



## User Guide: Dinghy Bob

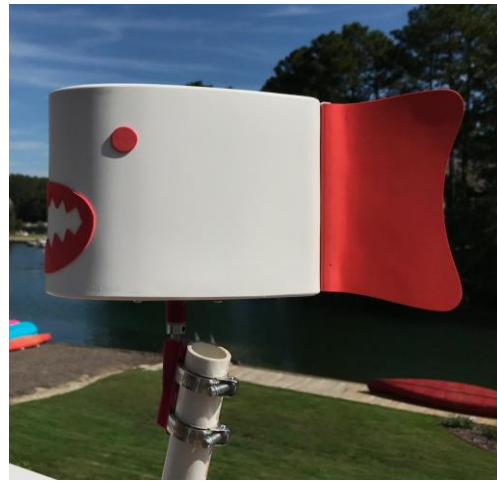
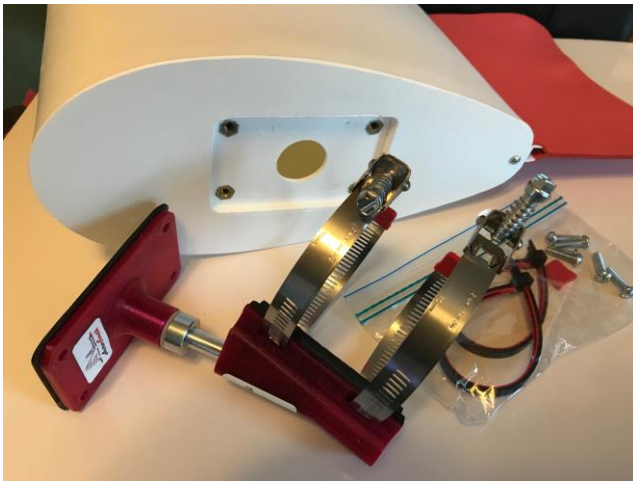
**Purpose:** Prevent a capsized sailboat from turning turtle. Designed for Sunfish/Laser class dinghies. Appropriate for sailboats of similar hull weight (130 lbs) and sail area (75 sq.ft.).

**Material:** Bob from tough polyethylene. Mounting bracket uses plastic parts from water/UV-resistant PETG, corrosion-resistant fasteners and an aluminum shaft. (See parts list below).

**Installation of Dinghy Bob:** (refer to images below)

1. Choose orientation of lower bracket, depending on inclination of mast / spar top.
2. Decide which clamps are to be used to secure the lower bracket to the mast / spar, reusable zip ties or quick-release stainless steel band clamps. Both types are included.
3. If the reusable zip ties are used:
  - a. Slide these through the two slots in the lower bracket as shown in the picture below.
  - b. For the Grip Lock Ties shown, the red elastomer side should be facing down, ie towards the mast / spar.
  - c. Position lower bracket to top of mast / spar with, assuring that it is parallel to the mast / spar centerline, in the center-plane of the boat, and at the highest possible location.
  - d. Pull zip ties tight with the bracket secured against the front side of the mast / spar at the highest possible location.
  - e. If desired, trim off excess plastic from tie with scissors, knife, or wire cutters.
4. If the quick-release stainless steel band clamps are used:
  - a. Insert band clamps into slots of lower bracket and hold bracket against the desired location on mast / spar to estimate required length of bands. Remove clamps from bracket.
  - b. If desired, trim off excess from stainless steel band clamp using metal shears (tin snips) or hack saw, filing/sanding sharp cut end to reduce chance of injury. Removal of 1" is typical for 1.5" diameter mast / spar.
  - c. Re-insert band clamps into slots in lower bracket.
  - d. Secure lower bracket to top of mast / spar with flat-head screwdriver, assuring that it is parallel to the mast / spar centerline, in the center-plane of the boat, and at the highest possible location.

- e. Push Clamp-Aid caps onto ends of stainless-steel hose clamp straps, to prevent potential for cuts.
5. Screw threaded end of the aluminum shaft into the top opening in lower bracket, if not delivered pre-installed.
6. Attach rotating top bracket to bob with four #10-32 x 3/4" machine screws.
7. Assure that pre-installed drain screw in lower rear of float is tight.
8. Test to make sure that the bob rotates freely when pushed on the fin. If movement is impeded, try loosening the slip collar (using a 1/8" hex/Allen wrench), lowering it slightly and re-tightening it.
9. If rotation of the bob is not desired, loosen the slip collar, push this firmly upwards against the upper bracket, and re-tighten.



