# **Sport2**

Digital Sports Radar



Owner's Manual



	Not intended for Law Enforcement use	
(1) This device may not cause ha	of the FCC Rules. Operation is subject to the following two condi armful interference, and (2) this device must accept any interferen ng interference that may cause undesired operation.	
Changes or modifications not expre equipment.	essly approved by the manufacturer may void the user's right to o	perate the

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# Owner's Manual

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# **STALKER** RADAR

2609 Technology Drive Plano, TX 75074 1-888-STALKER (972) 398-3760 Sales (972) 398-3781 Fax www.stalkerradar.com

# INTRODUCTION

Congratulations! You have purchased the finest sports radar system available. The Stalker Sport 2 K band sports radar is designed to measure the speed of a wide variety of objects such as baseballs, carnival balls, cars, tennis, and just about anything that moves.

The Stalker Sport 2 radar sends out very high frequency radio waves and measures the change in the frequency after it bounces off a moving object. This is commonly referred to as "Doppler Radar." This invisible radio wave is extremely low power (about 1/200th of a watt) and is completely safe for close and continuous operation.

The Stalker Sport 2 is a true "digital" radar system. The Sport 2 converts the reflected microwave signals into a digital stream of data. The gun's own computer then processes this data stream using sophisticated programming, to interpret, filter, and measure the speeds. This technology is closely related to the compact digital disc and modern personal computers. This type of radar system has the potential to provide substantially superior performance and accuracy over conventional radar systems.

While the technology in the Stalker Sport 2 is extremely advanced, its operation is quite simple. Reading through this manual will help you to take full advantage of the many features and capabilities of the Stalker Sport 2 radar.

Have Fun!

# WHAT IS INCLUDED

The components included with your radar are listed below. If you are missing any parts or if you would like to upgrade your package, contact Stalker Radar at 1-888-782-5537.

#### **SPORT2 PACKAGE**

- K-Band Radar Gun
- Robust Battery Cover
- 6-AA NiMH Batteries (rechargeable)
- Wall Charger
- Radar Manual
- Hard Case

# QUICK START INSTRUCTIONS

The **STALKER** Sport 2 (Sport 2) has several features that allow the gun to work well in a wide variety of applications. With some basic understanding, the gun is very simple to operate.

#### **Basic Operation**

- 1. Power is supplied by 6 NiMH batteries located in the handle.
- 2. Turn the gun **ON** by pressing the **ON/OFF** button.
- 3. Squeeze the trigger to begin operating (transmitting).

#### **Important Settings**

There are four buttons that control the radar gun functions. The blue buttons and the silver buttons work together.

**MENU (Blue Button)** - This feature sets the configuration for the radar to look for specific types of targets and certain speed ranges.

**SELECT (Blue Button)** – When the Menu button is selected, use the SELECT button to move to the next option.

TRANSMIT (Silver Button) - Turns the transmitter on and off

**RECALL (Silver Button)** – Displays the last 5 speeds recorded and stored.

## Turning the Transmitter ON and OFF

There are two ways to turn on the radar transmitter to begin operating.

**Trigger Transmit** - Pull the trigger to transmit. This is a default setting.

The Transmit Button - Press the silver Transmit button to toggle the transmitter ON or OFF.

* The XMIT	icon display	/s when the gun :	<b>IS</b> transmitting
------------	--------------	-------------------	------------------------

\* The XMIT icon does not display when the gun **IS NOT** transmitting.

_		 		
			PEAK	
ΧM	IT			

# **CONTROLS AND INDICATORS**



# **LCD DISPLAY ICONS**

STORE - Is on when recalling speeds from the RECALL queue.LO BAT - Indicates the battery is low and needs recharging.

**XMIT -** Indicates the gun is transmitting and is able to take readings.

**PEAK -** Indicates the Peak Mode is on and the peak speeds are displayed.

#### **LCD DISPLAY WINDOWS**

**MESSAGE -** Messages display in the upper left corner, such as target type (ball) and units (mph).

**PEAK SPEED** - Indicates the peak speed on the right side of the word PEAK.

**LAST SPEED -** Indicates the last speed in large numbers on the lower right.



#### 9-PIN D CONNECTOR

The 9-Pin D Connector receives the following serial port signals. Pin 1 is on the top right, and pin 9 is on the bottom left.

