User Manual

English

Before using the product for the first time, please read carefully through the Safety Instructions and the User Manual. The person responsible for the instrument must ensure that all users understand these directions and adhere to them.

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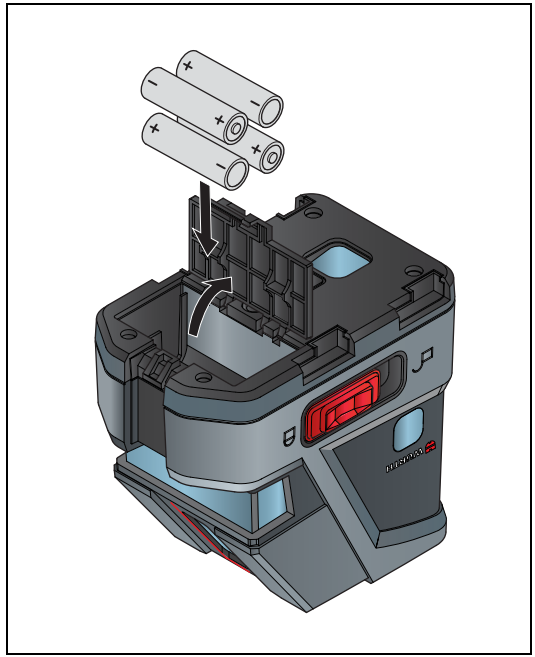
Start up

Inserting / replacing batteries

Slide the locking button forwards to unlock the battery compartment. Open the battery compartment cover and insert the batteries, observing the correct polarity. Then press the battery compartment cover back down until it engages.

The battery symbol ⑤ lights up when the battery voltage is too low. Replace the batteries as soon as possible.

- Insert the batteries observing the correct polarity
- Use alkaline batteries or rechargeable batteries only
- Remove the batteries if the instrument is not to be used for a long period of time (to prevent corrosion)



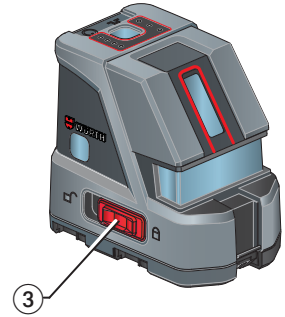
Operation

Keypad and control elements

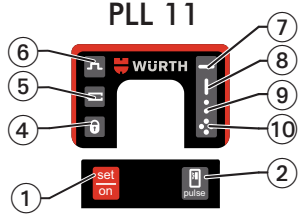
① On/Set key
② Pulse key
③ Lock switch

Display

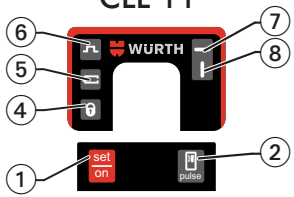
④ Locked
⑤ Battery voltage too low
⑥ Pulse/Power save mode ON
⑦ Horizontal laser line
⑧ Vertical laser line
⑨ Plumbing point
⑩ Plumbing and crossline intersection point



PLL 11



CLL 11



Switching on/off

- **ON:** Briefly press the On/Set key ①.
- **OFF:** Press and hold down the Pulse key ①.

Laser functions

Pressing the On/Set key ① activates the following laser functions:

Action	PLL 11		CLL 11	
	not in Lock mode	in Lock mode	not in Lock mode	in Lock mode
1x	all points	only horizontal line	all lines	only horizontal line
2x	all lines and points	only vertical line	horizontal line	only vertical line
3x	only plumbing point	again as 1x	vertical line	again as 1x
4x	again as 1x	-	again as 1x	-

Self-levelling and Lock functions

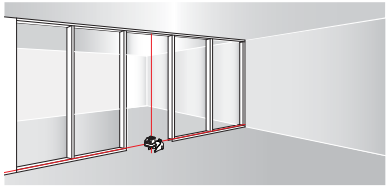
The instrument automatically levels itself within the specified grade range (Refer to "Technical data") .
Press the Lock switch ③ in order to transport or tilt the instrument beyond the self-levelling range. When locked, the pendulum is fixed and the self-levelling function is deactivated.

