

## Speed of Singles and Doubles Targets at This Club

Location, date, and time: \_\_\_\_\_

Test performed by: \_\_\_\_\_

### Singles & Handicap:

1. Set target to 49 or 50 yards in still air at the height the club generally uses. Stop the oscillation of the trap. Align the gun with the path of the target.

2. Brand of Radar Gun: \_\_\_\_\_

3. Position of Radar Gun:

\_\_\_\_\_ on/at rear of traphouse, down at traphouse level, horizontal

\_\_\_\_\_ on/at rear of traphouse, down at traphouse level, pointed up at the crossbar

\_\_\_\_\_ at the 16-yard line, about "arm high"

4. Target speeds: 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_  
6 \_\_\_\_\_ 7 \_\_\_\_\_ 8 \_\_\_\_\_ 9 \_\_\_\_\_ 10 \_\_\_\_\_

5. Comments \_\_\_\_\_  
\_\_\_\_\_

### Doubles:

1. Set doubles targets to the desired distance (46 yards is recommended) in still air and to the height the club generally uses. Distance used was \_\_\_\_\_ yards.

2. Position of Radar Gun:

\_\_\_\_\_ on/at rear of traphouse, down at traphouse level, horizontal

\_\_\_\_\_ on/at rear of traphouse, down at traphouse level, pointed up at the crossbar

\_\_\_\_\_ at the 16-yard line, about "arm high"

3. Target speeds: 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_  
6 \_\_\_\_\_ 7 \_\_\_\_\_ 8 \_\_\_\_\_ 9 \_\_\_\_\_ 10 \_\_\_\_\_

4. Comments \_\_\_\_\_  
\_\_\_\_\_

For more information, see Study 1 on [www.claytargettesting.com](http://www.claytargettesting.com). If you have questions, please email them to [nwinston@minn.net](mailto:nwinston@minn.net).

Please send a copy of this data sheet to the ATA, 601 West National Road, Vandalia, OH 45377. Data collected will be used to write eventual rules for target setting with radar guns and chronographs.

# Guide to Setting Trap Targets with a Radar Gun



## Introduction

The rulebook of the Amateur Trapshooting Association specifies that a Singles or Handicap target should fly 49 to 51 yards, and a Doubles target 44 to 52 yards, both measured in still air. A radar gun can aid you in meeting those rules by setting the targets' speed when launched. When the air is still, radar-setting is as quick, easy, consistent, and accurate as setting by distance. When the weather is windy, the radar gun remains trustworthy, while setting by distance deteriorates to little more than guesswork.

In spite of its apparent simplicity, the radar gun must be carefully and consistently used to set a decent target. Used thoughtlessly, a radar can become a setter's (and shooter's) worst enemy. This short guide will help you get the best from the radar gun you have or plan to buy.

## Equipment: Low- and high-power radar guns

There are two distinct types of target-setting radar guns being used at clubs today, distinguished primarily by the power of the radar beam they emit and the resulting differences in the best ways to use them.

Low-power guns are most-widely used. They include the Sports Radar 3400, available from Bob Schultz Target Shotguns, (800-684-6329), and the Bushnell Speedster, which you should be able to find on e-Bay or elsewhere in the web, where they sell new for about \$150. Though more expensive, the Sports Radar 3400 comes equipped with a tripod socket, and can run on “continuous mode” (requiring no trigger-pull), both of which are advantages.

High-power guns—The Stalker Pro, Decatur’s Pro Speed, & others—offer advantages in ease-of-use, but are no more inherently accurate or usable than the others. What’s the main difference between the two types of guns? The high-power guns work from the 16-yard and beyond while the low-power ones need to be closer to the house.

### Lock the trap, set the height first, & use a tripod

The trap must be locked (not oscillating) when speed is measured. The target should be flying directly away from the setter; even small angles of deviation cause too-slow readings and lead you to set a target which is faster than you want. Set the height of the target at least close to what you want before fine-tuning its speed.

You can hold the gun in your hand or mount it on a tripod. It is worth it to tripod-mount the gun if possible; it’s just easier.

### Where and how high to place the gun

Since this guide is a precursor to eventual ATA rules about target-speed it promotes methods of use which will lead to the same results with all guns.

**Low-power guns:** The readings of the Sports Radar 3400 and the Bushnell Speedster are extremely sensitive to the height the gun is held above the ground. The higher they are held, the slower is the reading they report and this difference can be 4 or 5 miles an hour. Since a difference of 1 MPH is a yard or more in target-flight, variations in height can amount to as much as 5 yards in distance. If the height varies, the target speeds will be too inconsistent to get any use from the gun at all.

The best place to put the gun is right behind the house, as close to it as you can get. You want the radar down low, just looking over the top of the house. This will give you the fastest speed reading. Laying the gun upside-down on the front lip of the traphouse—an option included in the



Put the low-power guns here: at the house and looking just over it.

instructions sent with the Sports Radar 3400—is not recommended since the resulting speed-readings are too slow.

You can point it up at the crossbar or just aim it straight out horizontally; it makes little difference. Though horizontal is recommended you can try both and use the method which give you the most consistent readings. Using the low position and a tripod, a little RV level stuck to the top or side of the gun will help you keep the gun horizontal. Such a level is pictured on the front page.

Alternatively, you can tilt it up 12 degrees to make it simulate pointing at the crossbar. Small errors in that angle make no difference.

**High-power guns:** The main advantage of the Stalker and Pro Speed guns is that they can be used from the 16-yard line where height is far less of an issue. Just held standing or mounted on a 5-foot tripod the guns provide good readings. Point it straight out & read the speed; it’s that simple.

## What Speed?

**Singles and Handicap:** The low-power guns—used as described from the level of the back of the traphouse—will need a speed of 42 or 43 MPH to get the legal distance with a 9- or 10-foot-high target. Forty-two MPH is a good speed with the Stalker, while the Decatur Pro-Speed may get away with 41.5 MPH. **Doubles:** birds clocked at 39 MPH with all guns are about right most places but some clubs—and shooters—may prefer 40 MPH. The surest and recommended way to determine how your radar gun will work at your club is to test it. Pick a dead-calm morning; see how much speed you need for your preferred height and distance. Do the same for doubles.

There is a form on the back of this guide to help you do the test and record the results. Do the test; fill out the form; and store it with the radar gun so the next user will know what was done and how best to use your radar gun to set targets the way your club likes them.

In the future, ATA rules will probably name speed as the “standard” way of setting targets. Likely minimum speeds are those described above: about 42 MPH for singles and handicap, 39 MPH for doubles. We’d like some feedback on how these speeds work at various clubs. Your results can help influence those rules if you send an extra copy of the testing-form on the back to the ATA.