INITIAL SETUP
- Remove the battery cover from the back of the Classic Model. Insert the batteries in the direction indicated by the polarity marks inside the battery compartment and replace the cover.
- Remove the clear plastic sticker that covers the red button and display on the front of the unit and the yellow sticker from the back of the unit.

INSTANT ON
- The Classic Model will turn itself on and begin the measurement sequence as soon as you press the RED button.
- When the Classic Model senses a moving object it will display the speed. If it does not find anything it will display “—”—.”
- There is no need to clear the display before making a new measurement. If you tap the button again the display will be updated with the new reading.

RECALL READINGS
- To recall up to the last ten measurements, simply press the black RECALL button. Each time the button is pressed it will display a previously recorded speed, most recent first. A dash indicates that you have reached the end of the list.

AUTOMATIC SHUT-OFF
- The Classic Model continues to display the last speed until the button is pushed again or it will automatically turn itself off after 30 seconds of inactivity.

INSTANT ON
- The Classic Model will turn itself on and begin the measurement sequence as soon as you press the RED button.
- When the Classic Model senses a moving object it will display the speed. If it does not find anything it will display “—”—.”
- There is no need to clear the display before making a new measurement. If you tap the button again the display will be updated with the new reading.

HOW TO HOLD & AIM
The Classic Model Measures From the Back, Like a Camera Phone

VERTICAL IS CRITICAL
- The Classic Model makes a measurement by sending out very low power radio waves and looking for them to bounce off a moving object. These radio waves are focused in a small cone shaped like a flashlight beam which comes out of the raised square on the back of the Classic Model (the radar lens).
- Hold the Classic Model straight up and down vertically like a camera phone with the radar beam pointing in-line with the path of the moving object.
- If you tilt the Classic Model down, the beam may end up pointing into the ground and missing the moving object.
- Do not block the radar lens.

WATCH YOUR ANGLES
- All Doppler speed radar technology measures objects moving in-line with the radar beam, not perpendicular. To get the most accurate readings, make sure the path of motion is within the narrow radar beam cone (about the shape of a focused flashlight beam). Tilting the Classic Model too far up or down may also cause the beam to miss the moving object.

IN-LINE IS CORRECT
- The Classic Model simultaneously measures traffic in either direction, moving towards and away from the Classic Model.

INCORRECT
- All Doppler speed radar technology measures objects moving in-line with the radar beam, not perpendicular. To get the most accurate readings, make sure the path of motion is within the narrow radar beam cone (about the shape of a focused flashlight beam). Tilting the Classic Model too far up or down may also cause the beam to miss the moving object.

KEEP THE RADAR LENS CLEAR OF ANY OBJECTS.

IMPORTANT NOTE
This model is specifically designed to accurately monitor the speeds of things that are in motion for several seconds or more like vehicles, runners, radio-controlled cars/planes, etc. This technology has been independently tested and certified accurate by the radar test lab designated by the International Association of Chiefs of Police, (IACP). However, it does not have all the features recommended for Law Enforcement use. This device is NOT intended for Judicial Speed Enforcement applications.

NOT FOR BALL SPEEDS
This model is intended for vehicles and runners. It is not specifically designed to measure ball speeds. To accurately measure ball speeds, visit www.PocketRadar.com for details on our other products.

NOT COMPATIBLE WITH APP
This model is NOT compatible with the Pocket Radar App (Apple or Android).
**ANGULAR INTERFERENCE**

How to Avoid the COSINE Error

Due to the nature of how Doppler speed radar works, all speed radars will only measure the forward speed of a target. The mechanism of Doppler speed radar is only designed to detect objects moving away from the radar. When an object moves toward the radar, it will appear to be moving slower than the object is actually moving. As an example, if the object is traveling at 120 miles per hour, the reflected signal will appear to be 100 miles per hour. This off-angle speed measurement error is referred to as the COSINE error, named after the mathematical function that allows you to calculate the change in speed versus angle. The measured speed will always read lower than the actual speed as you move off the centerline of the path of the moving object. For small angles, this error will be very small. The chart below gives the percentage error for a given angle between the radar beam and the moving object. **FCC STATEMENTS**

