

KUSTOM SIGNALS, INC.

ProLaser® III



Speed enforcement at the speed of light - advanced lidar technology for today's Traffic Safety Professional.

ProLaser® III

Looking through the 1:1 heads-up display, you aim for the smaller, faster car emerging from a group of vehicles. With pinpoint accuracy, you pull the trigger and obtain a near-instant reading with positive target identification.

A New Generation of Laser

Defying the standards of conventional lidar, Kustom's compact, battery-operated ProLaser III offers a new level of performance and features not available anywhere else.

Lidar Technology

Using lidar (Light Detection and Ranging) technology, the ProLaser III emits a series of invisible laser light pulses to measure both the range and velocity of targets. This technology, combined with advanced software and a superior optics design, provides *quicker target acquisition and a beam only 3 ft. wide at a range of one thousand feet.* Speeders simply don't stand a chance!

Pinpoint Accuracy

The ProLaser III's Heads-Up Display (HUD), is designed to provide 1:1 viewing for precise vehicle targeting and less eye strain. The jointly mounted HUD and optics are secured to the extruded aluminum housing to prevent misalignment.

When using the HUD you'll see the target area and surrounding traffic for positive target identification, as well as an illuminated aiming reticle to help you pinpoint your target. An audible tone identifies when the target speed has been obtained. While holding the trigger, you'll be able to visually verify the target speed as it continuously updates in the heads-up-display. Together, these features allow you to develop a true tracking history, as preferred by most judicial systems.

Environmental Mode

Traditionally, one of the drawbacks to using laser has been its limited



Kustom's 1:1 heads-up display, allows both eyes to remain open, thereby reducing eye strain and depth perception problems.

effectiveness during undesirable weather conditions such as rain, snow, fog and dust. The waterproof ProLaser III incorporates a special environmental weather mode that minimizes the range-limiting effects of poor weather conditions and allows accurate target readings to be obtained. You'll also experience improved operation through windshields and windows.

More Advanced Features

The ProLaser III's selectable direction mode prevents displays of unselected traffic direction. This mode prevents the operator from inadvertently obtaining a speed from an opposite direction vehicle. The ProLaser III also has the capability of setting minimum and maximum target ranges — great for areas such as school and construction zones where you need a

beginning and end mark to target vehicles inside a specific area.

Using the stopwatch mode couldn't be easier. Once you've activated the mode from the rear panel display, you need only to enter two known or measured distances. Squeeze the trigger once to begin the stopwatch. Squeeze again to stop. Instantly, your calculated speed is displayed.

Enhanced Design

One of the first things you'll notice about the ProLaser III is its sleek, ergonomic design. Compact and weighing just over 3 pounds (with the battery) the unit features a forward swept handle. This advanced style reduces arm and wrist fatigue, allowing officers to comfortably target vehicles without the use of a shoulder stock or supporting rest.

The fixed handle accommodates either the self-contained, long-life rechargeable nickel metal hydride battery pack or the corded adapter for use with a 12V power source.

Operating the various modes of the ProLaser III is made easy with the integrated LCD/keypad located on the back panel. Featuring a backlit display and easy to use tactile switches, you'll discover how easy the system is to use.

**For more information, call us or
visit us on the web at:
1-800-4KUSTOM (458-7866)
www.kustomsignals.com**

**First in
traffic safety**

The Ultimate in Speed Enforcement

Lidar System Functions



Rubber Bumpers, located on both the front and back ends, protect the unit's critical areas.

Glass Lens - separate for transmitting and receiving, provide greater range resolution.

Trigger activates range and speed measurement when pulled and held; locks the last displayed reading when released. A second trigger pull releases the locked reading. In Stopwatch Mode, the trigger starts and stops the internal timer.

I/O Connector provides for an input/output signal when interfaced with a PC-type device or with Kustom's Giant Speed Display.

Battery Access Cap unscrews with a push and twist motion to allow removal or replacement of either the corded power source or the cordless battery pack.

Heads-Up Display allows the operator to sight the projected aiming reticle on the desired target vehicle, and to view the measured target speed. Both the reticle and speed or range are projected directly into the HUD.

Liquid Crystal Display (LCD) alphanumerically displays speed and range, set-up and command menus and status displays.

