## **One Year Warranty**

This product is warranted to be free of manufacturing defects for a 1-year period from the original consumer date of purchase. The warranty does not include damage to the product resulting from accident, misuse, improper installation, operation, or unauthorized repair or alteration. Opening the product case will void this warranty. If the product should become defective within the warranty period, Sports Radar Ltd., will repair or replace it at our option, free of charge. You must fill out and return the enclosed registration form to ensure warranty coverage failure to fill out registration form may void warranty. To obtain warranty service, first contact Sports Radar's warranty repair department, then, upon approval, send the unit at purchaser's cost to:

Sports Radar, Ltd., 9119 W. Veterans Dr., Homosassa, FL 34448 Return shipping to purchaser will be at Sports Radar Ltd.'s cost inside the 48 continental united states, international shipping is the sole responsibility of the purchaser.

The consumer's sole remedy shall be such repair or replacement as is expressly provided above, and we shall in no event be liable for any incidental or consequential damages arising out of the use or inability to use this product for any purpose whatsoever. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific rights. You may also have other rights, which vary, from state to state. Manufactured by Sports Radar, Ltd. in the U.S.A.

#### **SPECIFICATIONS:**

Mechanical: length, 10-3/4"; width, 2-3/4"; height, 7-1/4"; weight, 1 lb.

Range: up to 60 feet on balls, 1000 feet on cars. Accuracy/ resolution: 3% / 1 MPH or 1 Km/H

Speed Units: Miles Per Hour (MPH) or Kilometers per Hour (Km/H)

Speed Range: 10MPH (16 Km/H) to 200MPH (322 Km/H)

Power: 2 standard 9 Volt batteries (alkaline type recommended) Battery Operating Life

Over 5 hours of continuous use, typical 50 hours in trigger mode.

Operating Temperature 40-110 degrees F Storage Temperature 30-125 degrees F

(excluding batteries)

### **Optional Accessories and Products:**

- \*Sports Radar makes a complete line of large remote displays, low power LCD type and high visibility LED type in several sizes that will connect directly to the RadarDataPort on the Radar Gun.
- \*Wireless display links that can make the large displays truly remote.
- \*WA-6VDC, A wall plug power adapter that plugs into a household 110VAC outlet
- \*AA-12VDC, A power adapter that plugs into the 12VDC accessory in your car.
- \*RJ45-8/8 cables 25' or 50', for connecting to displays or PC.
- \*RJ45-coupler, used to connect multiple RJ45-8/8 cables together.
- \*TRI-POD, Use with any radar guns for hands free operation, or for a display stand.
- \*Carrying Case: A hard shell case that will hold the Radar Gun and optional accessories.
- \*Tuning Fork: Allows you to check the accuracy of the radar gun.
- \*RJ45-8/8 to DB9 Adapter. Various models available to adapt accessories, please consult the instruction manual of your accessory if an adapter is needed.





# Congratulations

You are the proud owner of the Sports Radar Gun, a precision training instrument designed for coaches and sports enthusiast. The radar gun is designed as a training tool for a variety of sports activities. Please read this manual before operating your radar gun.

If you have any questions or experience any difficulty operating your Sports Radar product, contact Sports Radar Ltd directly.

All warranty information is located at our offices, therefore it is important that you contact us, not your retailer. Sports Radar products are thoroughly tested and inspected prior to shipment, and most issues can be resolved with a phone call. However mishaps do occur, so be sure to fill out and return the warranty card, as any product return is subject to verification of proper return authorization. Information and authorization number may be obtained by writing or calling our offices, or log on to www.sportsradargun.com and fill out an RMA request.

Sports Radar Ltd.



9119 W. Veterans Dr. Homosassa, Florida, 34448



352-563-5855



http://www.sportsradargun.com Email: Info@sportsradargun.com

#### Principals of operation:

The Sports Radar Gun is a microprocessor based computing device that uses a low power doppler radar transceiver. The radar gun sends out a signal, which bounces off the object you are tracking and is reflected back to the radar gun. A mixer provides the difference in the frequencies of the original sent signal and the reflected signal that bounced off the object. From this difference signal, which is proportional to the speed of the object, a microprocessor calculates speed and displays it in miles per hour (MPH) or kilometers per hour (KM/H).

**Operating your radar gun:** To register a target's speed, the target must be in the line of the boresight of the radar gun, and can either be going away, or coming toward the radar gun. The BEST PERFORMANCE, or the most accurate readings, are given when the boresight of the radar gun is in the same line as the target travel. The angle between the line of the target and the boresight of the gun is VERY important to get an ACCURATE reading. In

the pictorial, you can see that the ANGLE is a measure of how far off line the boresight of the Radar gun is to the travel of the target, the ANGLE is affected by how far to the side, and how far behind (or in front of) the point where the speed reading is taken. The more the angle, the lower the displayed speed will be relative to the actual target speed. Visit our website at <a href="http://www.sportsradargun.com">http://www.sportsradargun.com</a> for detailed Information regarding the cosine error.

