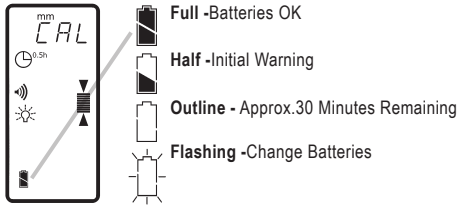
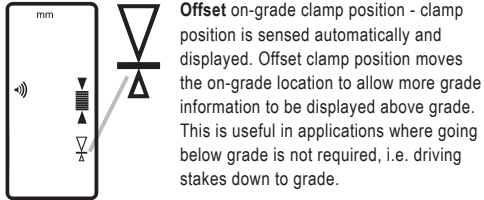


Battery Status

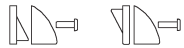


Displayed for 3 seconds after power-up.

Move clamp position



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 - verifies 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.



Made in USA



www.trimble.com/environment/summary.html

Contact details for Northern America:

Apache Technologies, Inc
8261 State Route 235, Dayton, OH 45424 USA
Phone: (937) 482-0200, Fax: (937) 482-0030
www.apache-laser.com

Specifications

Working Radius (Laser dependent):
1 m - 460 m (3 ft - 1500 ft)

Laser Detection Height: 127 mm (5")
Numeric Readout Height: 102 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: $\pm 45^\circ$ 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/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 x 76 x 36 mm (6.6" x 3.0" x 1.4")

Operating Temperature: $-20^\circ\text{C} \dots +60^\circ\text{C}$ ($-4^\circ\text{F} \dots +140^\circ\text{F}$)
Storage Temperature: $-40^\circ\text{C} \dots +70^\circ\text{C}$ ($-40^\circ\text{F} \dots +158^\circ\text{F}$)

*Specifications subject to change without notice.

Warranty

Apache Technologies, Inc. STORM Laserometer and clamp are warranted to be free of defects in material and workmanship for a period of three years. This warranty period is thirty-six months from the date the product is delivered from the dealer to the purchaser or is put into service by a dealer as a demonstration unit or rental unit. In addition to the basic warranty above, Apache Technologies may choose to repair or replace, at its discretion, any STORM Laserometer, in the event of a failure for any reason, during the warranty period.

A Warranty Registration Card must be filled out properly and on file with Apache Technologies.

Any evidence of misuse, alteration, or an attempt to repair products by unauthorized personnel, or use of parts other than those provided by Apache Technologies automatically voids the warranty. Competitor purchased and tested units are excluded from this warranty.

The user of the product is expected to follow all operating, maintenance and care instructions.

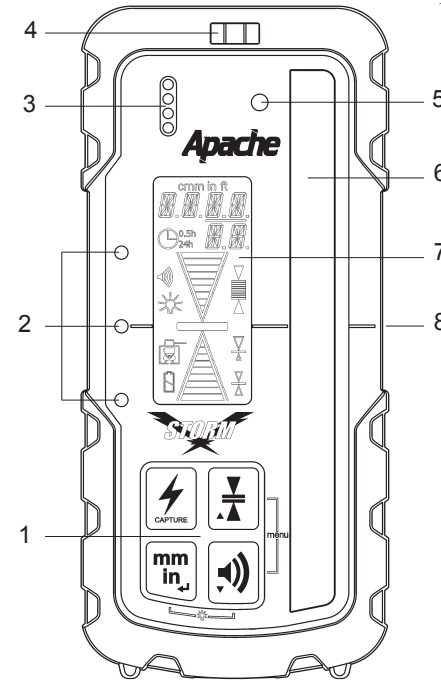
Apache Technologies liability under this warranty is limited to repairing or replacing any product returned to its factory for that purpose. The foregoing states the entire liability of Apache Technologies regarding the purchase and use of its product and they shall not be held responsible for any consequential loss or damage of any kind.

This warranty is in lieu of all other warranties, expressed or implied, and constitutes all of Apache Technologies liability with respect to merchandise sold by it.

For Europe & Mediterranean area:

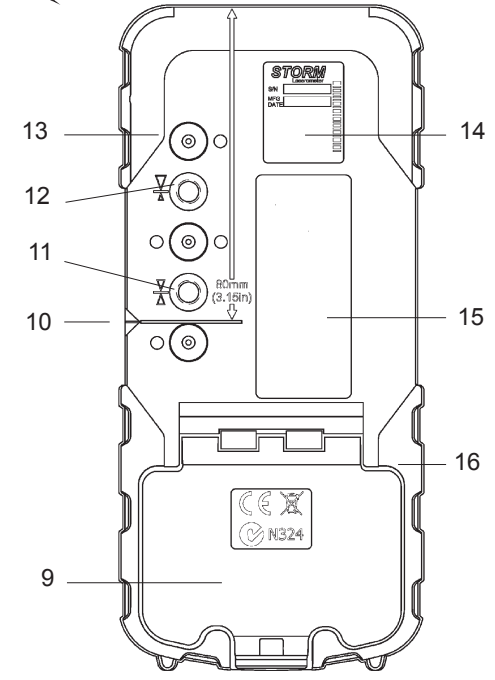
Apache Technologies Europe
GmbH Langenberger Str. 590, D-45277 Essen
Fon +49 (201) 177 68 15, Fax +49 (201) 177 6825
www.apache-laser.de

Operator's Manual STORM Laserometer



Front view

1. Keypad - Power, Accuracy, Units & Volume switches.
2. LED-Display - Green for on-grade & Red for high / low
3. Beeper output - Fast, solid & slow audible signal.
4. Bubble Vial - aids in keeping Laserometer level.
5. Anti-strobe sensor - Reduces false indication from strobe lights.
6. SuperCell Reception Window - 5 in / 127 mm of height.
7. Front LCD - Displays elevation, settings and status.
8. On-grade Mark - Aligned with laser center on-grade reading.

