

STALKER[®] DIRECTION SENSING RADAR **DSR**

**The World's First
Direction Sensing
Police Radar**

DS
Direction Sensing

CLOSING TARGET
67 M.P.H.

GOING AWAY TARGET
IGNORED

Dramatically Simplifies Moving "Same Lane" Operation
Automatically Ensures the Target Speed Accuracy in "Same Lane" Mode
A Giant Leap in the Effectiveness of Stationary Operation
Same Lane Fast Target Display and Locking in Moving Mode

Features Separate, Simultaneous Display Windows for Strongest and Faster Targets

Unquestionably the Most Effective Radar Ever Produced!

Same Lane Problems Eliminated

Conventional radars force the operator to visually estimate and manually input faster or slower targets each time in order to calculate readings. The DSR automates the procedure, making same lane operation as accurate and simple to use as opposite mode operation.

NOW AVAILABLE. Same lane fast display and same lane fast lock. The operator can now DISPLAY or LOCK:

1) Strong targets

2) Fast targets

WHILE IN:

1) Same lane mode

2) Opposite lane mode

3) Stationary mode

The Most Significant Advance in Radar Technology Since DSP



The Revolutionary Stalker DSR

Same Lane 'Faster' Target Locking Is Another STALKER First

Now, an operator has a choice of locking either the same lane faster target or the same lane stronger target. In fact, same-lane faster target display and locking is a Stalker exclusive.

Dramatically Simplifies Moving "Same Lane" Operation While Automatically Ensuring Accuracy

With direction sensing capabilities, the DSR is able to automatically determine if vehicles in the same lane are closing or going away from the radar. This allows the DSR to automatically measure same lane traffic speeds as simply and accurately as it does for oncoming traffic. No longer does the operator need to tell the radar if same lane traffic is closing or going away from the patrol vehicle. The Stalker DSR is the first radar to make same lane operation simple, accurate, and automatic.

A Giant Leap in the Effectiveness of Stationary Operation

The Direction Sensing ability of the Stalker DSR allows the operator to select a specific direction of traffic to monitor. The DSR can measure closing targets while automatically ignoring vehicles that are going away - even if the target moving away is closer than a distant closing target. Imagine the typical situation where you wish to measure closing vehicles at a lengthy distance on a two-lane road. Just when a distant car enters the picture, a truck passes by your location heading away from you (and towards the approaching car). A conventional radar would be forced to display the truck's speed until it is out of the area - and you could not measure the closing car's speed. The DSR is able to completely ignore the truck because it is traveling away from the radar, thereby being able to clock the closing vehicle - even though it is still distant. The Stalker DSR makes stationary operation very useful and highly effective in all locations.

Provides Voice Verification of the Location, Radar Mode, and Direction

Whenever a target is locked, the Stalker DSR audibly tells the operator WHICH antenna was used (front or rear), what MODE the radar is operating in (moving or stationary), and the DIRECTION (opposite or same direction) the vehicle was traveling. This added step assists the operator in ensuring accuracy every time.

STALKER

Four Generations of Leadership

Stalker ATR

1

- Digital Signal Processing (DSP)
- Ka-Band Microwave Frequencies
- Cordless, Battery Powered Operation
- The First Long-Range Radar
- Software Controlled and Upgradeable



1991

Stalker Dual

1995



- Digital Antenna
- Infrared Cordless Remote Control
- Strongest & Faster Speed Tracking
- Dual Balanced Micro-Strip Antenna
- Detachable Display Unit
- True Waterproof Antennas

2

Stalker DSR

3

- Direction Sensing Technology
- Automatic Same-Lane Tracking
- Selectable Stationary Directional Tracking
- VSS Mode Operation
- Quad Mixer - Twin Channel Processing
- Voice Verification of Target Information



1998

Stalker DSR 2X

2X

Multi-Direction
Safety Radar

2003

- Rear Traffic Alert Warns Officer
- Two Complete Radars in One Package
- Monitors 2 to 4 Target Zones
- Direction Arrows for All Speed Windows
- Locks Any Displayed Target

4

The Industry Innovators

Applied Concepts, Inc., formed in 1977, introduced the first Stalker radar to the law enforcement industry in 1990. Because of the technology introduced by the Stalker product line, the entire police radar industry has been transformed from a complacent "me too" industry to a very dynamic "state-of-the-art" industry with all competitors trying to play "catch up" with the Stalker products. Stalker Radar has become the dominant Doppler radar system and continues to lead the industry in technology breakthroughs and product innovations. Stalker team members were involved in almost every significant radar-based product development since 1970 including:

- The first solid state police radar
- The first moving traffic radar
- The first K-Band radar
- The first K-Band handheld radar
- The first microprocessor radar
- The first Ka-Band radar
- The first cordless radar
- The first DSP radar
- The first "long range" radar
- The first digital antenna radar
- The first radar simultaneously tracking strong and faster
- The first direction sensing moving radar
- The first radar with Automatic VSS Calibration
- The first radar with Automatic VSS STA/MOV switching
- The first radar that simultaneously monitors 2 moving zones or 4 stationary zones
- The first radar with Rear Traffic Alert

Stalker will continue to innovate and to demonstrate the ability to lead all competitors.