- 1 AUX INPUT Stopwatch trigger input or remote transmit input
- 2 RS-232 TX Transmit data-stream
- 3 RS-232 RX Receive (not used at this time)
- 4 6.6 V OUT Output (limited to 50 mA)
- 5 GND Ground
- 6 Charger Input 120V AC Wall Charger
- 7 RS-485-A Transmit data-stream
- 8 RS-485-B Transmit data-stream
- 9 Voltage Input External voltage input, 8VDC to 18 VDC

# **DETAILED INSTRUCTIONS**

# **Providing Power to the Sport2**

**The Battery Handle** – The handle contains a built in battery holder. The Sport2 comes with 6 NiMH rechargeable batteries. When fully charged, the battery handle powers the gun for about 4 1/2 hours of continuous transmitting. These rechargeable batteries use the included Wall Charger to recharge. You may also use 6 alkaline batteries.

It is possible to supply power thru a 12V DC cigar cable attached to the 9-pin connector on the side of the gun.

# **Turning the Transmitter ON and OFF**

The radar transmitter must be turned ON to measure speed. There are two ways to transmit: press the trigger or press the TRANSMIT button.

**Trigger Transmit -** Squeeze and hold the trigger in to transmit. The settings are Con (continuous), SS (Start/Stop), and Loc (lock). Con is the default setting. These settings are explained in the Options Menu topic.

When the trigger is released, it stops transmitting, and any readings that were on the readout are left on the screen. Since the transmitter draws most of the power, trigger operating helps to save battery life.

**Press the TRANSMIT Button** - The silver Transmit button toggles the transmitter ON and OFF. Each time you push this button, it switches between transmit and hold. Using this button to turn on the transmitter allows the gun to continually operate automatically, without the need to press the trigger.

- \* The XMIT icon displays when the gun IS transmitting.
- \* The XMIT icon does not display when the gun IS NOT transmitting.

MPH	PEAK	
XMIT		

# Using the Trigger to Lock Speeds

The trigger serves two functions. It can control the transmitter or it can be used as a speed locking device.

When the gun is placed into continuous transmit mode using the silver

Transmit button or if the Trigger Option is Loc (lock), the trigger does not affect the transmitter. Instead, press the trigger to lock the currently displayed speed while the LOCK icon displays.

Press the trigger a second time to unlock the readout.

THIS FUNCTION IS USEFUL IF THE OPERATOR NEEDS TO MANUALLY HOLD READINGS.



# The RECALL Key Function

The silver RECALL button redisplays the last five speed readings that were measured. If the peak speed, last speed, and the locked speed are stored, then they display in an alternating flash mode when the RECALL is pressed. The speeds display in the SPEED WINDOW.

The MESSAGE WINDOW flashes the Recall Number, speed units, Target Type, and Loc (if on):

- Transmit ON displays REC 1-5 and MPH
- Transmit OFF displays REC 1-5 and Target Type
- Recall Lock speed displays REC 1-5 / MPH / LOCK speed

REC 1-5 / MPH /LOCK STORE	PEAK
XMIT	

#### The Peak Function

The Peak option activates the automatic top speed display in the PEAK SPEED WINDOW.

When the Peak mode is **ON**, the PEAK icon appears on the display and only the highest speeds display. For example, when tracking a baseball pitch, the peak speed is the same as the release speed since a ball only slows down after it is thrown.

\* The PEAK icon and speed window displays when the Peak option **IS** selected.

\* The PEAK icon and speed window does not display when the Peak option **IS NOT** selected.

# MPH **PEAK**XMIT

# The Sport2 Operator Setup Menu

**OPERATOR MENU** – Setting up the radar unit is fast and easy.

- Press the **MENU** key on the keypad to enter the OPERATOR MENU.
- Press the **MENU** key again to step through the menu items.
- Press the SELECT key to change the values.
- Press the trigger to exit the OPERATOR MENU.

