OWNER'S MANUAL

CONTENTS

All terms highlighted in blue throughout the Manual can be found in the Glossary of Terms.

Warnings, Top Tips, and Important Information are displayed in a yellow box.

1. INTRODUCTION

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

The RS Tera is an exciting boat to sail and offers fantastic performance. This manual has been compiled to help you to gain the maximum enjoyment from your RS Tera, in a safe manner. It contains details of the craft, the equipment supplied or fitted, its systems, and information on its safe operation and maintenance. Please read this manual carefully and be sure that you understand its contents before using your RS Tera.

This manual will not instruct you in boating safety or seamanship. If this is your first boat, or if you are changing to a type of craft that you are not familiar with, for your own safety and comfort, please ensure that you have adequate experience before assuming command of the craft. If you are unsure, RS, your RS dealer, or your national sailing federation – for example, the Royal Yachting Association – will be able to advise you of a local sailing school, or a competent instructor.

Please keep this manual in a secure place and hand it over to the new owner if you sell the boat.

For further information, spares, and accessories, please contact:
LDC Racing Sailboats
Trafalgar Close
Chandlers Ford
Eastleigh
Hants SO53 4BW
Tel.: 023 8027 4500
Fax: 023 8027 4800
E-mail: www.info@rssailing.com
For details on your local RS dealer, please visit www.rssailing.com

2. EC CONFORMITY AND IDENTIFICATION

The RS Tera complies with the EU Directive for Recreational Craft (RCD) which sets safety requirements for recreational boats sold in Europe. Each RS Tera carries the CE mark to indicate this compliance. The CE Mark is on the Builder's Plate in the cockpit. The Builder's Plate also includes important safety information which is described in detail elsewhere in this manual.

Compliance with the EU Directive for Recreational Craft (RCD) is also demonstrated by the EC Declaration of Conformity in this manual (see page 6).

A RS Tera dinghy can be identified by the Craft Identification Number, which is a unique serial number on the starboard side of the transom, and is shown on the EC Declaration of Conformity in this manual.

Each RS Tera is also assigned a unique sail number, which is marked on the bottom of the CE Declaration form, or can be obtained from RS Racing or your RS dealer. Normally, it is a requirement that your sail numbers are displayed at sailing regattas. Sail numbers can be purchased from RS, your RS dealer, or from a sailmaker.

EC DECLARATION OF CONFORMITY TO DIRECTIVE 94/25/CE

I declare that the craft described as:

RS TERA sailing/rowing dinghy

Bearing the Hull Identification Number:

G	**B**	**L**	**D**	**C**	**T**								

Conforms to EU Recreational Craft Directive 94/25/EC as amended by Directive 2003/44/EC

EU Notified Body: No. 1681 - Royal Yachting Association, RYA House, Ensign Way, Hamble, Southampton, SO31 4YA England

EC Type-Examination Certificate Number: **Module**: B+C

ISO Standards	BS EN ISO 10087, 14945, 8666, 10240
Trade Mark	LDC Racing Sailboats
Type	RS Tera
Design Category	C
Maximum Crew	2
Maximum Load	80 kg
Overall Length	2.87 m
Builders Name	LDC Racing Sailboats, Trafalgar Close, Chandlers Ford, Eastleigh SO53 4BW, England

Signed Name: __Alex Newton-Southon__

Signature: _____

SAIL NUMBER_____

Date / /

RS TERA TECHNICAL DATA

Length Overall (LOA)	2..87 m
Beam	1.23 m
Hull Weight	36 kg
Complete Sailing Weight	42kg
RS Tera Sport Mainsail	3.7 m²
RS Tera Pro Mainsail	4.8 m²
RS Tera Mini Sail	2.7 m²
Draught	0.75m
Max Weight of Sailor	100kg
Designer	Paul Handley

3. SAFETY INFORMATION

- Before attempting to operate the boat, ensure that you have the appropriate experience to handle the boat safely in the anticipated sea and wind conditions.

- Ensure that all the crew have sufficient boating experience and are familiar with emergency procedures, capsize recovery, and towing.

- Always check the weather forecast before leaving shore, and ensure that the predicted weather and sea conditions are suitable for the boat (see 3.1).

- Clothing should be suitable for the anticipated weather conditions and footwear appropriate for boating.

- Before going afloat, all persons should be wearing a suitable buoyancy aid (e.g. a life jacket or a personal floatation device), which should be worn at all time when on the water. Note that in some countries it is a legal requirement to wear a buoyancy aid that complies with their national regulations at all times.

- It is recommended that you carry a whistle or a horn to attract attention in case further assistance is required.

- The owner/helmsman is responsible for the safe operation of the boat.

- The owner/helmsman's responsibilities include the proper preparation and maintenance of the boat and safety equipment, knowledge of the boat operation, safety training of the crew, following the navigation rules (including knowledge of the Collision Regulations and local navigation rules), care of the environment, insurance and, where necessary, registration.

3.1 Design Category

The RS Tera is a Design Category C boat. A Design Category C boats may be sailed in:

- Design Category: C – ‘inshore’.
- Description of Use: Designed for voyages in coastal waters, large bays, estuaries, lakes, and rivers.
- Wind Force: Up to, and including Beaufort Force 6.
- Significant Wave Height: up to, and including 2 metres.

The RS Tera complies with this design category, subject to:

- The crew having suitable skill and experience.
- Satisfactory maintenance of the boat and its equipment.

Users of this boat are advised that:

- All crew should receive suitable training.
- The boat should not carry more than the maximum load of 80kg.
- The amount of water within the hull (i.e. inside the buoyancy compartment) should be kept to a minimum.
- Any weight added to the mast will reduce the stability of the boat.

