

## Laser Putter Aligner Instructions

- 1. Check the laser. Hold down the gray button switch on the laser itself, then press the flat switch on the other end of the wire. When both switches are held down at the same time, the laser should come on. If it does not, proceed to the troubleshooting section below. Two AA batteries are already installed in the laser.**
- 2. Place the laser in the laser mount, with the gray switch facing up, directly under hole for the 1/4" clamp screw. Hand-tighten the clamp screw, and again check the flat switch to make sure the laser is working. Do not use a wrench or over-tighten. This will damage the laser.**
- 3. Tape the mirror to the putter face. It must have flat, even contact with the putter face to be accurate. If the tape loses its tackiness, replace it with two-sided grip tape.**
- 4. Place the black laser mount flat on the floor, with the wire end almost touching a wall. Place a golf ball 8' from the wall and adjust the laser mount screws so that the laser strikes the ball 1/2" from the floor. Use only one leveling screw, to adjust the laser. You may have to use either the tapped hole at the front of the mount or the one at the rear of the mount, depending on how level the floor is and the kind of floor.**
- 5. Stand the yellow target against the wall so that the laser shines through the hole at the bottom. Place a quarter or the flat, white practice cup on the floor at the bottom of the target, centered on the laser hole. The whole purpose of this training device is to teach you to repeatedly and accurately align your putter face with the center of this target on the floor.**
- 6. Place a penny on the floor directly under the ball and remove the ball. If you use a spot on the green as an aim point, you can place a dime on the floor directly under the laser line, one to two feet in front of the penny.**
- 7. Have the student place his putter directly behind the penny, and line up the putter face with the practice hole.**
- 8. When the student feels his putter is correctly aligned, have him say "ok" and have the golf instructor or a friend immediately push the switch.**
- 9. Record the score where the laser initially hits the target, either mentally (1" for 1 try, 3" for 2 tries, 4" for 3 tries, etc.) or on paper.**
- 10. Repeat 10 times, divide the total of the off-center inches by 10. This number is the average line-up error from the center of the cup, in inches. A score of .3" is the best we have seen in limited use (this would be seven zeroes and three ones), and anything under 1.0" is excellent.**
- 11. You can use the LPA by yourself by lining up the putter with one hand and actuating the switch with the other hand, or by placing the switch between a finger and the golf grip. You can also hold on the laser and practice looking back and forth between your putter face and the target, and get used to seeing what a PERFECTLY aligned putter face looks like.**

12. You can determine the static putter face loft at set-up by measuring where the laser strikes the target. Every 3 ½" above the center of the laser hole at the bottom represents one degree of putter loft. With a vertical clubshaft, this measurement will be the same as your actual putter loft.

13. Remember that the distance from the center of the target to the laser spot is twice the actual mis-alignment, because the laser travels to the mirror and back, or 16' when the penny is 8' from the target. Also, if the laser hits high on the target, the golfer might have his putter shaft leaning too far back at set-up, or his putter loft is too high to begin with.

## **Troubleshooting**

### **Laser Stays On**

1. The hand switch has probably been stepped on or bent. You can usually manipulate the hand switch to fix this. There are two small bronze springs inside the shrink tube cover, and they should not touch until the switch is depressed.
2. The wire under the tape at the end of the laser that connects the positive side of the batteries to the switch is touching the laser tube or end cap. The wire from the positive terminal on the battery cannot touch the end cap. You can remove the tape and check the wiring. A sketch of the correct laser wiring is attached. Re-tape the end cap when you have fixed this problem.

### **Laser Will Not Turn On**

1. Loosen the clamp screw on the laser mount and remove the laser from the mount. Depress the button on the laser and actuate the hand switch. If the laser comes on, the clamp screw was not holding the button in. Re-install the laser in the mount and make sure the clamp screw is correctly tightened.
2. If the laser still does not work, remove the electrical tape from the end of the laser, unscrew the laser end cap, and remove the wires from the end cap. Screw the end cap back in and test the laser. Depress the button on the laser.
  - a. If the laser does not work, replace the batteries, with the positive ends facing the end cap. If the laser does not work with two new AA new batteries, you will need a new laser.
  - b. If the laser does work when you depress the button, reconnect the wires per the attached instructions, and screw the end cap back in. Test the laser again, by depressing BOTH the button on the laser and the hand switch.
  - c. If the laser still does not work, double-check the connection of the wires to the laser end cap. If these are correct you will need a new switch and wire, or you can send the whole laser in for repair.
3. When you get the laser working, re-tape the end cap and wire using Scotch 33 electrical tape or equivalent.