

STALKER[®] LIDAR SPECIFICATIONS

Operational:

Type:	Handheld Lidar offering Tracking mode, Single Shot mode, and Time/Distance mode.
Acquisition Time:	Less than .4 second
Nominal Range :	Minimum < 5 feet (1.5 meters) Maximum > 4000 feet (1200 meters)
Range Accuracy:	less than or equal to 1 foot (1 meter)
Speed Measure:	1 mph to 299 mph (± 1.6 km/h to ± 481 km/h)
Speed Accuracy:	+1 mph, -2 mph (+1.6 km/h, -3.2 km/h)
Test/Alignment mode:	Enter using the TEST key and the Trigger. Used to test Hud alignment using audio tone.
Metric Operation:	Setup menu selectable
Lidar trigger modes:	Setup menu selectable: 1. Constant trigger depression for constant XMIT 2. Separate trigger depressions to start/stop XMIT
Time/Dist. trigger mode:	Separate trigger depressions when target enters and exits speed zone
Inclement Weather mode:	Suppresses target returns from targets closer than approximately 250 ft to reduce interference from rain, fog, and snow
Remote Trigger:	Remote trigger signal available through I/O Port
Target Speed Tone:	Variable audio tone corresponding to target speed. A fast target generates a higher tone and a slow target generates a lower tone
Target Return Tone:	No tone when beam is off target; tone repetition increases as beam moves into target and return signal quality increases
Switching Output:	I/O Port signal for operation of external devices (i.e.: a camera) Toggles when speed exceeds speed signal setting
I/O Signals:	Ext. Trigger, Switch Out, Tx, Rx, Gnd, and Switched battery voltage.

Physical

Dimensions:	9.9" Height, 6.0" Length, and 4.2" Width 21.8 cm Height, 15.3 cm Length, 10.7 cm Width
Weight:	Wt with Battery Handle - 3.8 lbs (1.72 kg) Wt with Cigarette Handle - 3.0 pounds (1.36 kg)
Housing:	Metal case with rubber end caps
Shoulder Stock:	Accessory shoulder stock is available
Input Voltage Range:	Battery Handle: 5.7V to 9.0V @ 400 ma. nominal Low voltage inhibit activates between 5.7V and 6.2V Cigarette Handle: 6.5V to 16.0V @270 ma. nominal Low voltage inhibit activates between 6.5V and 7.2V
Low Voltage Inhibit:	Inhibits all readings while input voltage is below the low voltage inhibit level
Low Voltage Standby:	After 10 seconds of inactivity (unit not transmitting), power consumption is reduced to 63% of nominal
Input Power Protection:	Solid state automatically resettable fuse
Environmental:	-30 to +60 C, operating -40 to +85 C, non-operating
Humidity Protection:	+37 C, 90% Relative Humidity, 8 hours minimum, operating
Additional Resistance:	Dust, water, and impact
EMI:	RFI icon indicates that the unit is in a high EMI field. No false readings when the unit is subjected to Electromagnetic Interference from vehicle alternator, ignition, air conditioner/heater motor, windshield wiper motor, Police FM transceiver, and Citizen Band AM transceiver

Tripod Mount:	Female ¼ - 20 closed end nut on right side of case
I/O Connector:	Standard 6-pin I.O. connector on right side of case

Transmitter & Receiver:

Operating Wavelength:	905 \pm 10 nm Peak @ 25° C
Spectral Bandwidth:	5 \pm 3 nm FWHM
Laser Type:	MOCVD InGaAs Stacked Array Pulsed Laser Diode
Eye Safety:	FDA/CDRH CLASS 1 Laser Device (Rated Eyesafe)
Pwr. Output & Density:	TBD (meets FDA/CDRH regulations)
Pulse Width:	< 30 nsec.
Pulse Repetition Rate:	Fixed, 130 Hz (± 0.1 % at 11.04 VDC)
Beam Divergence:	< 3 \pm 0.5 mrad FWHM
Optical Design Type:	Bistatic (dual aperture)

HUD

Targeting:	Illuminated Pinpoint, keyboard adjustable intensity.
Range and Speed Data:	7-Digit (7-segment) with \pm LED display with keyboard adjustable intensity

PANEL

Display:	8-Character (7-segment) with \pm LCD display with keyboard controlled backlight
Display Clear:	Activates prior to new measurement (with depression of trigger)
Power-On Self Test:	Circuit elements tested, timing accuracy verified, and all display elements illuminated. Errors indicated by beep code.
Speed Display Lock:	Manual control (auto lock of speed and range with release of trigger)
Controls:	Polycarbonate overlay covering backlit (with LEDs) push button switches

SWITCH DEFINITION

TRIGGER: (Lidar mode)	Setup Menu Selectable: 1. Constant trigger depression for constant Xmit 2. Separate trigger depressions start/stop Xmit
TRIGGER: (time/dist mode)	Separate trigger depressions when target enters and exits speed zone
PWR:	Rear Panel switch toggles main power ON/OFF
TEST:	Performs a complete self-test
HUD Light:	Toggles the HUD intensity from low to high through six levels when pressed
SPEED/RANGE:	Used to select Tracking mode, Single Shot mode, Inclement Weather mode, and to toggle between SPEED only, RANGE only, and simultaneous SPEED and RANGE display. Used to exit from MIN, MAX, and TIME/DIST modes.
PANEL LIGHT:	Toggles both the LCD backlight and the keyboard backlight ON and OFF
AUDIO:	Used to adjust the volume of the speaker in 4 steps
TIME/DIST:	Selects TIME/DIST mode
MAX:	Used in TIME/DIST mode to display/update maximum range
MIN:	Used in TIME/DIST mode to display/update minimum range

DISPLAY MESSAGES

Err:	This message indicates that a measurement error has occurred
PASS:	This message (with "happy tone") indicates that a self-test has successfully completed