

AutoCross-Laser ACL 4C / ACL 4C RX



8.031.96.11.1 / Rev.1208

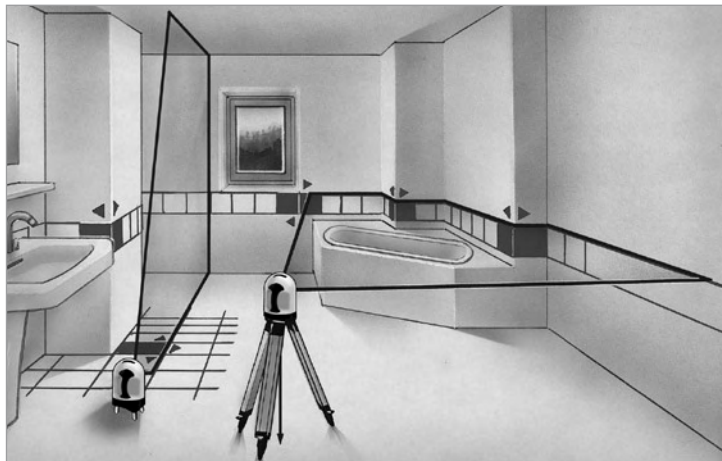
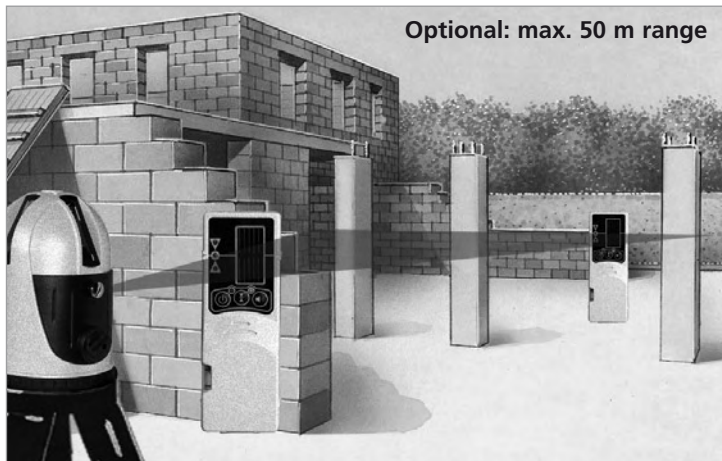
**AUTOMATIC
LEVEL**



Laserliner®
Innovation in Tools

DE	Bedienungsanleitung	3-8
GB	Operating instructions	9-14
NL	Gebruiksaanwijzing	15-20
DK	Betjeningsvejledning	21-26
FR	Mode d'emploi	27-32
ES	Instrucciones para su uso	33-38
IT	Istruzioni d'uso	39-44
PL	Instrukcja Obsługi	45-50
FI	Käyttöohje	51-56
PT	Instruções de uso	57-62

AutoCross-Laser ACL 4C / ACL 4C RX



Robust cross-line laser with 4 super-bright laser lines, plumb laser and impact-proof housing cover

Special high-performance laser diodes project extremely visible laser lines. Straightforward plumb function using laser cross at the top and additional plumb laser. The vertical laser lines are aligned at right angles to one another. Magnetically-damped pendulum system for automatic alignment, 3° self-leveling range, magnetically damped. Pendulum can be locked for protection during transport. The pivoted housing can be turned with a vernier adjustment mechanism to permit exact positioning of laser lines. The removable rubber caps on the adjustable feet prevent the device slipping on smooth surfaces. Precision 2 mm/10 m. RX-Ready: The laser receiver, which is available as an optional extra, can detect laser lines in a range of up to 50 m.

General safety instructions

Caution: Do not look directly into the beam. Lasers must be kept out of reach of children. Never intentionally aim the device at people. This is a quality laser measuring device and is 100% factory adjusted within the stated tolerance. For reasons of product liability, we must also draw your attention to the following: Regularly check the calibration before use, after transport and after extended periods of storage. We also wish to point out that absolute calibration is only possible in a specialist workshop. Calibration by yourself is only approximate and the accuracy of the calibration will depend on the care with which you proceed.



