



Stalker XS | X-Series Standard LIDAR



The Stalker XS is the smallest and lightest LIDAR in the industry, with fast target acquisition and advanced tracking for close-in urban settings.

The Stalker X-Series LIDAR packs the industry's most advanced technology into the industry's smallest and lightest package, but it's no lightweight.

Track moving vehicles automatically through obstructions, in school and construction zones, through windshields, and in the worst weather conditions.



- Small and Lightweight
- Fastest acquisition time
- Industry-leading accuracy
- Removable, high capacity, Li-Ion rechargeable battery handle
- Ergonomic, water resistant design
- Speed **and** distance in Heads-Up Display



High powered optics. Polymer housing is impact and water resistant.



Removable, high capacity battery handle - power for several shifts.



Small. Light. Powerful. Stalker.



StalkerRadar.com

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Power to Enforce.

The Stalker X-Series LIDAR are the smallest and lightest hand-held, gun-type lasers on the market today. At a mere 2.3 lbs. including removable/rechargeable battery handle, the X-Series may be lightest of all the hand-helds, but it's no lightweight. The new snap-in Li-Ion battery handle provides ample power to last two or more shifts. Plus, the battery can be expected to last through more than 500 charging cycles.



Target acquisition is 1/3 second. The X-Series Standard (XS) is ideal for metropolitan and suburban departments.



Specifications

Dimensions:	8.9" Height, 4.7" Length, 4.7" Width (22.6 cm Height, 11.9 cm Length, 11.9 cm Width)
Weight:	Including Battery Handle - 2.3 lbs (1.04 kg)
Housing:	High impact resistant polymer housing
Environmental:	-22° to +140° F, operating (-30° to 60°C) -40° to +185° F, non-operating (-40° to 85°C)
Humidity Protection:	+99° F, (37°C) 90% Relative Humidity
Battery Life:	Typically 500+ charge cycles
Battery Charge:	Li-ion battery: Approx. 2 - 3 shifts
Type:	Handheld LIDAR offering Tracking mode, Single-Shot mode, and Time/Distance mode.
Acquisition Time:	1/3 second
Nominal Range	Minimum: - Range mode < 5 (< 1.5 m) Speed mode 50 feet (15.2 m) Maximum: 2,000 feet (610 m)
Range Accuracy:	±6" (0.15 m)
Speed Measure:	1 mph to 299 mph (2 km/h to 481 km/h, 2 knots to 344 knots)
Speed Accuracy:	± 1 mph (± 1 km/h, ± 1 knots)
Eye Safety:	FDA/CDRH CLASS 1 Laser Device (Eyesafe)

Advanced Features:

■ School Zone / Construction Zone Mode

The X-Series can be set to track vehicles only within an operator-defined area, such as a school zone or construction zone. The operator sets a far boundary and near boundary and the X-Series will ignore vehicles outside of that zone.

■ Inclement Weather / Obstruction Mode

The X-Series units have, as standard, a Inclement Weather/ Obstruction Mode which allows the unit to work in rain, snow, blowing dust, fog, as well as through fences, tree branches, etc. This also increases the operating distance when using the X-Series LIDARs through the front windshield of the patrol car.

■ Anti-Jamming Capability

The X-Series LIDARs now have software that not only detects but ignores jamming pulses and continues to provide accurate speed tracking.

■ Shoots Through Windshields

In normal operation, the X-Series is unaffected when shooting through the windshield or side windows of the patrol vehicle.

XS Standard Features:

Doppler-Type Audio Tracking

Since most laser operators also operate radar, the X-Series LIDARs generate a continuous Doppler-type audio tone which correlates to the target speed.

Removable High Capacity Battery Handle

The new snap-in Li-Ion battery handle provides ample power to last two or more shifts. Plus, the battery can be expected to last through more than 500 charging cycles.

Lowest Cost of Ownership

Stalker products are priced competitively and built to last. But should your X-Series LIDAR ever need repair, you can count on a fair price based on your LIDAR's specific needs, not a one-charge-fixes-all blanket price. That's what we mean when we say that Stalker has the lowest cost of ownership in the industry.

Holsters



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972.398.3780 ■ Fax 972.398.3781



006-0516-00 Rev C

800-STALKER

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



Stalker XLR | Long Range LIDAR



The Stalker XLR is the smallest and lightest LIDAR in the Industry, with superior range, fast target acquisition and advanced tracking.

The Stalker X-Series LIDAR packs the industry's most advanced technology into the industry's smallest package. Plus, the new C-Thru Mode gives the unit the ability to track moving vehicles through obstructions, school and construction zones, and in the worst weather conditions.



