

STABILA®

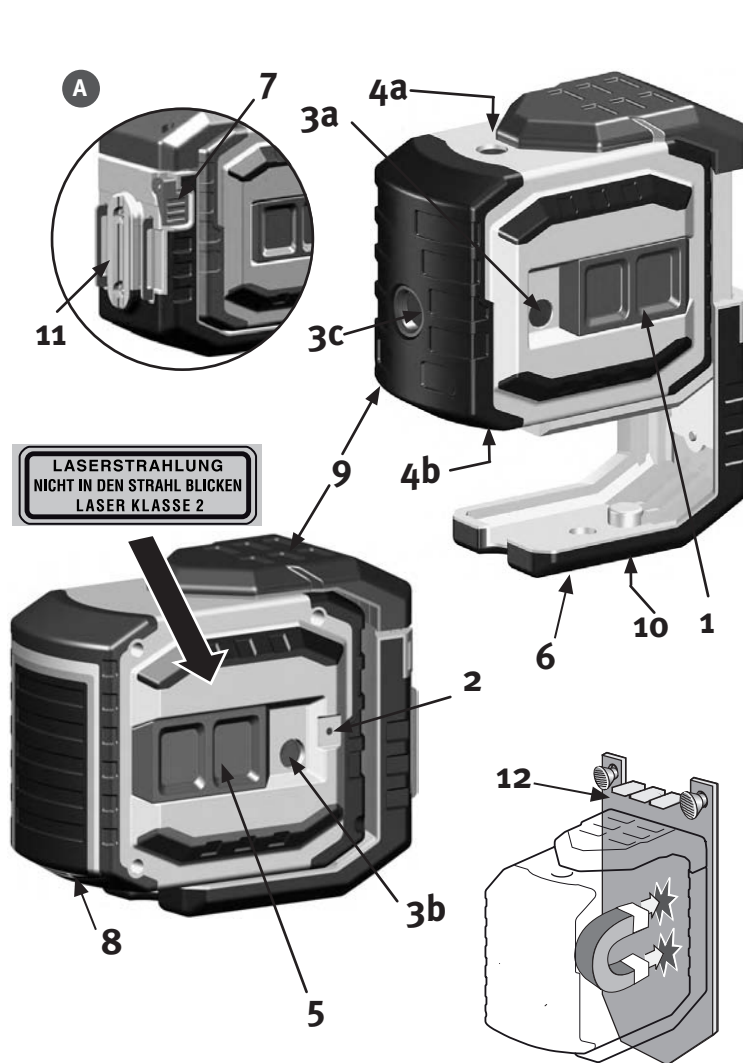


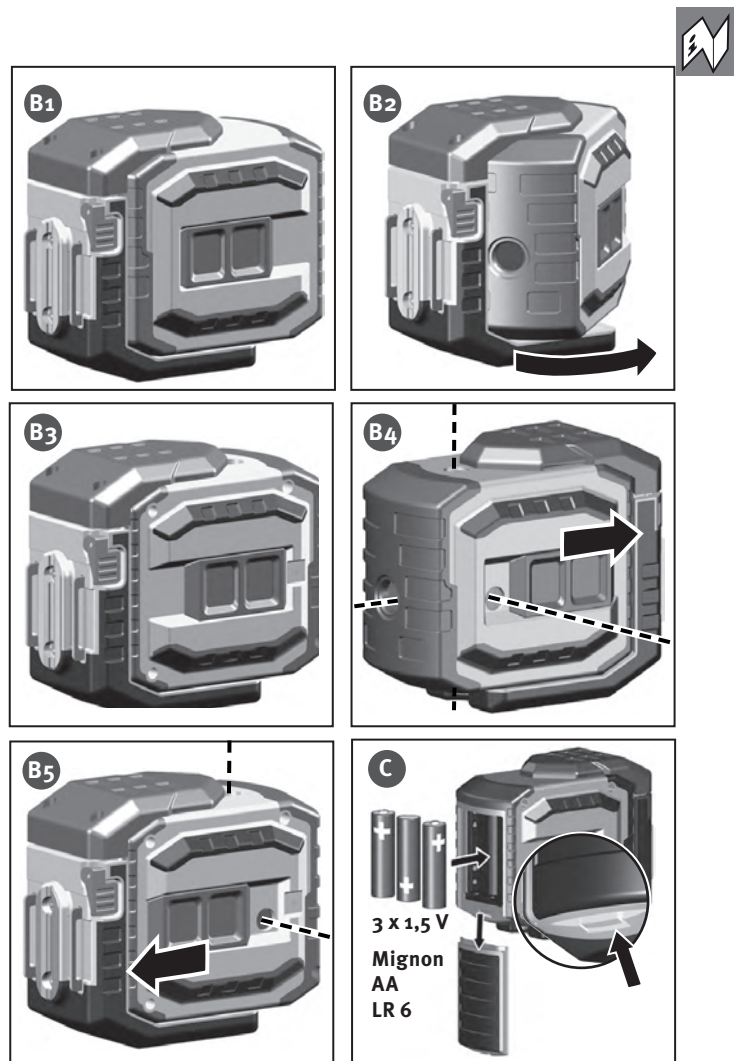