Pulse

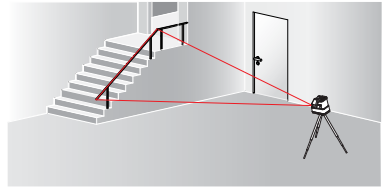
To be able to detect the laser lines over long distances (> 15 m) or in unfavourable lighting conditions, a laser detector can be used. The detector is able to locate the laser beam in Pulse mode, even over long distances.
(Laser detector refer to accessories)

Applications PLL 11

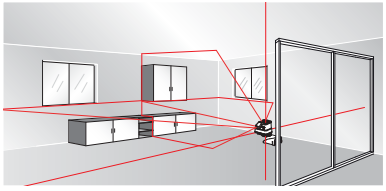
set on 1x



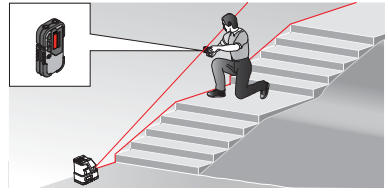
set on 1x +  set on 2x + 



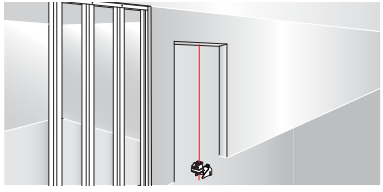
set on 2x



 1x

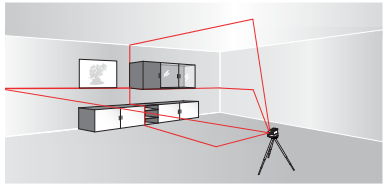


set on 3x

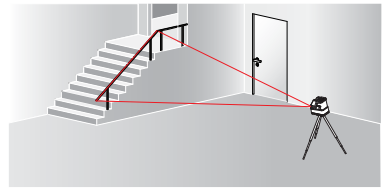


Applications CLL 11

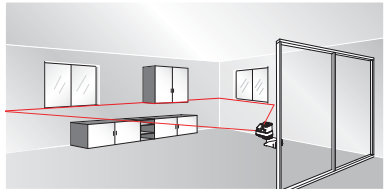
set on 1x



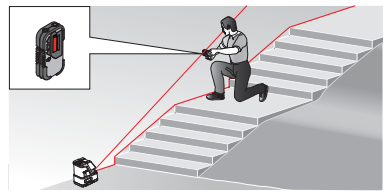
set on 1x +  set on 2x + 



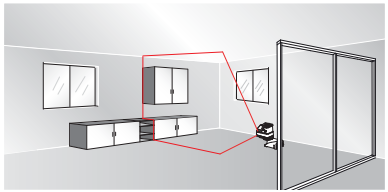
set on 2x



