STABILA ...sets standards

Hole Locator HL-100

USA Operating instructions

USA

Operating manual:

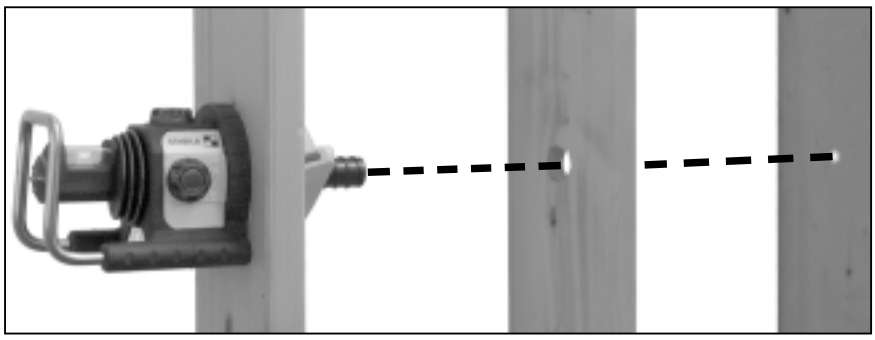
Should you have additional questions concerning this product' s operation and use or care and maintance, please call our Customer Service number:

1.800.869.7460 U.S. and Canada

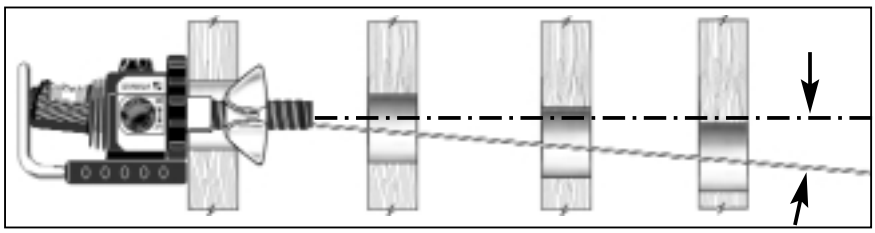
1. Main applications:

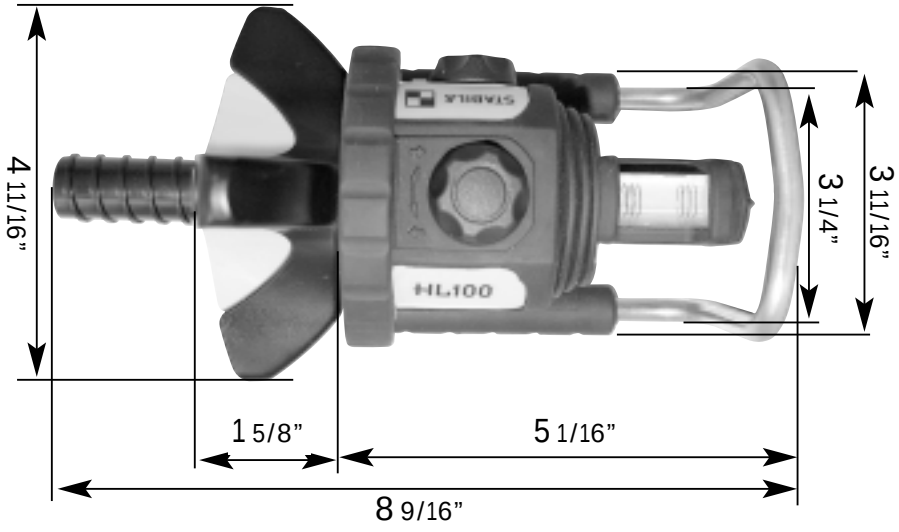
The HL 100 hole locator is an easy-to-use point laser for aligning a series of holes in a straight line. The laser beam serves as a precise horizontal (level), incline /decline (slope) or vertical (plumb) reference point with a range up to 25m /75 ft.

