

STALKER® II MDR Moving Radar

GENERAL SPECIFICATIONS

Type:	Handheld Moving/Stationary Doppler Radar
Operating Frequency:	34.7 GHz (Ka-band)
Stability:	±100 MHz
Battery Type:	Removable/rechargeable sealed battery handle containing a 7.2 Volt Li-Ion battery
Cell Capacity:	3700 mAh
Power Requirements:	Removable Battery Handle: 7.2 VDC nominal Cigarette Plug Coil Cord Handle: 7.0 to 18.0 VDC (currents are typical at 12VDC with Cigarette Plug Handle) XMIT with all displays off and back light off: 300 mA XMIT with moving target and back light: 350 mA XMIT with no target and back light: 350 mA Standby with no target and back light on: 160 mA Standby with no target and back light off: 105 mA Sleep mode: 35 mA (when battery powered only)
Environmental:	-30°C to +70°C, 90% Relative Humidity, Operating 0°C to 45°C, 90% Relative Humidity, Battery Charging -40°C to +85°C, Non-Operating
Display:	Back-lighted LCD with 3 speed windows (Target speed, Lock/Fast speed, and Patrol speed), 4-digit Alphanumeric status window, XMIT icon, and CHG icon
Mechanical:	Weight – 2.15 lb. (0.98 kg) with battery handle attached Height – 7.35 in. (18.5 cm) Length – 7.9 inches (20.1 cm) Width – 2.83 inches (7.2 cm) Radar Body Material – Aluminum and Magnesium die castings Handle Case Material – ABS polymer
Accuracy:	+1, -2 MPH stationary, ±2 MPH moving +2, -3 KM/H stationary, ±3 KM/H moving
Auto Self-Test:	Performed every 10 minutes while transmitting
Stationary Speed Range:	5 MPH to 200 MPH Standard 15 MPH to 200 MPH (option menu selectable)
Moving Speed Range:	Patrol speed - Selectable with P.S. 5/20 key: 5 in patrol window for acquisition of 5 to 90 MPH 20 in patrol window for acquisition of 20 to 90 MPH Patrol speed, once locked, will track to 150 MPH Opposite lane target speed - 200 MPH Max closing For 5 MPH patrol speed: 20 MPH to 195 MPH For 70 MPH patrol speed: 35 MPH to 130 MPH. Same lane target speed – Related to patrol speed: ±70% of patrol speed within 5 MPH of patrol speed. i.e. for 50MPH: 16→45 MPH and 55→85 MPH. Same lane patrol speed must be greater than 16 MPH.

MICROWAVE SPECIFICATIONS

Antenna:	Conical horn
Polarization:	Circular
3db Beamwidth:	12° ±1°
RF Source:	Gunn-Effect diode
Receiver Type:	Two Direct Conversion Homodyne receivers using four low-noise Schottky barrier mixer diodes
Power Output:	10 mW minimum 25 mW nominal 50 mW maximum
Power Density:	2 mW/cm ² maximum at 5 cm from lens

SPEED WINDOW MESSAGES

PASS:	PASS in the speed windows indicates the unit has just passed self-test.
FAIL:	FAIL in the speed windows indicates the unit has just failed self-test. Speed readings are inhibited. Remove the unit from service and repair. FAIL will remain on the display until reset by being powered off.

DISPLAY WINDOW INDICATORS

BAT:	A flashing BAT message indicates a nearly exhausted battery
V L0:	A V L0 message indicates the operating voltage is too low.

MESSAGE WINDOW MESSAGES

RFI:	An RFI message indicates the presence of an interfering signal. Operation is inhibited during an RFI indication
MENU:	A MENU message displayed in the message window after the MENU key is pressed and indicates that the radar is in MENU mode
TEST:	A TEST message indicates that a test sequence is in process
FAWY:	FAWY showing in the message window indicates that the radar is set to track targets moving away from the radar in stationary mode
FCLD:	FCLD showing in the message window indicates that the radar is set to track targets closing on the radar in stationary mode
FBTH:	FBTH indicates that the target direction is set to simultaneously track both closing and away targets in stationary mode
FSAM:	A FSAM message indicates that same lane moving mode has just been selected
FOPP:	A FOPP message indicates that opposite lane moving mode has just been selected
STOP:	A STOP message indicates that the radar is in stopwatch mode. Stopwatch mode is selected from the OPERATOR MENU
LOCK:	A LOCK message indicates that a strong target has been locked. The LOCK message will alternate with the operating mode in the message window
FLDK:	A FLDK message indicates that a faster target has been locked. The FLDK message will alternate with the operating mode in the message window
FORK:	A FORK message indicates that the radar is in fork mode. The FORK message will alternate with the operating mode in the message window

SWITCH DEFINITION

TRIGGER:	Press the trigger to transmit and release the trigger for hold. A push (to transmit) push (to hold) operation is optional. The trigger can also be used in stopwatch mode to perform the start/stop function.
MENU:	MENU is used to enter the operator menu
STA/MOV:	STA/MOV selects stationary or moving mode
▲/TEST:	▲ sets distance in stopwatch mode and increments settings in the operator menu. TEST performs a diagnostic check on the radar.
LIGHT/▼:	LIGHT switches the backlight on and off. ▼ sets distance in stopwatch mode and decrements settings in the operator menu.
LOCK/REL:	LOCK/REL is used to LOCK and RELEASE strong speed targets
BOTH DIRECTION	This key is used to select target direction
POWER:	POWER toggles the main power ON and Off.

REMOTE CONTROL FUNCTIONS

▲:	▲ is used to set distance in stopwatch mode and to increment settings in the operator menu
STRONG LOCK/REL:	STRONG LOCK/REL is used to lock and release strong targets
MENU:	MENU is used to enter the operator menu
XMIT/HLD:	XMIT/HLD toggles between transmit mode and hold mode
SS:	SS is the Start/Stop control for stopwatch operation
STA/MOV:	STA/MOV selects either stationary mode or moving mode
FAST LOCK/REL:	FAST LOCK/REL is used to lock and release faster targets
▼:	▼ is used to set distance in stopwatch mode and to decrement settings in the operator menu
BOTH/ DIRECTION:	BOTH/DIRECTION is used to select target direction
SEn:	SEn adjusts the sensitivity (range) of the radar
100:	100 is used for setting distance in stopwatch mode
SQL:	SQL toggles the squelch control on/off
10:	10 is used for setting distance in stopwatch mode
PS 5/20:	PS 5/20 is used to set the minimum patrol speed
1:	1 is used for setting distance in stopwatch mode
TEST:	Press TEST to perform a diagnostic check on the radar
(((▶):	(((▶ is used to adjust the doppler volume and the beep volume
PS BLANK:	PS BLANK will blank a locked patrol speed and it is also used to re-acquire a new patrol speed
LIGHT:	LIGHT activates the remote backlight for 6 seconds