The factory default for each setting is indicated by the bold underlined setting.

#### **OPERATOR MENU**

Menu Step	Description	FEATURE Step down by pressing MENU key	SETTINGS Change using the SELECT key
Menu Step ORDER	Description	MESSAGE WINDOW	Target Window (bold indicates factory default)
1	Range	RANGE	1, 2, <b>3</b>
2	Peak On/Off	PEAK	<b>QFE</b> , 0n

#### The Range Setting

The Range option affects the sensitivity (clocking distance) of the radar. The settings are:

- **3:** Setting the range to 3 increases the gun's sensitivity and lengthens the clocking distance. It "looks" as far away as possible for targets and gives the gun the highest level of performance. This is the default setting.
- **2:** Setting the range to 2 sets the gun to a medium range in its clocking distance.
- 1: Setting the range to 1 decreases the gun's sensitivity and shortens its clocking distance. The 1 range setting is handy for clocking objects close to the gun and when you want to restrict the gun from "seeing" objects farther out in the background.

# The Sport 2 Option Setup Menu

**OPTION MENU** – Selecting the options is fast and easy. The Sport2 ships with the default settings indicated in the chart.

- Press and hold the MENU key while in the OPERATOR MENU to enter the OPTION MENU
- Press the MENU key again to step through the menu items. The SELECT key changes the value.
- Press the trigger to exit the OPTION MENU.
- Press and hold the **MENU** key to return to the OPERATOR MENU.

The factory default for each setting is indicated by the bold underlined setting.

### **OPTION MENU**

Menu Step	Description	LOCK/FAST WINDOW	Patrol Window (bold indicates factory default)
1	Low Speed*	LOW	0FF, 5, <b>10</b> , 15, 20, 30, 50
2	High Speed*	HIGH	0FF, <b>150</b> , 300
3	Units	MPH, KM/ H, KNOTS, M/ S	Uni t
4	Resolution	RES	onES, tnth
5	Target Type	TARGT	<b>bALL</b> , CArn, CAr, tEnn
6	Holdover Delay	CLEAR	OSEC, 1SEC, 2SEC, 3SEC, 4SEC, OFF
7	Trigger Function	TRIG	Con, SS, Loc
8	Aux Trigger Function	AUX	<b>StoP</b> , trig
9	Stopwatch Mode	STOP	LAP, <b>SPL</b> t
10	Serial Port Speed	BAUD	12, <b>96</b>
11	Serial Port Format	FOR	-, <b>A</b> , AP
12	Reset	RESET	ES, <b>no</b>
13	Reset Confirmation**	SURE?	ES, <b>no</b>

<sup>\*</sup>Low and High Speed settings are retained separately for each Target Type and each has its own defaults. The available settings also depend on the type of units selected. Those shown above are for the default BALL target type in MPH units. See the Target Speed Settings topic for the speed ranges.

**Resolution:** Select on ES to display speed in whole units, as 25 mph, or tnth to display speed with tenths, as 25.6 mph.

Target Type: The target types available on the Sport 2 are Ball, Carnival, Car, and Tennis.

**Holdover Delay:** The time the speed reading is held after the target is lost and before the display screen clears. If off, the speed displays until the next speed is acquired.

**Trigger Function:** The Trigger settings are Con (Continuous), SS (Start / Stop), and Loc (Lock). The trigger settings function as follows:

Transmit	Trigger Option	Action	
OFF	Con	Pull to transmit,	
		release to hold.	
	SS	Pull and release to transmit,	
		Pull and release to hold.	
ON	Loc	Pull to lock and release the speed.	

**Note:** When the Loc setting is selected in the Option Menu, the Transmit function is turned on the same as if the silver Transmit button is pressed. Clicking the trigger locks and releases the speed.