Direction Sensing Technology

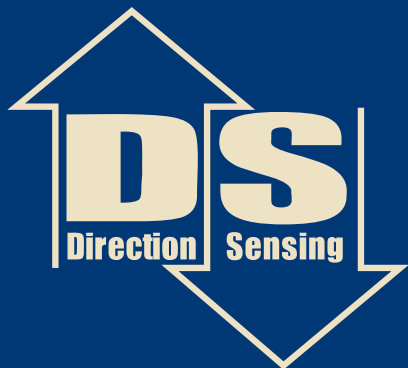
Doppler Radar works by transmitting a signal at a known frequency, and when that signal is reflected off moving objects, its frequency is shifted. Doppler radar systems measure the "absolute" change in frequency, often referred to as the "Doppler frequency." The Doppler frequency is the same for objects approaching or going away. The Stalker DSR takes an ingenious (and patented) approach to measuring the Doppler frequency. Each antenna has two sets of microwave circuits and two sets of amplification / digitizing circuits. The two microwave circuits are designed to provide two simultaneous Doppler signals with a 90-degree phase difference depending on direction. The digitized Doppler information is sent to the Digital Signal Processor, which performs a Complex Fast Fourier Transform computation to obtain relative direction for each target.

Direction Sensing Technology
Invented, Designed, and Patented by Stalker

Includes Every Feature

- Direction Sensing Technology
- Automatic Same Lane Tracking
- Stationary Direction Control (Closing, Going Away, or Both)
- Strongest & Faster Targets Are Simultaneously Displayed
- Strongest & Faster Targets Can Be Individually Locked
- Voice Verification of Locked Targets
- Stopwatch Mode
- RFI Immune Digital Antennas
- IR Backlit Cordless Remote
- Detachable, Multi-Colored Display
- True Waterproof Antennas
- True Audio Doppler Tones
- Digital Signal Processing
- Microstrip Antenna Design
- Software Controlled and Upgradeable
- Interfaces with Video Systems, Computers, and Giant Displays

Optional Waterproof Motorcycle and Switch Displays are Available



The Smallest Detachable Display Unit

True Doppler Audio

The audio Doppler tone in opposite mode operation is generated from the target's actual speed (not closure speed) so the tone always correlates directly to the target's speed - regardless of patrol speed. In moving mode, audio tones from conventional radars are based on closure rate, so the patrol speed changes the pitch of the audio tone. With Stalker's industry exclusive true Doppler audio, operators can always associate tone pitch with target speed, which eliminates the need to constantly watch the display to determine target speed.

Optional VSS Operation

With the optional VSS cables installed, the DSR automatically self-calibrates and then provides perfect patrol speed tracking. In addition, the DSR automatically switches between moving and stationary modes when the vehicle starts and stops.



Small Display / Counting Unit

The small display and counting unit is compact enough to be mounted almost anywhere. Having such a small display reduces dashboard visibility problems and eliminates interference with airbags.

Read-Thru Lock, With 3 Window Multi-Colored LEDs

The Stalker DSR utilizes three colors (red, amber, and green) to differentiate between the strongest, faster, and patrol speeds.

Detachable Display Unit

If an even smaller unit is desired, the display / counting unit can be separated easily by loosening 2 screws. The display can then be mounted separately using an interconnect cable.

Strongest and Faster Targets Simultaneously Displayed (and/or Locked) in Separate Display Windows.

Strongest

Faster

Patrol



By displaying both strongest and faster targets simultaneously, the Stalker DSR can monitor faster vehicles passing larger vehicles and display the speed of both targets simultaneously.

New Ergonomic Remote Control!

Faster Target Locking Is Available Through Remote

The entirely redesigned IR cordless remote moves all controls into the palm of the operator's hand. Now, in addition to Stronger target locking, Faster target locking has been added. Other new remote control features include "snap" feedback keys, a smaller contoured body, and reorganized controls as well as bright amber back-lighted keys for night use and omni-directional infrared operation that eliminates the need to carefully point the remote.

Same / Opposite

[SAME/OPP] Switches between same lane and conventional opposite moving modes.