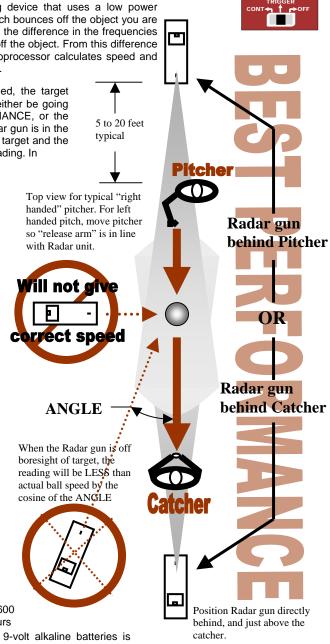
**Targets:** the size, shape and material of the target object determine the range or distance you can be from the object and still get a reading. Large solid objects can be read over 500 feet away. Smaller objects such as a baseball or tennis ball have a range of 30 to 60 feet. The Radar gun can register speeds from 8 to over 200 MPH, however the Radar gun is optimized for registering speeds from 15 to 100MPH (24 to 161 Km/H), the distance from the object you are measuring will be the greatest in this range of speeds.

**Displayed units, MPH or Km/H:** The units you want to display, Miles Per Hour (MPH) or Kilometers Per Hour (Km/H) are selected when the gun is turned on. If you want the display in Kilometers per hour, hold the trigger in and turn the gun on (either trigger mode or continuous mode) and the Km/H indicator will come on. Turning the gun on without depressing the trigger will activate the MPH mode.

**Replacing Batteries:** To change batteries, Push the rear sight in and lift the cover. Do not pull on the battery snap wires, remove batteries by holding the battery snap cover. Snap new batteries to battery snaps and place inside housing and replace the cover. Take care not to pinch battery wires in between battery cover and body of the case. Care needs to be taken not to rip the wires out of the battery snap cover when replacing the batteries, as this is not covered by the warranty.

Low Battery Indicator: If the batteries in the SR3600 become low, the speed display will begin to flash. When this occurs

the radar gun batteries need replaced. Battery life using two 9-volt alkaline batteries is typically over 50 hours in the trigger mode, and 5 hours of continuous operation. To add to the battery life, turn off the radar gun when not in use.



**Trigger Mode:** This mode of operation allows for a speed to be taken at any given point. Example: you wish to register a baseball's speed as it crosses home plate. Place the slide switch so it is in the center position, under the TRIGGER line. As the ball is approaching, squeeze the trigger (the display will blank) and when the new speed is displayed, release the trigger. If no speed was recorded, the display will show 000 when the trigger is released. In addition, when a speed is recorded, you will hear a beep.



**MODE / POWER** 

**Continuous Mode:** This mode of operation allows an individual to use the radar gun without assistance from additional people. Place the slide switch under the CONT (Continuous) Line in the far

left position. This is the "hands free" mode of operation. The radar gun can be affixed to the Sports Radar tripod (optional), or a standard camera tripod (with ¼-20 mounting threads). Aim the Radar Gun down the line of travel of the object you wish to register the speed of. There is an internal delay between speed readings in the continuous mode, and speeds can only be registered once every 3 seconds. This delay between readings ensures accuracy and eliminates double readings from the same pitch. For example, if two people are playing catch, it is necessary to wait at least three seconds between pitches. Each time a new speed is recorded, you will hear a beep, the display will blank, and the new speed will be displayed.



Radar Data Port: The Data Port is used EXCLUSIVELY to connect to Sports Radar Radar's adapters and displays. DO NOT ATTEMPT TO CONNECT A STANDARD CABLE TO THIS PORT, DAMAGE TO THE RADAR GUN AND /

OR THE EQUIPMENT YOU ARE CONNECTING TO CAN OCCUR. Complete details, cables and adapters for the DataPort connection are provided with the remote display or accessories purchased. Ask your retailer, or visit our web site at <a href="http://www.sportsradargun.com">http://www.sportsradargun.com</a> for information on displays and adapters for the SR3600 RadarDataPort.



DC JACK, External Power: The SR3600 Radar gun can be powered by an external power supply to save battery life. Sports Radar offers 2 products for connecting to the DC power jack: the WA6VDC is a plug in transformer that gets power from a standard 110VAC household wall plug.

The AA12VDC is an automotive accessory outlet plug in power supply. Ask your retailer, or visit <a href="http://www.sportsradargun.com">https://www.sportsradargun.com</a> for information on these two alternate power sources for the SR3600 Radar gun. The SR3600 jack will "sense" when the WA6VDC, or the AA12VDC is connected, and will not use any battery power so there is no need to remove the batteries when connecting a power supply, they automatically disconnect when the DC jack is plugged in.

Stay clear of all roadways. This device is not intended to measure the speed of vehicles. Do not use this unit with the 110-volt transformer in a wet or damp condition. This may cause electrical shock, which may cause death or permanent injury. To prevent personal injury or death, maintain a safe distance from the objects you are measuring speeds of.