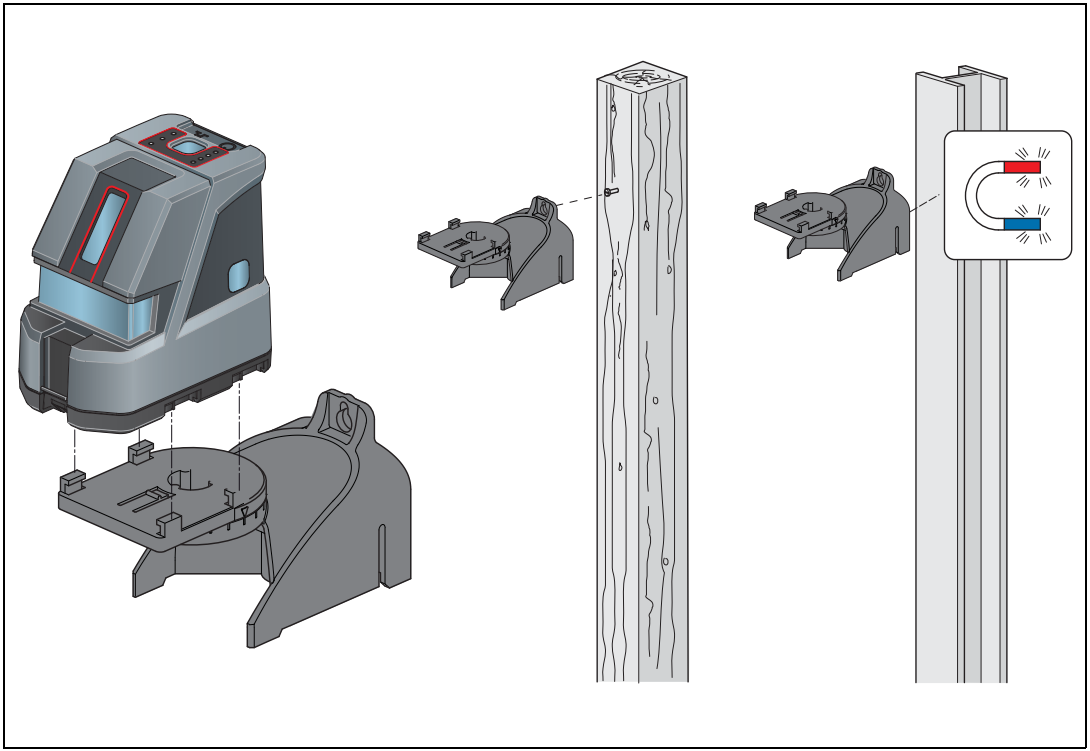
 1x



set on 3x



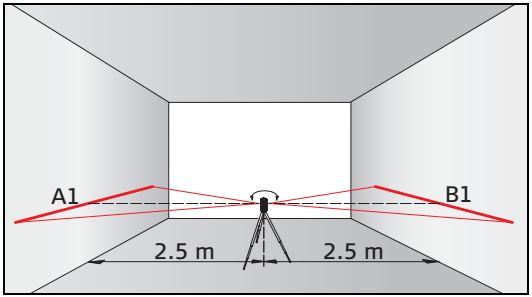
How to use the wall mount bracket:



Checking the accuracy

☞ Check the accuracy of your CLL 11/PLL 11 regularly and particularly before important measuring tasks.

Checking the accuracy of the levelling

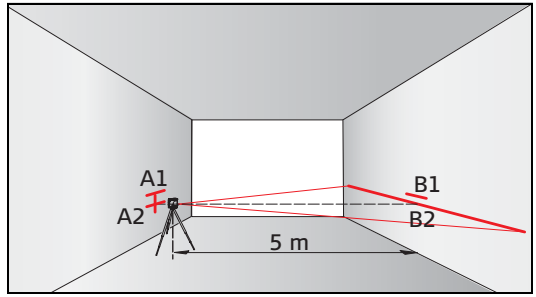


Set the instrument on a tripod half-way between two walls (A+B) that are approx. 5 m apart.

Place the Lock switch ③ in the "Unlocked" (🔓) position.

Direct the instrument at wall A and switch on the instrument. Activate the horizontal laser line or laser dot and mark the position of the line or the dot on wall A (-> A1).

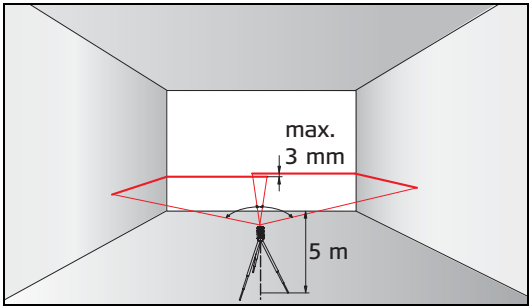
Rotate the instrument by 180° and mark the horizontal laser line or the laser dot in exactly the same way on wall B (-> B1).



