



043.00.00A / Rev 0807

**SENSOR**  
AUTOMATIC

**ADS**  
(Tilt)

**D** Bedienungsanleitung

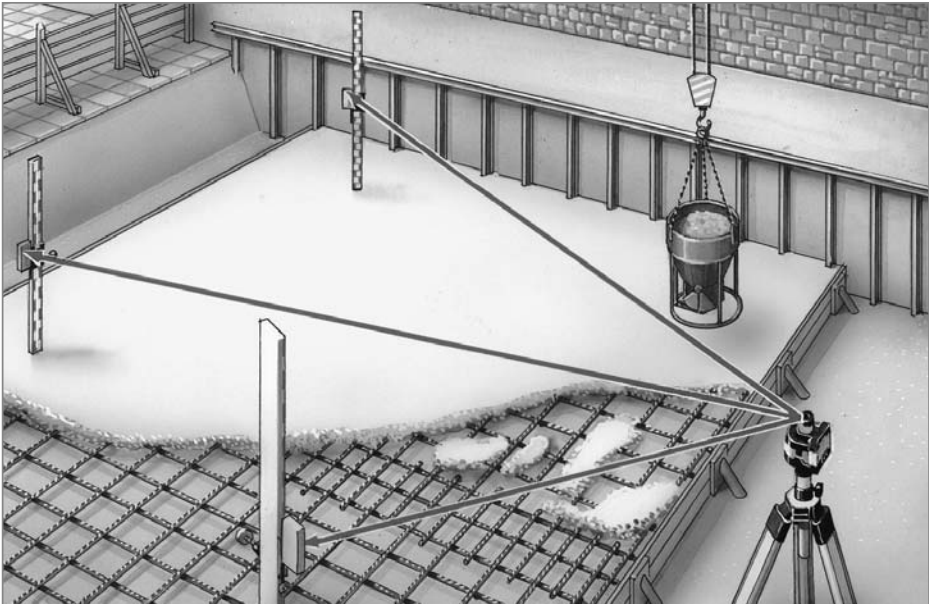
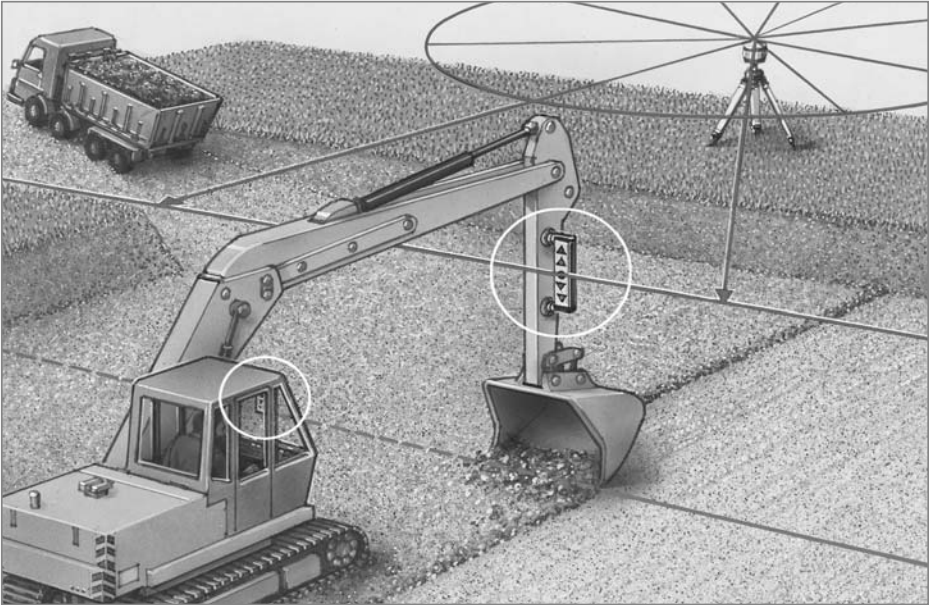
**GB** Operating instructions

3-10

11-18

**Laserliner®**  
Innovation in Tools

# DualAxis-Laser



## **A dual-axis grade laser of extremely rugged design – for civil and construction engineering**

- Digital gradient setting: deviation from the horizontal plane can set digitally in X and Y axes.
- Sensor-Automatic: electronic positioning motors controlled by temperature-stable sensors make horizontal alignment automatically.
- ADS tilt: automatic shutoff by ADS (Anti-drift system).
- Laser Sector mode: the operating circle of the laser beam can be restricted to 4 individual sectors.
- High maximum rotation speed, 1100 r/min.
- The included scope allows the instrument to be oriented precisely.