Horizontal mode (level / slope)

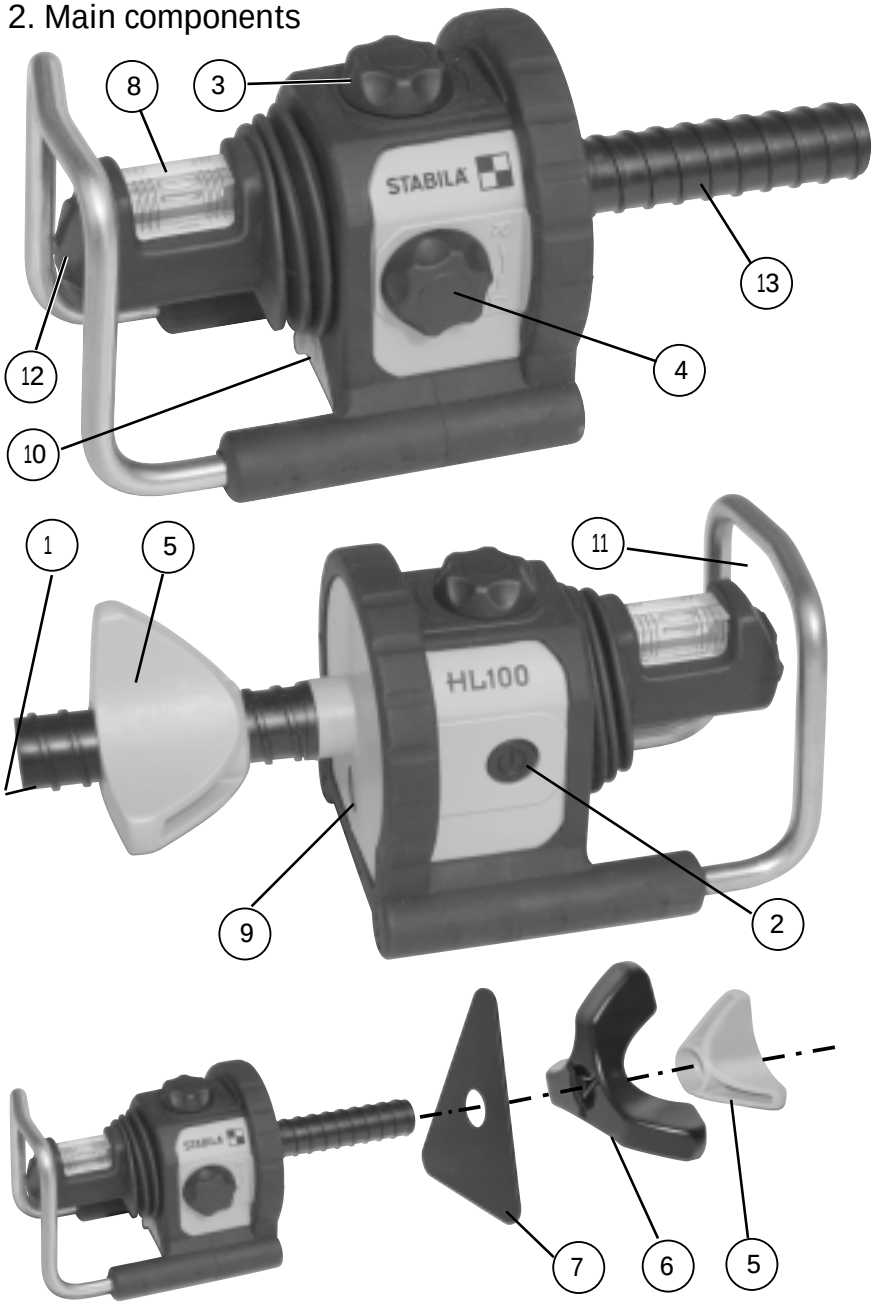


The HL 100 is specially designed to be installed and self-center itself into the first drilled hole. Once the laser beam has been aligned, the projected laser dot serves to mark the drilling position on the next joist / stud.





2. Main components



(1) Laser beam emission aperture

(2) ON/OFF switch

(3) Vertical setting dial (up/down)

(4) Horizontal setting dial (left/right)

(5) Small locking nut for holes from over 7/8" to 3" in diameter (20mm-75mm)

(6) Large locking nut for holes from 3 1/4" to 4 3/4"in diameter (80mm-120mm)

(7) Adapter plate for holes over 3" (75 mm)