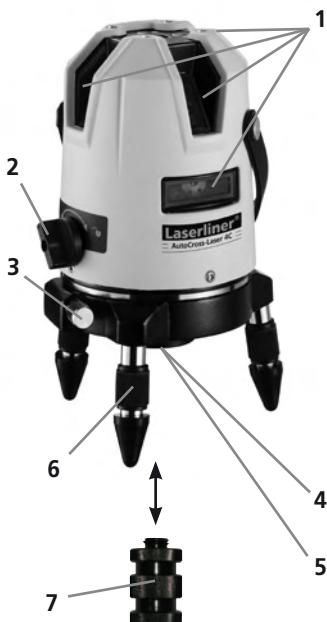
Laser radiation!
Do not stare into the beam or observe it directly with optical instruments.
Laser class 2 M
EN60825-1:2007-10

Note: This product is a precision instrument that must be handled and treated with care. Avoid shocks and impact. Always keep and carry in the case! Switch all lasers off and secure the pendulum. For cleaning, use a soft cloth and glass cleaner.

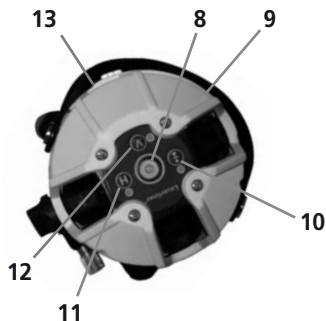
Warranty:

The warranty period is 2 years from the date of purchase. The warranty covers all material or manufacturing defects occurring during this time. The following are excluded from warranty: Damage due to improper use (e.g. operation with wrong type of current/voltage, connection to unsuitable power source, fall onto hard surface, etc.) or improper storage, normal wear and tear, and defects which only insignificantly impair the value or suitability for use. Any tampering by unauthorised persons will render this warranty void. In the event that you need to claim warranty, please take the complete device together with all information and the invoice to one of our dealers or send it in to Umarex-Laserliner.

AutoCross-Laser ACL 4C / ACL 4C RX



1	Windows for line lasers
2	ON / OFF switch Transport securing device
3	Knob for precision adjustment
4	5/8" thread (underside)
5	Window for plumb laser (underside)
6	Adjustable feet with removable rubber caps
7	Tripod adapter
8	Round vial for rough adjustment / low battery charge (low bat. display)
9	Battery compartment
10	Hand receiver mode
11	Horizontal laser line
12	Vertical laser lines
13	Connecting socket for mains adapter (6 V/1000 mA, no charging function).

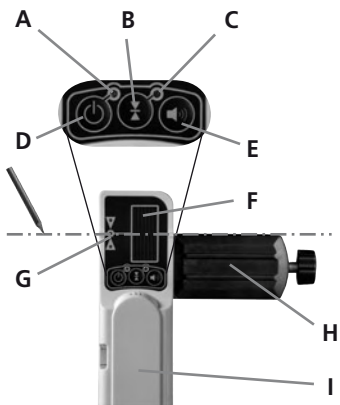


IMPORTANT!

In order to get the best usage out of rechargeable batteries and to preserve them, they should be removed/charged when a low charge level is indicated.

Note:

For transport, the ACL 4C must always be switched off with the transport securing device (2) so as to protect device from damage.



A	Power indicator
B	Switch accuracy short range / long range
C	LED for accuracy green / red
D	ON / OFF switch
E	Sound ON / OFF
F	Receiver field for laser beam
G	LED's for Laserindication (front, side, backside)
H	Universal mount
I	Battery compartment (backside)

Inserting the batteries ACL 4C and Laserreceiver RX 51 (optional):

Open the battery compartment (9, I) and insert the batteries in accordance with the installation symbols, ensuring the correct polarity. Close the cover. Low battery charge: Replace the ACL 4C batteries when the illuminated vial (8) flashes.

