

Whitewater Series Rafts: PolyUrethane Alloy

INCEPT

Owner's Manual

MATERIALS:

INCEPT *Whitewater Expedition* PU Alloy rafts are constructed from heavy duty boat quality materials, reinforced with polyester and nylon base cloths.

CONSTRUCTION

General	Polyurethane Alloy 1050gsm/34oz 1100x2d PE
Under Tube	Polyurethane Alloy 1500gsm/45 oz 1870x2d PE
Floor Base	Polyurethane 1500gsm/45oz 1880d nylon
Floor Cap	Polyurethane 1000gsm/30oz 940d nylon

Poly Urethane (PU)

Polyurethane is unbelievably tough and is the strongest boat material available. It is weldable for construction - which means there is no glue to deteriorate - and yet easily repairable with glue. It has better properties than *any other boat material in all categories* except foldability.

Heavy duty Polyurethane Alloy has been used in the heavy wear areas of the raft sponsons and underside of floor. For abrasion resistance this material well out-performs PVC, Neoprene and Hypalon. It allows flexibility and is slick over rocks with a minimum of drag.

INFLATION

General

The advantage of inflatable rafts on the river is in their ability to flex over rocks.

If the raft is inflated hard this advantage is lessened and fabric wear and the likelihood of puncturing increases.

Because of the fabric construction with its strong Polyester reinforcing weave it is easily possible to inflate this raft harder than many other inflatables on the market.

It is generally true that a harder raft is fast and manoeuvrable, but everybody strikes rocks. If you wish your craft to last longer, we suggest you keep the pressures down. During summer (hotter temperatures) it is advisable to keep pressures lower when not on the water and "top up" just before launching.

Valves

The inflation valves are operated by pressing down the internal stem and twisting a quarter turn. When the stem holds down, the valve is open. Release the stem to inflate. The protective caps prevent the entry of gravel, dirt and water.

Should a valve break or malfunction, it is easily replaced. Spares are obtainable from Incept.



Pressures

It is recommended that the raft be run at or below the following maximum pressures:

Main sponsons	18 kPa / 3 psi	(firm)
Floor	9 kPa / 1.5 psi	(softer)
Thwarts	18 kPa / 3 psi	(firm)

Over-inflation can be easily achieved with polyester reinforcement because of it's lack of stretch under load (absolutely needed for performing inflatables) and some recognition should be made of heat build-up from exposure to the sun. Both feet on a typical bellows foot pump gives a practical limit of approximately 20 kPa / 3.5 psi.

Do not leave the raft inflated hard during periods of non-use to avoid long term change of shape. Although the raft generally can withstand higher pressures, some loss of shape may result from permanent creep of the material reinforcement weave.

Habitual over inflation which results in the permanent increase of tube diameter will invalidate any warranty expressed or implied.

Self-Bailing Floors

Over-inflation of a self-bailing floor can result in damage to the I-beam construction of the internal baffles. For this reason, a pressure relief valve has been fitted in the floor which is set to release air above 13 kPa / 2 psi pressure. If the desired working pressure is at the full relief valve setting, there will be an escape of air when the raft is left in the sun. In this case topping up with the pump will be necessary to regain pressure after the floor has cooled off back in the water.

Frequently clean the pressure relief valve and check that it is working.

Our general guide to floor pressure in low-flow (rocky) conditions is to stand on the tip of one foot in the middle of the raft on level ground so as to just feel the ground.

CLEANING:

Use warm soapy water or light abrasive cleanser such as Jif to remove dirt and stains.

Remove sand which may accumulate under the sand flap (the junction between the floor and the sponsons). This can otherwise have an abrasive effect, cutting into the material.

Wipe the raft with 303 Protectant every 3 months to retain as-new appearance

REPAIRS:

Use Polyurethane boat adhesives. Permanent repairs require addition of hardener/activator. Temporary or on-river repairs do not require activator. Bostik 999, Bostik 777, StaBond UK-148 and Clifton LA-4123 are recommended adhesives.

For permanent repairs, thoroughly wipe the glueing area with an M.E.K. (Methyl Ethyl Ketone) soaked rag. Apply the adhesive. Getting the glue to 'key' into the material is the most



important reason for prepping by solvent wiping.