MENU/ESC
MENU displays the unit's programmed menu options on the LCD. ESC permits the user to exit the menu function and return to the speed or range operating mode.

Power Control turns the unit on or off.

TEST/ENTER
TEST initiates the unit's self test. If a menu item is displayed ENTER activates the selected menu option.

MODE/▲ toggles between the speed and range modes. While in a menu screen, the arrow functions as the "up" selector.

Audio Speaker produces audible tones to assist the operator during use.

BRT/VOL/▼ activates the backlight; allows the HUD brightness and volume to be adjusted. While in a menu screen, the arrow functions as a "down" selector.



ProLaser III Lidar System Specifications

System – General

Type:	Stationary laser-based range and speed measurement system
Measurement:	Vehicle speed in miles or kilometers per hour; distance to object in feet or meters
Eye Safety:	CDRH Class One Eyesafe
Operating Temperature Range:	-22°F to +140°F (-30°C to +60°C); 0 to 95% R.H., non-condensing
Storage Temperature:	-40°F to +176°F (-40°C to +80°C)
Power Requirement (external):	10.8 to 16.5 VDC; negative ground, 750 mA max.
Power Requirements (internal):	Removable, rechargeable 9.6 VDC nom., NiMH battery pack

Accessories – Optional

Removable Corded Power Insert with 12V Adapter Plug
Internal Removable Battery Pack/Charger
Heavy Duty Carrying Case
Tripod
Windows-based LaserStat Traffic Statistics Package
External Battery Pack with Charger

System – General

Test:	Activates a display segment test, internal accuracy test, and displays programmed units of measure (mph or km/h). Operator-controlled and automatic when first powered up.	Display:	Two line high contrast LCD active matrix display. Backlight permits night time use.
Optics:	Dual objective lenses for transmitted and received laser pulses.	Alpha Messages:	LV Alert indicates the battery is approaching minimum voltage. LV Warning indicates the battery has been exhausted and the unit will no longer function. Error indicates an internal problem exists.
Heads-Up-Display:	Displays illuminated square aiming reticle, and 4-character, 7-segment, high-brightness, LED target speed or range.	Stopwatch Mode:	Displays indicate speed on left side of LCD and elapsed time on right side. Measurement distance can be set in increments of one foot from 300' to 4500'. Elapsed time is registered in tenth second intervals.
Beam Width:	3' x 3' at 1,000' (3m x 3m at 1,000m).	Physical Construction:	Extruded aluminum housing protects internal circuitry. High-impact ABS handle houses power source. Durable rubber bumpers protect critical areas of front and rear panels.
Speed Accuracy:	±1 mph (±2 km/h)	Waterproof Ratings:	IP-67 and NEMA 6
Speed Range:	5 mph to 200 mph (8 to 321 km/h).	Physical Dimensions:	Height: 10.25" (26.04 cm) Width: 4.25" (10.8 cm) Length: 7.4" (18.8 cm)
Speed Display Update:	Updates current target speed 3-4 times per second while trigger is held, providing true tracking history of target vehicle.	Weight (w/ internal battery)	3.25 lb. (1.9 Kg)
Range:	10' to over 4,000' (3m to 1330m); reflective target	<div>ProLaser III is included on the NHTSA/IACP Consumer Products List. In keeping with Kustom Signals' policy of continued refinement of its products, these specifications are subject to change without notice. Kustom Signals' warranty includes parts and labor, and warrants all components – without exception – against defects in materials and workmanship. Service can be performed by the Kustom Signals' manufacturing facility. Lease/Purchase available. For more information, a quote, or to place an order, call toll-free: 1-800-4KUSTOM (458-7866) or visit www.kustomsignals.com</div>	
Range Accuracy:	±6" (±0.2 m)		
Range Resolution	0.1' (0.1m)		
Aiming Tone:	No tone when beam is off moving target; intermittent tone when beam is close to target; solid tone when beam is locked on moving target.		
Acquisition Time:	.3 seconds, typical		
Direction Discrimination:	Unit can be set to measure and display speed of approaching only (+), receding only (-), or both directions of traffic.		
I/O Data Port:	RS-232 serial port outputs speed, direction, range and error messages. Operating parameters to the unit can be changed via remote control through the PC-type device. When connected to a giant digital display, exports speed information.		