3.2 Loading

Do not use with more than two persons on board.

Ensure that the combined weight of all persons on board, plus any added items, does not exceed 80 kg.

The RS Tera is designed primarily as a single-handed sailing dinghy for young or light sailors. It may also be sailed or rowed by up to two persons, provided that the total weight of persons and any equipment on board (e.g. an anchor, water bottles, etc.) does not exceed 80kg (typically two children).

The maximum recommended load of 100kg is shown on the Builder's Plate. Note that the number of persons is shown as 1 on the Builder's Plate, to avoid the possible confusion that the boat could carry two adults.

When climbing aboard for launching, always step into the middle of the cockpit floor and then sit down carefully. **Never step on the side deck or the boat will tip**. If you are rowing the boat, sit on the seat area around the daggerboard and face the transom. If two persons are onboard when rowing, the second person should sit at the back of the cockpit, or on the aft deck, with their feet in the cockpit.

When sailing, you can either sit in the cockpit or on the windward side deck to balance the boat if there is sufficient wind. The cockpit floor and side decks have a rough surface to reduce the possibility of slipping. Other areas of the deck have a smooth surface and you should not sit or stand on them when the boat is moving.

3.3 Safety Equipment

It is your responsibility to ensure that all of the necessary safety equipment is obtained for the type of sailing that you are participating in, and that it is readily accessible on board at all times.

Top Tip

We recommend that you sail in a location where there is adequate safety-boat cover, should you get into any difficulty, especially whilst learning to sail your new boat.

3.4 Capsize Recovery

Please note that the following information is a suggested response to a capsize situation, and is not a substitute for an approved training course. For more information, please see www.rya.org.uk

Remember – Keep hold of the boat when you are in the water

Like all small sailing dinghies, the RS Tera may capsize when sailing. A 'capsize warning' symbol (the upside-down boat) is shown on the Builder's Plate to warn of this possibility. The RS Tera is designed to recover quickly from a capsize, or inversion, and continue to sail without bailing (see 3.5 for cockpit drainage). The recommended technique for capsize recovery is described below. It is recommended to first practice capsize recovery on a calm day, with safety-boat cover.

Capsize Recovery

The RS Tera mast is sealed to provide buoyancy so, if you are in the water, the boat will normally float on its side for a while after a capsize. If this is the case, swim round to the daggerboard, grab hold of its tip, and pull down. The boat should start to right itself slowly

at first, and then quite quickly. As soon as it is the right way up, climb back into the cockpit, trying to keep the boat as upright as possible at all times, to avoid a further capsize. When climbing in, you can pull the gunwhale closer to the water using the side safety line, and then grab the toe strap to pull yourself in. It is best to do this over the windward side of the boat, to avoid another capsize. Alternatively, if the boat is pointing into the wind, you can go around to the transom and climb in there. Once you are back on board, check that the ropes are not caught on anything and then you can continue sailing.

Dry Capsize

If you know that you are about to capsize, you can climb over the gunwhale and onto the daggerboard as the boat heels. As the boat starts to right itself, climb back into the centre of the cockpit This can be quick and you remain dry, but if you stay on the capsized hull and are not quick to move out, your weight may cause the boat to invert.

Capsize recovery from inverted

If the boat does invert, you will probably end up in the water outside the boat. In this case reach up to the bilge rail on the bottom of the boat and, using this as a finger hold for one hand, stretch out with the other hand and grab the daggerboard. When you have a firm grip on the daggerboard, pull yourself onto the hull, and kneel or stand as close to the edge as possible without slipping off. Keeping hold of the daggerboard, lean back and the

boat will slowly return to floating on its side. From here, you will be able to carry out a standard capsize recovery.

To enable the boat to be righted from inversion, the minimum recommended crew weight is 40 kg. Alternatively, more leverage for righting can be gained by standing up on the inverted gunwhale, and pulling the tip of the daggerboard.

If you come up under the boat just after it has inverted, you will find plenty of air and head space in the cockpit. However, this situation can be a worry for the safety-boat crew as they cannot see where you are, so quickly duck under the cockpit side to the outside of the boat to show that you are OK. If you are tired or cold and need assistance, stay next to the inverted boat by holding the side safety lines and try to attract the attention of a rescue boat.

WARNING

If the boat has capsized "on top" of you, or "to windward" as it is known, there is more chance of the boat inverting. You should ensure that you and your crew are well clear of the hull as the boat fully inverts. Remember to keep hold of a rope that is attached to the boat, i.e. the jib sheet or main sheet

WARNING

If the mast is lying into the wind during a capsize recovery, the boat will flip up quickly and may capsize again. In this situation, be prepared to climb in and balance the boat quickly.

3.5 Cockpit Drainage

The cockpit drain hole is located under the toe strap, and is sealed with a removable bung. If the weight of the crew and equipment on board is less than 70kg, the bung can be left out, to allow excess water to drain away automatically, even if the boat is moving slowly.

If the total weight on board is higher than 70kg, then the bung should be inserted to prevent water coming up through the drain hole. In this case, a bailer or sponge should be carried to remove any water trapped in the cockpit. The bailer/sponge should be secured by a rope to prevent loss.

3.6 Air Tank

The RS Tera is equipped with a sealed buoyancy compartment, in case of capsize or swamping. The buoyancy compartment is formed by the hull and deck mouldings and consequently the following points should be noted:

- **! Do not puncture the buoyancy compartment.**
- **! Should the buoyancy compartment become punctured, do not use the boat until the compartment is properly repaired. If in any doubt, contact RS Racing for repair details.**
- **! It is against class rules to add any fittings, although you may have to replace fittings from time to time. Ensure that all fastenings are resealed properly using an appropriate sealant. If in any doubt, contact RS Racing for details.**

Occasionally, a small amount of water will get into the buoyancy compartment, and this can be removed through the drain hole in the transom. Always remember to check that there is no water in the hull and that the bung is secure in the drain hole before launching.

