

38 BOW THRUSTER Page 1 of 6 (1-23-2006 Update)

1. The bow thruster will be located in under the v-berth bunk, the pan is molded for the bow thruster tube to be located there.
2. Remove the v-berth shelves from the boat by taking out the #10 x 1-1/4" screws. Also remove the cutout in the center divide.
3. Drill two 2" holes (one on the forward side, the other on the aft side) in the aft stringer (running athwartship) on the port side of centerline so wires can be run from the bow thruster to the port transducer compartment. The forward hole will be extremely hard to drill once the tube is in place unless you have a large arbor I cut it from the aft side. Put 2" chafe guards around the holes.
4. Place a straight edge across the top of the pan flange where the "U" shape is for the bow thruster tube & measure down 3-1/2" at the middle of the "U" (see pictures for clarification). Mark this location, this will be where the center of the tube will go. Do this on both the port & starboard sides of the boat.
5. Drill 6" holes thru the hull at the marked locations so the drill is pointed directly at the center of the hole on the other side of the boat, this will make semi-elliptical hole about 11" tall & 6" wide.
6. Insert the bow thruster tube thru the two holes.
7. Once tube is in & level, glass the tube into place on the inside of the boat on both the starboard & port side, make this a thick bond as it will have a 1" radius cut into it from the outside. On the outside of the boat cut the tube flush with the outside of the hull then put a 1" radius along the entire edge of the cutout on both the port & starboard side. Gelcoat the hull & buff.
8. Sand & gelcoat the tube & stringer on the inside of the boat as needed.
9. Install the bow thruster in the center of the tube, the motor will go on top of the tube.
10. Install a 250 amp fuse below the nav seat then install the on/off (isolator) switch in the outboard face forward of the nav seat.
11. From the motor route the 1/0 cables (one red 15', one yellow 17') port to the hull then aft thru the hanging locker then continue aft thru the PVC pipe under the bunk top to the nav station. Connect the positive cable (red) to the on/off (isolator switch). Connect the 18" positive (red) cable to the other side of the isolator switch the connect the other end of this cable to the fuse that was installed earlier under the nav seat. Connect the 30" 1/0 positive (red) cable to the other side of this fuse & connect the other end of the cable to the battery side of the existing fuse under the battery selection panels. Connect the 1/0 negative (yellow) cable to the negative buss bar under the nav seat.
12. Connect cables at the bow thruster unit & route control cable aft thru two new holes (they will have to be drilled with 2" hole saw then install chafe guards) in the athwartship stringer to the knot & depth compartment then continue thru pipe to cockpit then up to steering pedestal.

38 BOW THRUSTER Page 2 of 6



1/0 Cables going from bow thruster motor to port side of boat & aft thru hanging locker.



Cables continuing aft thru hanging locker.



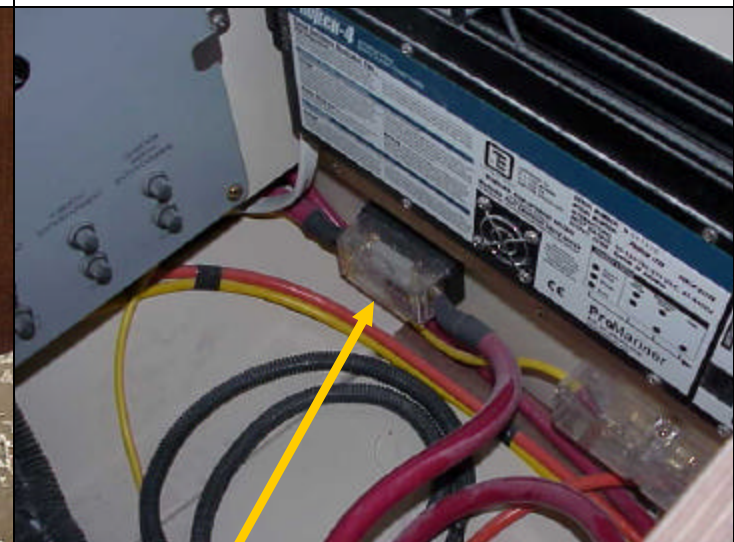
Cables continuing thru PVC pipe under the bunk top, the PVC pipe only runs halfway under the bunk.



Cables continuing under the bunk top, the PVC pipe.