- Small and Lightweight
- Fastest acquisition time
- Industry-leading range and accuracy
- Removable, high capacity, Li-Ion rechargeable battery handle
- Ergonomic, water resistant design
- Speed **and** distance in Heads-Up Display
- Advanced Tracking with C-Thru Technology
- Optional Data Logging, Following-Too-Close, and Bluetooth technology



High powered optics. Polymer housing is impact and water resistant.



Removable, high capacity battery handle - power for several shifts.



Small. Light. Powerful. Stalker.



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Power to Enforce.



The Stalker X-Series LIDAR are the smallest and lightest hand-held, gun-type lasers on the market today. At a mere 2.3 lbs. including removable/rechargeable battery handle, the X-Series may be lightest of all the hand-helds, but it's no lightweight.

The new snap-in Li-Ion battery handle provides ample power to last two or more shifts. Plus, the battery can be expected to last through more than 500 charging cycles.

Target acquisition is 1/3 second. The X-Series Long Range (XLR) is the best choice for targets as far as 4,000+ feet away.



Exclusive XLR Features:

■ C-Thru Technology

Stalker LIDAR XLR's C-Thru Technology enables the LIDAR to track targets despite the presence of trees, leaves, bushes, utility poles, and other obstructions between it and the target.

■ Auto Obstruction Mode

Using C-Thru Technology, the operator can take a position where previously – because of a fence, trees, signage, etc. – continuous tracking of a target was impossible.



Advanced Features:

■ School Zone / Construction Zone Mode

The X-Series can be set to track vehicles only within an operator-defined area, such as a school zone or construction zone. The operator sets a far boundary and near boundary and the X-Series will ignore vehicles outside of that zone.

■ Inclement Weather / Obstruction Mode

The X-Series units have, as standard, a Inclement Weather/Obstruction Mode which allows the unit to work in rain, snow, blowing dust, fog, as well as through fences, tree branches, etc. This also increases the operating distance when using the X-Series LIDARs through the front windshield of the patrol car.

■ Anti-Jamming Capability

The X-Series LIDARs now have software that not only detects but ignores jamming pulses and continues to provide accurate speed tracking. Jammers are being used without any worries about false or no readings.

■ Shoots Through Windshields

In normal operation, the X-Series is unaffected when shooting through the windshield or side windows of the patrol vehicle.

Optional Features:

■ Bluetooth - NEW

The XLR can connect with peripherals such as printers or speed display signs. In the client mode, it allows the XLR to connect to a PC for serial data transfers or use with the Data Logging feature.

■ Data Logging - NEW

Capturing and logging speed and time data is as easy as releasing the trigger. Storing up to 3,000 data sets in non-volatile memory, the data is either captured automatically or only when accepted by the operator.

■ Following-Too-Close - NEW

Easily set up, the XLR automatically compensates for cosine error. Taking readings of two vehicles inside a 3-second window calculates the time a following vehicle will take to reach the current position of the car in front.

Specifications

Dimensions:	8.9" Height, 4.7" Length, 4.7" Width (22.6 cm Height, 11.9 cm Length, 11.9 cm Width)
Weight:	Including Battery Handle - 2.3 lbs (1.04 kg)
Housing:	High impact resistant polymer housing
Environmental:	-22° to +140° F, operating (-30° to 60°C) -40° to +185° F, non-operating (-40° to 85°C)
Humidity Protection:	+99° F, (37°C) 90% Relative Humidity
Battery Life:	Typically 500+ charge cycles
Battery Charge:	Li-ion battery: Approx. 2 - 3 shifts
Type:	Handheld LIDAR offering Tracking mode, Single-Shot mode, and Time/Distance mode.
Acquisition Time:	1/3 second
Nominal Range	Minimum: - Range mode < 10' (< 3 m) Speed mode 50 feet (15.2 m) Normal: 2500 feet (762 m) approaching Targets Maximum: > 4,000 feet (1219 m)
Range Accuracy:	±6" (0.15 m)
Speed Measure:	1 mph to 299 mph (2 km/h to 481 km/h, 2 knots to 344 knots)
Speed Accuracy:	± 1 mph (± 1 km/h, ± 1 knots)
Eye Safety:	FDA/CDRH CLASS 1 Laser Device (Eyesafe)

Lowest Cost of Ownership

Stalker products are priced competitively and built to last. But should your X-Series LIDAR ever need repair, you can count on a fair price based on your LIDAR's specific needs, not a one-charge-fixes-all blanket price. That's what we mean when we say that Stalker has the lowest cost of ownership in the industry.

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006-0517-00 Rev F

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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 = 2500 feet (762 meters) approaching targets Maximum > 4000 feet (1200 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)
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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
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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
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Shoulder Stock:	Accessory shoulder stock is available
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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
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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)

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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