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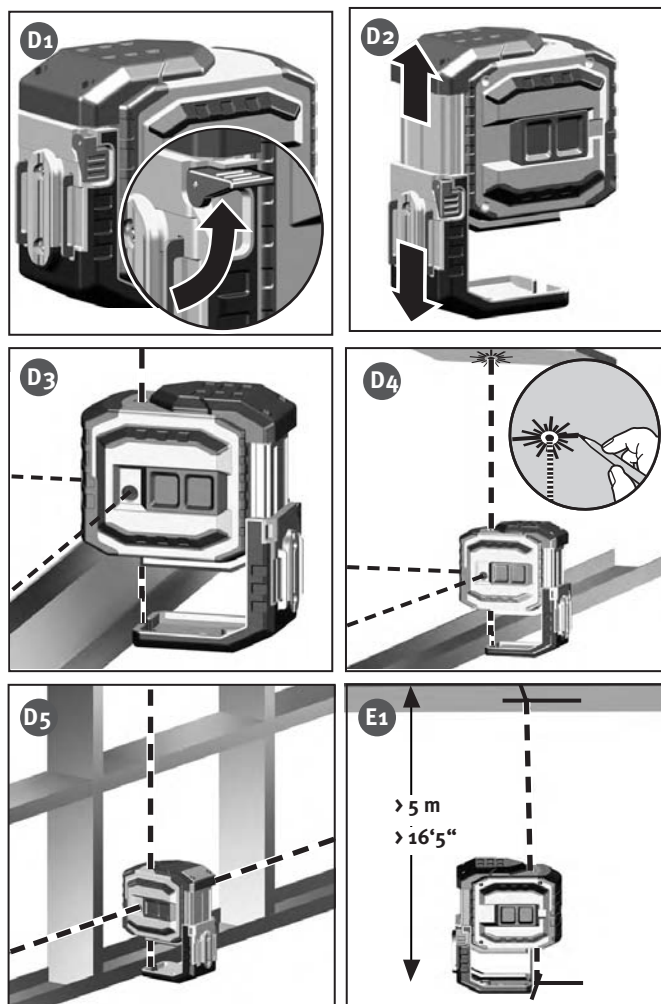