**FCC CLASS B PRODUCT LABEL STATEMENT**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

**FCC CLASSES**

**FCC CLASS B USER MANUAL STATEMENT**

- NOTE: The equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

**SOURCES OF INTERFERENCE**

Mechanical and Electrical

**MECHANICAL**

- Objects vibrating or vibrating can create a reading on a Doppler speed radar. Large amounts of vibration, such as very loud noises, can also result in readings. Things like motors, fans, or other motion can be detected by the speed radar. Aiming the radar beam away from the motion will eliminate the interference. In some cases, if you are measuring from a further distance away, you may pick up the engine, the radiator fan, the heater or A/C fan inside the car, moving wheels or hubcaps, etc. In this case, try to make the measurement from a farther distance away. You may also experience this type of interference when you are trying to measure speeds from inside a car with the engine running, as you may measure the speed of the internal fans and not the external moving objects.

**ELECTRICAL**

- Electrical interference from radio and TV transmitters, computers, fluorescent lights, televisions, walkie-talkies, etc., can also possibly create unintentional readings.

**KEY SPECIFICATIONS**

**Speed Measurement Ranges:**

- 7 to 375 miles per hour (MPH) (+/- 1 MPH)
- 11 to 600 kilometers per hour (KPH) (+/- 2 KPH)
- 10 to 550 feet per second (FPS) (+/- 2 FPS)
- 3 to 168 meters per second (MPS) (+/- 1 MPS)

**Operating Frequency:** K-band (24.125 GHz)

**Size:** 4.7 x 2.3 x 0.8 inches

**Weight:** 8 ounces

**Batteries:** AAA alkaline batteries

**SUPPORT**

We are happy to help. If you have any questions, concerns, or need any assistance, please contact us at:

Support@PocketRadar.com

PocketRadar.com

888.381.2672

**POCKETRADAR.COM**

Make sure to visit PocketRadar.com for more details, a complete technical reference manual, tips and tricks, videos, support, FAQs, and more. If you ever have any questions please contact us at Support@PocketRadar.com or call toll-free in the U.S. at 888.381.2672.

**OPERATIONAL DETAILS**

Handheld Stationary Mode Radar

**RADAR MEASUREMENT**

- The Classic Model is a stationary mode radar and is not intended to be used in a moving vehicle.

- The Classic Model radar tracks the strongest signal. It displays the speed of the vehicle with the strongest radar return, which is typically the closest vehicle.

- The Classic Model measures vehicles that are approaching and receding from the stationary radar position.

- It does not discriminate the direction of the moving vehicle.

**BUTTON OPERATION**

- Quickly TAP (press and release) the RED button to take a single measurement snapshot of a vehicle speed.

- The displayed speed will remain visible for 30 seconds.

- Press and HOLD the RED button to continuously measure the changing speed of a vehicle as it accelerates or decelerates. The Classic Model will update the displayed speed approximately every 3/4 of a second as long as you continue to HOLD the RED button down.

- TAP the small black RECALL button to review the tracking history of the previous 30 recorded speeds.

**CHANGE UNITS**

**RANGE**

**Measurement Units:**

- MPH = Miles per Hour
- KPH = Kilometers per Hour
- FPS = Feet per Second
- MPS = Meters per Second
- MPH = Miles per Hour

**CAR** FROM 1/2 MILE (0.8 KILOMETERS)

**RADIOTECHNOLOGY WORKS**

by sending a signal out to an object, and then measuring the reflected signal that bounces back. The larger the object, the greater the reflected signal and therefore the longer the range. The Classic Model will accurately measure the speed of a car from 1/2 mile (0.8 kilometers away); and a motorcycle from 1/4 mile (0.4 kilometers away).

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

- Changes or modifications not expressly approved by the party responsible for compliance may void the user’s authority to operate the equipment.

**ALWAYS REMEMBER TO STAY SAFE WHEN MEASURING. NEVER PUT YOURSELF IN A PLACE WHERE YOU COULD BE STRUCK BY A MOVING OBJECT. WHEN POSSIBLE, MEASURE OBJECTS MOVING AWAY FROM YOU, RATHER THAN TOWARDS YOU.**