**Stopwatch Mode**: This is available using the optional stopwatch cable. The stopwatch may be set to lap or split timer. The timer displays in the MESSAGE WINDOW. Press and hold the stopwatch trigger for 1 second to stop the timer and go back to radar mode.

Lap Timer: each press of the stopwatch trigger displays the time since the last trigger press, and resets the timer to 0.00.00 in the background.

Split Timer: each press of the stopwatch trigger displays the current cumulative time.

Timer Display Under 10 minutes:

9.59.99	PEAK 8888
XMIT	8888

Timer Display Over 10 minutes:

99.59.9	PEAK	8888
XMIT		8888

**Serial Port Format:** The "-" (dash) is for no serial output, the A format is for Target Speed, and the AP format is for Peak Speed.

- \*\* The **Reset Confirmation** step displays when the Reset option is set to **YES**.
  - If YES, then the confirmation SURE? displays.
  - To reset all settings to the factory defaults, select YES and then pull the trigger to
    exit.
  - To not change the settings, select no and pull the trigger to exit.

# **Target Speed Settings**

(**bold** indicates factory default)

# <u>Target Type = bALL</u>

<u>Units</u>	Low Speed Settings	<b>High Speed Settings</b>
MPH	0FF, 5, <b>10</b> , 15, 20, 30, 50	0FF, <b>150</b> , 300
KM/ H	0FF, 10, <b>15</b> , 25, 35, 50, 75	0FF, <b>250</b> , 500
KNOTS	0FF, 5, <b>10</b> , 15, 20, 30, 50	0FF, <b>150</b> , 300
M/S	0FF, 10, <b>20</b> , 30, 50, 75, 100	0FF, <b>300</b> , 600

# $\underline{\textbf{Target Type}} = \underline{\textbf{CArn}}$

<u>Units</u>	<b>Low Speed Settings</b>	<b>High Speed Settings</b>
MPH	0FF, 5, 10, <b>15</b> , 20, 30, 50	0FF, <b>150</b> , 300
KM/ H	0FF, 10, 15, <b>25</b> , 35, 50, 75	0FF, <b>250</b> , 500
KNOTS	0FF, 5, 10, <b>15</b> , 20, 30, 50	0FF, <b>150</b> , 300
M/S	0FF, 10, 20, <b>30</b> , 50, 75, 100	0FF, <b>300</b> , 600

# Target Type = CAr

<u>Units</u>	<b>Low Speed Settings</b>	<b>High Speed Settings</b>
MPH	0FF, 5, 10, 15, 20, <b>30</b> , 50	0FF, 150, <b>300</b>
KM/ H	0FF, 10, 15, 25, 35, <b>50</b> , 75	0FF, 250, <b>500</b>
KNOTS	0FF, 5, 10, 15, 20, <b>30</b> , 50	0FF, 150, <b>300</b>
M/S	0FF, 10, 20, 30, 50, <b>75</b> , 100	0FF, 300, <b>600</b>

# **Target Type = tEnn**

<u>Units</u>	<b>Low Speed Settings</b>	<b>High Speed Settings</b>
MPH	0FF, 5, 10, 15, 20, 30, <b>50</b>	0FF, <b>150</b> , 300
KM/ H	0FF, 10, 15, 25, 35, 50, <b>75</b>	0FF, <b>250</b> , 500
KNOTS	0FF, 5, 10, 15, 20, 30, <b>50</b>	0FF, <b>150</b> , 300
M/S	0FF, 10, 20, 30, 50, 75, <b>100</b>	0FF, <b>300</b> , 600

# RECOMMENDED SETTINGS

#### Settings for Baseball Scouts

It is important that the gun is set correctly when measuring baseballs. Check these settings.

Option Menu Speed Low 10 mph, High 150

Target Type: bALL

Range 3 Maximum sensitivity is needed Peak ON/OFF ON This is for "out of the hand" numbers

#### **Setting for Fastball Carnival Use**

You can experiment with the Range setting depending upon what rides and motion is around the gun.