Then place the instrument at the same elevation as close as possible to wall A and again mark the horizontal laser line or the laser dot on wall A (-> A2) . Rotate the instrument by 180° again and mark the laser on wall B (-> B2). Measure the distances of the marked points A1-A2 and B1-B2. Calculate the difference of the two measurements. If the difference does not exceed 2 mm, then the CLL 11/PLL 11 is within tolerance.

$| (A1 - A2) - (B1 - B2) | \leq 2$ mm

Checking the accuracy of the horizontal line:

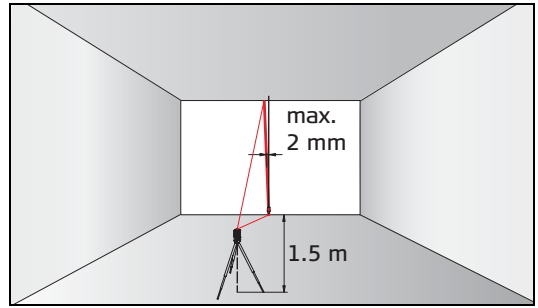


Place the Lock switch ③ in the "Unlocked" (🔓) position.

Position the instrument approx. 5 m away from the wall. Direct the instrument at the wall and switch on with the On/Set key ①. Activate the laser line with the On/Set key ① and mark the intersection point of laser crosshairs on the wall.

Swivel the instrument to the right and then to the left. Observe the vertical deviation of the horizontal line from the marking. If the difference does not exceed 3 mm, then the CLL 11/PLL 11 is within tolerance.

Checking the accuracy of the vertical line:



Place the Lock switch ③ in the "Unlocked" (🔓) position.

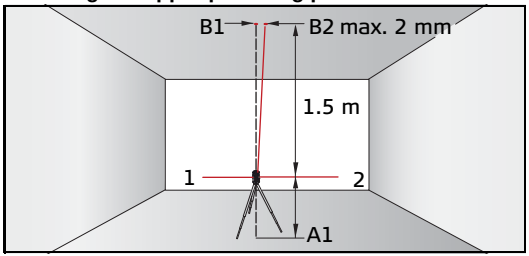
As reference, use a plumb-bob and attach it as close as possible to an approx. 3 m high wall.

Position the instrument at a distance of approx. 1.5 m from the wall at an elevation of approx. 1.5 m. Direct the instrument at the wall and switch on with the On/Set key ①. Activate the laser line with the On/Set key ①. Rotate the instrument and align it with the bottom of the plumb line. Now read off the maximum deviation of the laser line from the top of the plumb line. If the difference does not exceed 2 mm, then the CLL 11/PLL 11 is within tolerance.

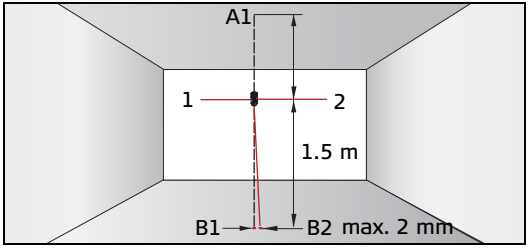
Checking the accuracy of the vertical plumbing of the PLL11:

Place the Lock switch ③ in the "Unlocked" (🔓) position.

Checking the upper plumbing point:



Checking the lower plumbing point:



Set up the laser on its tripod or wall mount bracket near point A1 at a minimum distance of 1.5 m from point B1. The horizontal laser is aligned in direction 1. Mark the laser dots A1 and B1 with a pin.

Rotate the instrument by 180° so that it points in the opposite direction 2 to direction 1. Adjust the instrument so that the laser beam hits point A1 exactly. If point B2 is no further than 2 mm away from point B1, then the PLL 11 is within tolerance.

☞ Should your CLL 11/PLL 11 be outside of the specified tolerance, please contact an authorised dealership of Würth Electronics.

