



Owner's Manual

450SR / 520SR / 575SR / 650SR / 700RSR / 760CR

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Introduction

Congratulations with the purchase of your new Falcon Rigid Inflatable Boat (RIB).

The Falcon range has been developed and tested over many years, often in the most severe and unimaginable conditions, to ensure that you will enjoy years of safe and trouble-free operation. No expense has been spared to research, develop and continuously evolve the Falcon range – which is why you can now be proud of owning one of the best rigid inflatable boats available.

Falcon RIBS are manufactured according to strict International Quality and Safety Standards, using only the highest quality materials and latest manufacturing processes available in the world.

To ensure good performance & longevity we strongly recommend that the maintenance recommendations and operating instructions outlined in this manual are adhered to at all times.

Please read this manual carefully, and familiarise yourself with the craft before using it. If this is your first craft, or you are changing to a type of craft you are not familiar with, for your own comfort and safety, please ensure that you obtain handling and operating experience before assuming command of the craft.

Prologue

Falcon Inflatables have been manufacturing inflatable boats since 1985. Over the course of 25 years they have continuously evolved as a result of valuable experience and customer feedback gained through extensive racing, recreational, government and commercial use. We listen to our customers, and valuable feedback is constantly engineered back into the product range – this is why a Falcon will always contain the latest practical design features, the most efficient hull designs, modern and highly durable construction, and true all rounder capabilities.

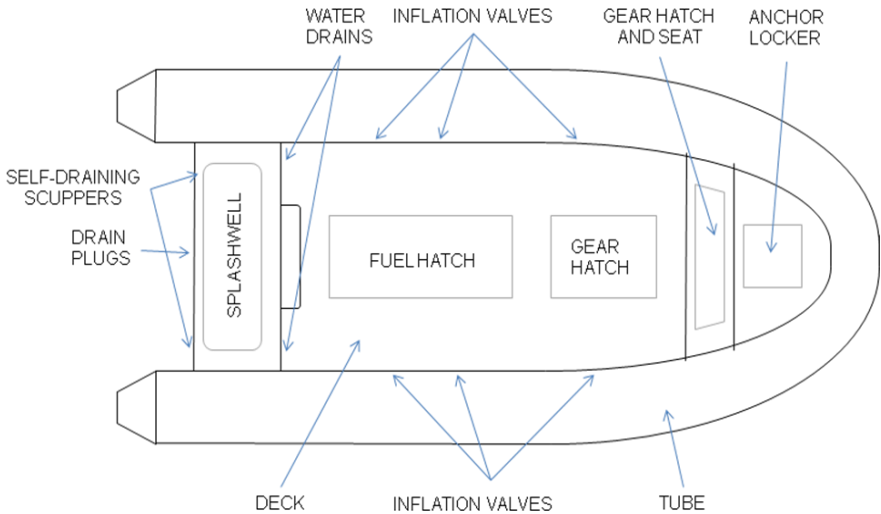
Every Falcon craft undergoes strict quality control checks throughout the manufacturing process, to ensure unsurpassable quality and durability. Whether your needs are commercial, personal use or pure pleasure, you can rest assured that a Falcon inflatable boat is virtually indestructible and will give you years of trouble-free operation.

Packing list

The following items have been included with your new boat:

- 1 x Inflation pump with bayonet-type valve connector
- 1 x Repair kit (glue, fabric & instructions)
- 2 x Hull drain plugs (to fit into receptacles at lowermost part of transom at the rear of the boat)
- 2 x Hatch drain plugs (to fit inside anchor locker at bow and inside rear floor hatch, model 520 and upward only)

Description of components



*Image depicts model 520 – actual deck configuration may differ.
Please contact Falcon Inflatables for more information.*

Inflating the tube

The tube of your Falcon Inflatable boat is divided into either 4 (450SR) or 6 (520SR, 575SR, 650SR, 700RSR, 760CR) individual air chambers by means of conically shaped baffles. The baffles can change shape to allow adjacent chamber pressure to be reduced when a rupture occurs – it is therefore quite normal for adjacent chambers to appear slightly deflated if a chamber is punctured / deflated.