3.7 Man Overboard Prevention and Recovery

To minimise the risk of falling overboard, never stand up in the boat or sit on the decks, other than the side deck to balance the boat, when it is under weigh. Should you fall overboard while sailing alone, the boat will soon capsize allowing you to swim to it and follow the capsize recovery procedures described in 3.4.

If a crew member falls overboard while there are two people sailing, the person on board can assist recovery by manoeuvring the boat back to the person in the water, stopping the boat (turning into the wind if sailing), and helping to balance the boat as the other person climbs back in.

To recover a crew member from the water:

- The helm should stop the boat just downwind of the person in the water.
- The helm should balance the boat, using a combination of body weight movement and sail pressure.
- With the help of the person on board, the crew should board the boat via the windward gunwhale, or over the transom using the toe strap to help to pull themselves in.

Top Tip

If you attend an approved sailing instruction course, you will learn how to recover a man overboard quickly and effectively. Please see www.rya.org.uk for a list of recommended institutions.

3.8 Use of an Outboard Engine

The RS Tera is not designed, equipped, or capable of modification for use with an outboard engine.

3.9 Towing, Anchoring, Mooring, and Trailing

Towing on the Water

We recommend the following procedure for towing your RS Tera:

- Attach the towing line to the painter, first ensuring that the painter passes through the bow lifting handle.
- Make sure that the kicking strap and the main sheet are not in the cleat.
- Fully raise or remove the daggerboard.
- While you are being towed, you will need to steer the boat with the tiller.
- In the event of rudder loss, sit as far back in the boat as possible.

WARNING

When you are being towed on the water:

- Never undo the Inglefield Clips on the mainsheet
- Do not allow the boom to pass further than 90 degrees from the boat's centreline
- Do not allow the rigged mainsail to swing around over the foredeck
- Always undo the sail from the boom clip, and rest the boom in the boat

If you do not observe these points, there is a risk of the mast falling out of the boat in the event of inversion.

Anchoring

The RS Tera can be anchored for short periods of time. The anchor line should be attached to the painter. We recommend attending an approved sailing course before attempting to anchor your RS Tera. The sails should be lowered or securely stowed, and the rudder and centreboard should be raised completely.

REMEMBER

An anchor is a heavy piece of equipment. You must ensure that you are not overloading your RS Tera, and that the anchor is securely stowed when not in use to prevent damage to the boat or the crew!

Mooring

The RS Tera is supplied with a strong painter which is attached to the front of the mast plate, enabling you to moor to a pontoon or other suitable object for short periods. You can moor bow-on, by passing the painter through the bow lifting handle, or moor side-on by passing the painter through the side safety line. Always remember to use some padding between your RS Tera and the object that you are mooring against!

Trailing and Transporting Your RS Tera

The RS Tera can be trailed behind the majority of cars. When trailing your RS Tera, you should only use an approved trolley and road base. Care must be taken when tying the boat to its trailer because too much or too little tension could result in damage. We recommend the following procedure for safe trailing:

- Ensure that the boat is located correctly on the trolley, with the bow securely in the bow snubber of the trolley.
- Ensure that the trolley is properly located on the road base, and that the retaining pin is fitted.
- Tie the boat down to the road base at the bow and across the middle. You only need to apply sufficient tension to hold the boat in contact with the trolley supports. Use padding material where any straps touch the deck.

The RS Tera is designed to be transported easily on the roof of most cars. The Tera is a very light dinghy, but you should still take care when lifting the hull onto a roof rack.

Always ensure that the roof rack is firmly fixed to the car, in accordance with the roof-rack manufacturers fitting instructions, and check that the maximum roof load limit for the car is greater than the combined weight of the roof rack, RS Tera hull, spars, sail, and anything

else carried on the roof. Allow 40kg for the RS Tera hull, spars and sail. We recommend the use of the RS Tera folding launching trolley because this can be stowed in the car rather than on the roof.

Top Tip

Make sure that you remove the top cover while transporting your RS Tera. Spars should be transported in the car, or tied securely in the boat.

Remember to tie the boat down when it is left in the dinghy compound, to prevent damage in the event of strong winds.

3.10 Other Safety Considerations

Caution

When sailing, take care to avoid being hit on the head by the boom, particularly during a gybe. The boom is fitted with a boom pad to reduce the likelihood of an injury, but care must still be taken when it is windy.

4. COMMISSIONING

4.1 Preparation.

Your RS Tera comes complete with all the components necessary to take the boat sailing.

DO NOT use a knife or other sharp object to cut through packaging containing parts – you may damage the contents!