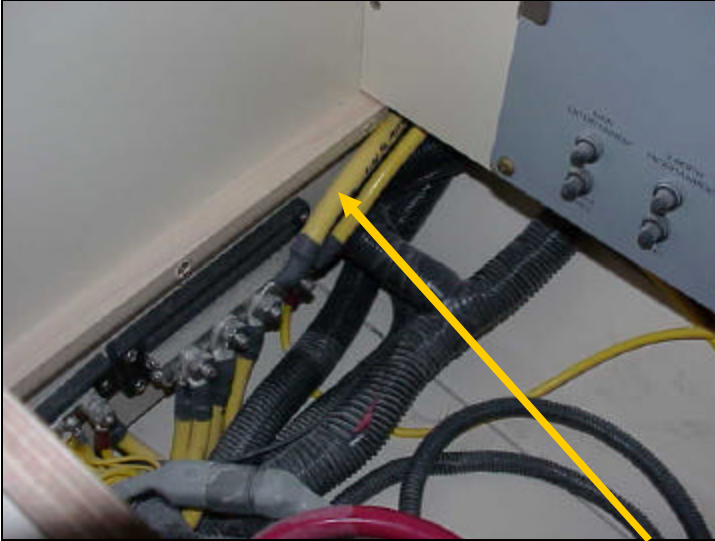


Location of isolator switch that will need to be installed on outboard face forward of nav seat.



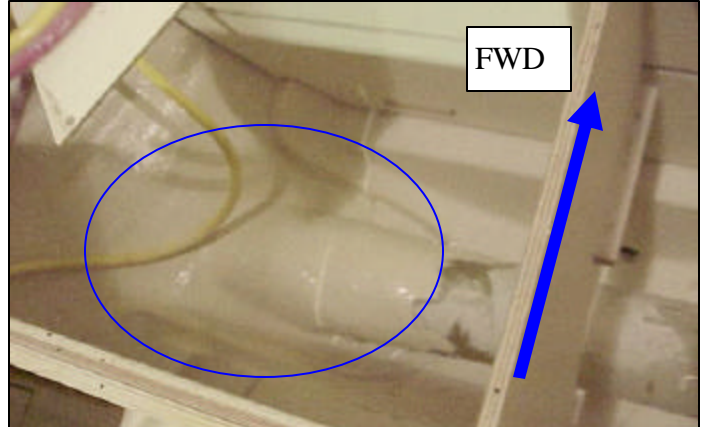
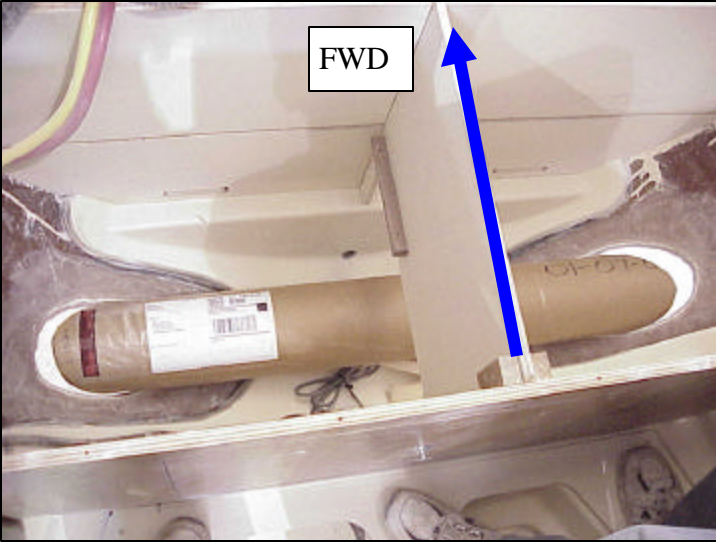
Location of 250 amp fuse that will need to be installed.

38 BOW THRUSTER Page 3 of 6

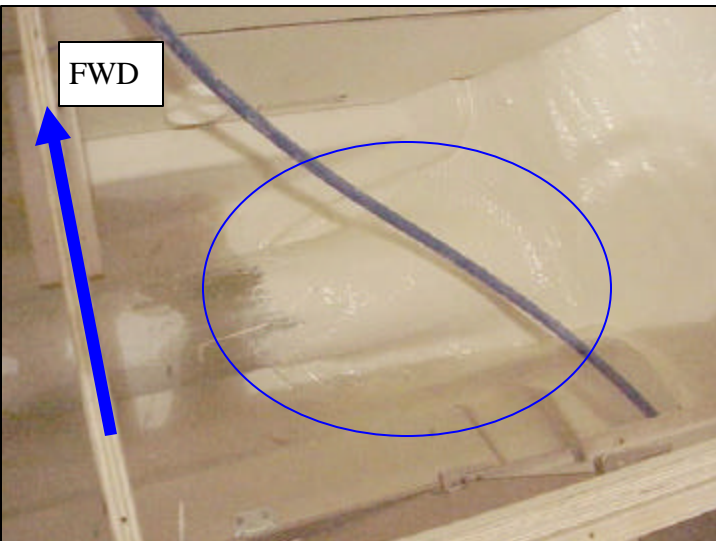


Location of exist negative buss bar on aft wall in the compartment under the nav seat. Arrow is pointing to the negative cable from the bow thruster motor.