Display notices

Falling below or exceeding the permissible temperature range:

The laser switches off and all symbols flash.

Outside of the self-levelling range:

The laser switches off and the symbol of the function used starts to flash.

Pendulum locked:

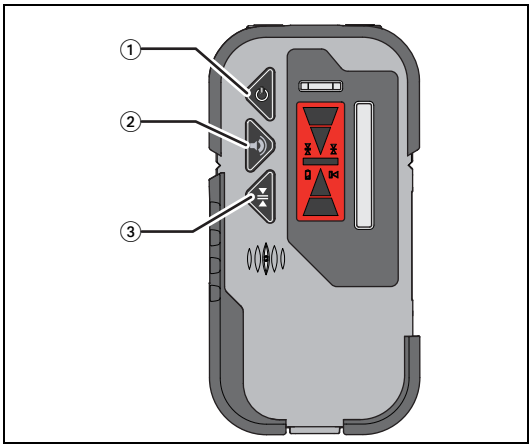
The laser beam is not levelled and the Lock symbol ④ lights up.

Operation LLE 11

Würth LLE 11

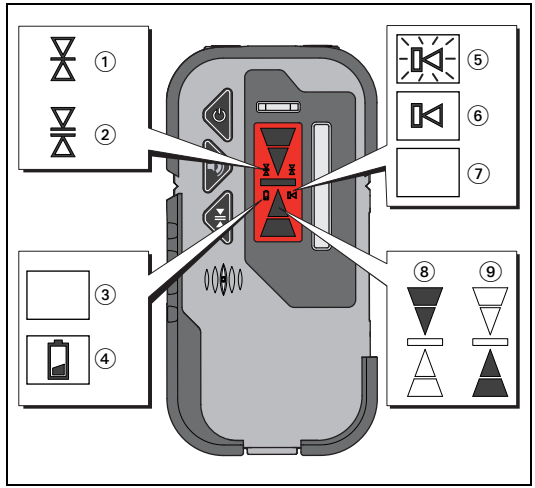
The Würth LEE 11 is a robust and easy to use laser receiver and can be used with all Würth line lasers.

Keypad



① ON/OFF key: switch the receiver on/off
② Beeper key: change the sound level of the beeper
③ Sensitivity key: switch sensitivity (±1mm/±3mm)

Display status symbols



① Sensivity: fine ±1 mm (default)
② Sensivity: coarse ±3 mm
③ Battery status: full
④ Battery status: low
⑤ Beep medium
⑥ Beep high
⑦ Beep off
⑧ Move receiver down
⑨ Move receiver up

Care and advice on operation

Do not immerse the instrument in water. Wipe off dirt with a damp soft cloth. Do not use aggressive cleaning agents or solvents. Treat the instrument with the same care that you would apply to binoculars or a camera.

Dropping or violent shaking of the instrument may damage it. Check the instrument for any damage before using it. Check the levelling accuracy of the instrument regularly.

Transport

To safely transport the instrument, set the Lock switch ③ to "Locked" (🔒).

Warranty

For this Würth tool, we provide a warranty in accordance with statutory/country-specific regulations from the date of purchase (proof of purchase by invoice or delivery note). Damage that has occurred will be corrected by replacement or repair. Damage caused by normal wear, overloading or improper handling is excluded from the warranty. Claims can only be accepted if the power tool is sent undisassembled to a Würth branch office, your Würth sales representative or a customer service agent for Würth compressed-air and power tools.

