

STALKER[®] LIDAR XS 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) Normal = 1500 feet (457.2 meters) approaching targets Maximum > 2000 feet (609.6 meters)
Range Accuracy:	less than or equal to 1 foot (0.3 meter)
Speed Measure:	2 mph to 299 mph (1.6 km/h to 481 km/h; 1.7 to 259.6 knots)
Speed Accuracy:	+1 mph, -1 mph (+2.0 km/h, -2.0 km/h; +0.86, -0.86 knots)
Test/Alignment mode:	Enter using the TEST key and the Trigger. Used to test HUD alignment using audio tone.
Metric, Knots 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
I/O Signals:	Ext. Trigger, Tx, Rx, Gnd, and Switched battery voltage.

Physical

Dimensions:	8.9" Height, 4.7" Length, and 4.7" Width 22.6 cm Height, 11.9 cm Length, 11.9 cm Width
Weight:	Including Battery Handle - 2.3 lbs (1.05 kg)
Housing:	Injection molded plastic case
Shoulder Stock:	Accessory shoulder stock is available
Input Voltage Range:	Battery Handle: 6.4V to 9.0V @ 400 ma. Nominal Cigarette Cable: 6.4V to 16.0V @ 400ma. Nominal Low voltage inhibit activates between 6.4V and 6.8V
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, or CB Radio
¼ "x 20 Tripod Mounts:	Attachable bracket provides tripod mounting in normal orientation.
I/O Connector:	12-pin I/O connector on lower left side of case.

Transmitter & Receiver:

Operating Wavelength:	905 ± 10 nm Peak @ 25° C
Spectral Bandwidth:	5 ± 3 nm FWHM
Laser Type:	MOCVD InGaAs Stacked Array Pulsed Laser Diode
Eye Safety:	FDA/CDRH CLASS 1 Laser Device (Rated Eyesafe)
Pwr. Output:	50uW maximum average power. 385 nJ maximum pulse energy (meets FDA/CDRH regulations)
Pulse Width:	< 30 nsec.
Pulse Repetition Rate:	Fixed, 130 Hz (±0.1 % at 8.40 VDC)
Beam Divergence:	< 3 ± 0.5 mrad FWHM
Optical Design Type:	Bistatic (dual aperture)

HUD

Targeting:	Illuminated Open □, keyboard adjustable intensity.
Range and Speed Data:	Range: Four 7-Segment Digits (8888) Speed: Three 7-Segment Digits (±888) Range and Speed have keyboard adjustable intensity

PANEL

Display:	8-Character (7-segment) with ± LCD display with keyboard controlled backlight
Display Clear:	Activates prior to new measurement (with depression of trigger)
Power-On Self Test:	Electronic test, 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:	Silicon Rubber Keypad (with LED backlight) operating mechanical dome 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:	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

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