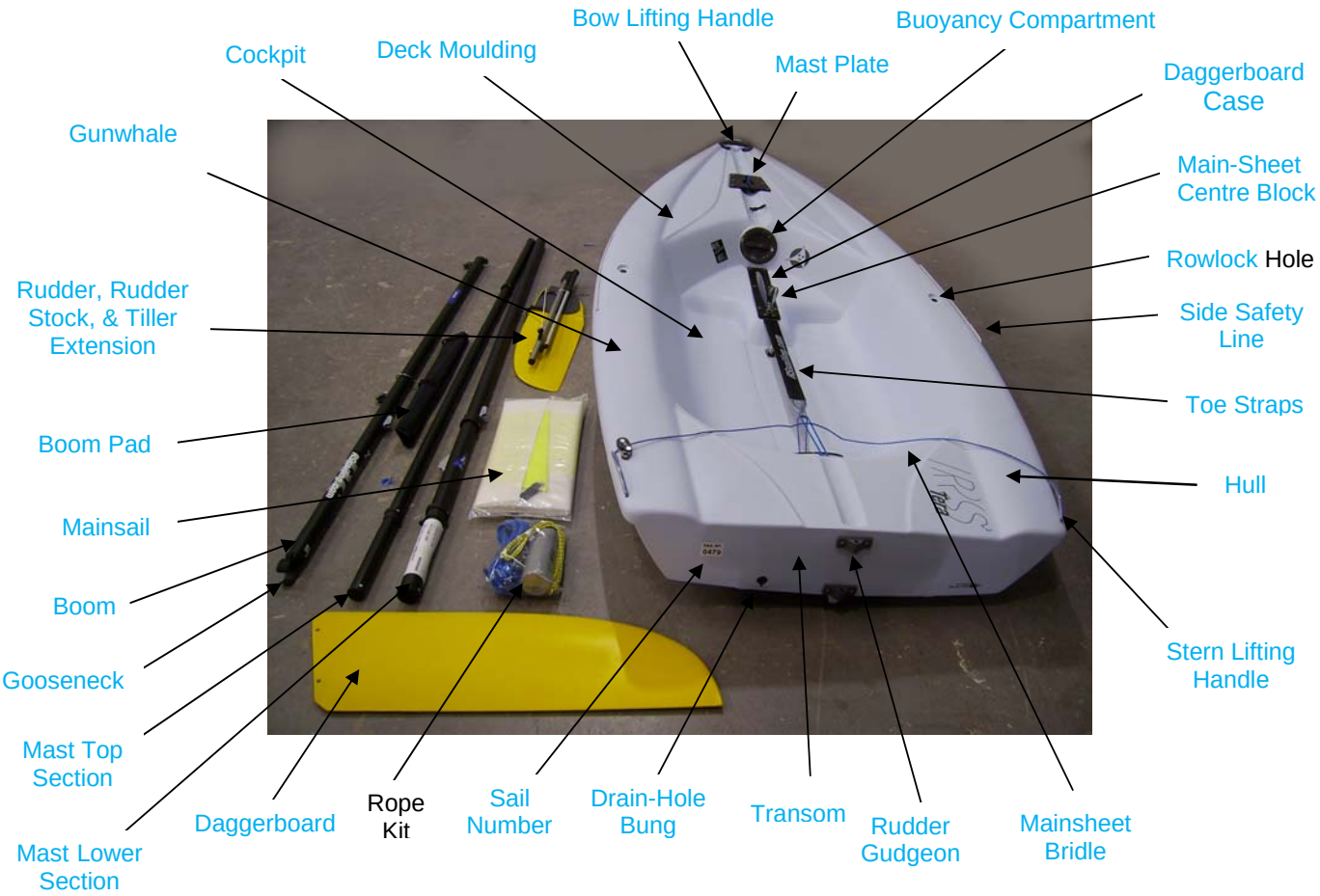
Whilst your RS Tera has been carefully prepared, it is important that new owners should check that shackles and knots are tight. This is especially important when the boat is new, as travelling can loosen seemingly tight fittings and knots. It is also important to check such items prior to sailing regularly.

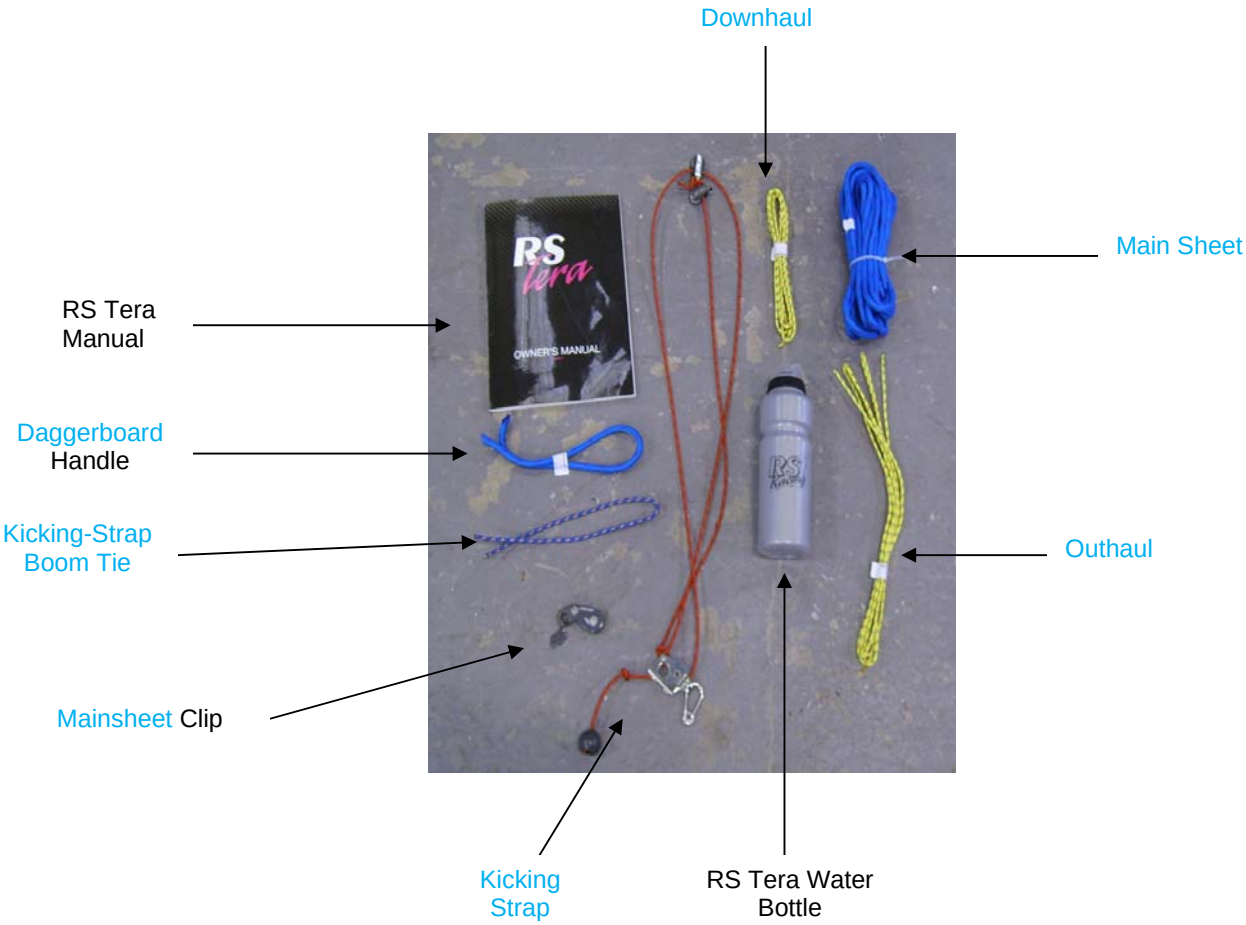
4.2 Unpacking.