### **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 LIGHT !  
DO NOT STARE INTO THE  
BEAM OR VIEW DIRECTLY  
WITH MAGNIFIERS.  
CLASS 2 LASER  
EN60825-1:2003-10









#### **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 laser off. 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.

User guide		
 (34)	First of all switch on	Unit is then always in auto mode this means 600 rpm and Sensor-Automatic is on.
 (37)	Remote control	All functions can be controlled with the remote control except the slope function. Here is a special feature: pressing the on/off button puts the DualAxis into a Standby mode, all functions are stored until the unit is switched on again with the remote control.
 (35)	Rotating speed	With the rotation button the rotating speed can be changed from 0, 300, 600, 1100 rpm.
 (27) (31)   (28) (28)   (29)	Digital slope function	<p>The Slope Mode works as follows: Press button X, first digit flashes, press either plus or minus to enter positive or negative figure. Pressing X again changes to next digit, pressing either plus or minus for positive or negative figure. For further digits same procedure as above. For Y same as for X.</p> <p><b>Important:</b> Each input is confirmed by pressing Enter button (. Slope now flashes in LCD. One now has no influence to the displayed figure until the unit has levelled. First then a new figure can be set up.</p>
 (32)	Auto/Man	The manual mode can be switched on or off at any time, even in slope mode, this button only deactivates Sensor-Automatic. It is on importance that a slope cannot be made with the Commander as known from other Rotating Lasers.

 <p>(33)</p>	<p>Tilt function</p>	<p>After Sensor-Automatic is activated press Tilt button (33) . After 30 sec. Tilt is on. Should the laser be moved it switches itself automatically off and the Laser and Tilt symbol (22) start flashing. Pressing Tilt button again reactivates Sensor-Automatic and after 30 sec. Tilt is active again. Pressing Tilt again deactivates the function.</p> <p><b>Important:</b> In Standby mode the tilt function is off.</p>
 <p>(30) (28) (28)</p>  <p>(29)</p>	<p>Switching segments off partly</p>	<p>Press segment button. The according segment in the display will start flashing. Press either plus/minus buttons to switch segment on or off. Pressing Sektion Button again changes to next segment. Enter button (29) saves function to Laser.</p>
 <p>(29)</p>	<p>Illumination Display</p>	<p>Press enter button (29) off the rotarylaser for min. 2 sec. with switch light on or off.</p>
	<p>Power management</p>	<p>The unit works with rechargeable batteries, normal alkali batteries and mains unit. One charge rechargeable batteries and work at the same time.</p>
 <p>(32) (34)</p>  <p>(35)</p>  <p>(39) (39)</p>  <p>(40)</p>	<p>Calibration</p>	<p>Press Auto/man button and keep depressed. Press in addition ON/OFF button till "CAL" can be seen in display. Slide down cover of the remote control and use X/Y button (38) to choose the axis. With the plus/minus buttons (39) X or Y axis can be calibrated. Enter button (40) saves new settings to Laser.</p>

# DualAxis-Laser



## Sensor Automatic

The DualAxis-Laser is of the self-levelling kind. After it has been put in the required basic position, fine adjustment is being effected automatically. Horizontal and vertical orthogonal adjustments are effected by the self-levelling system (SLS), while the X-axis and the Y-axis are scanned by two electronic measuring sensors. The working angle is  $\pm 5^\circ$ .

**Digital slope adjustment:** With special slope sensors the horizontal plane could be incline. The inclination of the X- and Y-axis can be adjusted separately up to 7,999%. The large LC-Display shows the exact values.