Antenna Select

[ANT] Selects front or rear antenna.

Radar Mode

[MOV STA] Toggles between four operational modes: moving, stationary closing, stationary away, or stationary bi-directional.

True Range Adjustment

[SEn 100] Selects one of four sensitivity settings, to work from approximately 1/10th mile to over 1 1/2 miles!

Enhanced Self-Test

[SELF TEST] Performs a full diagnostic check on the display / counting unit and the selected antenna. Following a light segment test, the DSR tests the internal processor and memory, followed by a check and display of three clock frequencies, and ending with a display of input battery voltage and internal operating temperature. A comprehensive test is also performed on the selected antenna to ensure the integrity of the antenna cable and electronics.

Keyboard Backlight

[LIGHT] Activates the keyboard lights for about 6 seconds. Additional depressions cycle the display intensity through six levels of brightness.



2 Lock / Release Modes

[STRONG LOCK/REL] Transfers target window contents into lock window. Also clears lock window. This key also starts and stops the stopwatch mode.

[FAST LOCK/REL] Now, the operator has a choice with the addition of faster target locking.

Xmit / Hold

[XMIT/HLD] Toggles the radar transmitter on or off.

Stopwatch Mode

[STOPWATCH MODE] Allows the operator to time vehicles over known distances to measure speed. The stopwatch mode emits no radar signal and will not alert any radar detectors.

Lowest Patrol Speed Cutoff

[PS 5/20] Selects either a 5 or 20 mph lowest patrol speed operation.

Patrol Speed Blanking

[PS BLANK] An incorrect patrol speed can be blanked and reacquired; or after a target lock, the patrol speed can be blanked and restored.

Squelch

[SQL] In the normal position, audio will only be heard when a target is present.

Audio Volume

[SPEAKER ICON] Individually adjusts the loudness of the Doppler audio, the voice, and alert tones.

WATERPROOF Ka-Band Antenna

The Stalker DSR is available with one or two O-ring sealed, ultra-high frequency, Ka-band antennas. These compact, completely waterproof antennas include locking connectors and can be exterior mounted with no reliability concerns.

Narrow Beam-Width

The narrow antenna beam-width of 12 degrees improves target discrimination.

Patented, RFI Immune Digital Antennas

The Stalker DSR achieves the industry's longest range by digitizing the Doppler audio signal at the antenna and using a high-speed bi-directional communication link to transmit data between the antenna and the counting unit. Traditional two-piece radar units send a low level Doppler audio signal from the antenna to the counting unit for processing and speed display. This method is susceptible to noise induced by the auto ignition and 2-way radio transmissions, which results in reduced range and increased potential for false targets.



STALKER

DIRECTION SENSING RADAR

DSR

DS
Direction Sensing



Industry Leading Service and Support

Stalker Radars are Well Known for Providing the Newest Technology and the Highest Performance in the Industry. Stalker is Known as the Stand-Out Leader in Service and Support.

- The Longest Full Warranty in the Industry
- A Nationwide Network of Representatives to Assist You
- A Nationwide Network of Authorized Service Centers
- Lease-Purchase and Rental Plans with Low Monthly Payments
- 48-Hour In-House Turnaround on Repairs

Made in the USA

The *S DUAL DSR* is covered by one or more of the following United States Patents: 5,563,603; 5,570,093; 5,525,996; 5,565,871; 5,528,245; 5,691,724; 6,198,427; 6,501,418; and 6,646,591 B2. In addition, other United States Patents are pending.

Call Toll Free 1-800-782-5537

1-800-STALKER

www.stalkerradar.com

email: sales@stalkerradar.com

STALKER Offers Complete Solutions for Your Traffic Enforcement Needs

Stalker DSR 2X

Two DSR-Class Radars in One Unit, Plus Rear Traffic Alert For Officer Safety.

Stalker II

A Compact, Waterproof Hand-Held Radar Featuring Moving and Stationary Modes Suited for Motorcycle or Auto Duty.

[Can be Setup as a Cordless Hand-Held Radar, or as a Dash Mounted Radar.]

Stalker DSR

The Ground-Breaking Police Radar with Exclusive Direction Sensing Technology.

Stalker Dual

A Full-Featured, High Performance Radar Available with One or Two Ka-Band Antennas.

Stalker ATR

A Highly Versatile, One-Piece Radar Available in Stationary or Moving Versions.

Stalker Basic

A Low Cost, Hand-Held Police Radar.

Stalker Lidar

An Affordable Hand-Held Laser Unit Ideal for High Congestion Areas.

Stalker Speed Board

Displays Traffic Speed by Attaching to Any Stalker Radar System.

Stalker Radar

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