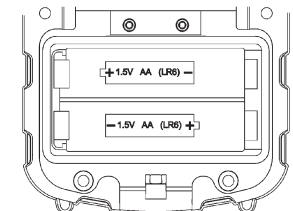


Rear view

9. Battery Door & Latch for two "AA" batteries.
10. Marking Notch (3.15 in / 80 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

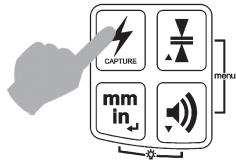
1. Open the battery door using a coin or similar pry device to release the battery door tab.
2. Insert two AA batteries noting the plus (+) and minus (-) diagrams inside the battery housing.
3. Close the battery door. Push down until it "clicks" into the locked position.



P/N ATI 400043-02 Rev D

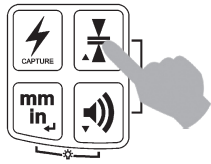
Action

Turn power ON/OFF



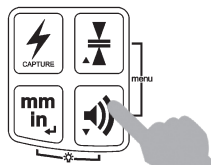
Press to turn power ON. Press and hold for 2 seconds to turn power OFF.

Select accuracy



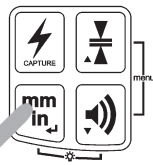
Press once to change current setting (A beep confirms the selected volume.)

Select beeper volume



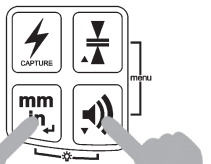
Press once to display current setting; push again to scroll through options.

Select units of measure



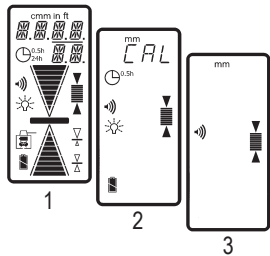
Press once to display current setting, additional pushes to scroll through options.

Select brightness of LEDs



Press together to cycle the selection.

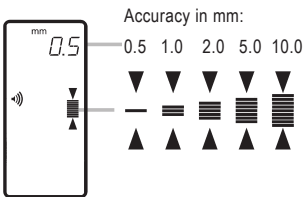
Display



Initialization:

1. Test of LCD, LED and beeper
2. CAL: Calibration (3 sec.)
3. Unit is ready for use.

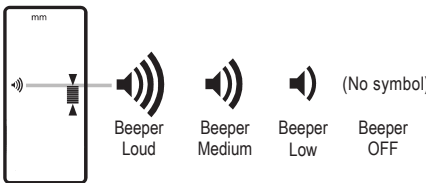
(Do not power up the unit in a laser beam or strobe. If detected, the unit will display "E200" and revert to the previous calibration.)



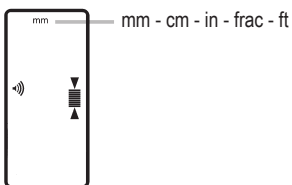
Accuracy in mm:

The selected unit of measure determines the displayed deadband (accuracy).

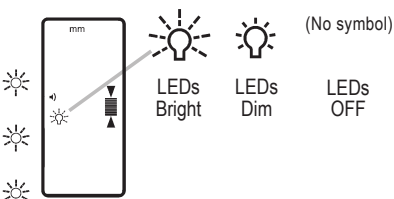
The current accuracy is stored in memory and will be retained when the unit is turned off or when batteries are replaced.



The current beeper volume is stored in memory and will be retained when the unit is turned off or when batteries are replaced.



The current unit of measure is stored in memory and will be retained when the unit is turned off or when batteries are replaced.



The current brightness of LEDs is stored in memory and will be retained when the unit is turned off or when batteries are replaced.

Displayed for 3 seconds after power-up.

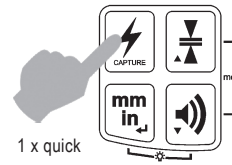
Remarks

Display

Action

CAPTURE Function

A) Laserometer is **in the laser beam** and the power is on



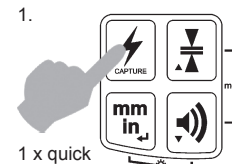
1 x quick



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) Laserometer is **out of the laser beam** and power is on:



1 x quick



A short intermittent beep (The beeper will turn on to Low if turned off.)

2. Place the Laserometer in the beam. (Example: Fasten it to a measuring rod, bring the Laserometer into the laser beam. You now have 5 seconds to plumb the rod and get the reading captured.)

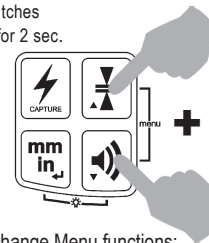


The beeper will chirp rapidly after approximately 5 seconds to confirm beam capture. A flashing display will also indicate the reading has been captured.

Press any switch to return to normal operation.

Special Menu Functions

Press switches together for 2 sec.



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

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

Sensitivity of reception
SENS (Sensitivity):
 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. (Grade Alarm):
 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.

How to change Menu functions:

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