Having unpacked your RS Tera, you should check that you have all of the items listed below before throwing away any of the packing, as there may be some small items still wrapped.

- 1 x RS Tera hull
- 1 x two-piece mast
- 1 x boom
- 1x boom pad
- 1 x rudder, with stock and tiller extension
- I x daggerboard
- 1 x main sail (Sport or Pro)
- 1 x rope pack – consisting of:

- 1 x mainsheet
- 1 x daggerboard handle
- 1 x outhaul
- 1x downhaul
- 1x kicking strap
- 1x kicking strap boom tie
- 1 x water bottle
- 1 x RS Tera manual
- 1 x mainsheet clip




Downhaul
Main Sheet
RS Tera
Manual
Daggerboard
Handle
Kicking-Strap
Boom Tie
Outhaul
Mainsheet Clip
Kicking
Strap
RS Tera Water
Bottle
RS
tera
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4.3 Rigging the mast

To prepare the boat for sailing:

1. Join the mast by inserting the mast top section into the mast lower section. If you are sailing with a Pro mainsail, insert the long end of the mast top section. If you are sailing with a Sport mainsail, insert the short end of the mast top section.

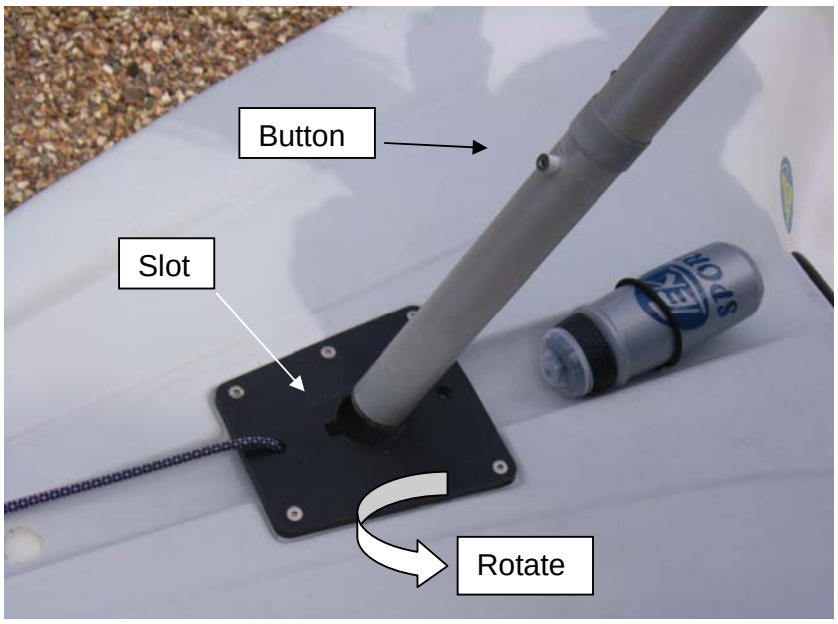
2. Push the mast top section in until it hits the stop.

3. Slide the front sleeve of the sail over the mast until the mast top reaches the top of the sail.

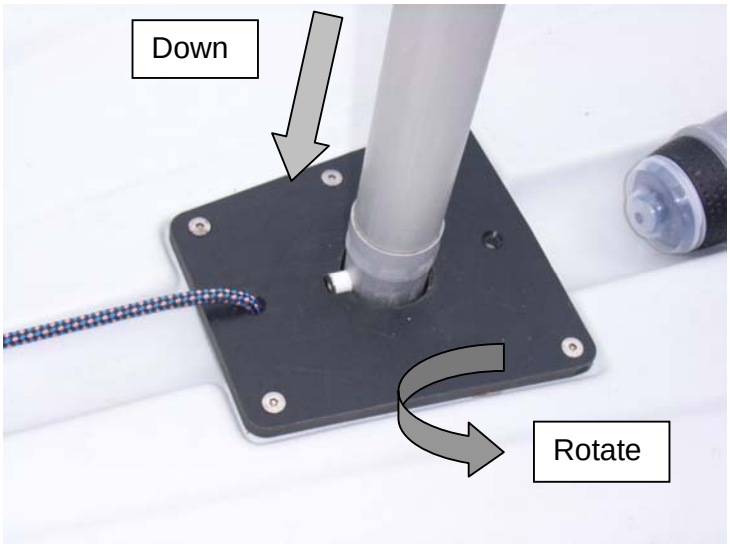
4. If you are rigging a Pro mainsail, put the battens into the sail. See page 36.