Aligning the ACL 4C:

For approximate adjustment of the lasers, the top part of the ACL 4C can be turned on the base. Precise positioning can then be done with the precision adjustment knob (3). The adjustable feet (6) allow the device to be positioned on sloping surfaces.

Switching on the ACL 4C:

Turn the ON/OFF switch (2) to the right, thereby releasing the transport securing device. The lasers can now be individually activated via buttons 11, 12. To obtain maximum visibility of the laser line, the hand receiver mode must be switched off (button 10). In this case, it is not possible to work with the laser receiver.

Note:

If the device is too far off the horizontal (more than 3°), the lasers will switch off. Align the device using the adjustable feet (6) or place on a more level surface. The round vial (8) is provided as an aid to alignment.

AutoCross-Laser ACL 4C / ACL 4C RX

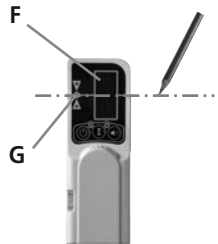
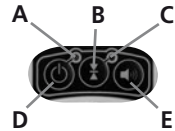
Optional: Working with the laser receiver RX 51:

For levelling over longer distances or in conditions of bright light, use the laser receiver RX 51. Switch on with button D; control lamp A will light up.

IMPORTANT: Set the ACL 4C to hand receiver mode (button 10). The laser lines will now pulsate with high frequency (10 kHz), making the laser lines darker. The laser receiver can detect these pulsating laser lines up to a maximum distance of 50 m.

Now move the receiver field (F) of the laser receiver through the laser lines upwards and downwards (horizontal laser line) and/or sideways (vertical laser line) until the centre LED (G) lights up. Now mark the horizontal and/or vertical reference dimension.

Adjust the sensitivity of the laser receiver with button B. Green LED (C) for close-range working up to max. 15 m, red LED (C) for distance-range working up to max. 50 m. The sound can be switched on or off with button E.



Note:

The light intensity of the laser lines is highest in the middle and lessens towards the edges. The maximum range of the laser receiver therefore also changes accordingly: Green LED max. 7 — 15 m, red LED max. 30 — 50 m.

Universal mount (optional):

The laser receiver RX 51 can be fitted on measuring staffs with the universal mount. The Flexi measuring staff (Art. No. 080.50) is always recommended when measuring from floor heights. It also allows you to determine heights directly without any need for calculation.



Note:

Regularly check the calibration before use, after transport and after extended periods of storage.



Technical data

Self-levelling range	$\pm 3^\circ$
Precision	$\pm 2 \text{ mm} / 10 \text{ m}$
Optional: Working range with laser receiver	max. 50 m
Laser wavelength	635 nm
Laser class / Laser output rating line lasers	2M / < 5 mW
Laser class / Laser output rating plumb laser	2 / < 1 mW
Power supply ACL 4C / battery life	3 x 1,5V AA / ca. 12 h
Power supply laser receiver RX 51	1 x 9V Block
Weight ACL 4C	1,6 kg
Operating temperature	0°C ... +50°C
Storage temperature	-10°C ... +70°C
Order number ACL 4C / ACL 4C RX	031.31 / 031.311A
Subject to technical alterations	12/2008

Information on precision:



Precision 2 mm / 10 m: Adjust the device using the adjusting screws (6) in such a way that the bubble of the circular level (8) is exactly in the middle.

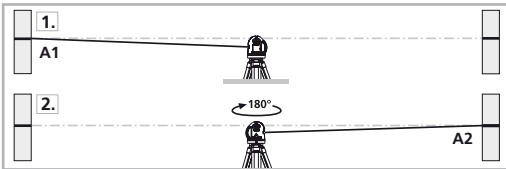


Precision 3 mm / 10 m: Adjust so that the bubble of the circular level is within the ring.