The pump supplied includes a bayonet-type fitting, which fits into the inflation valves located along the inside of the tube, above the deck.

The correct inflating procedure is as follows:

- 1) Do not inflate chambers to operating pressure. First, inflate each chamber, in a zig-zag pattern starting with the front right chamber, only to the point where each chamber forms a normal inflated shape, but is still soft.
- 2) Repeat the procedure, starting from the front right chamber, only this time inflating each chamber to 0.25bar (normal operating pressure).
- 3) The internal tube chamber dividers (also referred to as baffles) will indicate a pressure difference between adjacent chambers by creating a vertical indent on the outer tube surface – equalize the pressure to rectify.

➔ Recommended operating pressure: 0.25bar

To better understand the variation of pressure relative to a rise or drop in ambient temperature, please study the table below:

DEGREES CENTIGRADE	BAR PRESSURE			
5	0.21	0.13	0.05	0
10	<u>0.25</u>	0.17	0.09	0.01
15	0.29	0.21	0.13	0.05
20	0.33	<u>0.25</u>	0.17	0.09
25	0.37	0.29	0.21	0.13
30	0.41	0.33	<u>0.25</u>	0.17
35	0.45	0.37	0.29	0.21
40	0.49	0.41	0.33	<u>0.25</u>
45	0.53	0.45	0.37	0.29

Thermo-bonded welded seam construction and proven modern fabrics allows the tubes of your Falcon Inflatable to have a longer useable life than traditional glued neoprene rubber fabric; In addition your tubes are also far more tolerant to temperature and altitude related pressure increases. With a much increased seam strength, the need to adjust the pressure during normal (20 degrees centigrade or less) rises in temperature is eliminated.

➔ Do however take care not to operate the tubes in an under-inflated state (less than 0.25bar) in the event of a large drop in ambient temperature.

➔ The same applies to a rise or drop in altitude; moving from a high to a low altitude will allow pressure to drop, and vice versa.

Falcon does not make use of automatic pressure release valves, as they reduce reliability of the tubes – thermo-bonded construction allows a tolerance level far exceeding normal operational conditions, thus it is not required to constantly adjust tubes to compensate for temperature variation.

Before use

- 1) Check, adjust and equalize pressure in the tube to 0.25 bar. Refer to chapter “Inflating the tube” infra.
- 2) Ensure that all hull drain plugs are secured in position.
- 3) Ensure that all deck hatch drain plugs are secured in position.
- 4) Check that all loose equipment aboard stowed or secured.
- 5) Be sure you have enough fuel for your boating trip.
- 6) Ensure that your boat complies with local safety regulations, and that required documentation and safety gear is on board and serviceable.
- 7) Ensure that your inflation pump and repair kit is on board.
- 8) For outboard motor operation, please refer to the manual supplied with the motor.

Deck water-drainage

Water landing on deck will drain out of the self-draining scuppers on the transom when the boat is in motion. Debris washed off the deck could become lodged within the scuppers, in which case they may allow a small amount of water onto the deck when the boat is at rest. To rectify, clean the scuppers (located on the outside of the transom) via the opening on the underside.

Mooring

When placed on a mooring for a prolonged period of time, a boat cover is recommended, and all hatch drain plugs should be installed to avoid rainwater draining into the hull via unsealed hatches.

After use

Salt residue is any boat's worst enemy. Where possible, it is highly recommended to rinse the hull and deck, tubes, outboard motor and all exposed metal parts with fresh water to remove the salt – following this procedure will drastically reduce the ability of metal surfaces to corrode. The motor will also require flushing, please refer to the outboard motor manual.