Do not use toluene (commonly used with Hypalon), as it will permanently prevent the glue's ability to key into polyurethane surfaces.

A basic repair kit of raft material and adhesive is included with the raft. The adhesive requires warm and dry working conditions for good results.

Preparation of a permanent repair:-

1. Cut a patch to fit the repair leaving 25 - 40 mm edge distance to the hole. Round corners for appearance and resistance to lifting.
2. Position the patch and mark the outline on to the raft with a pencil or ball pen.
3. Apply masking tape around the outside of the outline.
4. Thoroughly dry the glueing surfaces. The glueing area needs to be wiped with M.E.K. to open up the surface for the glue.
5. Brush glue on to both surfaces. Do not over-brush as the glue will drag and be lumpy. Allow to dry, say 15 - 20 minutes. Dry time is essential for a strong and permanent bond.
6. Place the patch and heat warm to the touch, using a hair dryer or hot-air gun. Heat activates the glue, providing an instant and permanent bond. Apply pressure to the patch while still warm.

Temporary repairs can be made without heat if the patch is applied before one of the glued surfaces is fully dry, i.e. while still slightly tacky.

Information About Incept

Incept Marine Ltd is a New Zealand based manufacturer and international supplier of world class inflatable marine boats, inflatable rafts, -kayaks and -canoes, inflatable rescue and fishing craft to multiple market sectors.

The factory is a modern purpose-built facility with the latest machinery and with long term skilled staff in Taihape, a central North Island location close to mountains, lakes and rivers.

All inflatable boats made by Incept have 100% heat welded air chambers using variously all three available welding technologies.

FEATURES

PERFORMANCE The brand "INCEPT" assures best performing rafts, period.

MATERIALS Polyurethane and Polyurethane Alloy options

GRABLINE Fitted grab-line properly tied off on all D's

SHIELDED D's S/S shielded D's, unique to Incept, prolong webbing and grab-line life by up to 10 times



THWARTS Fixed or removable, ends shaped to sponson

VALVES Industry-standard HR inflation valves, matching floor relief valve

HANDLES Polyurethane bow and stern carry handles



BAILING Fast self-bailing

COLOURS Available in red or yellow

SAFETY 8 separate air compartments

ACCESSORIES Repair kit included

Focus on Performance

Incept inflatable boats are designed by professional engineers - boating enthusiasts - to achieve optimum waterline shapes and exceptional handling. Not only the sponsons but also the self bailing floors are tapered and rockered - careful consideration is given to every trade-off factor in inflatable boat design.

Whichever Whitewater model size is the appropriate choice for your river, you can expect more control, less flips and wraps, increased handling safety in marginal conditions, and a happier crew.

Incept Inflatable Technology

Design experience, expert craftsmanship & the world's best processes and materials.



The Whitewater series are robust expedition rafts designed for technical rivers.

Used as paddle boats and oar rigs the Whitewater series rafts will deliver predictable and outstanding performance and easy paddling and rowing - they are fast, easy turning, stable in extreme conditions and have good carry-through in holes and stoppers.

One of the great benefits of these easy-running rafts is that the effort required of the crew is greatly reduced. When called on in major rapids the crew is more responsive and comes off river at end of day fresher and happier.

All Incept self-bailers have carefully rockered floors and smooth sandflap attachments to the sponson. The reduction in underwater drag, especially in cross-flows, gives these boats their outstanding stability and their ability to safely take lines in rapids previously not considered wise or even possible.

WARRANTY

This INCEPT raft is guaranteed for a period of two years for commercial use and five years for private use. Any manufacturing defects in materials or workmanship found during that period will be made good by Incept Marine Ltd at no cost, providing only that the raft is returned to the Taihape NZ factory or to an authorised repairer, freight paid one way.

On self-bailing models, damage to internal floor baffles caused by over-inflation as a result of the removal, adjustment or disabling of the pressure relief valve is not covered by warranty. Over inflation which results in the permanent increase of tube diameter will invalidate any warranty expressed or implied.

Should you wish to place a claim under this warranty, please contact the Agent/Person who sold you this product.

RAFT SERIAL No.: INC

PURCHASE DATE: / /

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