

C J S VIPER Installation instructions

The **VIPER** was designed to be attached to all single engine Yamaha jet boats equipped with the articulating keel.

The **VIPER** installs between the factory keel and the bottom of your steering nozzle.



Step #1. Simply place the controls in forward to open the reverse bucket allowing you easy access to the back of the nozzle.

Step #2. Using a 17 mm wrench, loosen the bolt on the rear of the nozzle sufficiently to release the rudder and remove the retainer taking care not to misplace any of the parts.



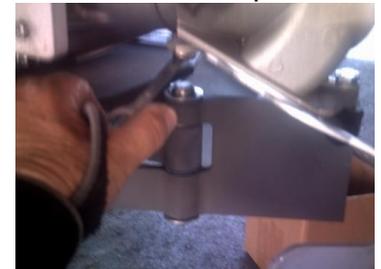
Step #3. Move the rudder sideways toward the front of the nozzle to allow for the **VIPER** to slide over the castings on the nozzle and into position on the bottom edge of the nozzle. As shown in the pictures.



Step #4, rotate the rudder back to its original position now or after your installation is complete your choice, remember to place thread locking compound on the retainer bolt when reinstalling it.

Step #5. Remove the bottom bolt of the nozzle using a 12 mm wrench take care not to misplace the small spacer that is on the bolt as it **MUST** be reinstalled in step #6

* NOTE YOU WILL NEED A GOOD SEMI PERMANENT STRENGTH THREAD LOCKING COMPOUND WHEN INSTALLING THE BOLT
Failure to do so may allow the bolt to work loose in use.



Step #6. Locate the new hardware for attaching the bottom of the nozzle and base plate. This will consist of a bolt, washers and a spacer. The new bolt is longer than the original bolt it requires a 13mm wrench for installation. Place the thick washer on the bolt first, then place the new .250 by 5/8ths spacer, then the original small spacer, then place the larger thin thrust washer. Now place the thread locking compound on the remaining threads and place this bolt setup through the 5/8ths hole in the Front of the **VIPER** base plate before lining it up with the bottom bolt hole of the nozzle so it clears the rudder easier.



Use a 13mm wrench to tighten the bolt so it secures the nozzle and the **VIPER** base plate. Check to be sure the nozzle turns freely. Allow sufficient time for the thread locking compound to cure before using this system.



STEP #7. Install the locking tabs on both sides of the nozzle. Install them with the bolts going from the top and the nylock nuts on the underside of the base plate.

Make sure that the curved ends of the Locking tabs are locked into each side of the nozzle as shown in the pictures to be certain that they are securing the base to the nozzle.



YOUR INSTALLATION IS NOW COMPLETE!