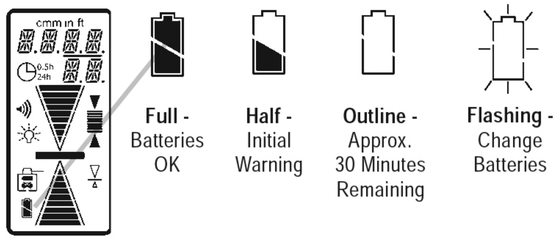
Battery Status



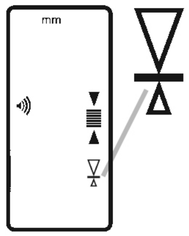
Full - Batteries OK

Half - Initial Warning

Outline - Approx. 30 Minutes Remaining

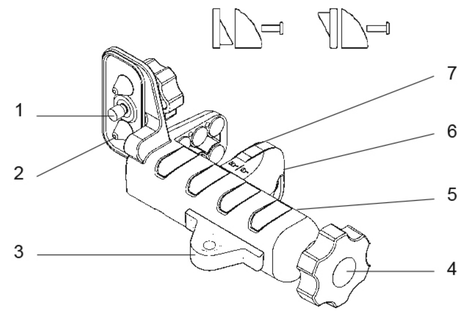
Flashing - Change Batteries

Move clamp position



Offset on-grade clamp position - clamp position is sensed automatically and displayed. Offset clamp position moves the on-grade location to allow more grade information to be displayed above grade. This is useful in applications where going below grade is not required, i.e. driving stakes down to grade.

Rod Clamp



1. Captive Rod Clamp Screw - attaches to the back of detector.
2. Alignment Points (2) - help secure and align rod clamp.
3. Level Vial - can be viewed from above or below to verify that the rod is plumb.
4. Clamping Screw Knob - secures clamp to rods by moving the traveling jaw. Clockwise tightens; Counterclockwise loosens.
5. Reference Bar - top of bar is aligned with on-grade.
6. Traveling Jaw - moving jaw grips tightly to rods.
7. Reversible Face - slanted face for round and oval rods; flat face for rectangular and square rods.

Notice to Our European Union Customers

For product recycling instructions and more information, please go to: www.trimble.com/environment/summary.html

Recycling in Europe

To recycle Trimble WEEE,
call: +31 497 53 2430, and
ask for the "WEEE associate," or

Mail a request for recycling instructions to:
Trimble Europe BV c/o Menlo Worldwide Logistics
Meerheide 45 5521 DZ Eersel, NL

Specifications

Working Radius: (Laser dependent):	1 m - 460 m (3 ft - 1500 ft)		
Laser Detection Height:	127.0 mm	(5")	
Numeric Readout Height:	102.0 mm	(4")	
Accuracy (Dead band):			
Ultra Fine	0.5 mm	0.02 in	1/32 in
Super Fine	1.0 mm	0.05 in	1/16 in
Fine	2.0 mm	0.10 in	1/8 in
Medium	5.0 mm	0.20 in	1/4 in
Coarse	10.0 mm	0.50 in	1/2 in
Calibration	0.1 mm	0.01 in	1/64 in
Reception Angle:	± 45° minimum		
Detectable Spectrum:	610 nm ... 780 nm		
Beeper Volumes:	Loud = 110 dBA Medium = 95 dBA Low = 65 dBA		
LED Grade Indicators:	Front, Green on-grade, Red Hi, Blue Low		
Power Supply:	2 x 1.5 Volt "AA" batteries		
Battery Life:	60+ hours		
Automatic Shut Off:	Selectable, 30 min, 24 h, Off		
Environmental:	Waterproof, Dustproof to IP67		
Weight without clamp:	371 g (13.1 oz.)		
Dimensions without clamp:	168.0 x 76.0 x 36.0 mm (6.6" x 3.0" x 1.4")		
Operating Temperature:	-20°C...+60°C (-4°F... +140°F)		
Storage Temperature:	-40°C...+70°C (-40°F...+158°F)		

*Specifications subject to change without notice.

