STALKER® PATROL SPECIFICATIONS

General Specifications

Type:	Dual Antenna Moving/Stationary Doppler Radar
Operating Freq:	24.125 GHz (K-Band)
Stability:	±50 Mhz (K-band)
Power Requirements: (With 2 Antenna)	9.0 to 16.0 VDC. (currents are typical at 12VDC) XMIT ON: with maximum display brightness: 0.39A XMIT ON: with minimum display brightness: 0.29A XMIT OFF: with maximum display brightness 0.24A XMIT OFF: with minimum display brightness 0.13A
Low Voltage Threshold:	8.7 VDC (± 0.3 VDC)
Environmental:	-30° to +70° C Operating, 90% Relative Humidity at 37° C -40° to +85° C, non-operating
Display:	Sunlight viewable WHITE on BLACK Liquid Crystal Display (LCD) panel with seven icons and triple 3-digit windows for target, lock/fast and patrol windows. LCD has HEA film and 9:00 polarization.
Mechanical:	**Counting unit** Wt. – 1.1 lbs (0.498 kg) 1.68" Height, 3.59" Depth, and 5.52" Width (4.26 cm Height, 10.0 cm Depth, and 14.0 cm Width) **Antenna** Wt. -1.2 lbs. (0.544 kg) 2.89" Dia. X 5.26" (includes connector) (7.3 cn Dia. X 13.3 cm) **Remote** Weight - 0.4 lb. (0.181 kg) 1.25" Height, 6.50" Length, and 2.25" Width ((2.0 cm Height, 16.5 cm length and 6.8 cm Width)
Accuracy:	±1 mph (or kph) stationary ±1mph (or kph) moving, when using Vehicle Speed Sensor ±2mph (or kph) moving, when Vehicle Speed Sensor is not used
Automatic Self-Test:	Performed every 15 minutes while transmitting
Stationary Speed Range:	10 mph to 210 mph Standard (16 to 337 Km/h) 2 mph to 210 mph (3 to 337 Km/h(set-up menu selectable)
Moving Speed Range:	**Patrol speed** - Selectable with **P.S. 5/20** key: **5** in patrol window for <u>acquisition</u> of 5 to 90 mph (8 to 144 Km/h) **10** in patrol window for <u>acquisition</u> of 10 to 90 mph(16 to 144 Km/h) **20** in patrol window for <u>acquisition</u> of 20 to 90 mph (32 to 144 Km/h) Patrol speed, once acquired, will track to 150 mph (241 Km/h) <u>Same lane patrol speed</u> must be greater than 19 mph (30 Km/h) **Opposite lane target speed** - 210 mph (337 Km/h)Max closing For 5 mph (8 Km/h)patrol speed: 20 mph to 205 mph (32 to 329 Km/h) For 70 mph (112 Km/h)patrol speed: 35 mph to 140 mph(56 to 225 Km/h). **Same lane target speed -** Related to patrol speed: ±75% of patrol speed to within 5 mph (8 Km/h) of patrol speed i.e. For 50 mph (89 Km/h): 15 → 44 mph (24→ 70 Km/h)and 55 → 85 mph (88→ 136 Km/h) **Faster Speed -** Same speed range as opposite lane speed

Microwave Specifications

Antenna:	Conical horn with corrective lens
Polarization:	Circular
3 db Beam width:	13° nominal, 15° maximum
Microwave Source:	Gunn-Effect diode
Receiver Type:	Direct Conversion Homodyne using low-noise Schottky barrier mixer diode
Power Output:	8 mw min (K-band) 12 mw nom (K-band) 20 mw max (K-band)
Power Density:	2 mw/cm^2 maximum at 5 cm from lens