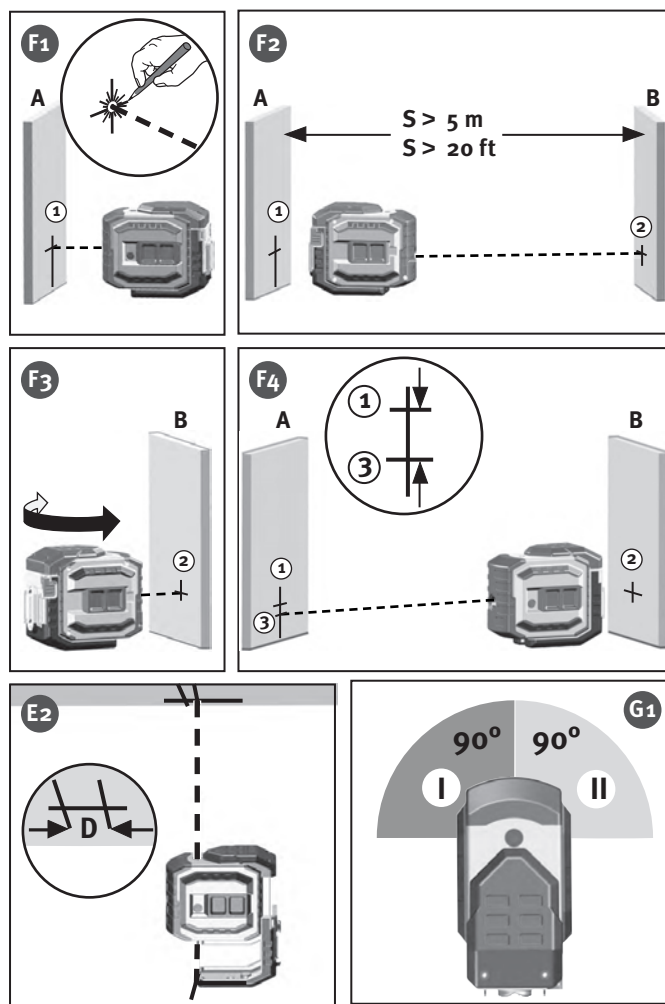
Laser LA-5P

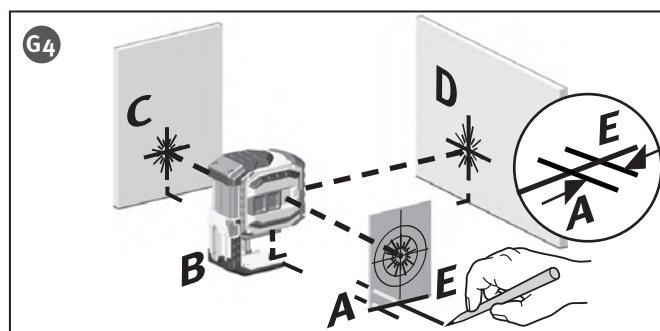
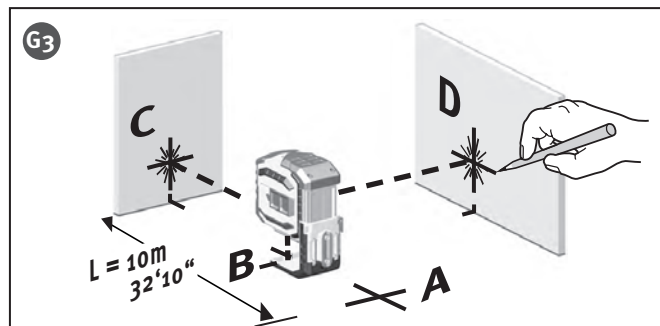
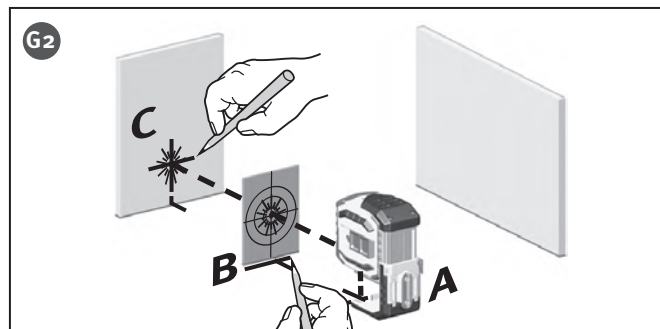
en Operating instructions











Operating instructions

The STABILA LA-5P is a simple to operate 5 point laser for use horizontal and vertical levelling and also for use in a plumb line function. This laser can measure 90° angles with great precision. It is self-levelling in the range $\pm 4,5^\circ$ and enables levels to be determined quickly and accurately. Read the User Manual along with the illustrated portion. Follow the general instructions on the handling, care and maintenance of the instrument. Observe the safety instructions on laser beams.

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



Main components

- (1) ON / OFF switch (for protecting during transport)
- (2) LED green : Operating mode ON or READY
- (3 a/b/c) Exit aperture : horizontal at 90° angle to each other
- (4 a/b) Exit apertures : for plumb line laser
- (5) Sliding cover -> horizontal exit aperture
- (6) Foot - extendable
- (7) Release lever
- (8) Battery compartment cover
- (9) Protective cover
- (10) 1/4" threaded connector for tripod
- (11) Magnets
- (12) Wall bracket

A

Before initial start-up :

The warning notice in your language must be clearly affixed on the laser instrument at the position indicated. The appropriate stickers are enclosed.

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This sticker with the warning notice written in the usual language must be affixed here in place of the English text !

Batteries must be inserted -> changing batteries

Commissioning

- B1** The instrument is switched on with the on/off switch (1). The side exit aperture (3a) is uncovered at the same time for a horizontal laser beam.
- B2** By moving the sliding cover (5) the exit aperture (3b) is uncovered for a further horizontal laser beam.
- B3**
- B4** Place the laser on a level surface. The laser must be within its $\pm 4,5^\circ$ self-levelling range for it to align automatically.
- B5**

Positioning the laser and transferring points

Plumb line function:

- D1** Release the release lever (7), extend the foot (6) and lock into position.
- D2** The LA-5P is positioned and switched on -> switch (1).
- D3** The down laser beam is aligned on the object or mark as required.
- D3** Mark the position of the perpendicular laser beam on the ceiling.
- D4** Please note that the centre of laser dot is marked !

