

## ATTACHING THE BREAK SPEED RADAR™ TO THE BREAKRAK™

**Any radar**-- not just the BSR—must be positioned such that the radar transmit/receive vector is directly aligned with the velocity vector of the object being measured. Any misalignment results in an angle between vectors which reduces the speed reading by the cosine of the angle formed by the two vectors. Therefore, to accurately measure break speed, the BSR is attached to The BreakRAK by custom hardware that positions the BSR in the proper location to optimize cue ball speed measurement accuracy. A clear plastic Shield protects the Radar from direct cueball hits.

**1. Attach the Mounting Plate to The BreakRAK with 2 number 10 x 1” pan head screws. New BreakRAKs will have two pilot holes in place for the 2 screws. If you have a BreakRAK model without the pilot holes, drill 2 holes in the BreakRAK such that the forward upright face of the Mounting Plate will be approximately even with the back edge of the point ball.**

**2. Attach the clear plastic Shield on the backside of the Mounting Plate upright face with the two ¼” 20 pan head bolts and nuts.**

**3. Remove the Wire Bail from the Break Speed Radar by gently pulling each side of the wire out of the recess into which it is placed. Retain the Wire Bail for possible future use. Be sure that the batteries are correctly in place and the Elastic Band is snug against the crease in the plastic case, and across the top of the Battery Door.**

**4. Attach the Break Speed Radar to the Mounting Plate with the black knurled Thumbscrew. The Radar has a threaded insert in the bottom of the case that matches the Thumbscrew threads. Tighten the Thumbscrew by hand for a snug grasp of the Radar, to hold it in place.**

**5. Press the Function Button (see Manual) on the front of the Break Speed Radar, just below the display, to turn the Radar on. No need to reset the Radar—it is ready to read the next ball speed after the previous measurement. Turn it off the same way, by holding the Function Button in until the display is extinguished—or if there is no measurement made after a 5 minute period, the Radar will turn off automatically to preserve the batteries.**

**6. After extended use, check the tightness of all screws.**

