

STALKER[®] LIDAR RLR SPECIFICATIONS

Operational:

Type:	Handheld Lidar offering Range mode, Tracking mode, Auto Obstruction mode, Zone mode, and Inclement Weather/Obstruction mode.
Acquisition Time:	0.33 second
Nominal Range :	Minimum < 5 feet (1.5 meters) – Range mode Minimum = 50 feet (15.2 meters) – Tracking mode Normal = 2500 feet (762 meters) approaching targets Maximum > 9999 feet (3047 meters)
Range Accuracy:	± 12 inches (0.30 meter *)
Speed Measure:	Up to 299 mph (481 km/h; 260 knots)
Speed Accuracy:	±1 mph (±1 km/h; ±1 knot)
Test/Alignment mode:	Press the TEST key, at end of test the Programmable Key will say "Sight Align", press the key to enter. 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
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, Switched Output Voltage

Physical

Dimensions:	9.1" Height, 5.0" Length, and 4.3" Width 23.1 cm Height, 12.7 cm Length, 10.9 cm Width
Weight:	Including Battery - 2.3 lbs (1.03 kg)
Housing:	High impact resistant thermoplastic polycarbonate
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 16.3V @ 400 mA nominal Low voltage inhibit activates below 6.8V
Low Voltage Inhibit:	Inhibits all readings while input voltage is below the low voltage inhibit level
Low Power Mode:	After 150 seconds of inactivity (unit not transmitting), power consumption is reduced to 65% of nominal
Input Power Protection:	Solid state automatically resettable fuse
Environmental:	-22° to +140° F (-30° to +60° C) operating -40° to +185° F (-40° to +85° C) non-operating
Humidity Protection:	+37° C, 90% Relative Humidity, 8 hours minimum, operating
IP67:	Dust and water proof
Additional Resistance:	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 back of handle.

* when the unit is in 0.1 (tenths) resolution

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) Anti-Jamming off
Beam Divergence:	< 3 ± 0.5 mrad FWHM
Optical Design Type:	Bistatic (dual aperture)

HUD

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

PANEL

Display:	LCD TFT 2.7" 400x240 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 tactile switches

SWITCH DEFINITION

TRIGGER:	A trigger depression starts the transmit of laser pulses. Release the trigger to stop transmitting laser pulses.
PWR:	Toggles main power ON/OFF
TEST:	Performs a complete self-test
MODE:	Used to select Inclement Weather/Obstruction mode, Auto Obstruction mode, and Zone mode. A long press clears any active mode.
MENU:	Used to select the Main Menu where you can print a ticket, configure settings, define the programmable key, and view version information. Also used to exit the user menus.
UP ARROW:	User programmable key (defaults to INC/OBS). Also used as an up arrow in the user menus.
DOWN ARROW:	Adjusts HUD brightness, panel brightness, and audio volume, each through multiple levels. Also used as a down arrow in the user menus.

DISPLAY MESSAGES

Err:	This message indicates that a measurement error has occurred
TILT:	This message indicates the unit has exceeded the tilt threshold. Operation is inhibited until cleared.
RFI:	This message indicates the presence of an interfering signal. Operation is inhibited until cleared.
LOW V:	This message indicates a low battery voltage. Operation is inhibited until cleared.