825-1:03-10	
Self-levelling range:	ca. ± 4,5°	
Levelling accuracy:		
L1 laser line horizontal*:	L1 = ± 0,3 mm/m	laser line
L2 inclination of the laser line*:	L2 = ± 0,2 mm/m	laser line
Batteries:	3 x 1,5 V mignoncells alkaline, size AA, LR6	
Operating life:	approx. 30 hours (alkaline)	
Operating temperature range:	-10 °C to +50 °C	
Storage temperature range:	-20 °C to +60 °C	

Subject to technical modifications.

* When operated within specified temperature range

Guarantee terms and conditions

Stabila provides a guarantee against deficiencies and faults in the assured characteristics because of material or manufacturing faults for a period of 24 months from date of purchase. Any faults will be eliminated at Stabila's own discretion either by repairing or replacing the unit. Stabila accepts no wider claims.
No liability is accepted for any faults due to inappropriate treatment (e.g. damage caused by the unit falling, operation with the wrong voltage or type of current, use of unsuitable current supply sources) or for any autonomous changes made to the unit by the purchaser or a third party.
Also no claims under guarantee are accepted for natural wear and tear or any small faults that do not significantly affect the unit's operation.
Any guarantee claims must be made via the dealer on the duly completed guarantee form (see last page) to be returned with the unit.