

# Bushnell

## VELOCITY

Model# 101911

02-13

Congratulations on the purchase of your Bushnell® Velocity™. The Velocity is a precision speed radar instrument designed to provide many years of enjoyment. These instructions will help you achieve optimum performance by explaining the adjustments and features as well as how to care for this precise speed measuring instrument. To ensure optimal performance and longevity, please read these instructions before using your Bushnell Velocity.

### INTRODUCTION

Your Bushnell Velocity uses digital technology to provide instantaneous speed measurements to +/- One-Mile per Hour (MPH) accuracy (+/- 2 KPH). The Bushnell Velocity is a simple, point and shoot radar gun for all kinds of sports enthusiasts. The Bushnell Velocity measures the speed of a baseball at 10-110 MPH from 90 feet away from the ball (16-177 KPH @ 27m), and the speed of a race car from 10-200 MPH at 1,500 feet away (16-322 KPH @ 457m).

### BATTERY INSTALLATION

Your Bushnell Velocity operates on two "C" size alkaline batteries. To install, remove the battery cover by rotating the battery cap counterclockwise. Insert both batteries positive end first and replace cap by depressing and rotating clockwise.

### HOW TO USE

1. Turn the Velocity "ON" by pressing the button underneath the LCD display.
2. Aim the Velocity at the target and depress the TRIGGER. As a quick reference to accuracy, remember to keep your target's direction of travel in a direct line with you and not perpendicular to you.
3. Turn the Velocity "OFF" by pressing the button underneath the LCD Display for 3 seconds or until display shuts off.

NOTE: The Velocity contains an automatic battery saving shut-off feature. After 10 minutes of non-use, the Bushnell Velocity will automatically shut off. If a battery symbol appears on the lower right hand corner of the display, battery voltage is beginning to deteriorate, meaning new batteries should be inserted. Remove batteries if storing long-term.

### SWITCHING FROM MPH TO KPH / KPH TO MPH

TRIGGER, press the power button underneath the LCD display. To switch back to MPH, repeat this procedure.

### TARGET SPEED ACQUISITION

A target can be anything that is moving faster than 10 MPH (16 KPH). To acquire the speed of a target, with the Velocity powered on, aim the Velocity at the target and depress the TRIGGER. A radar icon will appear in the upper right corner of the LCD display. This indicates the Doppler Radar is functioning. The radar will continue to be active searching for speed until the trigger is released. Upon release of the trigger, the fastest speed captured within that series will automatically be displayed. The speed of the target will appear on the LCD display in MPH. There are certain mathematical properties of Doppler Radar that affect the accuracy of your Bushnell Velocity. Please read "COSINE AFFECT ON TARGET VELOCITY" below. As a quick reference for accuracy, remember to keep your targets direction of travel in a direct line with you, and not perpendicular.

### COSINE EFFECT ON TARGET VELOCITY

The Velocity will measure the relative speed of a target as it approaches the Velocity. If the target is in a direct line (collision course) with the Velocity the measured speed will be exact. As the angle of incidence increases, if you move either right or left of this direct line, the accuracy will decrease. The measured speed will decrease as you move off this centerline. This phenomenon is called the Cosine Effect. It is called this because the measured speed is directly related to the cosine of the angle between the Velocity and the target's direction of travel.