(8) Vial for horizontal leveling

(9) Bulls eye vial for vertical leveling

(10) Battery compartment cover

(11) Roll cage stand for vertical operation

(12) crosshaires

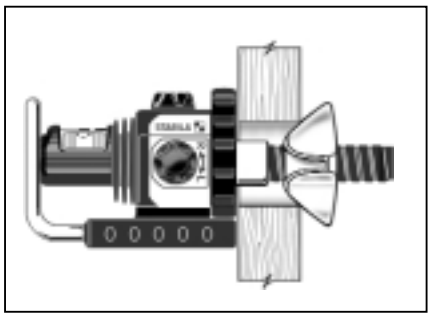
(13) threaded tube

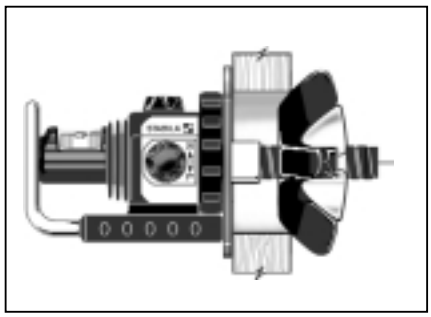
3. Method of operation:

3.1. Installation in joists / studs / panels

I. Hole diameter (small / large) :

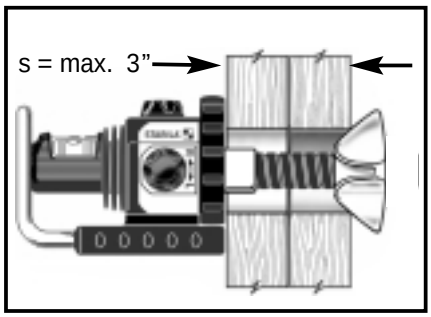
The HL 100 can be directly installed in holes from $^{7}/_{8}$" to 3" in diameter using the yellow locking nut (5). The large black locking nut (6) and the adapter plate (7) are used for larger holes of $3^{1}/_{4}$" to $4^{3}/_{4}$" in diameter. Tighten the locking nut until the tool is firmly in place. The conical shape centers the HL 100 in the hole.

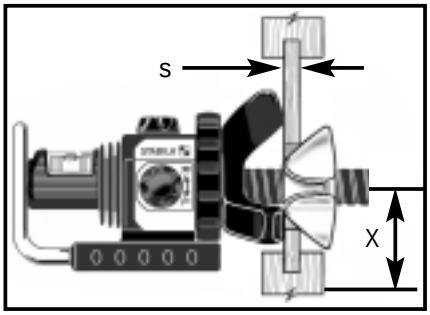




II. Material thickness (min. / max.) :

The HL 100 can be fixed in materials up to $1^{1}/_{2}$" thick and up to 3" thick for hole diameters larger than $1^{1}/_{2}$". By using the large locking nut adapter (6) as shown below, the HL 100 can be used with materials less then $1\ ^{1}/_{2}$" thick, such as TJI's. In this case the distance from the center of the hole to the flange to should be more than $1\ ^{1}/_{2}$" .



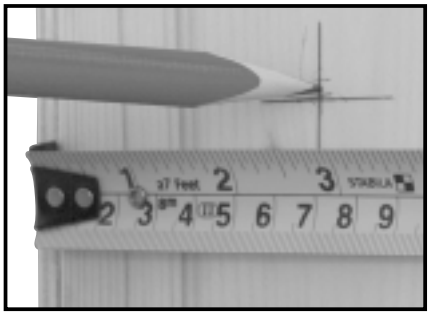


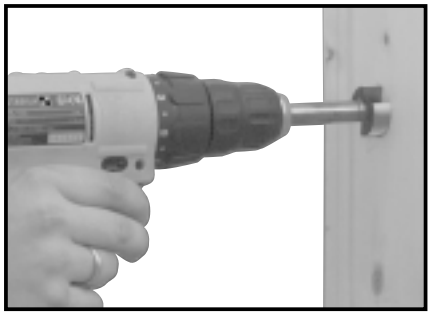
X = min. 1,5"

3.2. Working in horizontal mode

I. Installing the HL 100:

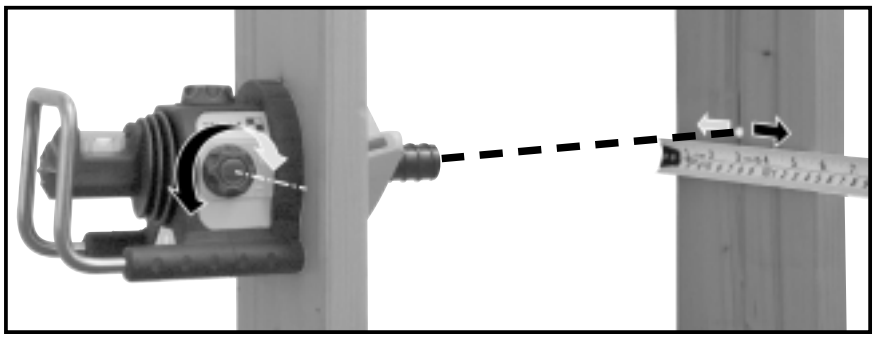
Lay out the hole location on the first joist / stud. Mark and drill required hole size. Clean away excess wood chips and install HL 100 as described above.