Option Menu Speed Low 15 mph, High 150

Target Type: CArn

Range 3 Change to 1 or 2 if you track outside motion

Peak ON/OFF ON

#### Setting for Vehicle Racing

Using a low speed cutoff of 30 mph helps to ignore anyone walking around and other low speed motion.

Option Menu Speed Low 30, High 300

Target Type: CAr

Range 3 Peak ON/OFF OFF

#### **Setting for Tennis**

Using a low speed cutoff of 50 mph helps to ignore anyone walking around and other low speed motion.

Option Menu Speed Low 50, High 150 Range Type: tEnn

Peak ON/OFF ON

# **BATTERY INFORMATION**

The Sport2 uses 6-AA NiMH rechargeable batteries or 6-AA disposable alkaline batteries. Open the end cap on the handle to access the battery compartment. The batteries' transmit time is approximately 4.5 hours.

#### **Operational Time on the Battery Handle**

The Sport2 draws the most current when it is transmitting. So the run time depends upon how often the gun is transmitting. The Sport2 also has a sleep mode to conserve battery life when it is not being operated. The sleep mode is automatically initiated after about 10 seconds of inactivity with no speed display. Squeezing the trigger or pressing any key immediately "wakes the gun" and brings it back to operation.

Operational Status	Run Time		
Continuous Transmitting	4.5 Hours		
Typical Trigger Operation	10-20 Hours		
In Sleep Mode	38 Hours		

#### **Low Battery Warning**

The **LO BAT** icon displays when the battery runs low. The Sport2 operates for a short time after this. Now is the time to recharge or change the batteries.

	PEAK	
LO BAT		
	8.888	

RECHARGE OR CHANGE THE BATTERIES IN THE HANDLE.

DO NOT CHARGE THE BATTERY HANDLE UNTIL THE GUN DISPLAYS LO BAT.

#### **Charging the Batteries**

Plug the wall charger RS-232 pin connector into the RS-232 connector on the Battery Handle when the Sport2 **LO BAT** indicator displays continuously. Then plug the wall charger into a 110-120 volt wall outlet. The batteries should take about 12 hours to recharge.

NiMH batteries perform best when they are fully discharged and then fully recharged.

#### **Auto-Shutdown Feature**

The Sport2 has a 30 minute time-out auto-shutdown feature. After 30 minutes of non-use, the Sport2 automatically shuts off.

#### How To Save Battery Life

- Since the transmitter has the highest current draw, turn the transmitter off whenever you are not taking readings.
- If you use the trigger to start and stop transmitting, it's easy to save battery life.
- If you tripod mount the gun, (and use the silver XMIT button to transmit) then turn the transmitter off between sessions.

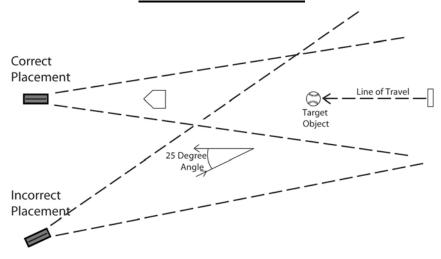
# **ANGLE ERROR**

The most common mistake made with all radar guns is trying to clock targets at angles. All radar guns work on the Doppler principle and need to clock objects moving directly at or away from the gun. Clocking at an angle with a stationary radar gun results in angle error, and the gun displays a speed that is LOWER than the actual speed.

#### **Cosine Angle Error Chart**

	0	5	10	15	30	45	90
	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees	Degrees
True	0%	0.4%	1.5%	3.4%	13.4%	29.3%	100%
Speed	Error	Error	Error	Error	Error	Error	Error
25.0 mph	25.0 mph	24.9 mph	24.6 mph	24.1 mph	21.7 mph	17.7 mph	0 mph
50.0 mph	50.0 mph	49.8 mph	49.2 mph	48.3 mph	43.3 mph	35.4 mph	0 mph
75.0 mph	75.0 mph	74.7 mph	73.9 mph	72.4 mph	65.0 mph	53.0 mph	0 mph
100.0 mph	100.0 mph	99.6 mph	98.5 mph	96.6 mph	86.6 mph	70.7 mph	0 mph
125.0 mph	125.0 mph	124.5 mph	123.1 mph	120.7 mph	108.3 mph	88.4 mph	0 mph
150.0 mph	150.0 mph	149.4 mph	147.7 mph	144.9 mph	129.9 mph	106.1 mph	0 mph
200.0 mph	200.0 mph	199.2 mph	197.0 mph	193.2 mph	173.2 mph	141.4 mph	0 mph
250.0 mph	250.0 mph	249.0 mph	246.2 mph	241.4 mph	216.5 mph	176.8 mph	0 mph