4.4 Stepping the mast

1. Lift the mast and sail over the mast plate on the deck.



2. With the mast upright, lower the end through the mast plate ensuring that the retaining button is in line with the slot in the mast plate. When the mast is fully in, rotate it through 180 degrees so that the button is under the back of the plate.



Top Tip

If the wind is blowing there will be a lot of pressure on the top of the mast making it wave around. Consider finding somebody to help if you feel that you will struggle!

WARNING

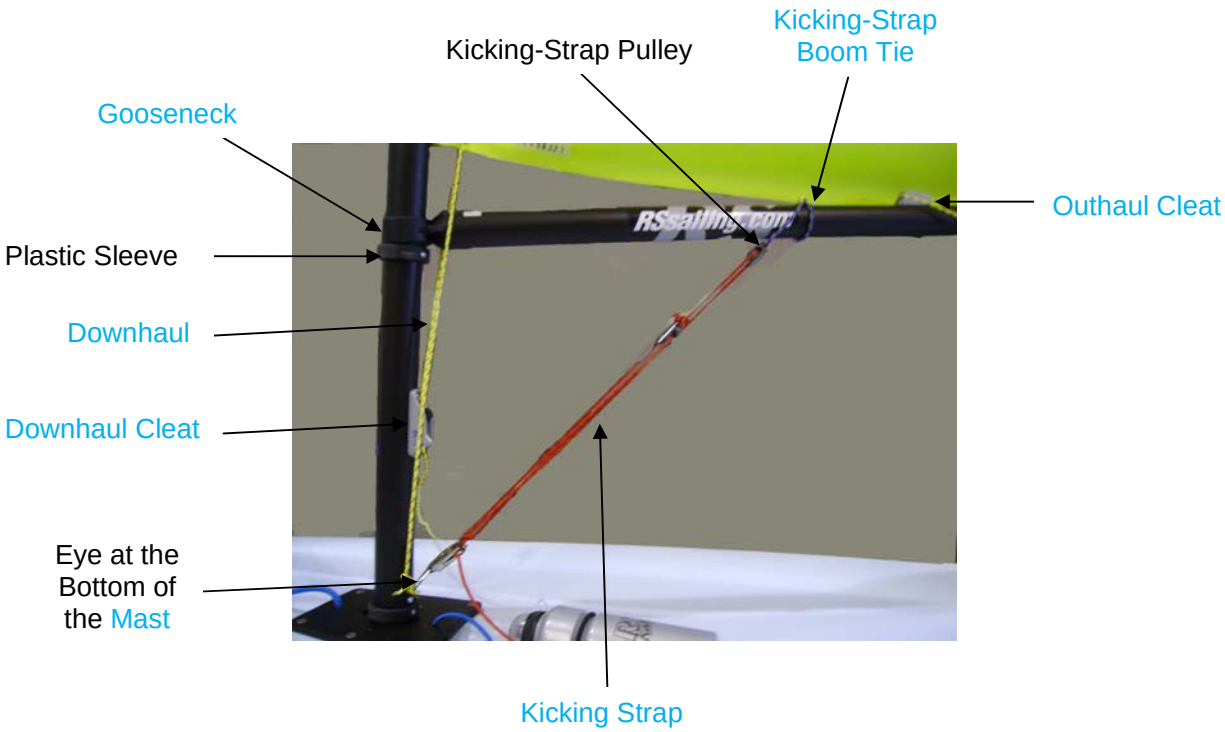
When lifting the mast, make sure that there are no overhead power lines.