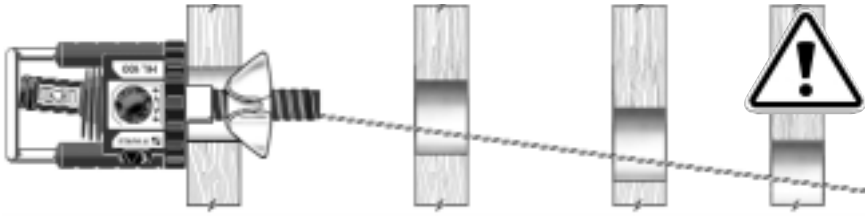
II. Aligning the laser dot horizontally (left - right):

Mark the horizontal position on the second joist / stud. (No need to measure the vertical position). Turn on the laser(2). Dial the laser beam onto the mark by using the horizontal setting dial (4).



ATTENTION :

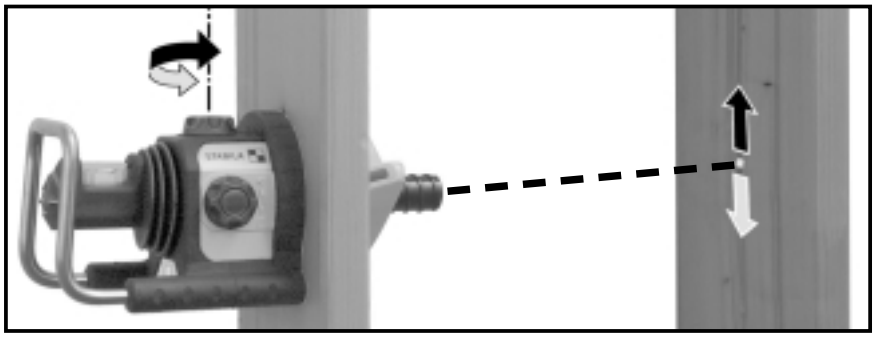
To ensure that the HL 100 is set up to point in the right direction, it is important that the lay out and drilling of the first joist/stud , as well as the horizontal measurement on the second joist/stud is done accurately.



III. Aligning the laser dot vertically (up - down):

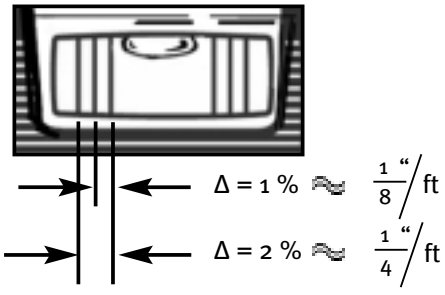
➡ Level

The vial bubble (8) is precisely centered, using the vertical setting dial (3)



➡ Slope

The vial's ring markings (8) allow the laser dot to be adjusted to an inclination, up or down, of approximately 1% or 2%. Move the vial bubble accordingly by using the vertical setting dial (3)

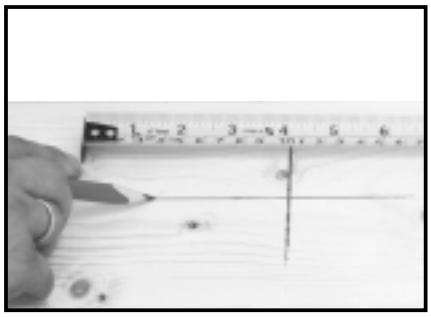


IV. Continue to drill

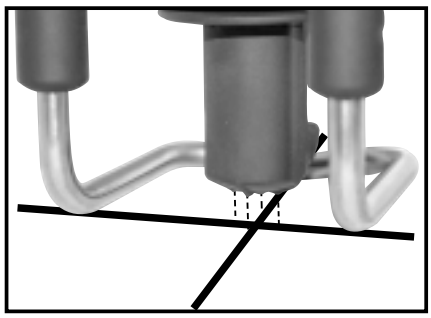
The laser is now correctly aligned.
Drill the second hole by setting the drill bit directly on the center of the laser dot location. Clear the debris from the hole, if necessary, to allow laser beam to pass through. The laser dot will now show the correct location of the hole to be drilled on the third joist / stud. Continue to drill the following joists / studs by using the center of the laser dot as the exact hole location.
You may prefers to mark the center of the dot with a pencil prior to drilling.