Display Messages

PASS:	**PASS** spelled out in display with a 4-beep "happy" tone indicates the unit has just passed self-test.
FAIL:	**FAIL** spelled out in display with a 15-beep tone indicates a circuit malfunction has been detected, in which case speed readings are inhibited. Remove the unit from service and repair. **FAIL** will remain on the display until reset by being powered off.
SEn 1, SEn 2, SEn 3 or SEn 4:	**SEn 1** thru **SEn 4** is used to indicate the current range (sensitivity) setting . **SEn 1** is minimum; **SEn 4** is maximum. Opposite lane sensitivity is independent of same lane sensitivity. They are separately set.
5, 10 or 20:	**5, 10** or **20** spelled out in the patrol window indicates the low-end patrol speed is set to either 5, 10 or 20 mph (8,16 or 32 Km/h)
Aud 0 .. Aud 9:	**Aud 0** thru **Aud 9** spelled out on the display unit indicates the current speaker volume setting. **Aud 0** is off; **Aud 9** is loudest.
bri 1, bri 2 bri 3, bri 4, bri 5, or bri 6:	Used to indicate display brightness. **bri 1** is the dimmest; **bri 6** is the brightest.
Hot:	The display flashes **Hot** and powers down when the internal temperature exceeds specifications.Automatically resumes operating when the temperature drops.
Lo V:	A **Lo V** message indicates the input voltage is too low. Operation is inhibited while the **Lo V** message is displayed but normal operation will resume automatically when the input voltage is restored. All other speed windows will be blanked.

Remote Control Functions

SAME/OPPOSITE:	The **SAME/OPPOSITE** key is used to alternate between same lane moving mode and opposite lane moving mode. The **SAME** icon toggles on and off to indicate same lane mode.
LOCK/RELEASE:	The **LOCK/RELEASE** key is a dual function key. This key alternates between the lock and the release functions. **LOCK** is used to transfer the contents of the target window to the lock window. **RELEASE** clears the locked contents of the lock window and the patrol window. During lock, the patrol window will lock the present patrol speed and the **LOCK** icon will light. The target window and Doppler audio remain active after locking.
ANT:	Used to switch between the front and rear antenna. The **FRONT** or **REAR** icon will light. A 1-beep tone corresponds to the front antenna while a 2-beep tone corresponds to the rear antenna. The counting unit can sense the presence or absence of either antenna.
XMIT/HOLD:	Toggles between xmit and hold (standby). The **XMIT** icon will light.
MOVING/STATIONARY:	Toggles between moving and stationary modes.
FASTEST:	Used to select *fastest* mode. A high pitched tone indicates that *fastest* mode is selected. Any power off event will reset the *fastest* mode to OFF.
SLOWER:	The **SLOWER** key is used to toggle between *fast target* same lane mode and *slow target* same lane mode. The **SLOW** icon is on for a slower target.
SEn :	Used to adjust the range (sensitivity) at any time. Maximum sensitivity is **SEn 4**; minimum sensitivity is **SEn 1**. Opposite lane sensitivity is independent of same lane sensitivity. <u>They are separately set.</u>
SQL:	Toggles the squelch override off and on. In the normal (off) position, audio will only be heard when a target is being tracked.
P.S. 5/20:	Used to select a low-end patrol speed of either 5 mph, 10 mph or 20 mph. For example: **5** in patrol window for speed of 5 (8 Km/h) **20** in patrol window for speed of 20 (32 Km/h)
TEST:	Performs a complete self-test on display/counting unit and the <u>selected</u> antenna. The display unit shows the temperature inside the display/counting unit in °F (e.g., **110 °F**); and input battery voltage (e.g., **bAt 13.8**); followed by "**PASS**" and a 4-beep "happy" tone or "**FAIL**" and a 15-beep tone..
((((▶	Used to adjust the volume of the Doppler audio up or down. **Aud 0** is off; **Aud 9** is loudest.
P.S. BLANK:	Dual function key. Used to re-acquire patrol speed. Also, blanks the patrol speed after a target speed and patrol speed are locked. Pressing the **P.S. Blank** key again restores the blanked speed.
☀	Dual function key. A single depression of the ☀ key activates the keyboard backlight for six (6) seconds. Two rapid depressions of the ☀ key activates the display brightness control. Additional depressions of the ☀ key toggles display brightness from bri 1 (low) to bri 6 (high).