#### **Radar Gun Placement**



To get accurate readings, the radar gun must be placed in the line of travel of the target. At slight angles, the error is very small, however at larger angles, the error becomes substantial.

#### **Calculating Angle Errors**

If you know the angle that you are clocking at, you can calculate the actual speed by taking the radar reading and dividing by the cosine of the angle.

For example: if you are clocking at 30 degrees, and the gun displays 129.9 mph. Take 129.9 and divide by the cosine of 30 degrees (0.866) to get a true speed of 150.0 mph.

# INTERFERENCE PROBLEMS

#### **Interference Frequencies**

The *STALKER* Sport2 radar transmits in the range of 24.15 GHz (24,150,000,000 Hz), using a new K-band ACI design. The receiver is designed to read the Doppler frequency (the change in frequency) in the range of 360 - 18,000 Hz. There are very few devices other than another radar gun that could cause interference in a radar gun's transmission frequency range. However, there are a number of devices that could interfere with a radar gun in the receiver's frequency range.

#### What Does Interference Do?

Interference can cause a radar gun to read random readings, or make it harder for the radar gun to "see" the intended target.

Random readings are an obvious sign that there is interference. However, a loss of sensitivity can be subtle. A common situation occurs when a large number of professional baseball scouts operate many radar guns in close proximity.

A loss of sensitivity can cause the radar gun to be unable to "see" far enough away to get the ball speed right when it leaves the pitchers hand. Then, as the ball gets closer to the plate, the radar is able to get a reading, but only after the ball has slowed down. The result: the peak speed registers lower than it actually is.

#### **Sources of Interference**

There are two main sources that can cause ghost (random) readings in radar guns: electrical devices and objects that move or vibrate.

**Electrical sources** include television monitors, fluorescent lights, cellular phones, computers, some radio transmitters, and power transformers. **Moving or vibrating objects** include ventilation fans, motors, and blowing debris that can produce a nearly constant speed reading.

#### How to Eliminate Interference

If you are experiencing erroneous readings, try these solutions:

- 1. Change your position to change where the gun is aimed.
- 2. Lower the sensitivity by changing the Range on the Operator Menu to 1 (low setting).
- 3. Change the Option Menu Low Speed setting to a setting with a higher low speed cutoff if the readings are at low speeds (often interference from nearby motors).

# SPORT2 ACCESSORIES

The **STALKER** Sport2 radar gun has a host of optional accessories. For current pricing and availability, contact **STALKER** Radar at (800) STALKER.

#### **Accessories**

**Stopwatch Control Cable** – a 4 foot cable with momentary switch that connects to the 9-Pin serial port connector.

**12VDC CIG Cable** – Connects to the 9-Pin connector and plugs into a cigarette lighter socket. **RS-232 Serial Cable** that connects to a 9 pin serial port on the side of the gun body for RS-232 data output.

**RS-485 Serial Cable** that connects to a 9 pin serial port on the side of the gun body for RS-485 data output.

# SERVICE INFORMATION

#### A Check List Before Servicing the Sport2 Radar

**Check the Settings** - If you are having a problem with your Sport2, first make sure that the settings are correct for your application. Read over pages 8 and 9 to make sure the Operator and Options menus are set correctly.

**Check the Battery** - If the Sport2 does not turn on, the problem is usually with the batteries. Try charging the batteries. If it still does not turn on, you could use a volt meter to see if the batteries are producing at least 7.5 volts. You may need to order new batteries.

