SATURN

RAFTS

CATARAFTS

KAYAKS

SUP BOARDS

OWNER'S MANUAL

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Welcome to the Saturn family of inflatables owners! We take great pride in building high-performance inflatables that provide many years of enjoyment. Give us a call at 800.217.3270, or drop us a line at info@saturnrafts.com, if we can help in any way. Please take the time to read through this manual to familiarize yourself with the features of your new inflatable, and the techniques for proper care and maintenance. This will assure you the years of service for which your Saturn was designed. Also, be sure to register your boat in our database; this information is included at the end of this manual.

INFLATION

To inflate, valves need to be in the closed position. Push the valve stem in and turn clockwise so the stem pops up, sealing the valve. We recommend purchasing a pressure gauge; maintaining optimum pressure in your inflatable's chambers is essential to its best performance and longevity.

Inflating Rafts:

To properly inflate the perimeter tubes on your Saturn raft, choose a chamber to inflate first. Fill the chamber with air until it takes shape, filled out but not firm. Your goal is to get equal pressure on both sides of the baffles that separate the chambers. Work your way around the boat, turning each valve stem clockwise to seal the valve before filling each chamber evenly. Then go around the raft again, using a hand pump to fill each chamber to full pressure (between 2.5 – 3.0 psi). If you have a pressure gauge (which we recommend), check to make sure the pressure in the chambers does not exceed 3.0 pounds per square inch (psi). If you do not have a gauge, check the pressure by pressing down with your thumb. The fabric should depress slightly. If there is no "give," it's probably over-inflated. After the perimeter

chambers are full, inflate thwarts to 2.5 – 3.0 psi. On boats with a drop-stitch floor insert, the floor should be inflated to 6-10 psi.

Inflating Catarafts:

Saturn cataraft tubes have two chambers. To properly inflate the tubes, begin with either chamber, filling it until it takes shape; then inflate the other end to approx.. 2.5 psi (a maximum of 3.0 psi). Then top-off the first chamber to 2.5 psi (a max of 3.0 psi).

Inflating Inflatable Kayaks (IKs):

To properly inflate your Saturn IK, inflate both main tubes until they take shape. Then top them off to 2.5 psi (max of 3.0 psi). Because of the small tube size, slight over-inflation is acceptable to increase performance. The drop-stitch floor insert should be inflated to 8-10 psi for best performance. Last, inflate any thwarts (if included) to 2.5 – 3.0 psi.

Inflating Stand Up Paddle (SUP) Boards:

Our SUP boards are made using drop-stitch material. This construction, using thousands of strong threads to join the top and bottom surfaces, allows use of much higher pressures than are safe in round inflation chambers. Inflate your board to the stiffness that gives you good performance, up to 10 – 12 psi (never exceed 15 psi).

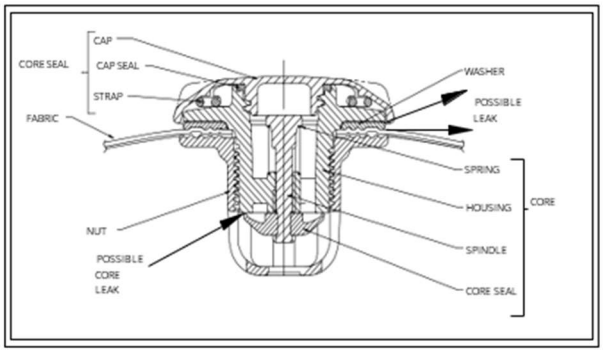
Monitoring Inflation Pressures:

As temperatures and altitude change, the air pressure inside your boat will fluctuate. You may need to make adjustments to the pressure in the chambers throughout the day. Always bring a hand pump along for adjusting air pressure as needed. For example, transporting a fully-inflated boat/raft/kayak/SUP on a hot day or when gaining altitude can lead to over-inflation. On the other hand, cold air and water temperatures will cause a reduction in air pressure. However, as the air temperature outside warms, the pressure inside the inflatable will increase. As this happens, you'll need to release a small amount of air from each chamber. Check the air pressure regularly throughout the day and adjust accordingly. NEVER pull a fully inflated raft up on land for any extended period of time, especially on a warm day, without releasing some air in the chambers to avoid over-inflation damage. Saturn inflatables are built to withstand higher pressures than we recommend. However, over-inflation puts strain on the seams and shortens the life of your inflatable. An over-inflated boat is also in danger of explosive decompression (blowing apart at the seams). The Saturn warranty (see page 7) does not cover damage caused by explosive decompression.

VALVES

Inflation/Deflation Valves:

All current Saturn rafts, catarafts, IKs and SUP boards feature Leafield C7/D7 style inflation/deflation valves (see below).



