

RS600

OWNER'S MANUAL

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INTRODUCTION

Congratulations on the purchase of your new RS600 and thank you for choosing an RS. We are confident that you will have many hours of great sailing and racing in this truly excellent design.

Important Note

The RS600 is an exciting boat to sail and offers fantastic performance. It is a light weight racing dinghy and should be treated with care. **In order to get the most enjoyment from your boat and maintain it in top condition, please read this manual carefully.**

Whilst your RS boat has been carefully prepared, it is important that new owners should check that shackles, knots etc. are tight. This is especially important when the boat is new, as travelling can loosen seemingly tight fittings and knots. It is also important to regularly check such items prior to sailing. Make sure that you have a basic tool kit with you the first time you rig the boat in case there are tuning / settings changes that you wish to make.

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RIGGING INSTRUCTIONS

When you collect your RS600 it will already have been assembled ready to rig. Prior to stepping the mast the diamond wires should be adjusted to suit your individual weight. Broadly speaking the lighter you are, the lower the tension, however there should always be enough tension to keep the wires located on the end of the spreader. The wires should then be taped or whipped to the end of the spreader and the bottle screw taped to prevent loss of tension.

It is worth attaching a metre or so of line to the trolley handle to help secure the boat when rigging and launching on a breezy day, especially when the rudder is mounted on the transom making the RS600 even lighter in the bow.

Stepping the mast

1). Lay the mast on the ground next to the boat, luff track up and hounds approximately level with the mast step. Separate the rigging and attach the forestay and shroud on the far side, ensuring that the trapeze wire whilst draped across the boat will not catch the gunwale as you raise the mast. The middle of the chainplates will give a good average mast rake setting.

2). Check that the forestay purchase has a stopper knot in the end and is fully eased, and that the mast cup is secured in the base of the mast with tape.

3). Grip the near-side shroud and trapeze wire to the mast, lean the mast forward and away from you slightly and lift it on to the mast step.

Now attach the near-side shroud and apply some rig tension on the forestay (firm two handed effort on the 2:1 purchase is all that is required giving approximately 250lb on the shrouds). Ensure that you secure the tail of the forestay tensioning rope with two half hitches so that it cannot accidentally release.

4). Attach the trapeze rings to the shock cord and check the adjusting ropes have knots in the end. An additional stopper knot 100mm from the end is helpful, leaving something to get hold of when lowered right down.

Rigging the boom

5). The boom should now be attached to the mast with the gooseneck bolt. Take care not to cross the threads. Hand tighten the bolt from both sides.

6). The mainsheet blocks should be hung from the eyes on top of the boom with the strops fastened with stopper knots either side of the eyes.

The kicking strap can be attached to either eye, but it is more efficient on the rear one and should not be fastened until the sail is hoisted, so as to achieve

maximum travel. The kicker strop should ideally be readjusted when reefed as the boom is higher in this mode.

Rigging the mainsail

7). Shackle the clew of the sail to the block on the bar on the after end of the boom. Thread the outhaul through the clew cringle and hook it into the notch on the end of the boom.

8). Check the battens are tensioned and tied in. Most people tension the battens enough to remove wrinkles and never readjust them again, however less tension in light winds will make it easier to "pop" them through a tack or gybe.

9). Tie the main halyard to the top of the sail. Insert the first few inches of the bolt rope into the luff track on the mast and hoist the sail.

All modern fully battened sails can be tricky to hoist, especially alone, so these hints may help:

- Keep the boat absolutely head wind.
- Ease the rig tension as the associated compression tends to exaggerate the slight reverse bend imposed by the diamond wires.
- Spray the bolt rope with a teflon lubricant regularly.
- Ensure the gap between the sail feeder and the mast is minimal – it must very cleanly feed the bolt rope into the track. It may distort with use and can be narrowed with a hammer applied gently to either side – or widened by levering apart with a screwdriver.
- Maintain the top and bottom of the bolt rope regularly. Keep the edges hot knifed or burnt to ensure easy entry and exit through the sail feeder.
- If at any time the sail becomes really difficult to hoist, one can work the sail up about 200mm at a time, pushing it up with a hand either side of the sail luff, then taking up the slack with the halyard.