**Call Customer Service** - If the problem is not rectified with these steps, call Sport2 Radar Customer Service at 877-STALKER for help. A service representative will determine if the gun needs to be sent to the factory.

#### **Address to the Factory Service Center**

Sport2 Radar / Applied Concepts, Inc. Attn. Repair Department 2609 Technology Drive Plano, TX 75074 1-888-STALKER Toll Free (972) 398-3760 Phone (972) 398-3781 Fax

#### **Warranty Information**

The Sport2 radar is covered for 2 Full Years, Parts and Labor, against defects in workmanship, parts, or materials, and is guaranteed to operate within specifications for that period (batteries are guaranteed for the first 90 days only).

Sport2 Radar will repair or replace, at their option, any component or system found to be defective. The customer is responsible for shipping the defective product to the factory (freight prepaid), and Sport2 Radar will pay for the return shipping via UPS ground service back to the customer. Any expedited air shipping charges are to be paid by the customer.

This full warranty does not cover damage due to dropping, water, salt, improper voltage, fire, attempted repairs or modifications by an unauthorized service agent, or any other unusual treatment.

# **SPECIFICATIONS**

# **STALKER** Sport 2

#### PERFORMANCE SPECIFICATIONS

Speed Range 1 - 600 MPH Accuracy + / - 1 MPH

Target Acquisition Time 0.046 Seconds (Ball Modes)

0.08 Seconds (Vehicle Modes)

Sample Rate 25 Speed Updates per Second Max. Clocking Distances 4000 Feet - Passenger Car

(Estimated) 1500 Feet - Snowmobiles

1000 Feet - Watercraft 200 Feet - Baseballs

#### MICROWAVE SPECIFICATIONS

Operating Frequency 24.125 GHz (K Band) +/- 50 MHz

Polarization Circular Polarization

3 db Beam width 14 Degrees Nominal (15 Degrees Maximum)

Microwave Source Gunn-Effect Diode

Receive Type Schottky Barrier Mixer Diode

Power Output 10 Milliwatts Nominal

The STALKER SPORT2 Complies with Part 15 of the FCC rules.

FCC ID #IBQACMI005.

#### **GENERAL SPECIFICATIONS**

Product Type Stationary Doppler Radar Computer Processor Motorola 563XX Family

Display Type Liquid Crystal
Operating Temperatures -20F to +120F
Storage Temperatures -40F to +140F

#### **ELECTRICAL SPECIFICATIONS**

Battery Capacity
Current Requirements
(At 7.5 Volts DC)

7.5 VDC, 1.6 Ah, Ni-MH
Transmitting - 0.66 Amps
Standby - 0.20 Amps
Sleep Mode - 0.04 Amps

#### **PHYSICAL SPECIFICATIONS**

Weight (Battery Handle) < 2 Pounds

Dimensions 8" H x 3" W x 6.5" L

Housing Material PVC

#### **WARRANTY**

On Radar Gun 2 Years, Parts and Labor On Batteries 90 Days Replacement

#### SERIAL COMMUNICATIONS PROTOCOL

An **RS-2332 or RS-485 Serial Cable** is required for data communications to speed display boards, computers, and other electronic devices. The data connector is on the side of the unit.

Serial Port Connector 9-PIN D-CONN Mating Connector RS232 or RS-485 Update Speed – 10 msec

#### Serial Port Signals:

- 1. Aux Input
- 2. RS-232 TX
- 3. RS-232 RX
- 4. 6.6 Volts (OUT)
- 5. GND
- 6. Charger Input
- 7. RS-485-A
- 8. RS-485-B
- 9. Voltage Input

BAUD Rate 9600 BAUD or 1200 BAUD

Data Format 8 Data Bits

No Parity 2 Stop Bits

# **5TALKER Sport2** Owner's Manual

# **STALKER Sport2** Owner's Manual



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#### STALKER RADAR

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Made in U.S.A.

011-XXXX-00 Rev A