4.5 Rigging the boom

1. Thread the kicking-strap boom tie through the eye of the pulley on the kicking strap.

2. Thread the kicking-strap boom tie through the eye on the boom, and tie it off.

3. Attach the clip on the kicking strap to the metal eye at the bottom of the mast.



4. Take the boom and push the gooseneck onto the mast, just above the plastic sleeve.

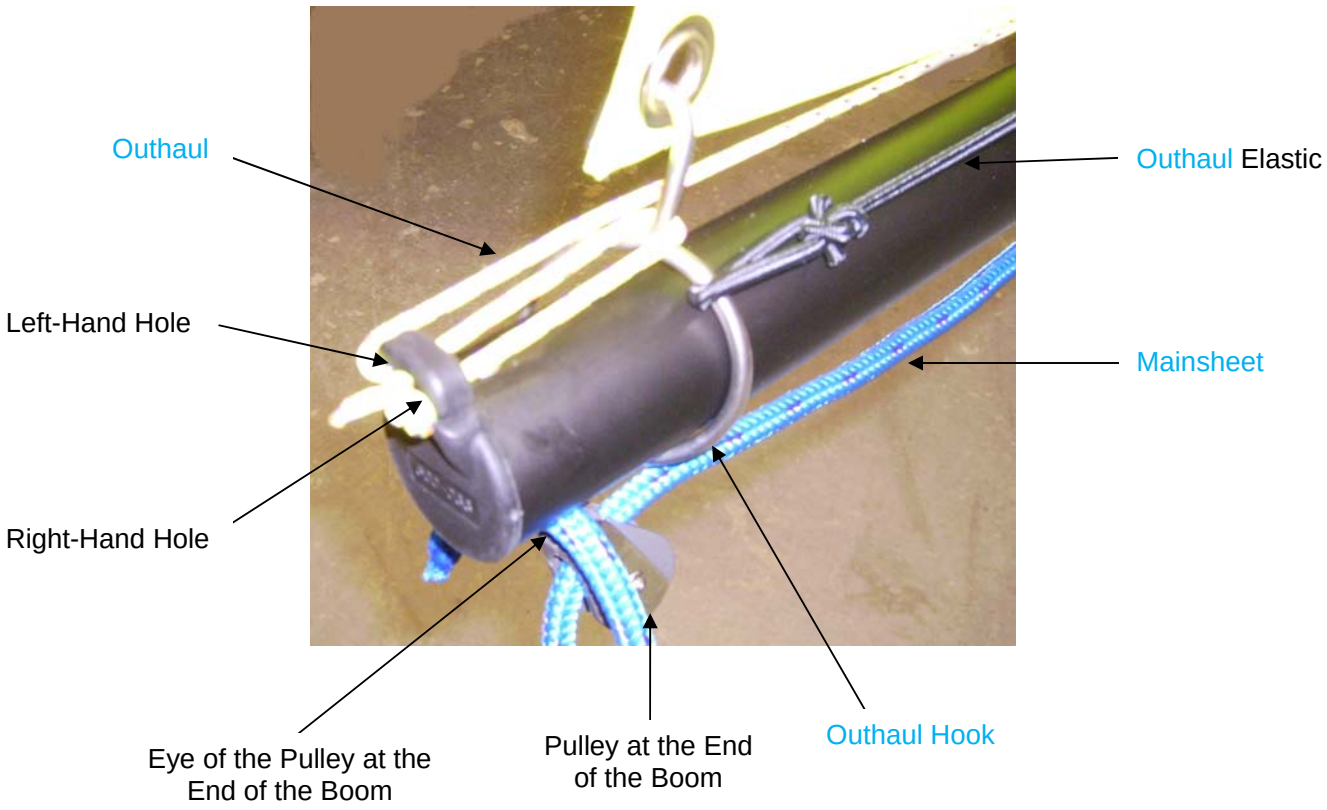
5. Now attach the sail downhaul:

Pro Sail: Tie the downhaul to the kicking-strap eye at the bottom of the mast, thread it through the sail eye, and back down to the cleat on the mast. Make sure that the downhaul runs on either side of the boom.

Sport Sail: Tie the downhaul on to the metal ring on the sail sleeve, then pass it through the cleat on the front of the mast. If you also have a Pro sail, coil and tie off the excess downhaul. If you only have a Sport sail, you can cut off the excess downhaul.

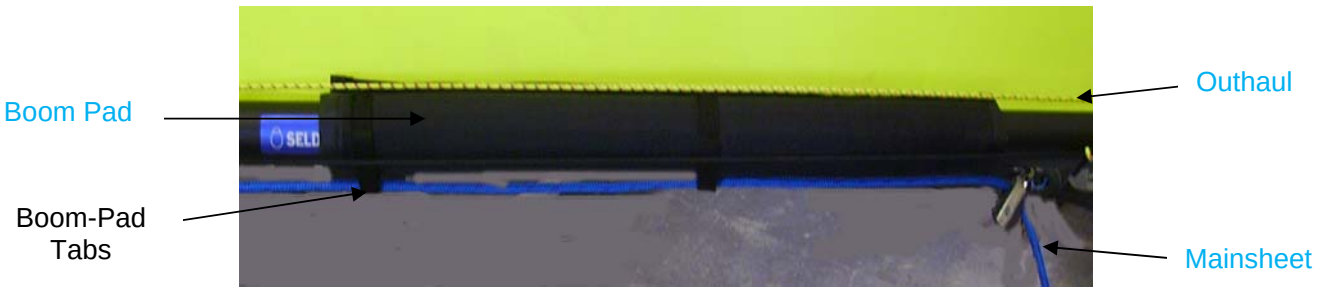
6. Tie a stopper knot in the end of the outhaul, and thread it through the right-hand hole at the end of the boom, around the outhaul hook, and through the left-hand hole at the end of the boom.

7. Tie the end of the outhaul elastic to the outhaul hook, using a bowline.



8. Thread the tail of the outhaul through the cleat on the boom, lead it around the mast, and tie the tail on to the other end of the outhaul elastic.