Cleaning & maintenance

Position the boat in a nose-high attitude, to allow wash water to drain from the hull and deck. Remove all drain plugs, and wash with a mild soap and water solution (for example dishwashing liquid or car shampoo). Do not use ammonia-based products, engine degreasers or harsh chemicals, as this can damage the hull and tubes.

To remove stubborn marks and stains, special chemical solutions are available, but should be used with care. Please refer to your dealer, a boat shop, or contact Falcon Inflatables for more information.

The fabric does not require to be polished – repeated use of silicone or wax based products can result in a build-up which bonds to the fabric, making it near impossible to effect successful repairs.

A periodical inspection of the hull and deck surface, as well as the tube for damage, is recommended.

Preparing for storage

- 1) Clean the boat and motor, and let dry before moving into storage.
- 2) Remove all drain plugs.
- 3) Open all access hatches to allow water vapours to evaporate.
- 4) Ensure that no wet gear is left in the boat, for example life jackets.
- 5) Disconnect the battery.
- 6) Trim the outboard motor down to allow water to drain from its exhaust.

Warranty

Falcon Inflatables uses only the highest quality materials, and latest technologies to fabricate a world-class range of rigid hull inflatable boats. Strict quality control measures ensure that every Falcon is produced to the exact design specifications. A limited warranty is provided for products manufactured by Falcon Inflatables (Pty) Ltd. This warranty covers defective materials and workmanship, from the date of sale to the original owner, for the following periods:

Private use: 5-year collar / 5-year hull warranty

Commercial use: 5-year collar / 5-year hull warranty

Limitations of warranty

This warranty is limited to the free ex works replacement of parts or components, which in the opinion of Falcon Inflatables prove defective in material or workmanship, provided that the integrity of such part or component has not been compromised by improper rigging & installation, user damage, non intended use or neglect. All other forms of compensation,

including consequential damages, are excluded. This warranty does not constitute full replacement.

Transportation costs to and from Falcon Inflatables are not covered. Costs for the installation of replacement parts by any other party than the Manufacturer are not covered.

Transferability

This warranty is transferrable for recreational use. In the case of commercial operation the warranty is not transferrable.

Items not covered

Accessories not manufactured by Falcon Inflatables (Pty) Ltd such as steering systems, boat covers, canopies, stainless steel equipment, trailers or any after-market products are excluded from this warranty. The suppliers of these components have individual warranties in place; please contact your dealer if you require more information.

Conditions excluded: General

- Normal wear and tear.
- Problems and defects caused by the user's misuse, negligence, abuse or use in any way deviating from the use for which the boat and equipment was designed, including accidents, overloading, overpowering, racing or speed contests, the incorporation of, or use of, unsuitable attachments, parts and equipment.
- Exceeding manufacturer's maximum power rating.
- Any complaints not based on defects in quality or workmanship such as instability, transit damage, storage damage, corrosion.

- Defects attributable to repairs not performed by Falcon Inflatables, work or modifications of any nature.
- Defects due to incorrect modification or installation of equipment & machinery by a dealer, agent, marine workshop, private person, or any other entity than Falcon Inflatables.
- Acts of nature (ie storms, flooding, earthquake, acid rain)
- Defects and damage caused by impact, collision or accident.
- Premature deterioration arising from permanent outdoor & uncovered storage in direct sunlight.

Conditions excluded: Tube specific

- Discoloration, puncture, fading, tearing, ripping, cracking, abrasion, negligence or unauthorized modifications. The warranty applies to the structural integrity of the outer fabric, seams and valves' ability to retain air to within ISO6185-3 specification.
- Damage caused by under-inflated operation or towing.
- Damage caused by over-inflating or exposure to temperature rise of more than 20 degrees centigrade without re-adjusting.
- Damage caused by improper methods of inflating, such as the use of an air compressor or damage to tube baffles as a result of not following proper inflation procedures.
- Defects arising from exposure to unsuitable chemicals or cleaning materials (eg Petrol, MEK, Acetone, products containing ammonia, acids or solvents).