3.3 Working in Vertical / Plumb mode

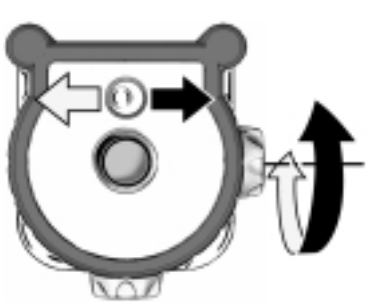
I. Mark the desired plumb point with a cross.



II. Center the HL 100 roughly over the marked cross, using the cross-hairs on the back of the unit (12).



III. Center the bulls eye bubble (9) by using both dials, as shown underneath. The horizontal setting dial (3) allows you to move the bubble sideways; the vertical setting dial (4) allows you to move the bubble back and forth.



IV. Check the position of the HL 100 over the cross and slightly correct position if necessary.

The HL 100 is now correctly positioned and plumb, ready to continue.
Drill hole in overhead material using the laser dot to place drill bit, or mark the dot with a pencil and then drill.

Warning:
This is a class IIIa laser. Do not look directly into the laser beam !

Keep this product away from children !

The goggles supplied with these units are not safety goggles. They enable you to see the laser beam more clearly in bright light conditions.

4. Checking the calibration

The HL 100 has been designed for building site use and leaves our factory perfectly calibrated. As with any precision instrument, however, its calibration must be checked regularly. The unit should be checked before starting any new tasks, particularly when the unit has been exposed to strong vibrations or after an impact.
The calibration should be checked by using other measuring devices with a known accuracy (i.e. spirit level and straight edge for horizontal check, plumb bomb for vertical check) .

5. Replacing the batteries

Unlock the battery compartment cover (11), fold it back and remove the batteries. Insert new batteries correctly aligned, as indicated shown in the battery compartment. Only use 1.5V AA size cells (mignon - LR 6) !

6. Care and maintenance

- Remove the threaded tube (13) by unscrewing (ccw.) carefully.
- Dirty lens glass in the aperture reduces the beam quality. It should be cleaned with a soft cloth.
- Clean the laser unit with a damp cloth. Do not spray or immerse the unit! Do not use solvents or thinners!

The HL 100 laser must be handled carefully, in the same way as any precision optical instrument.

7. Technical data

Laser type:	Red diode laser, wavelength 650 nm
Output:	< 5 mW, Laser Class IIIa This product complies with the applicable requirements of 21CFR parts 1040.10 and 1040.11.
Adjustment range:	approx. ± 3°
Accuracy:	
Up-right position:	± 0,5 mm/m or ± 1/16" over 10 ft
Over head position:	± 0,7 mm/m or ± 3/32" over 10 ft
Plumb:	± 1 mm/m or ± 1/8" over 10 ft
Batteries:	2 x 1,5 V alkaline cell, size AA, LR6
Operating life:	Approx. 48 hours
Operating temperature range:	0°C to +50°C or 32°F to +122°F
Storage temperature range:	-20 °C to +60 °C or -4°F to +140°F

Subject to technical modifications.

8. Guarantee terms and conditions

Stabila provides a guarantee against defects in material and workmanship for a period of 12 months from date of purchase. Manufactoring defects will be eliminated at Stabila's own discretion either by repairing or replacing the unit. Stabila accepts no other claims.
No liability is accepted for any faults due to inappropriate treatment (e.g. damage caused by the unit falling, operation with the wrong voltage or type of current, use of unsuitable current supply sources) or for any changes made to the unit by the purchaser or a third party.
Also no claims under guarantee are accepted for natural wear and tear or any small faults that do not significantly affect the unit's operation.
Any guarantee claims must be made via the dealer. The guarantee form needs to be filled out if the unit is to be returned.

9. Spare parts

All moving parts are subject to wear and can be ordered seperately as spare parts:

(5): Small yellow locking nut	Order No 08 510
(6): Large black locking nut	Order No 08 520
(7): Adapter plate	Order No 08 530
(13): threaded tube	Order No 08 540

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