*Above left: Dinghy Bob parts, clockwise from lower left: Bracket sub-assembly with two quick-release band clamps and clamp-end guards installed, float with drain screw and fin installed, bag containing two reusable zip ties and machine screws for upper bracket. Right: Dinghy Bob installed with quick-release stainless steel band clamps and decorated with adhesive-backed EVA foam.*



*Above: The rotating shaft screws into either end of the Lower Bracket depending on orientation of the mast or spar on which it is mounted. Left: lower bracket position for vertical masts (Zuma, etc.). Right: lower bracket position for inclined masts / spars (Sunfish, Snark, Laser and similar)*



*Above left: upper bracket sub-assembly screwed into recess on underside of the float. Middle: trimmed stainless-steel bands inserted in the slots in the lower bracket. End caps prevent cuts from the sharp ends of the thin metal bands. The caps must be removed temporarily for installation or removal of the bracket from the mast / spar. Right: Lower bracket attached to Snark-sized (0.75" diameter) tube with reusable zip ties (8.3" GripLockTies shown).*

### **Maintenance of your Dinghy Bob:**

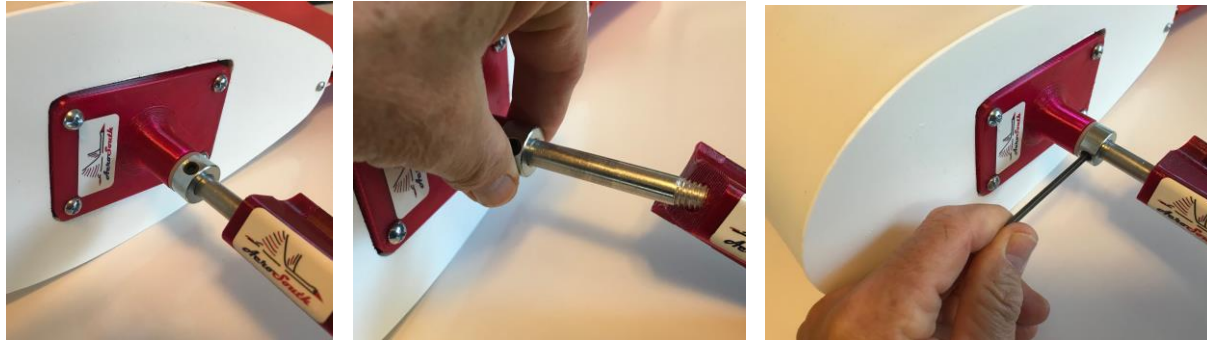
1. While it is made from tough materials, avoid dropping Dinghy Bob onto hard surfaces or general rough handling.
2. As with all sailboat components, rinse Dinghy Bob with fresh water after sailing. When not in use, it is best to store Dinghy Bob in a cool, dry location out of direct sunlight.

3. Condensation and slight leakage around the aluminum shaft may cause the bob to accumulate small amounts of water. After each use, check for this by removing the small screw at the lower rear of the bob to drain any water from the inside. Remember to replace the drain screw before use.
4. When used in a salt-water environment, check the screws for corrosion. Replace with stainless steel if required. Rinsing with clear water following use in salt water and storing Dinghy Bob in a dry location will help to slow corrosion.

### **Dinghy Bob Parts List:**

1. Lower Bracket Sub-Assembly:
  - a. 1 x Lower Bracket, PETG plastic with neoprene rubber gasket affixed to bracket with contact cement. Designed to fit round mast / spar tubes of diameter 1.5" – 2.0".
  - b. 2 x Stainless Steel, quick release band clamps, SAE size 36 (9/16" / 14.27mm band width, for tubes of diameter 1" / 26mm to 2-3/4" / 70mm.)
  - c. 2 x Clamp-Aid Hose Clamp End Guards, TPE elastomer
  - d. 2 x 8.3" GripLockTies, reusable zip ties.
2. Upper Bracket Sub-Assembly:
  - a. 1 x Upper Bracket, PETG plastic with gasket pre-installed.
  - b. 1 x 3/8" diameter x 4.0" solid aluminum shaft, threaded on each end (3/8" – 16NC thread).
  - c. 2 x 3/8" thin flat nylon washers, on either end of aluminum shaft against plastic upper bracket.
  - d. 1 x 3/8" stainless steel collar with 1/8" size hex locking screw.
  - e. 1 x 3/8"- 16 lock nut, for top of aluminum shaft.
  - f. 4 x #10-32 x 3/4" machine screws, to attach upper bracket to the bob.
3. Bob Sub-Assembly:
  - a. 1 x polyethylene bob, includes #6-20 x 1/2" drain screw, pre-installed. (bob may be red or white)
  - b. 1 x fin, EVA foam sheet, pre-installed using 3 x #6-20 x 1/2" self-tapping screws.
  - c. 4 x #6-20 x 1/2" self-tapping screws for drain and fin.

**Quick removal of Dinghy Bob when storing sailing rig in a spar bag:** unscrew lower bracket from aluminum shaft. The shaft is normally attached to the lower bracket finger-tight for easy removal. If this is not possible, insert a 1/8" hex wrench to hold the shaft into the small hex locking screw on the side of the stainless-steel collar and turn the shaft and collar counter-clockwise to loosen the shaft from the lower bracket. Be careful not to loosen the collar from the aluminum shaft! To reattach the bob and bracket, reverse this procedure. (see images below)



