

Funsor Marine Repair Instructions: Air Leak Find & Fix, Transom Holder Repair

Air Leak Find Instructions:

If you are losing air pressure, (aside from pressure loss commonly caused by colder temperatures), check the boat over for leaks. Start by checking the valves first. The best tool to find leaks is soapy water in a spray bottle. A leaky valve is rare, but if you do find a leak we can send you a replacement valve. We recommend mixing soap and water in a spray bottle. Spray around the valve. If you see bubbles forming, check your valve fitting and base and be sure the valve insert is screwed on tight. You can apply glue from the repair kit to seal small leaks around the valve or holes where the nylon string enters the valve assembly. If you continue to have problems with the valve, it's probably time to order a new one.

To find tiny leaks, take the floor-boards out, fully inflate the boat until it's hard to the touch. Put some soap in a bucket of water and apply it all over the boat with a rag or big wash brush. Watch for tiny bubbles forming. When you find the first leak, keep looking. You might as well fix them all at the same time! Also, be sure to apply the soapy water to the air valves (on and around) to ensure there are no leaks. Remember, the number one cause of slow leaks is due to poorly fitted (not tightened) valves. Unscrew the valve and clean the area. Make sure the little rubber O-rings are still good. They are the cheapest repair possible and the most common.

If you have no luck finding a slow leak with air bubbles, inflate the boat to it's maximum air pressure and try to listen for the leak. If you can narrow the area down, return with a spray bottle to identify the source of the leak.

Repair Instructions:

Applies to all repairs:

All Funsor Marine boats come with a complimentary repair kit which includes permanent bonding polyurethane PVC adhesive as well as several small pieces of PVC patch material. This repair kit can be used to complete almost all repair jobs.

For all repair jobs we recommend using the Funsor Marine supplied polyurethane adhesive. As a solvent/prep cleaner we recommend any MEK (methyl ethyl ketone) which is a PVC cleaner/lacquer thinner. We also recommend having a fine brush for adhesive application and to have plenty of rags handy for cleanup purposes.

Lastly, the climate in which the repair job is completed in makes a significant difference. The PVC adhesive only functions properly in climates under 65% humidity. Do not attempt any repair jobs when it's raining outside or if there is high humidity. This is extremely important. Lastly, do not make any repair jobs outside in the direct sunlight or while the boat is still in the water. If the adhesive is exposed to direct sunlight during the bonding process, it will compromise the strength of the bond.

Punctures less than 1/16" in size:

Punctures less than 1/16" in size can be repaired simply without a patch. Deflate your boat, then clean and dry the area to be repaired. Apply a small drop of glue to cover the puncture and let dry for 10 minutes. Then apply another larger drip and then let this coat dry for over 24 hours. No patch needed.

Holes or Punctures Between 1/8" and 4":

Cut a piece of repair material large enough to overlap the damaged area by approximately 2 inches and round off the edges. Using a fine brush, apply glue to the under side of the patch and around the area to be repaired. Only apply a thin layer, too much glue will often interfere with a proper repair. Wait 10 minutes for glue to set. Then apply a second thin layer of glue to both the patch and the boat as well. Wait another 8 minutes for glue to set. Then apply a 3rd very thin layer of glue to the patch and the boat. Let sit for 5 minutes (don't allow it to completely dry) and then firmly place patch on the damaged area. Apply patch so that all air bubbles will be forced out of the patch. Wait 10 minutes, and then inflate the chamber very slightly, just so the tube is lifted away from any other side of the tube, so it doesn't get glued together. Use a weight to apply 3-5 lbs of pressure for 24 hours. After the patch has dried, apply glue around the edges for a complete seal (then let dry an additional 12 hours).

Transom Holder Repairs:

If you're experiencing some issues where the transom holder is separating from the main tube of the boat, this can be fixed. This is a common symptom of a user leaving their boat out in the elements and being damaged by prolonged UV exposure. The trick to this repair is all in the pre-work.

Note that the Funsor Marine provided polyurethane PVC glue is used for the bonding of PVC to PVC, PVC to plastic, and PVC to wood. This glue is used throughout the boat and is specially formulated for all bonding applications on your boat. Regardless of where the repair is throughout the transom holder, this same glue works the best.

To begin, inflate the boat to 90% air capacity. Then clean down the entire boat with a very light soap and water. Then fully dry the entire boat. The next step is to remove all excess/old glue from the intended repair area. To do this, you can use a combination of very light sandpaper first and then a PVC cleaner/solvent. We recommend using MEK (methyl ethyl ketone) to do this. Take note that MEK is extremely toxic and extremely flammable. Wear gloves and do not let this touch your skin. Use extreme caution when using MEK and follow all directions as shown on it's label.

Once all left over glue has been removed from the repair area, with a rag wipe down the entire repair area once with MEK, then quickly dry it completely with another dry rag.

Let the boat sit for 10 minutes and make sure the entire repair area is completely dry.

With a brush, apply one layer of Polyurethane glue to the repair area (both sides) and let sit for 10 minutes. Then apply a light second layer (both sides) and let sit for 10 more minutes. Then apply a 3rd very light layer of adhesive (both sides) and let it sit for 10 more minutes. Right at the 3rd 10-minute mark, apply the sides of the repair and apply firm pressure throughout the repair spot for 3-5 minutes.

Do not move the boat for at least 24 hours. And do not use the boat for at least 48 hours.