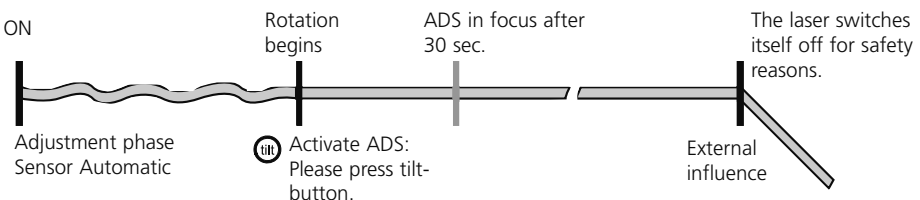
## ADS Anti-Drift-System (ADS)

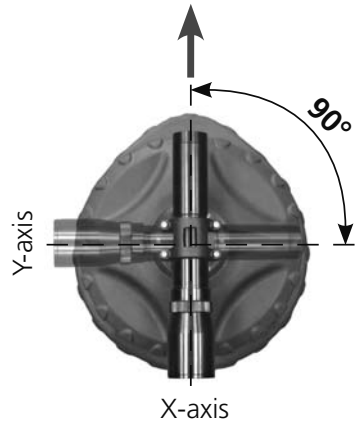
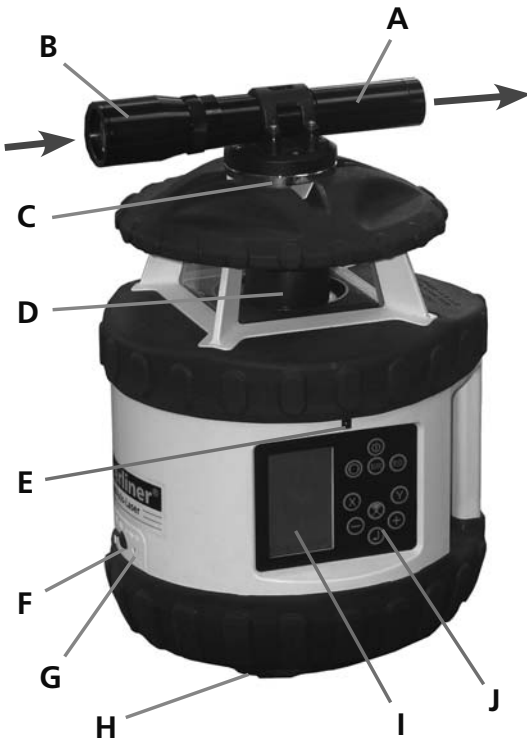
The Anti-drift system (ADS) prevents mismeasurements. Its principle of function: 30 seconds after ADS has been activated, the laser is permanently being checked for its correct adjustment. In case the instrument has been moved by external influences or the laser has lost its frequency, the system shows it automatically.

**IMPORTANT:** After the instrument has been switched on, the ADS is not active. In order to protect the instrument from position changes caused by external influences, the ADS has to be activated by pressing the push-button „tilt“(34). Should the instrument be moved by external influences, then the prism head stops, "TILT" on the LCD and the laser are blinking fast. Please press the Tilt button once again if work is to be commenced. After 30 seconds the ADS is active again. The adjusted values are not lost in this process. If you want to deactivate the ADS please press the tilt-button once again.

**Attention:** The ADS-function will switch on the control of the laser 30 sec. after the laser has completely been levelled (adjustment phase). 30 sec. after pressing the tilt-button "TILT" blinks slowly in the LC-Display. If the LC-Display shows "TILT" permanent the ADS is active.