AutoCross-Laser ACL 4C / ACL 4C RX

Preparing the calibration check:

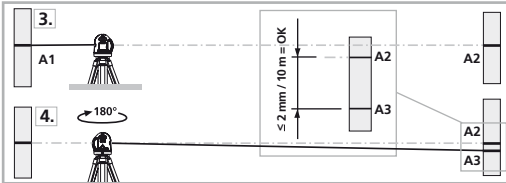
It is possible for you to check the calibration of the laser. To do this, position the device **midway** between 2 walls, which must be at least 5 metres apart. Switch the device on (Laser cross ON). The best calibration results are achieved if the device is mounted on a tripod. **1.** Mark point A1 on the wall.



2. Turn the device through 180° and mark point A2. You now have a horizontal reference between points A1 and A2.

Performing the calibration check:

3. Position the device as near as possible to the wall at the height of point A1.



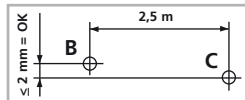
4. Turn the device through 180° and mark point A3. The difference between points A2 and A3 is the tolerance.

Note: If points A2 and A3 are more than 2 mm / 10 m, the device is in need of calibration. Contact your authorised dealer or else the UMAREX-LASERLINER Service Department.

Checking the vertical line: Position the device about 5 m from a wall. Fix a plumb bob with a line of 2.5 m length on the wall, making sure that the bob can swing freely. Switch on the device and align the vertical laser to the plumb line. The precision is within the specified tolerance if the deviation between the laser line and the plumb line is not greater than ± 1.5 mm.

Checking the horizontal line:

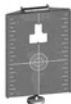
Position the device about 5 m from a wall and switch on the cross laser. Mark point B on the wall. Turn the laser cross approx. 2.5 m to the right and mark point C. Check whether the horizontal line from point C is level with point B to within ± 2 mm. Repeat the process by turning the laser to the left.



- DE **Zubehör (optional)**
- GB **Accessories (optional)**
- NL **Accessoires (optioneel)**
- DK **Tilbehør (flere typer)**
- FR **Accessoires (en option)**

- ES **Accesorios (opcional)**
- IT **Accessori (optional)**
- PL **Akcesoria (opcja)**
- FI **Lisämahdollisuuksia valinnaisvarusteilla**
- PT **Acessórios (opcional)**

Art.-Nr: 023.61A



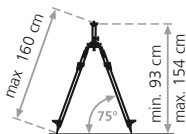
Art.-Nr: 090.120A



Art.-Nr: 033.20-1



ACL 4C: optional
ACL 4C RX: inclusive



Art.-Nr: 080.30



max. ca. 330 cm

AutoCross-Laser ACL 4C / ACL 4C RX



Laserstrahlung!
Nicht in den Strahl blicken
oder direkt mit optischen
Instrumenten betrachten.
Laser Klasse 2 M
EN60825-1:2007-10

Laser radiation!
Do not look into the
beam or observe it directly
with optical instruments.
Laser class 2 M
EN60825-1:2007-10



- | | |
|--|---|
| DE Service- und Versand-Anschrift | ES Dirección de servicio y de envío |
| GB Service- and Shipping Address | IT Indirizzo di assistenza e di spedizione |
| NL Service- en verzendadres | PL Serwis i sprzedaż |
| DK Service- og Postadresse | FI Service- og Postadresse |
| FR Livraison et expédition | PT Endereço de serviço e envio |

Umarex GmbH & Co KG
— Laserliner —
Möhnstraße 149,
59755 Arnsberg, Germany
Tel.: +49 2932 638-300, Fax: -333
laserliner@umarex.com

Umarex GmbH & Co KG
— Laserliner —
Donnerfeld 2
59757 Arnsberg, Germany
Tel.: +49 2932 638-300, Fax: -333
www.laserliner.com

Laserliner[®]
Innovation in Tools