Warranty

Trimble warrants the HL700 to be free of defects in material and workmanship for a period of three years. Trimble or its authorized service center will repair or replace, at its option, any defective part, or the entire product, for which notice has been given during the warranty period. If required, travel and per diem expenses to and from the place where repairs are made will be charged to the customer at the prevailing rates. Customers should send the product to Trimble Navigation Ltd. or the nearest authorized service center for warranty repairs or exchange, freight prepaid. Any evidence of negligent, abnormal use, accident, or any attempt to repair the product by other than factory-authorized personnel using Trimble certified or recommended parts, automatically voids the warranty. The foregoing states the entire liability of Trimble regarding the purchase and use of its equipment. Trimble will not be held responsible for any consequential loss or damage of any kind. This warranty is in lieu of all other warranties, except as set forth above, including any implied warranty merchantability of fitness for a particular purpose, are hereby disclaimed. This warranty is in lieu of all other warranties, expressed or implied.

Trimble Construction Division
5475 Kellenburger Road
Dayton, Ohio 45424-1099
U.S.A.
+1-937-245-5600 Phone

www.trimble.com

CE N324

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Reorder PN 1277-3850 C (11/09)



HL700 Laserometer

User Guide

SPECTRA PRECISION LASER

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Trimble

www.trimble.com

EMC Declaration of Conformity

This receiver has been tested and found to comply with the limits for a Class B digital device for radio noise for digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communication, and is pursuant to part 15 of the Federal Communication Commission (FCC) rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This receiver generates radio frequency. If it's not used in accordance with the instructions, it may cause harmful interference to radio or television reception. Such interference can be determined by turning the receiver off and on. You are encouraged to try eliminating the interference by one or more of the following measures:

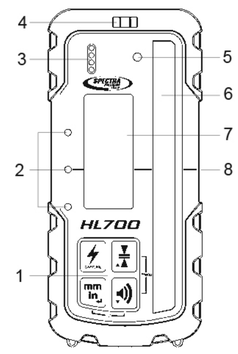
- Reorient or relocate the receiving antenna.
- Increase the separation between the laser and the receiver.

For more information, consult your dealer or an experience radio/television technician.

CAUTION: Changes or modifications to the receiver that are not expressly approved by Trimble could void authority to use the equipment.

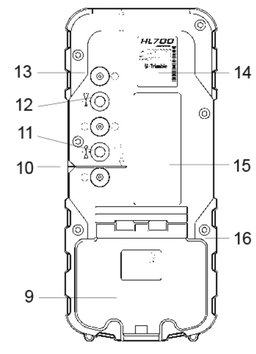
Declaration of Conformity

Application of Council Directive(s):	89/336/EEC
Manufacturer's Name:	Trimble Navigation Ltd.
Manufacturer's Address:	5475 Kellenburger Road Dayton, Ohio 45424-1099 U.S.A.
European Representative Address:	Trimble GmbH Am Prime Parc 11 65479 Raunheim, Germany
Model Number:	HL700
Conformance to Directive(s):	EC Directive 89/336/EEC using EN55022 and EN50082-1
Equipment Type/Environment:	ITE/residential, commercial & light industrial
Product Standards:	Product meets the limit B and methods of EN55022 Product meets the levels and methods of IEC 801-2, 8 kV air, 4 kV contact IEC 801-3, 3 V/m 26 to 1000 MHz 80%, @ 1 kHz



Front view

1. Keypad - Power, Accuracy, Units & Volume switches.
2. LED Display - Green for on-grade, Red for high, Blue for low
3. Beeper output - Fast, solid & slow audible signal.
4. Bubble Vial - aids in keeping HL700 level.
5. Anti-strobe sensor - Reduces false indication from strobe lights.
6. SuperCell Reception Window - 5.0 in / 127.0 mm of height.
7. Front LCD - Displays elevation, settings and status.
8. On-grade Mark - Aligned with laser center on-grade reading.