To open the valve, first remove the valve cap. Then press down on the spring-loaded valve stem and turn it counter-clockwise. The valve stem will now be locked down in the open position, allowing air to move freely in and out through the valve. To close the valve, push down on the valve stem and turn clockwise. The stem will pop back up, sealing the valve shut. In the closed position, you can still pump air into the chamber, but when you remove the pump, the valve will not allow air to escape. When you're done, screw the plastic valve cap back on to keep water and dirt out of the inner valve. Important Tip: When deflating your fully inflated boat that has adjoining chambers separated by internal baffles, do not fully open only one chamber. This puts excessive strain on the internal baffles and can lead to baffle rupture. Either work together with someone to release the pressure in the chambers simultaneously, or release small amounts out of each chamber until high pressure is relieved and individual valves can be fully opened safely.

Cleaning the C7/D7 Valves:

If the inner parts of your inflation / deflation valves become dirty, the seal may not shut completely against the valve body, allowing air to escape. You can clean the inner valve parts to restore the airtight seal. An aluminum Leafield valve wrench (purchased separately) can be used to remove the valve from the raft. Turn clockwise to tighten and counter-clockwise to loosen. The outer half of the valve unscrews from the inner half. It's easier to loosen the outer half when the chamber is inflated. When you remove the outer half of the valve, take care not to lose the inner half inside the chamber. With the outer half in your hand, push down and turn the valve stem counter-clockwise. This lifts the rubber seal off the valve base. Use a cotton swab to remove any dirt and grime that has built up on the rubber seal. Hand tighten the outer half back into the valve base. Note: C7 Valves will have an external washer, D7 Valves will not. Inflate the chamber fully, and then use the valve wrench to completely tighten the valve. Sealing surfaces to be cleaned.

MOUNTING FRAMES

Raft Frames:

Carefully follow the frame assembly instructions. After the frame is assembled, place it on the raft so it rests on the top wear-patch material. When the frame is positioned where you want it (generally in the center, except in the case of stern frames), use NRS Heavy Duty Straps to cinch each corner to a D-ring on the raft. Place straps on each side of the raft at opposite angles to keep the frame straight and centered.

Cataraft Frames:

"Trial and error" is the key to mounting the frame on your cataraft tubes, since correct positioning is largely a matter of personal preference. Generally, for regular use, you want the weight and oarlock pivot located on the center or slightly forward of center. For more extreme boating conditions, some rowers prefer to have the weight farther forward on the tube to avoid having a wave raise the bow so high the boat flips backward. Day trips with an oarsperson and one passenger often call for the rower to be substantially forward of center. Proper weight distribution and rower position will increase performance characteristics and prevent the boat from "nosing in," or riding bow-high. Start by positioning the frame on one tube so the weight is distributed slightly forward. Then, strap the outside D-rings to the side rail, cinching them until they are just tight. Next, strap the inside D-rings to the lower rail. Cinch these down tight. This will pull the tube toward the frame and tighten the outside straps. Align the other tube across from the first and repeat these steps. After you've done it a few times you'll probably devise your own system. It is always recommended to create a series of "triangles" with the frame straps so that there is offsetting tension holding the frame on the boat. This is particularly important to do when attaching cat tubes to their frame, since the frame supplies all the structure and rigidity to the boat.

B.A.T. THWART SYSTEM

The innovative Batten Attachment Thwart (BAT) system allows you to easily install or remove the thwarts in your raft. Simply align the slot on the end of the thwart between the attachment slots on the raft chambers and slide the batten through all three slots, locking the thwart in place. Thwarts will be easier to install and remove when both raft and thwart are deflated.

MAINTENANCE AND CLEANING

Proper care and maintenance will improve your boat's appearance and longevity. Clean and inspect the boat after each use. We recommend coating your boat with Poly Guard or 303 Aerospace Protectant every few months during the season (though 1 application at the beginning of the season is usually sufficient) and before long-term storage to protect against UV damage and degradation. You should take care to keep moisture from getting inside the air chambers. Water can enter the chambers during in-the-field repairs or if the valves are left open during wet weather. If you find that moisture and mildew

have accumulated in your boat's air chambers, the chambers must be aired out. Remove the valve of the affected chamber. Pour out any liquid water, then run the hose of an electric air pump or vacuum exhaust through the valve hole. Allow dry air to circulate into the chamber and out the valve hole until all the moisture is gone.