## Operating mode ADS:





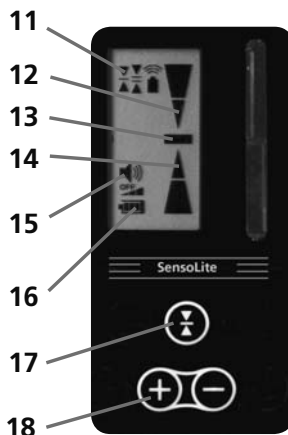
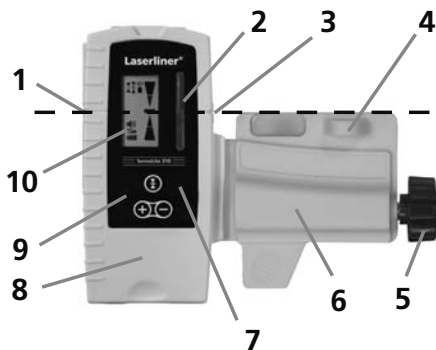
- |  |                                 |
|--|---------------------------------|
| <b>A</b> Scope                             | <b>G</b> Battery charge display |
| <b>B</b> Ocular                            | <b>H</b> 5/8" thread (bottom)   |
| <b>C</b> Scope mounting plate              | <b>I</b> LC-Display             |
| <b>D</b> Prism head                        | <b>J</b> Control panel          |
| <b>E</b> Receiver diode for remote control | <b>K</b> Battery compartment    |
| <b>F</b> Charger socket (DC 6V)            |                                 |

## DualAxis-Laser

### Optional accessory:

#### SensoLite 310

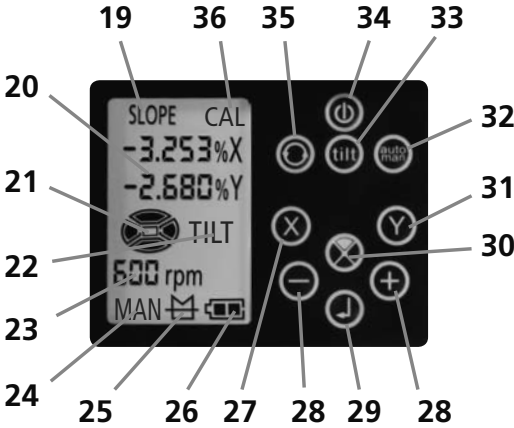
Protection class IP 66



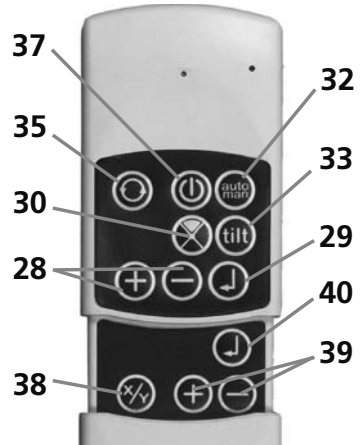
- |   |   |
|---|---|
| 1 All-round marking groove              | 11 Display measuring range selection                        |
| 2 Receiver field for laser beam         | 12 Hand receiver above laser level                          |
| 3 SpotLite Marking LED                  | 13 Precisely on laser level                                 |
| 4 Vial                                  | 14 Hand receiver below laser level                          |
| 5 Securing screw for levelling staff    | 15 Acoustic signal display                                  |
| 6 Universal mount                       | 16 Low battery display                                      |
| 7 Binding screw / loudspeaker (on back) | 17 Hand receiver mode /<br>Switch: Precision range $\nabla$ |
| 8 Battery compartment (on back)         | Free-hand range $\nabla$                                    |
| 9 Control panel                         | 18 Volume adjustment  |
| 10 LC-Displays (on front and back)      |   |

**Note:** The laser receiver has two tolerance settings: Precision and free-hand setting.

**LC-Display und control panel  
DualAxis-Laser**



**Commander  
DA 50**

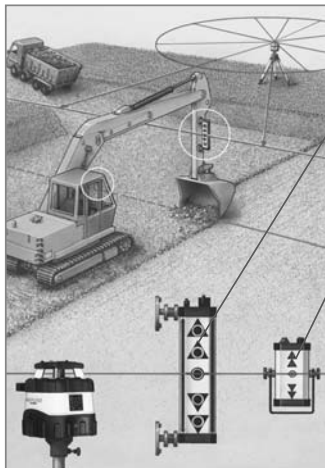


- 19** Display digital Slope function
- 20** Display digital slope adjustment X- and Y-axis
- 21** Display of the laserbeam area
- 22** Display Tilt function
- 23** Display speed of rotation
- 24** Display auto/man function
- 25** Display Sensor-Automatic
- 26** Low battery display
- 27** Activate the slope adjustment of the X-axis / select data zone
- 28** Plus/minus-button for slope adjustment / selection of the laserbeam area.
- 29** Enter button
- 30** Set laserbeam area
- 31** Activate the slope adjustment of the X-axis / select data zone
- 32** auto/man-function
- 33** Tiltfunction
- 34** ON/OFF button DualAxis-Laser
- 35** Select speed of rotation 0 / 300 / 600 / 1100 U/min
- 36** Display Calibration mode
- 37** Activate standby mode at DualAxis-Laser. Adjusted values are not lost in this process.
- 38** Calibration mode: switch X-, Y-axis
- 39** Calibration mode: adjusting axes
- 40** Enter button Calibration mode: Save the new setting