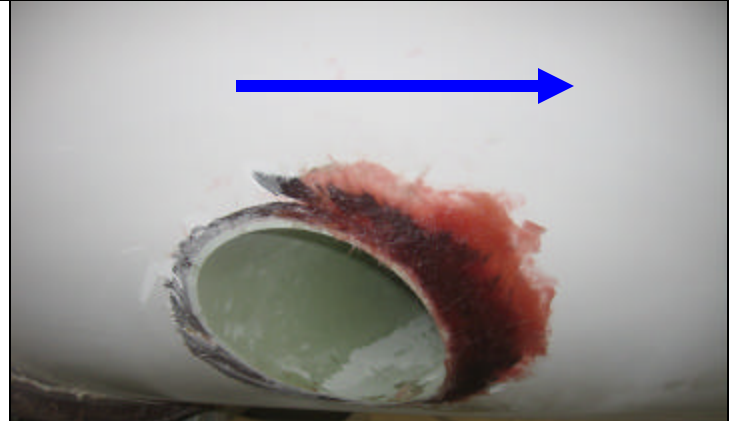
38 BOW THRUSTER Page 4 of 6



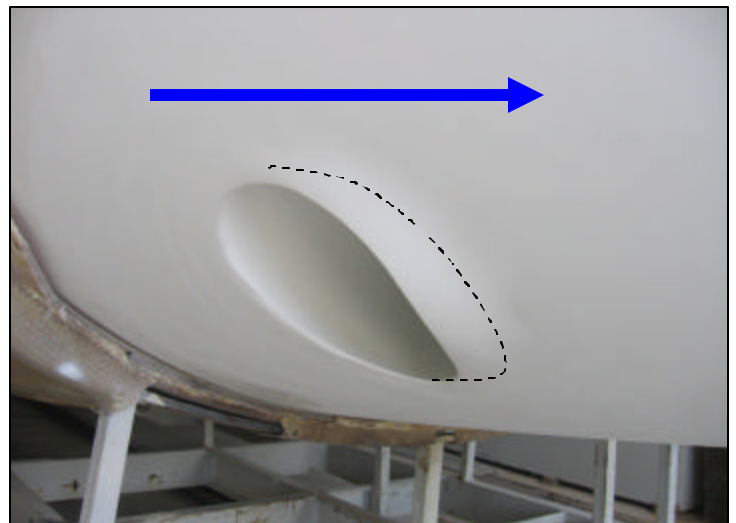
Bond the tube to hull , apply 2 layers of bi-ply 2415 around the tube where by hull draught



38 BOW THRUSTER Page 5 of 6



Apply fiberglass chop (resin to catalyst ratio 2%) to fill fwd of hull cutout from overboard and the glass chop need to create a radius 15% of bow thruster tube diameter, to minimize noise during bow thruster operation. Glass chop should applied to both port side and starboard side fwd radii of the tube ends.



Sand rough glass and patching port and starboard side to perform fwd tube radius of 15% diameter of the tube, then dust off the area and apply Hunter white exterior gelcoat on this area.



38 BOW THRUSTER Page 6 of 6

INSTALLATION INSTRUCTIONS FROM MANUFACTURERS MANUAL

140 TT model: Installing hub unit

1. Place gasket on hub and locate through center hole.
 2. Apply zinc chromate paste or marine grease to location bore and assemble saddle onto hub (sicoflex or similar maybe used to seal saddle in place). Apply blue loctite to bolts and hand tighten along with supplied washers.
 3. Assemble anode kit and propeller in this order:- large washer, propeller, anode, small washer and nyloc nut onto propeller shaft.
 4. Tighten hub/saddle bolts to 9Nm (6.6lbs.ft). Check that propeller is centered and free turning (within 10 minutes of applying Blue Loctite).
 5. Tighten prop nut to 10Nm (7.4lbs.ft) 140TT, a length of wood placed between prop blade and tunnel will stop movement.
- NOTE: Poor internal tunnel surface could cause leakage. Apply sealant to this area and gasket if in doubt.
6. Antifoul bronze hub.