Technical data PLL 11/CLL 11

	PLL 11	CLL 11
Range	up to 15 m*	
Range with detector	> 30 m	
Levelling accuracy @ 5 m	± 1,5 mm	± 1 mm
Self-levelling range	4° ± 0,5°	
Accuracy of plumbing point @ 5 m	± 1,5 mm	-
Accuracy of horizontal line @ 5 m	± 1,5 mm	
Vertical accuracy @ 3 m line length	± 0,75 mm	
Beam divergence	<180°	
Number of laser dots	4	-
Number of laser lines	2	
Beam direction	vertical, horizontal, up, down, right, left	vertical, horizontal
Laser type	635 nm, laser class II	
Batteries Type	Typ AA 4 x 1,5 V	
Protection class spray water / dust	IP 54	
Operating temperature	-10°C to 40°C	
Storage temperature	-25°C to 70°C	
Dimensions (H x D x W)	108 x 115 x 76 mm	
Weight without batteries	485 g	
Tripod thread	1/4"	

* depending on lighting conditions

	PLL 11	CLL 11
Range	up to 50 ft*	
Range with detector	> 100 ft	
Levelling accuracy @ 16 ft	± 1/16 “	± 0.04 in
Self-levelling range	4° ± 0.5°	
Accuracy of plumbing point @ 16 ft	± 1/16 “	-
Accuracy of horizontal line @ 16 ft	± 1/16 “	
Vertical accuracy @ 10 ft line length	± 1/32 “	
Beam divergence	<180°	
Number of laser dots	4	-
Number of laser lines	2	
Beam direction	vertical, horizontal, up, down, right, left	vertical, horizontal
Laser type	635 nm, laser class II	
Batteries Type	Typ AA 4 x 1,5 V	
Protection class spray water / dust	IP 54	
Operating temperature	14°F to +104°F	
Storage temperature	-13°F to +158°F	
Dimensions (H x D x W)	4.2 x 4.5 x 3.0 in	
Weight without batteries	17.1 oz	
Tripod thread	1/4"	

* depending on lighting conditions

Technical data LLE 11

	LLE 11	
Sensitivity (switch-able)	±1mm / ±3mm	±0.04/ ±0.12inch
Detection field length	42 mm	1.65inch
Protection	IP54	
Operation tempera-ture	-10°C - +50°C	+14°F - +122°F
Storage temperature	-20 - +70°C	-4°F - +158°F
Battery type	1x 6LR61, 9V	
Dimensions	147.5 x 75.5 x 29.5 mm	5.8 x 2.9 x 1.2 inch
Weight with batteries	260 g	9.1oz

Safety instructions

The person responsible for the instrument must ensure that all users understand these directions and adhere to them.

Symbols used

The symbols used have the following meanings

WARNING:
Indicates a potentially hazardous situation or an unintended use which, if not avoided, will result in death or serious injury.

CAUTION:
Indicates a potentially hazardous situation or an unintended use which,if not avoided, may result in minor injury and/or appreciable material, financial and environmental damage.

Important paragraphs which must be adhered to in practice as they enable the product to be used in a technically correct and efficient manner.

Permitted use

- Projection of horizontal and vertical laser lines and laser dots

Prohibited use

- Using the product without instruction
- Using outside the stated limits

- Deactivation of safety systems and removal of explanatory and hazard labels
- Opening of the equipment by using tools (screwdrivers, etc.), as far as not specifically permitted for certain cases
- Carrying out modification or conversion of the product
- Deliberate dazzling of third parties; also in the dark
- Inadequate safeguards at the surveying site.

Limits of use

☞ Refer to section "Technical data".
The CLL 11/PLL 11 is designed for use in areas permanently habitable by humans. Do not use the product in explosion hazardous areas or in aggressive environments.

Areas of responsibility

Responsibilities of the manufacturer of the original equipment
Adolf Würth GmbH & Co. KG, D-74650 Künzelsau (for short Würth):

- Würth is responsible for supplying the device, including the User Manual, in a completely safe condition.
- Würth is not responsible for third party accessories.

Responsibilities of the person in charge of the instrument:
The person in charge of the instrument has the following duties:

- To understand the safety instructions on the product and the instructions in the User Manual.
- To be familiar with local safety regulations relating to accident prevention.