Rear view

9. Battery Door & Latch for two "AA" batteries.
10. Marking Notch (3.15 in / 80.0 mm from top).
11. Captive Screw Thread, Center on-grade clamp position.
12. Captive Screw Thread, Offset on-grade clamp position.
13. Clamp Guides - Dimples align rod clamp.
14. Serial Number / ID Label.
15. Rear LCD - repeats indications of front LCD.
16. Rubber over mold - Protects the unit from drops

Installing the Batteries



1. Open the battery door using a coin or similar pry device to release the battery door tab.
2. Insert two AA batteries noting the plus (+) and minus (-) diagrams inside the battery housing.
3. Close the battery door. Push down until it "clicks" into the locked position.

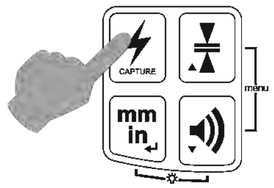
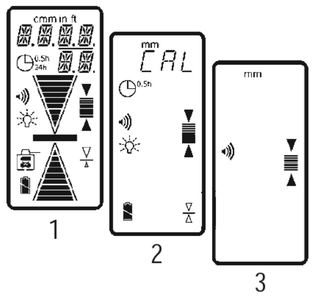
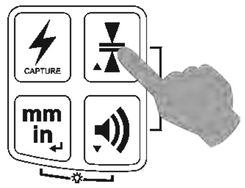
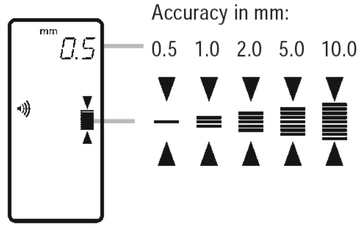
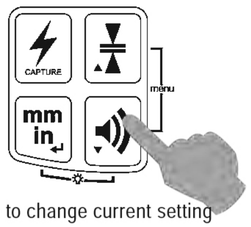
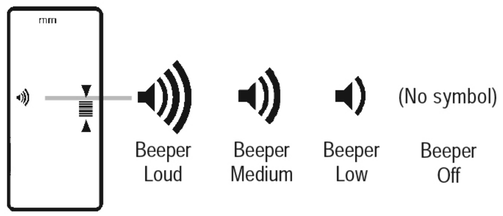
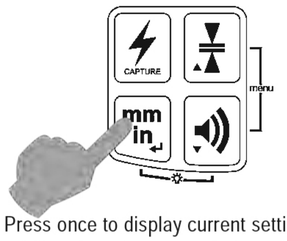
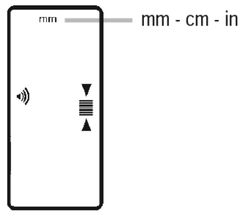
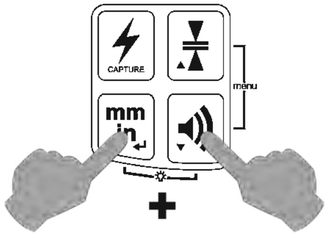
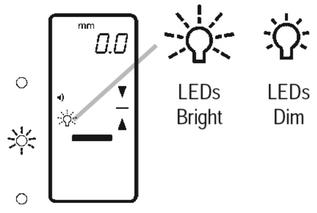
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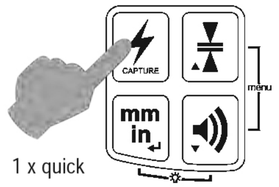
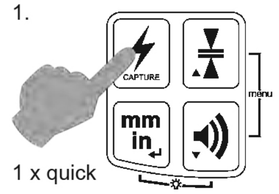
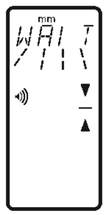
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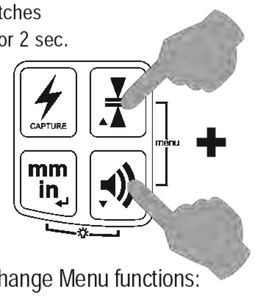
Authorized Spectra Precision Dealer