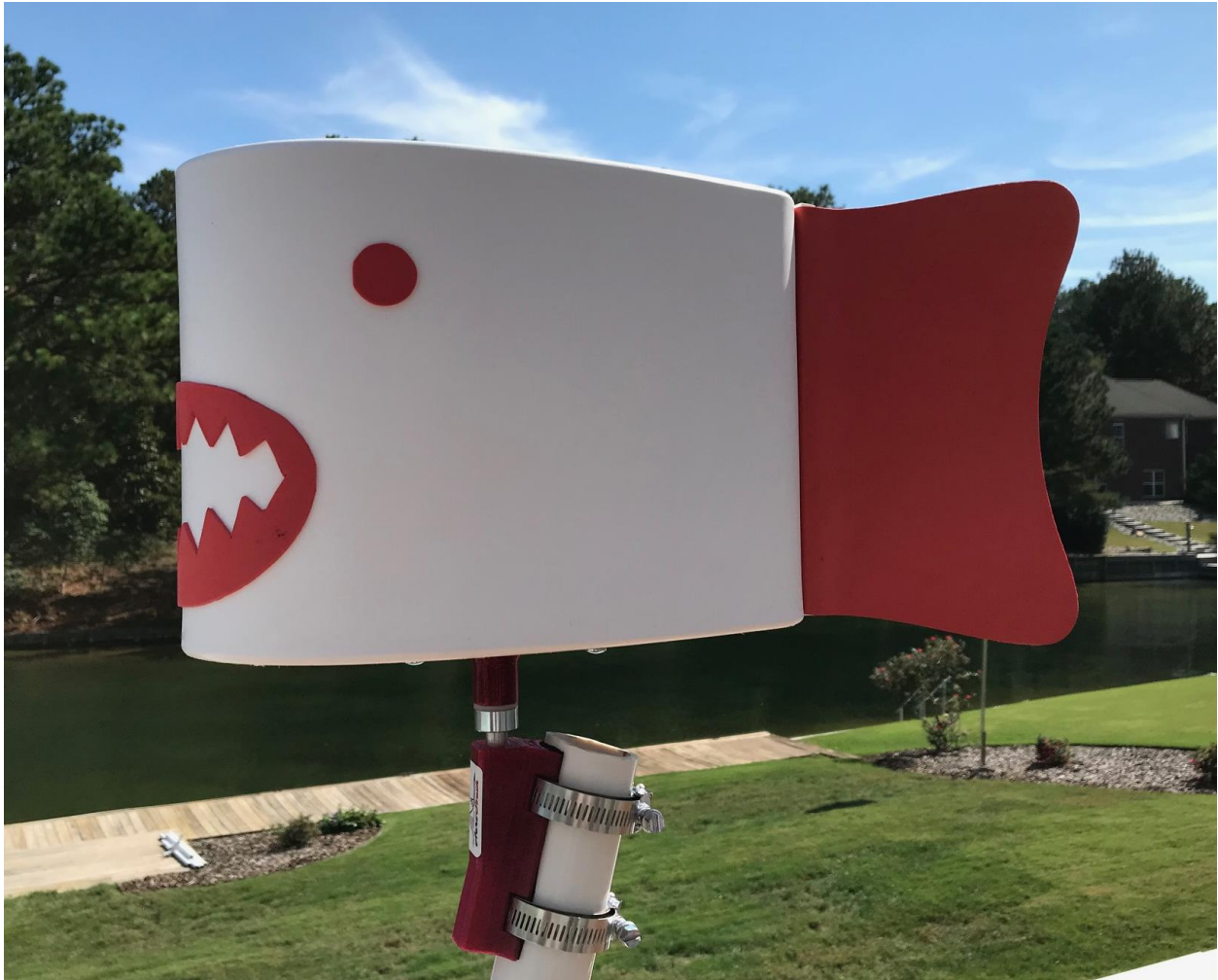
*Above left: the upper bracket attaches to the lower bracket by means of a threaded aluminum shaft. Middle: normally the shaft is only finger-tight and can be removed by unscrewing the shaft from the lower bracket. Right: if the shaft is too tight, insert an 1/8" hex key in the shaft collar and turn the shaft and collar counter-clockwise to loosen from lower bracket. Be careful not to loosen the collar from the aluminum shaft!*

Have Questions or Comments?

Contact Kent Misegades, President and Owner, [kent@aerosouth.net](mailto:kent@aerosouth.net), 910-568-2580

**ALL AEROSOUTH PRODUCTS ARE PROUDLY ENGINEERED & PRODUCED IN NORTH CAROLINA, USA!**

# Decorate Your Dinghy Bob!



We are enclosing with your new Dinghy Bob a sticker of Seagull Bob, the AeroSouth mascot, as well as a small sheet of EVA foam you can use to decorate yours as we did, as shown above. (EVA foam may be attached to the Polyethylene float with a good contact cement like DAP Weldwood.)

**Be creative!** Add other fins, wings, a nose, your sail number, other stickers, ... whatever turns you on and gets a laugh from others. Just assure that the tailfin remains unmodified, and that the bob stays light and turns freely.

**Show your design to others** – we have created a Dinghy Bob Gallery at [aerosouth.net](http://aerosouth.net). Just email your images to [kent@aerosouth.net](mailto:kent@aerosouth.net) and we will gladly post them for the whole world to see!