10). Once the sail is up and cleated, coil up the halyard and tuck it under a loop of elastic tied around the wing bar.

11). Insert the tack slider into the lower luff track and pull it down.

12). Ease the cunningham line right out (and kicker if already attached) and tie a slip knot inboard of the cleat to stop the control line elastic pulling back the slack. Pass the cunningham line through the tack cringle and pull down very hard before making fast with a knot in the cut-out in the boom jaw. Tension substantially to induce pre bend, and create a smooth sail entry.

13). The forward end of the outhaul line emerges from the underside of the boom. Tie it to the block on the outhaul control line in the boat.

Final preparation and launch

14). Tie a knot in the mainsheet which restrains the boom just as it touches the shroud(or before if it is windy). Tie the tail of the mainsheet to the elastic which is tied to one of the mainsheet strop fixing eyes.

15). Locate the rudder in the transom gudgeon and pintle and make sure the retaining clip holds it in place.

16). Attach the daggerboard elastic to the rope handle. This should be tight enough to act as a friction device, but allow just enough slack to get the board in and out of the box.

When it is extremely windy, it helps to fully tension the cunningham and kicker to completely flatten the sail prior to launching as a full sail, flogging from side to side, can cause the RS600 to rock alarmingly on its trolley. Ease the kicker after launching to provide a more forgiving start to your sail.

17). Launch the boat and hold it firmly by the front of the wing, wedging the shroud against your shoulder and out the daggerboard in the case. The lightweights have an advantage here as they can stand inside the wide wings.

18). Jump in and get the rudder down as soon as possible by easing the wing nut on the stock and pulling on the downhaul below the tiller. When the rudder is fully down, cleat the rope and tighten the wing nut for a firm fit between the blade and stock.

19). Push the daggerboard fully down and away you go!

Reefing

Making the right decision about whether to reef or not can really help to maximise the day's sail and be the difference between winning and losing the race. The top sailors in the class expect to reef 15-20 knots and upwards, but some light sailors will be faster and safer reefed above 12 knots of wind. There is a rule – find your own limits(which will increase with experience) and remember the macho guy who opts for the full rig may be slower over the water, not just more prone to capsizing.

1). With the mast down, remove the mast extension and replace the heel plug back in the mast. Attach the upper shroud eyes to the chainplates such that the lower portion of the shroud is inboard and can stow down between the wing bar and bulkhead.

2). Attach the trapeze handles to the upper trapeze wire eyes and fold the extension pieces upwards and tape them out the way. Tension the forestay purchase right down and secure the tail up the forestay with a clove hitch.

3). The boom can now be attached to the new gooseneck hole.

4). The sail should be lying with the upper zip portion showing so that as the sail is rolled the lower zip comes round to meet it. Roll the sail as tightly as is practical and zip up the sail from the leech to luff.

5). Attach the new clew ring to the boom and thread the outhaul.

You will be amazed at how manageable the RS600 becomes when reefed. Tacking gybing and righting from a capsize become very easy as you push yourself and the boats to new limits in the strongest of winds.

TUNING AND SAILING TIPS

Batten tension

Broadly speaking, the windier it is the tighter the battens should be. Unless you race very keenly, enough tension to remove wrinkles will suffice for most conditions.

Cunningham

Increasing the cunningham tension progressively bends the mast, flattens the sail and opens the leech. In lighter airs pull it on hard, ease it slightly to power up in marginal trapezeing to full power conditions and then pull harder again as you become overpowered. Extreme tension should blade the upper leech out flat when really struggling.

Kicker

The more wind there is, the more kicker you need. It powers up the leech helping pointing upwind and maintaining power on the reaches. In very gusty conditions easing it will make the rig more forgiving. Ease it substantially when running down wind.

Diamonds

The diamond wires largely stiffen the mast sideways, but do also add some fore and aft support. Tighter the diamonds, the more powerful the rig. They will stretch, so check them from time to time.

Daggerboard

The RS600 daggerboard is small enough to leave fully down most of the time. When it is really windy raise the board approximately 200mm and leave it. The experts may raise it a little more on the board reaches and runs.