Action	Display	Remarks
Turn power ON/OFF  Press to turn power ON. Press and hold for 2 seconds to turn power OFF.	 1 2 3	Initialization: 1. Test of LCD, LED and beeper 2. CAL: Calibration (3 sec.) 3. Unit is ready for use. (Do not power up the unit in a laser beam or strobe. If detected, the unit will display "E200" and revert to the previous calibration.)
Select accuracy  Press once to display current setting; push again to scroll through options.	 Accuracy in mm: 0.5 1.0 2.0 5.0 10.0	The selected unit of measure determines the displayed deadband (accuracy). The current accuracy is stored in memory and will be retained when the unit is turned off or when batteries are replaced.
Select beeper volume  Press once to change current setting (A beep confirms the selected volume.)	 Beeper Loud / Beeper Medium / Beeper Low / (No symbol) Beeper Off	The current beeper volume is stored in memory and will be retained when the unit is turned off or when batteries are replaced.
Select units of measure  Press once to display current setting, additional pushes to scroll through options.	 mm - cm - in - frac - ft	The current unit of measure is stored in memory and will be retained when the unit is turned off or when batteries are replaced.
Select brightness of LEDs  Press together to cycle the selection.	 LEDs Bright / LEDs Dim / (No symbol) LEDs OFF	The current brightness of LEDs is stored in memory and will be retained when the unit is turned off or when batteries are replaced.

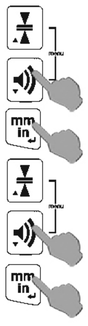
Action	Display	Remarks
CAPTURE Function A) HL700 is **in the laser beam** and the power is on:  1 x quick	 The current elevation reading will be held. A flashing display will confirm the reading has been captured.	Press any switch to return to normal operation.
B) HL700 is **out of the laser beam** and power is on: 1.  1 x quick	 A short intermittent beep (The beeper will turn on to Low if turned off.)	
2. Place the HL700 in the beam. *(Example: Fasten it to a measuring rod, bring the* HL700 *into the laser beam. You now have 5 seconds to plumb the rod and get the reading captured.)*	 The beeper will chirp rapidly after approximately 5 seconds to confirm beam capture. A flashing display will also indicate the reading has been captured.	Press any switch to return to normal operation.

Special Menu Functions

Press switches together for 2 sec.



How to change Menu functions:



1. Scrolling up or down.
2. Enter Change mode.
3. Change selected items.
4. Confirm change.
5. To Exit. EXIT or

MENU (for 2 Sec., then SENS)

SENS	Sensitivity Medium*-HighLow
AVG	Averaging algorithm Medium*High - Low
D.R.O.	Numeric display ON*-OFF-.1mm
UNIT	Units of measure MM*-CM-IN-FRAC-FT
FRC.R.	Fractional Reduction ON*-OFF
ARRW	Arrow Display DB*(deadband)-PR (prop.)
O.O.B.	Out-of-Beam Display ON*-OFF
GRD.A.	Grade Alarm ON-OFF*
A.S.O.	Automatic shutoff 0.5h*-24h-OFF
TX.O.L.	Transmitter Out-of-Level OFF*RPS
TX.O.B.	Transmitter Low Battery OFF*-RPS
INFO	Information about the Laserometer

Automatic Shutoff
A.S.O. (**A**utomatic **S**hut **O**ff):
0.5 - After 30 Minutes*
OF - Off (Unit is permanently on.)
24 - 24 hour shutoff.

Out-of-Beam Display
O.O.B. (**O**ut-**o**f-**B**eam Display):
Sequence to show direction to get back in the laser beam (for 25 s)
ON - Out-of-Beam Display ON*
OF - Out-of-Beam Display OFF

Change special Menu Functions only in the case of special job requirements!

Sensitivity of reception
SENS (**Sens**itivity):
Selects reception sensitivity to laser and other light sources.
MD - Medium*: for most applications.
HI - High: When laser beam is weak, or at very long distances.
LO - Low: If outside sources are disturbing elevation readings.

Grade Alarm
GRD.A. (**Grad**e **A**larm):
When turned ON, disables the audible signal when on-grade. When moved out of the on-grade deadband, the beeper activates as normal:
ON - Alarm on (Solid beeper OFF)
OF - Alarm off (Solid beeper ON)*

* Default setting

For more information about special Menu Function contact the manu-facturer, importer or your local dealer.

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