



KLEIN TOOLS 93LCL Self-Leveling Cross Line Laser Level Instruction Manual

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KLEIN TOOLS

KLEIN TOOLS 93LCL Self-Leveling Cross Line Laser Level



GENERAL SPECIFICATIONS

Klein Tools 93LCL and 93LCLS are self-leveling laser alignment instruments that can be used to deliver horizontal and/or vertical cross lines for alignment and layout applications. Furthermore, model 93LCLS can also deliver a plumb spot directly above the instrument.\

- **Operating Altitude:** 6562 ft. (2000 m)
- **Relative Humidity:** <80% non-condensing
- **Operating Temp:** 20°F to 115°F (-10°C to 45°C)
- **Storage Temp:** -5°F to 140°F (-20°C to 60°C)
- **Laser:** 630-680nm, ≤1mW each beam, Class II Laser Product
- **Accuracy:** ±3/32" per 33' (±2mm per 10 m) (Vertical & Horizontal Beams)
- **Battery Type:** 3 x 1.5V AA Alkaline
- **Dimensions:** 5.3" x 5.0" x 2.8" (134 x 127 x 65 mm)
- **Weight:** 26 oz. (820 g) without batteries (model 93LCLS)
- **Calibration:** Accurate for one year
- **Standards:** Conforms to: EN61326-1:2013, EN60825-1:2014.

Complies with: 21 CFR 1040.10 and 1040.11 except for deviations pursuant to laser notice No. 50, dated June 24, 2007.

- **Pollution degree:** 2

- **IngrAess Protection:** IP54 Dust & Water Resistant
- **Electromagnetic Environment:** IEC EN61326-1:2013. This equipment meets requirements for use in basic and controlled electromagnetic environments like residential properties, business premises, and light-industrial locations.

WARNINGS

To ensure safe operation and service of the instrument, follow these instructions. Failure to observe these warnings can result in serious personal injury, fire, or electrical shock. Retain these instructions for future reference.

WARNING: LASER RADIATION. DO NOT STARE INTO THE BEAM. Class II Laser.

Warning label on side of 93LCL



Warning label on side of 93LCLS



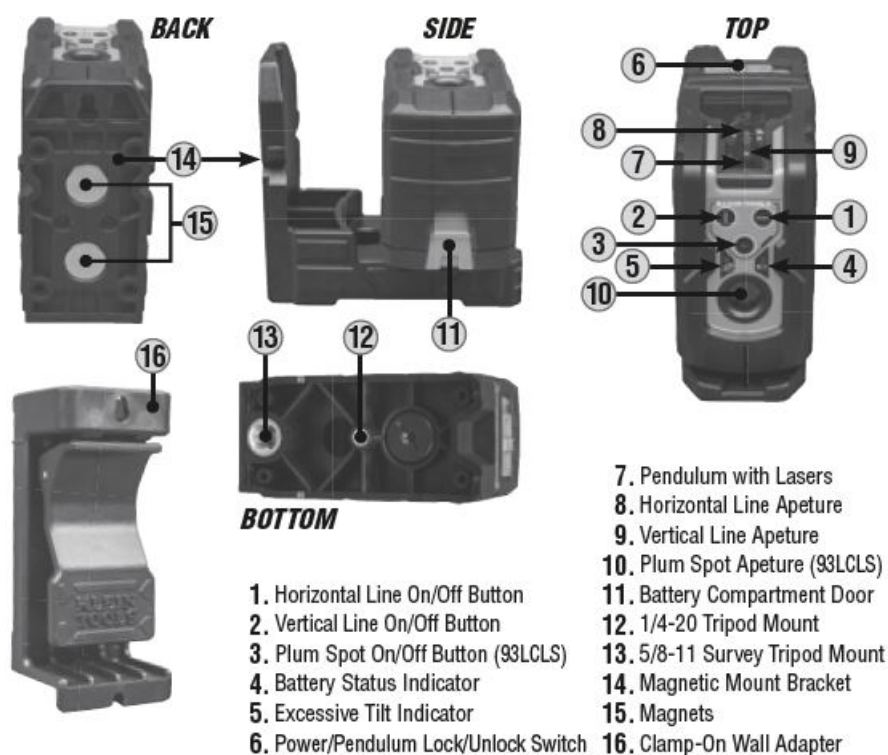
WARNINGS

- Exposing eyes to laser radiation can result in severe and permanent eye injuries. NEVER look directly into the laser beam emitted by this instrument.
- Do not use the instrument if it appears to be damaged.
- Do not modify the instrument in any way, as to do so could result in the emission of hazardous laser radiation that could result in severe eye injuries.
- Do not use optical equipment such as lenses, prisms, optical scopes, etc. to transmit, retransmit, or view the laser beam as this could result in severe eye injuries.
- This product should not be used by untrained operators or operators who have not read and fully understood the instructions.
- This product should not be used in any location that could result in somebody looking at or having their eyes inadvertently irradiated by the laser beam as this could result in severe eye injuries.

