

## West Coast Hybrids Vent installation instructions

Do not fire motor unless there is a visible stream of liquid nitrous oxide seen venting. Nitrous oxide, while venting is extremely cold and will cause severe frost burn. Wear leather gloves while handling and never stand near motor while filling, venting or firing.

Hybrid rocket motors, to provide accurate and consistent impulse, must vent atmospheric pressure from the tank to be able to fill completely with liquid nitrous oxide. Ejection charges and electronics can be damaged and will be greatly affected by nitrous oxide if contact occurs. The figures below illustrate a few of the simple methods that we have found to produce the best venting results. In Figure # 1 the Vent hose is routed through the airframe by simply drilling small 5/32-inch hole and gluing the 1/8 vent hose into place. Be sure to make the vent hose long enough to extend through the motor mount tube in minimum diameter rockets if the motor cannot be accessed at the top. In Figure # 2 simply drill a 5/32 hole within the centering rings and glue the vent hose into place. This is best performed during construction but can be attained post construction by using a length of 1/8 welding rod or coat hanger to feed the vent hose through the centering rings once the holes are drilled in line. Leave the vent hose long enough to allow the motor to be removed from the motor mount tube with the hose attached. To protect the vent hose from ejection blast use a length of tubular Kevlar or shock cord material with the vent hose slipped inside.

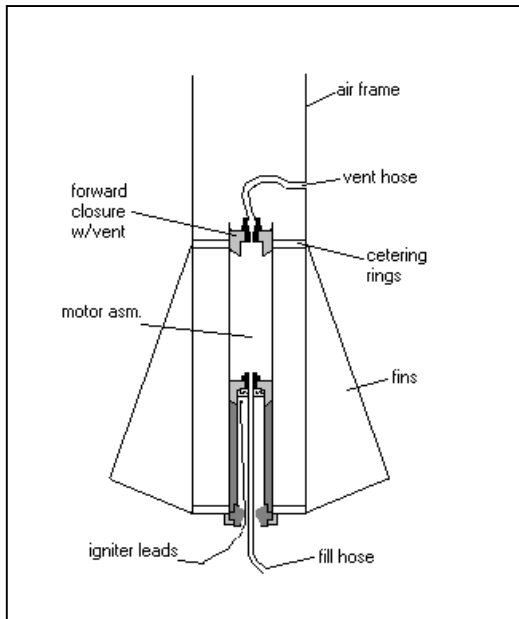


Figure 1

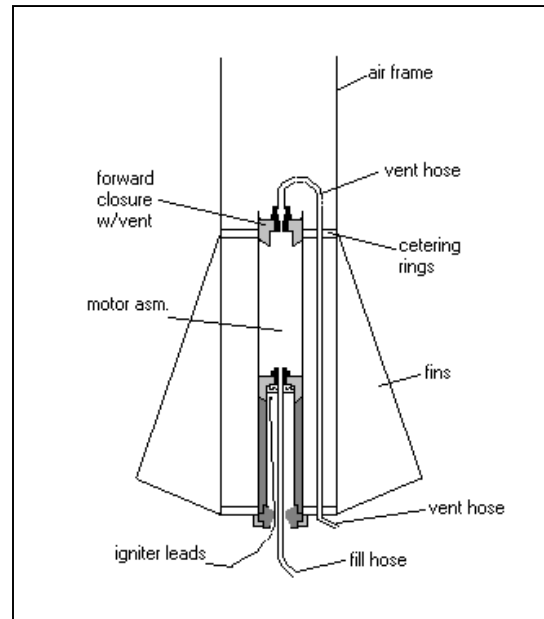


Figure 2

In Figure # 3 the illustration shows a motor mount tube adapter with holes drilled through the centering rings for placement of the vent hose. The hose is left long enough to extend through the central motor tube.

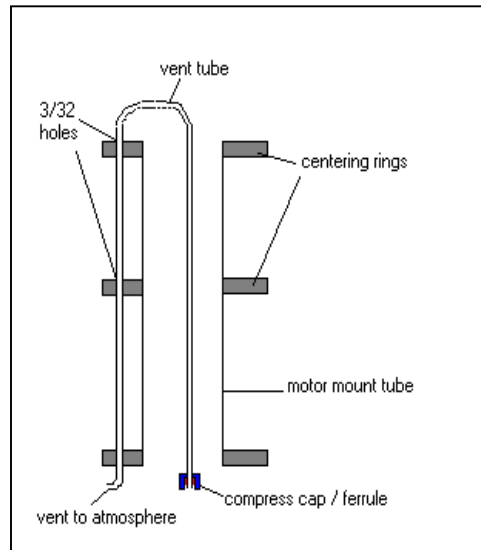


Figure 3

Need Help? Please feel free to contact us at [www.westcoasthybrids.com](http://www.westcoasthybrids.com)