Mainsheet

The 4:1 mainsheet is essential upwind when really pulling on the tension to produce very effective pointing. Playing the sheet in the gusts provides very fast response from the light hull and is the key to getting the most from the boat. The jammer is deliberately set low to enable easy sheet adjustment

upwind, whereas the ratchet should help you keep the mainsheet uncleated on the reaches.

Trapezing

A good general height for the trapeze ring allows it to slip easily on your harness hook when sitting on the middle of the wing. It can be useful to mark the adjusting rope at this point. The lowerset setting should just allow you to sit on the aft sidedeck when hooked on (for those wild broad reaches and runs).

The simplest way to master the RS600 is to forget the trapeze until sitting on the wing and in control. Practice holding the mainsheet in your tiller hand so that your forward hand is free to hook on to the trapeze or adjust the controls. Most people find it easiest to hold the extension across the body to facilitate this. The kick block helps you to move your feet out on the gunwhale, which can be a very useful halfway point for offwind or marginal trapezing. From there it is a comfortable step out to the wing.

Tacking

The RS600 is one of the most demanding boats to tack quickly and well. Adhere to these golden rules:

- 1). Whatever the wind strength ensure the boat is upright as you start the tack. On breezy days leeward heel will kill your speed immediately and either the bow will be blown back onto the original tack or the boat will stop in "irons".
- 2). Ease at least 200mm of mainsheet before attempting to tack. When it is very windy it helps to ease 500mm or more of sheet.
- 3). As you cross the boat, uncleat the sheet, pivot the jammer to the new windward side, ease more sheet to allow you time to hook on to the trapeze and get settled before sheeting in again.

Generally you should aim to tack "from wing to wing", using the associated leverage to help maintain speed before the tack and accelerate away afterwards.

In "Irons"

This is when the boat gets stuck head to wind during a tack and stops. It is a common singlehanded dinghy problem. Under steering through a tack in any conditions can leave the boat in irons. The lighter the hull and bigger the sail, the greater the problem can be because the boat has less momentum and the windage of the rig stops it more quickly. If you follow these guidelines, the RS600 will be less difficult than many boats to get sailing again:

- 1). The wind flow over the fully battened sail will dictate which way the boat will go. Steering in reverse will not always work. Once the bow swings, commit yourself to that tack, even if it is not your preferred direction.
- 2). Let the mainsheet out to the knot, sit back and out, allowing the bow to raise and continue blowing away from head to wind. Induce windward

heel. The boat will now pivot around the submerged transom and rudder as opposed to the daggerboard.

3). Maintain or increase windward heel, even dip the wing in the water if it is very windy, sheet in and lean out more to accelerate and regain steerage. Ok, you lose 20-30 seconds, but so long as you are patient and positive you will get going again at the first attempt.

Gybing

The RS600 is quick enough downwind to mean gybing is relatively easy, so long as you remember to steer back into the gybe as the boom comes across. If you round onto a board reach, when the boom comes across it will usually result in a swim. But, if you find an RS600 tricky, try gybing an Enterprise in a breeze!

Righting the boat after capsize

Most RS600 sailors become very accomplished at this! Remember to ease the kicker and mainsheet. Gripping the gunwhale rather than the wings for leverage. Righting lines fastened to the control line take-away eyes on the inside of the wing bar, and joined together with shock cord similarly to the control lines, are very useful and can really minimise your time loss during a race.

The wider wings allow light sailors to climb back into the boat between the wing and the gunwhale.

CARE AND MAINTENANCE

Hull

The hull laminate is foam sandwich, which is stiff and very light. Foam sandwich is, however, liable to dent if subjected to point loading. Store the boat on an approved RS600 trolley when ashore and take particular care not to drag your trapeze hook over the hull when recovering from a capsize.

Keep your dinghy drained and well ventilated

The RS600 is made using epoxy resin, so is less prone to water absorption than a polyester hull. Nevertheless, it is advisable to take care because the gel coat is polyester and water absorption could cause blistering and a raised fibre pattern. Obviously in dealing with a marine environment equipment gets wet which in itself is not a problem. The problem starts when moisture is trapped for any length of time. The key, therefore, is to store the boat properly ashore.

- a). Ensure the boat is kept at an angle to allow water to drain away.
- b). Use a breathable polycotton, acrylic or cotton duck cover.
- c). If leaving an under cover on the boat, ensure that the transom is open for drainage and that there is a hole below the daggerboard slot to allow water to drain.

