

Installation Instructions for COBRA VENOM Magnum A.K. Series Steering



Parts Reference

1. 10 mm bolt to attach the twin tie rods to the factory rudder.
2. 10 mm bolt, spacers and nut to attach the tie rods and brackets to the nozzles. (x2)
3. Left and right hand fin brackets with adjustment button cap bolts plus washers and nylock nuts.
4. Left and right hand MAGNUM adjustable fins with 8mm button cap bolts and flat washers to attach the fins to the reverse hood mounts.
5. A second tie rod to connect the left nozzle to the rudder for a balanced work load.

You will need thread locking compound. A removable type is suggested.

For best results be sure to follow the sequence in these instructions!

Step 1: Prepare the watercraft

- Place the boats controls in forward to open the reverse gates on the nozzles and center the steering wheel.

Step 2: Add secondary tie rod

- Locate the tie rod (5) and the long hex bolt (1) in your steering kit.
- Remove the factory hex bolt that attaches your original tie rod to the rudder.
- Place the new tie rod on top of the original one with the new bolt placed through both tie rod ends.

NOTE: This will require you to pull the tie rods out from under the hull due to the limited space.

- Slide the tie rod ends and bolt back in place to line up with the bolt hole on top of the rudder.
- With thread locking compound on the end of the bolt, tighten the bolt in the rudder with both tie rod ends stacked on top of each other.



Step 3: Add bracket to Left hand nozzle

NOTE: The distance between the centers of the new tie rod ends was set at 12.25 inches, which is normally the correct distance. The ends are adjustable if you find it necessary to make any slight adjustments to attach to the left nozzle. The rod ends are locked down with nuts you can loosen both nuts to make any necessary adjustments to the ends then relock those nuts when you finish.

- Once you have your rod ends set, locate the allen bolt, spacers and new nut (2) in your steering kit.
- Place a spacer on the bolt, and then place the bolt in the rod end.
- Place another spacer on the bolt and start turning the bolt into the threads on the end of the nozzle.
- When you see the threads start to pass through the nozzle, locate the appropriate bracket for the left side nozzle (3).

NOTE: Both brackets are listed as (3).

- Place the left hand bracket on the top of the nozzle casting, aligning the cutout and hole with the arm pointing up on the outside of the nozzle.
- When the bolt is tight, place another spacer on the bolt, then the nut and tighten it down using thread locking compound on the nut.

NOTE: You may find the bolt has some resistance as it passes through the brackets. That is okay.



Step 4: Add bracket to Right hand nozzle

- Remove the original Allen bolt from the right hand nozzle
- Locate the second new Allen cap bolt from your kit.
- Place a spacer on the bolt, then place the bolt through the tie rod end.
- Place another spacer on the bolt and start turning the bolt into the threads on the end of the nozzle.
- As it starts to pass through the nozzle, add the right hand bracket with the end pointing up and on the outside of the nozzle.
- As the bolt passes through that bracket add a spacer and the new nut with thread locking compound just like you did on the other side.
- Now you have both tie rods in place and both brackets attached to the nozzles.

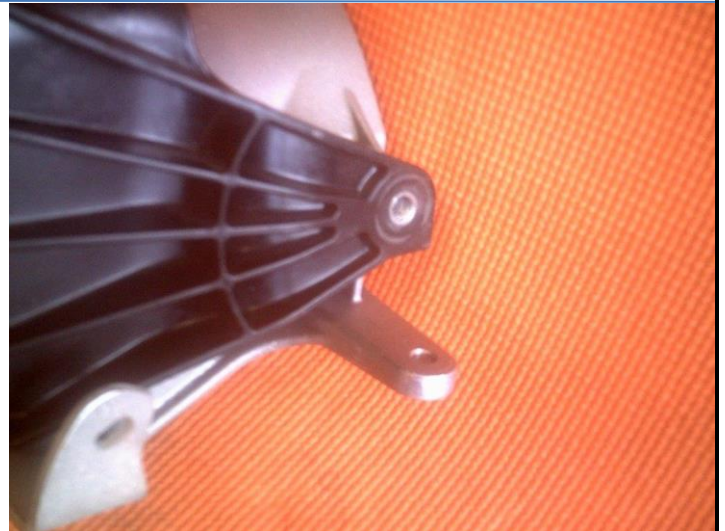


Step 5: Add fins

NOTE: You have two sets of fins and hardware (4) in your steering kit, one for each side. Both use the same hardware, a 8mm button cap bolt with 2 flat washers.

- Remove the pivot bolt from the right side nozzle reverse hood.
- Note the factory spacer inside the reverse hood bolt hole, be sure to keep that in its place.
- Place one washer on the button cap bolt, and place that through the top hole of the right hand fin.
- Place the second flat washer on the bolt.
- With thread locking compound on the bolt, place it in the reverse gate with the factory spacer in place.

NOTE: Snug the bolt but don't over-tighten it.



Step 5 - Continued

- Locate the small button cap bolt, washer, and nylock nut (3) in your steering kit.
- Set the fin all the way down and align the small adjustment holes in the fin with the hole "A" in the bracket.
- Install the small button cap bolt from outside of the fin, place the washer and nylock nut on the inside of the bracket.
- Repeat this on the left side.



Your system is now installed!

Changing the position of the small button cap bolt will change the depth of the fins, thus adjust the effect of the system.