## DualAxis-Laser (Subject to technical alterations).

<b>DualAxis-Laser</b>	
Self-levelling range	$\pm 5^\circ$
Adjustment speed	approx. 60 sec. on entire working angle
Precision	$\pm 0,5 \text{ mm} / 10 \text{ m}$
Horizontal levelling	automatic with electronic vials
Digital slope adjustment	X-axis = $\pm 7,999\%$ / Y-axis = $\pm 7,999\%$ / $ X\text{-axis}  +  Y\text{-axis}  < 10\%$
Precision of the digital slope adjustment	$\pm 3 \text{ mm} / 10 \text{ m}$
Rotation speed	0, 300, 600, 1100 rpm
Remote control	Infrared IR
Laser wavelength	635 nm
Laser	Class 2 (EN 60825-1:2001)
Laser output rating	$< 1 \text{ mW}$
Rechargeable batt. operating time	approx. 35 h
Non-rechargeable battery life	approx. 80 h, 4 x Typ D (Mono 1,5 V)
Battery recharging time	approx. 8 h
Operating temperature	$-10^\circ\text{C} \dots + 50^\circ\text{C}$
Weight	5,2 kg
<b>SensoLite 310 / Commander DA 50</b>	
Batterien SensoLite 310 / Commander DA 50	1 x 9V block
Reichweite Commander DA 50	max. 50 m (IR-control)
Laserempfangsbereich SensoLite 310	max. 300 m
Operating temperature	$-10^\circ\text{C} \dots + 50^\circ\text{C}$
Storage temperature	$-10^\circ\text{C} \dots + 70^\circ\text{C}$

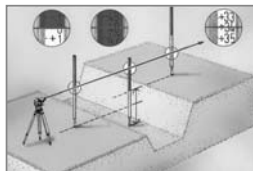
- Ⓓ **Zubehör (optional)**
- ⒼⒸ **Accessories (optional)**
- ⒹⒻ **Accessoires (optioneel)**
- ⒹⒶ **Tilbehør (flere typer)**
- Ⓕ **Accessoires (en option)**
- Ⓔ **Accesorios (opcional)**
- Ⓘ **Accessori (optional)**
- ⒶⒻ **Akcesoria (opcja)**
- ⒻⒶ **Lisämahdollisuuksia valinnaisvarusteilla**
- Ⓐ **Acessórios (opcional)**



Art.-Nr: 035.00.A

Art.-Nr: 035.01

Art.-Nr: 080.50



Art.-Nr: 080.33



Art.-Nr: 075.108 (8m)

Art.-Nr: 075.105 (5m)



## DualAxis-Laser

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LASERSTRAHLUNG!  
NICHT IN DEN STRAHL BLICKEN  
ODER DIREKT MIT OPTISCHEN  
INSTRUMENTEN BETRACHTEN.  
LASER KLASSE 2  
EN60825-1:2003-10

LASER LIGHT !  
DO NOT STARE INTO THE  
BEAM OR VIEW DIRECTLY  
WITH MAGNIFIERS.  
CLASS 2 LASER  
EN60825-1:2003-10

**(D)** Service- und Versand-Anschrift

**(GB)** Service- and Shipping Address

**(NL)** Service- en verzendadres

**(DK)** Service- og Postadresse

**(F)** Livraison et expédition

**(E)** Dirección de servicio y de envío

**(I)** Indirizzo di assistenza e di spedizione

**(P)** Serwis i sprzedaż

**(FIN)** Service- og Postadresse

**(P)** Endereço de serviço e envio

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