Hazards in use

⚠ **CAUTION:**
Watch out for erroneous measurements if the instrument is defective or if it has been dropped or has been misused or modified.

☞ Carry out periodic test measurements.
Particularly after the instrument has been subject to abnormal use, and before, during and after important measurements.
Refer to section "Checking the accuracy".

⚠ **WARNING:**
Flat batteries must not be disposed of with household waste. Care for the environment and take them to the collection points provided in accordance with national or local regulations.

The product must not be disposed of with the household waste.

Dispose of the product appropriately in accordance with the national regulations in force in your country.

Always prevent access to the product by unauthorised personnel.

WARNING

Using a battery charger not recommended by Würth can destroy the batteries. This can cause fire or explosions.

Precautions:

Only use chargers recommended by Würth to charge the batteries.

Electromagnetic Compatibility (EMC)

WARNING:

The CLL 11/PLL 11 conforms to the most stringent requirements of the relevant standards and regulations. Yet, the possibility of it causing interference in other devices cannot be totally excluded.

FCC statement (applic. in U.S.)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

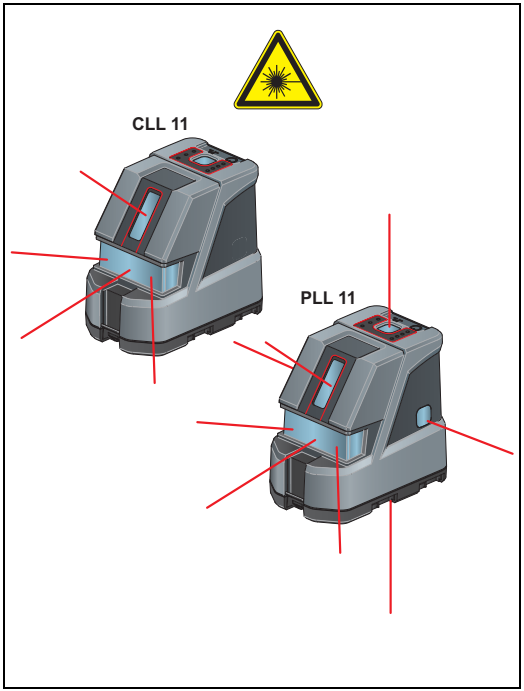
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

WARNING:

Changes or modifications not expressly approved by Würth for compliance could void the user's authority to operate the equipment.

Laser classification

The CLL 11/PLL 11 produces visible laser beams, which are emitted from the instrument:



It is a Class 2 laser product in accordance with:

- IEC60825-1 : 2007 "Radiation safety of laser products"

Laser Class 2 products:
Do not stare into the laser beam or direct it towards other people unnecessarily. Eye protection is normally afforded by aversion responses including the blink reflex.

WARNING:
Looking directly into the beam with optical aids (e.g. binoculars, telescopes) can be hazardous.

CAUTION:
Looking into the laser beam may be hazardous to the eyes.

Labelling

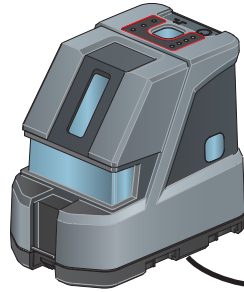
PLL 11

Laser Radiation
Do not stare into the beam
Laser class 2
in acc. with IEC 60825-1:2007
Maximum radiation power: <1.0mW c.w.
Emitted wavelength: 620-690nm
Beam divergence <180°

Laser Radiation
Do not stare into the beam
Laser class 2
in acc. with IEC 60825-1:2007
Maximum radiation power: <1.0mW c.w.
Emitted wavelength: 620-690nm
Beam divergence <1.5 mrad

CLL 11

Laser Radiation
Do not stare into the beam
Laser class 2
in acc. with IEC 60825-1:2007
Maximum radiation power: <1.0mW c.w.
Emitted wavelength: 620-690nm
Beam divergence <180°



CLL 11

PLL 11