Wash with fresh water

Fresh water evaporates far more quickly than salt water, so if your dinghy has been sailed in salt water wash it off thoroughly. The fittings will also work better if regularly washed.

Damage

Hull damage falls into three categories:

- a). **SERIOUS** e.g. large hole, split crack or worse. Don't be too distressed! Get the remnants back to your RS dealer – most problems can be repaired by an RS expert.
- b). **MEDIUM** e.g. small hole or split, gel crazing. If this occurs during an event sailing can often be continued as long as leaking can be prevented by drying the area and applying a strong adhesive tape. **CAUTION** – if the damage is close to a heavily loaded point then a close examination should be made to ensure joints and the laminate are fit for the prevailing conditions. Get the damage properly repaired as soon as possible.
- c). **SMALL** e.g. chips, scratching. This type of damage is obviously not life threatening but needs to be attended to, firstly to keep the boat looking good and secondly to prevent water ingress into the laminate. This type of damage can be repaired by the owner, using the correct RS gel coat.

Tying down

Tying down your RS600 to its trailer is important because too much or too little tension could result in damage. Only use an RS approved trolley. The boat is

well located on its trolley, so you only need apply sufficient tension to hold the boat in contact with the supports.

Tie the boat down at the bow and across the middle of the boat in the region of the trailer wheels. Pad the deck where the straps touch.

Foils

The foils are GRP with a foam core. Look after them as you do the hull. Wash with fresh water regularly. Repair any chips as soon as possible. If you intend to travel a lot with the boat, then RS padded foils bags will be a worthwhile investment.

Spars

The mast is a carbon composite structure and is in two parts which sleeve together. Separate the two parts regularly and wash with fresh water. Apply a thin layer of vaseline to the sleeve. Check the sheave at the mast head for wear.

The mast is finished with a coat of two pack polyurethane varnish. This protects the laminate against UV degradation in sunlight. It is advisable to apply a new coat of varnish once a year. Lightly sand the mast to help the new varnish bond to the old.

The boom is aluminium alloy. Wash regularly and check the fastenings of all fittings are secure. Remove the boom from the mast when leaving the boat in a dinghy park, to prevent electrolytic action between the carbon of the mast and the boom jaws. Leave the gooseneck bolt in the boom, not the mast.

Sail

The sail should be rolled and stored dry, out of direct sunlight.

When using a new sail for the first time, try to avoid extreme conditions because high loads on new sailcloth can diminish the racing life of the sail.

If your sail is stained in any way, try to remove it using normal detergent and warm water. Do not attempt to launder the sail yourself.

Repairs should be temporarily made using sticky number cloth or sail repair tape and then returned to the sailmaker for a professional repair. Watch out for wear and tear especially around batten pockets and bolt rope.

RS CLASS ASSOCIATION

www.rs-association.com

The RS Class Association is highly active and you really should join.

The **RS Racing Circuits** are the envy of the dinghy world, with great competition and a fantastic and friendly social life. The RS Association also organises **Training Events** throughout the year. **Social** highlights such as the RS Ball are not to be missed!

The Class Association produces regular, informative Newsletters, and a Yearbook. There is also an extremely comprehensive RS Association web site, part of which is only accessible to RS members.

In addition, the Association maintains the Class Rules, which are the "fabric" of any one design class. Without these the Class would disintegrate and values would tumble.

The Association relies on the support of the owners of the boats to financially survive. Membership costs only £33.00 per year (£15 for Youth membership) and without it, you won't even know what you are missing!

You should have received a membership application form with your new boat, but if not, please contact the RS Class Membership Secretary Jill Line on 01275 872466, jill@the-j-team.fsnet.co.uk, or see under 'Documents' on the website.

Members receive a voucher towards the cost of boat insurance with Noble Marine Insurance.

Any other queries about the Association should be directed to the RS Association Administrator, Heather Chipperfield, on 01590 610273, heatherc@rs-association.com.

INSURANCE

The Class Association has organised an insurance scheme with M A Noble Insurance Brokers. They are highly efficient to deal with and always fair when it comes to making a claim.

Contact Noble Insurance on:

Tel. 01636 707606

Fax. 01636 707632