Plumbing a Wall

- D1** Release the release lever (7), extend the foot (6) and lock into position.
- D2** Position the laser in such a way that the foot (6) is on the front edge of the floor profile.
- D3** Switch on the instrument. -> switch (1).
- D4** Illuminated green LED (2) -> laser in operation.
- D5** Align the upper end of the partition wall until the perpendicular laser beam meets the upper edge of the top track.

Operating status display and error messages via the LED

- Illuminated green LED -> laser in operation
- Illuminated red LED -> battery voltage very low
- laser beam flashing-> -> The unit is inclined too much
+ is outside the self-levelling range
+ the laser cannot level itself automatically

C 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. Suitable batteries can also be used.

Checking the calibration

The LA-5P 5 point laser is designed for use on construction sites and left our factory perfectly adjusted.. 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.

Checking plumb lining

1. Switch the unit on
2. Place the laser so that its down beam is over a reference mark on the floor. **E1**
3. Locate the position of the up beam on the ceiling and make a mark.
4. Rotate the laser 180° and realign the down beam over the reference mark on the floor. **E2**
5. Locate the position of the up beam on the ceiling and make a mark.
6. Measure the difference D between the two marks on the ceiling, which will be twice the actual error.
The difference may not be greater than: 3 mm in 5 m (1/8" in 16'5").

Checking Level 90° Calibration between horizontal and right angle

1. Find a room at least 10 m (35 ft) long.
Mark a point (A) on the floor at one end of the room. **G1**
2. Set up the laser so that its down beam is over point A.
Make sure the level beam points toward the far end of the room. **G2**
3. Mark a point (B) on the floor at the center of the room using a target to transfer the level beam location to the floor.
4. Mark a point (C) on the far wall or transfer the level beam location to the floor.
5. Move the LA-5P to point B and align the level beam to point C again. **G3**
6. Mark the location of the square beam (D) on the floor.

Tip:

To ensure accuracy, the distances from A to B, B to C, and B to D should be equal.

7. Turn the LA-5P 90° so that the level beam aligns with point D. **G4**
8. Mark the location of the square beam (E) on the floor as close as possible to point A.
9. Measure the distance between points A and E.

Room length or distance between points A and C	The 90° angle between the level beam and square beam is out of calibration if the distance between points A and E is:
10 m	> 2,0 mm
20 m	> 4,0 mm
32'10"	> 5/64 "
65'8"	> 5/32 "

Horizontal checking

Two parallel wall surfaces at least 5m /16'5" apart are required for the horizontal check.

- F1** 1. Place the LA-5P on a smooth surface or on a tripod as close as possible to wall A and with the front side pointing towards the wall
2. Switch the unit on.
- F2** 3. Mark the centre of the visible laser dot on wall A (point 1).
- F2** 4. Turn the complete unit 180° without altering the height of the laser.
- F3** 5. Mark the centre of the visible laser dot on wall B (point 2).
- F3** 6. Now move the unit directly in front of wall B.
- F4** 7. Set the unit's height so that the laser dot's height matches that of point 2.
- F4** 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	Measured Value	S	Measured Value
	5 m	3,0 mm	20 ft	1 / 8"
	10 m	6,0 mm	40 ft	9 / 32"
	15 m	9,0 mm	60 ft	7 / 16"
	20 m	12,0 mm	80 ft	9 / 16"

Technical data

Laser type:	Red diode laser, wavelength 635 nm		
Output :	≤ 1 mW, Laser Class 2 to IEC 60825-1:2007 This product complies with 21CFR parts 1040.10 and 1040.11.		
Self-levelling range*: (horizontal)	Approx. ± 4,5°		
Levelling accuracy :			
Laser line horizontal*:	L1 = ± 0,3 mm/m	middle of the laser line	
	L1 = ± 3/8"	over 100 ft	
90° angle laser beam*:	L2 = ± 0,2 mm/m	laserl inie	
	L2 = ± 1/4"	over 100 ft	
Up Beam Accuracy :	L3 = ± 0,3 mm / m	/	± 3/8" over 100 ft
Down Beam Accuracy:	L4 = ± 0,4 mm / m	/	± 1/2" over 100 ft
Batteries :	3 x 1,5 V Mignoncells Alkaline, Size AA, LR6		
Operating life :	Approx. 20 hours (Alkaline)		
Operating temperature range :	-10 °C to +50 °C / -14°F to +122°F		
Storage temperature range:	-20 °C to +60 °C / -4°F to +140°F		

Subject to technical modifications.

* When operated within specified temperature range