Conditions excluded: Hull specific

- Defects and damage caused by incorrect trailoring, trailer design or setup.
- Surface finish, including gelcoat stress cracks (also known as hairline cracks).
- Collision or contact with foreign objects in the water.
- Defects and damage arising from beaching or retrieval.
- Defects or damage caused by structural modifications.

Customer's responsibilities

- To operate and maintain the Boat and equipment as specified in this manual.
- To give notice to an authorized Falcon dealer of any and all apparent defects within 10 (ten) days after discovery and make the Boat and / or equipment available at that time for inspection and repairs at such dealer's place of business.
- Provide relevant information to the failure as may be requested.
- Refrain from using the boat until the matter has been resolved, unless approval for use has been given by Falcon Inflatables, an agent or authorized representative. Continued use could cause additional damage, which could void this warranty.
- Provide transport to and from the dealer to affect such warranty repairs / replacements.

FALCON INFLATABLES reserves the right to:

- Make design changes and modifications on Boats and Accessories at any time without incurring any obligation to

modify or update Boats or equipment previously manufactured or sold.

- Replace complete assemblies and /or units only if damage is so extensive that it would be less expensive to replace the complete unit than to repair it.

This warranty shall not be valid for products not distributed and sold by Falcon Inflatables or its authorized dealers or agents.

Fibreglass hull repairs

Periodically inspect the surface of the rigid hull of your inflatable boat. The best way to do it is by rubbing your hand over the surface. Generally, you will feel the scratches and chips before seeing them, more so when they do not extend right through the gelcoat to the laminate. Minor chips and scratches of this type can be left in most cases without fear of the damage worsening. Some marks are easy to repair, while others require a specialist. If you would like to effect repairs to the fibreglass, please contact the Manufacturer or an authorized dealer for instructions appropriate to the repair required. For major fibreglass damages, repairs are to be effected only by a person authorized by the Manufacturer – repairs without prior approval may void your warranty.

Tube repairs

Your Falcon Inflatable boat is supplied with a tube repair kit, which consists of several patches and glue to effect minor repairs. If your boat has suffered a tear or a cut longer than 1cm it is recommended that repairs be conducted by the Manufacturer or an authorized representative.

Determining the leak

You must first determine whether there is a leak. A tube could appear deflated if a significant drop in altitude (moving from high to low altitude) or

temperature (more than 10 degrees centigrade) has occurred since it was last checked. If you are uncertain, re-inflate and check again after at least 24 hours have passed. If the tube again appears deflated, please following these instructions to determine the source of the leak:

1. Check that there is no sand or debris within the air valve.
2. Inflate the buoyancy chamber.
3. Close the cap on all the valves.

4. Rinse the boat with soapy water, including perimeter of the inflation valves.
5. Wherever bubbles appear, that is the location of the leak to be repaired.
7. Mark the area with a PENCIL, not a pen or a marker, as they will stain the fabric.

Re-tightening the valve

If the origin of the leak is around the perimeter of the valve, it could be that the valve requires being re-tightened. The visible part of the valve is threaded at the back, like a bolt, whilst a plastic nut is attached to the inside of the tube. Carefully tighten the valve clockwise, using a pair of plumber's pliers, but take care not to exert too much force, which could damage the valve.

Repairing a valve leak

If the origin of the leak is through the valve, it could be as a result of sand or debris stuck inside it. Deflate the chamber, unscrew the valve (anti-clockwise) using a pair of plumber's pliers. Clean the rubber base with soap and water, and re-install. If it still leaks, you will need to replace the valve, obtainable from the Manufacturer or an authorized representative.

Repairing a puncture or cut in the fabric

Small holes, such as those from hooks or small sharp objects can be repaired without applying a patch. Deflate the air chamber, clean the surrounding area and apply a small drop of quick-dry superglue to re-seal the skin. Once the glue has dried, re-inflate. In the case of a minor cut or tear in the fabric, please refer to the instructions enclosed with your repair kit.

Falcon Inflatables contact details

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