SATURN MATERIAL REPAIR

Repair adhesives and cleaners are toxic. When repairing your raft, always work in a well-ventilated area and use a good organic fumes respirator if possible. Always use proper chemical protection for your skin and eyes. You will need: PVC patch material, medium-grit wet/dry sand paper, contact adhesive suitable for PVC material (we recommend Clifton Urethane Adhesive, available through Saturn or your local dealer) and solvent cleaner (methyl ethyl ketone, or MEK, available through Saturn or your local dealer). Measure and cut a patch to cover the area that requires repair. The patch should be bigger than the repair area, extending an extra 2" or so past the edge of the tear or abrasion. Round the corners of the patch. Lay the patch over the area to be repaired and trace the outline onto the boat material. Using the sandpaper to buff the area inside the traced outline and the backside of the patch isn't totally necessary but can help remove any contaminants. Only scratch off the shiny finish of the raft material; do not sand down to the point where the internal fabric threads are exposed. Use MEK to clean the surfaces to remove any grease or oils and to prep the surfaces for best glue adhesion. You can use sandpaper and MEK to remove any old glue in the repair area. If possible, do the repair out of direct sunlight and avoid doing repairs when the humidity is over 70%. High humidity can interfere with the glue bond. Apply a thin, even coat of adhesive to both the back of the patch and the repair area on the boat. Wait 3 to 5 minutes, then, using strokes perpendicular to your previous ones, apply a second thin, even coat of adhesive. Wait 3 to 5 five minutes to allow solvent vapors to evaporate, before bonding the patch to the boat. Carefully align the patch and roll it onto the boat. Remember, this is a contact adhesive, so once the two surfaces touch you'll have difficulty realigning the patch. At this point, carefully heating the area with a heat gun or hair dryer can help better activate the glue and improve bonding. Apply pressure to the entire glued surface using a roller. Roll over the patch in multiple directions, working from the inside to the outside of the patch. This step is very important because it forces air bubbles out and helps the two pieces of material bond. Use a lint-free towel and MEK to wipe up excess glue. Allow the repair to cure for as long as possible. In an emergency, you could inflate the boat after only an hour or so, but this will put stress on the patch, possibly requiring the repair to be re-done later. If you must inflate the raft quickly after the repair, try to limit the air pressure in the patched chamber. Ideally, you should allow the glue to cure for 8-12 hours and full cure can take up to 24 hours, depending on conditions. Many difficult repairs are best performed by a professional repair center in your area. For any warranty issues or for more information about repair centers in your area, please call or e-mail Saturn. Our phone number is 800.217.3270 and our email address is info@saturnrafts.com.

TRANSPORT

If you are transporting your boat inflated, remember to slightly deflate the chambers. Temperature and altitude changes affect the air pressure in the boat, especially in direct sunlight. Whether transporting your boat inflated or deflated, make sure to inspect the load for any areas that could rub, abrade or

puncture the boat's fabric. Sand or other debris left in the boat could cause wear on the fabric during transport. Putting your deflated boat in a boat bag for transport will help prevent wear and damage from other gear.

STORAGE

If possible, let your boat dry thoroughly before deflating it. If applicable, remove the drop-stitch floor insert to dry that area. We do NOT recommend using a vacuum or deflator to suck all the air out of the chambers. The ideal storage position is unfolded in a cool, dry location, with a small amount of air left in the chambers. If space is limited, store the raft loosely rolled, with the valves open, in a protective bag or cover. Keep the raft off dirt or concrete floors. Rodents have been known to burrow into stored boats/rafts, so take precautions to prevent this.

CAUTION

Safety Warning

Paddlesports can be dangerous and physically demanding. Participating in paddlesports may cause serious injury or death. Follow these safety standards when using this product. • Get paddlesports instruction and First Aid training. Carry First Aid and rescue equipment. • Always wear a Coast Guard Approved Personal Flotation Device. Dress for cold water and weather as appropriate to guard against hypothermia. • Check your equipment prior to each use for signs of wear or failure. • Never paddle alone. Scout unfamiliar waters. Portage where appropriate. Do not exceed your paddling ability. • Do not paddle in high water or flood conditions. • Read owner's information booklet prior to using this product. The user of this product acknowledges both an understanding and an assumption of the risk involved in paddlesports.

LIMITED WARRANTY

Saturn inflatables are guaranteed to the original owner of the boat/raft to be free from defects in workmanship and materials for three years from the date of purchase under normal recreational use. If, after inspection, we find the boat failed due to a covered defect, it will be repaired or replaced at our option without charge. No product lasts forever and we do not guarantee against wear, tear, improper care, abuse, or neglect. Any structural change automatically voids this limited warranty. Except expressly set forth herein, Saturn disclaims all warranties, express or implied, including but not limited to, the implied warranties of merchantability and fitness for a particular purpose. EXCLUSIONS FROM LIMITED WARRANTY: Deterioration of a boat/raft increases dramatically when water is allowed to stand in the tubes. Since this condition can be remedied only by the owner's care, any problems attributed to water left in the tubes are excluded from this limited warranty. As noted in this manual, explosive decompression tears are also excluded from this limited warranty. Rafts shipped outside the USA may incur additional restrictions. EXCEPT TO THE EXTENT PROHIBITED BY LAW, IN NO EVENT SHALL SATURN OR ITS SUBSIDARIES BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. Additional Warranty Information available at www.saturnrafts.com/warranty-policy.

WARRANTY REGISTRATION

REGISTER YOUR PRODUCT: www.saturnrafts.com/warranty-registration-form