- The instrument should be powered off following use to minimize the risks of inadvertently exposure to hazardous laser radiation that could result in severe eye injuries.
- Do not remove warning labels from this instrument as this could result in serious personal injury and increase the risk of exposure to hazardous laser irradiation.
- The instrument should be securely located in a tidy work environment prior to operation as unexpected drops or movement of the instrument may result in damage to the instrument and increase the risk of inadvertent exposure to laser radiation that could result in severe eye injuries.
- This instrument is IP54 dust & water-resistant. Following any contact with water, thoroughly dry the instrument with a dry, lint-free cloth.
- There are no user-serviceable parts in this instrument.

FEATURE DETAILS

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NOTE: There are no user-serviceable parts inside this instrument.

SYMBOLS ON INSTRUMENT		
	Vertical Laser Line	Battery Status Indicator (Green = charged, red = low)
	Horizontal Laser Line	Excessive Tilt Indicator
	Plumb Spot Laser	Battery Polarity
Ingress Protection IP54 Rating – Dust & Water Resistant		Hazardous laser radiation, DO NOT stare into beam or view directly with optical instruments
		Warning or Caution

OPERATING INSTRUCTIONS

TURNING LASER BEAMS ON/OFF

Push the ON/OFF buttons for horizontal line 1, vertical line 2, and plumb spot 3 (93LCLS model only) to turn ON and OFF their respective laser lines. These buttons are only active once the Pendulum Lock/Unlock Slider Switch 6 has been set to the Unlocked position. If the Pendulum Slider Switch is moved from the Unlocked to the Locked

position while the laser beams are active, they will be turned OFF. The different laser lines can be operated independently or simultaneously.



NOTE: The plumb spot application projects laser beams both in upward and downward directions. The downward beam may be used to locate a specific point on a floor layout while the upward beam projects that same point to a ceiling.

PENDULUM SLIDER SWITCH & SELF-LEVELING

The laser assemblies are mounted on a pendulum so that the instrument can self-level. The Pendulum Slider Switch 6 must be in the unlocked position for the instrument to be self-level. If the instrument is tilted by $>4^{\circ}$ from the horizontal plane, the pendulum will not be capable of self-leveling; the active laser beams will flash and the Excessive Tilt Indicator 5 will blink to indicate that the instrument is not level and cannot self-level. The instrument must be repositioned on a more level geometry for the self-Leveling pendulum to function appropriately.



NOTE: If the instrument indicates that it is not level (via flashing beams and/or a blinking Excessive Tilt indicator 5), then it should not be used for laying out level or plumb lines.

NOTE: The following use, the active laser beams must be turned OFF and the Pendulum Slider Switch must be placed in the Locked position

MAGNETIC MOUNTING BRACKET 14

The instrument is attached to a magnetic mounting bracket. The bracket may be magnetically attached to any magnetic structure such as steel studs, ducts, structural beams, and steel doors. The bracket also features a keyhole for mounting the instrument using a screw or nail to non-magnetic structures. Once mounted to a structure via the mounting bracket the instrument can be rotated on the bracket through 360° to direct the laser beams.



CLAMP-ON WALL ADAPTER 16

The clamp-on wall adapter may be clamped to a structural beam, or wall bracket for suspended ceiling installations, to present a steel surface onto which the instrument's magnetic mounting bracket may be attached.

Once magnetically attached the instrument may be positioned to deliver the laser line at the required location. The clamp-on adapter also features a key-hole for mounting the instrument using a screw or nail.



MAINTENANCE

BATTERY REPLACEMENT

When the Battery Status Indicator 4 is illuminated red, the batteries must be replaced.

1. Open the battery compartment door 11.
2. Remove and recycle three spent AA batteries.
3. Install new batteries (note proper polarity).
4. The close battery compartment, ensuring that it is securely shut.



CLEANING:

Be sure the meter is turned off and wipe with a clean, dry lint-free cloth. Do not use abrasive cleaners or solvents.

STORAGE:

Remove the batteries when the instrument is not in use for a prolonged period of time. Do not expose to high temperatures or humidity. After a period of storage in extreme conditions exceeding the limits mentioned in the General Specifications section, allow the meter to return to normal operating conditions before using.

WARRANTY:

www.kleintools.com/warranty

DISPOSAL / RECYCLE:


Do not place equipment and its accessories in the trash. Items must be properly disposed of in accordance with local regulations. Please see www.epa.gov or www.ecycle.org for additional information.

CUSTOMER SERVICE:

KLEIN TOOLS, INC.

450 Bond Street Lincolnshire, IL 60069
1-800-553-4676
customerservice@kleintools.com www.kleintools.com

Documents / Resources

	<p>KLEIN TOOLS 93LCL Self-Leveling Cross Line Laser Level [pdf] Instruction Manual 93LCL, 93LCLS, Self-Leveling Cross Line Laser Level, Self-Leveling Cross Line Laser Level with Plumb Spot</p>
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