9. Attach the boom pad to the boom, making sure that the outhaul does not become caught.

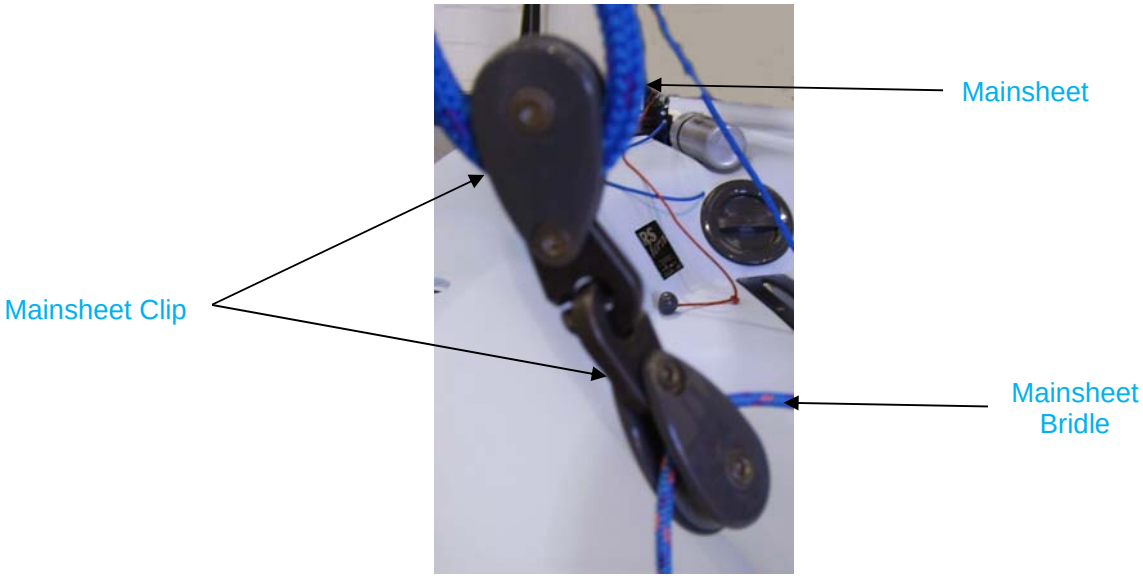


10. Tie a stopper knot in the end of the mainsheet, and thread it through the eye on the pulley at the end of the boom.

11. Take the mainsheet clip from the Tera Rope Pack and thread it onto the mainsheet.

12. Thread the mainsheet through the pulley at the end of the boom.

13. Attach the mainsheet clip on the mainsheet onto the clip on the mainsheet bridle, and wrap PVC tape around the clips.



14. Lead the mainsheet along the boom, through the tabs on the boom pad and the pulley on the boom.

15. Thread the mainsheet through the mainsheet centre block, making sure that it is in the right direction for the ratchet to work. Tie a knot in the mainsheet so that the boom cannot pass beyond a 90˚ angle to the hull centreline when you are sailing.

4.6 The Rudder and Daggerboard

1. Slide the rudder stock onto the top of the rudder blade, and fasten the wingnut.

2. Place the rudder on the transom with the rudder-uphaul line pulled tight, so that the rudder blade is fully up. Ensure that the tiller and the tiller extension pass under the mainsheet bridle. To fit the rudder, simply line up the pins with the fitting on the back of the boat, and push down until the retaining clip 'clicks' into place. The rudder may be difficult to get on at first – all it will need is a simple wiggle from side to side whilst pushing down.

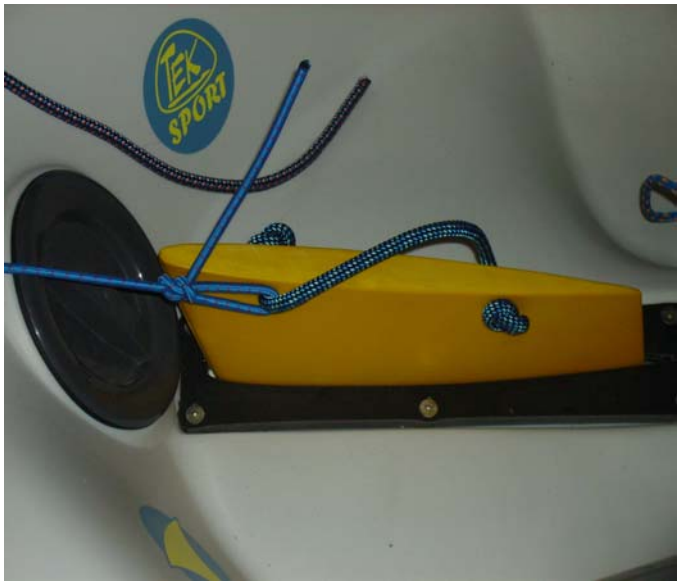
Rudder-Retaining Clip

3. Shortly after launching, when you are in deep water, make sure that the yellow rope is not in the cleat, pull on the elastic, and cleat. This will lower the rudder in the rudder stock.

4. When coming ashore, uncleat the elastic, pull the yellow rope tight, and cleat it. This will raise the rudder.

5. To remove the rudder, simply push the rudder retaining clip in towards the transom, and slide the rudder stock upwards.

Make sure that you attach the shock-cord retainer, with a bowline, to the daggerboard handle.



TIME TO GO SAILING!!

After launching, the rudder is lowered by releasing the uphaul line and pulling the elastic tight. The daggerboard can be inserted in the daggerboard case when the water is deep enough. It is normally best to leave the kicking strap loose while launching, pulling it on as appropriate once you are sailing.

TOP TIP

Make sure that you un-cleat the rudder and raise the daggerboard before coming in

5. SAILING HINTS

5.1 Introduction

The RS Tera is a very rewarding boat to sail – to fully appreciate its handling, you should be comfortable with the basic techniques of sailing small boats. If you lack confidence or feel that a refresher is in order, there are many approved sailing schools which use the RS Tera. See www.rya.org.uk for more information.

While we offer you a few hints to aid your enjoyment of your new boat, they should not be considered as a substitute for an approved course in dinghy sailing. In order to build your confidence and familiarise yourself with your new boat, we recommend that you choose a fairly quiet day with a steady wind for your first outing.

5.2 Launching

With the sails fully hoisted and the rudder attached to the transom, the boat should be wheeled into the water, keeping it head to wind as far as possible. If you have a crew, s/he can hold the boat head to wind whilst the trolley is stowed ashore.

TOP TIP

If the tide is coming in as you launch, make sure that you leave the trolley high enough up the beach that it will not be swept away.

5.3 Leaving the Beach

The easiest way to get going is for the helm to hop aboard while the crew holds the boat. The helm should put a little daggerboard down, move back to

his normal position, and pull gently on the rudder downhaul to lower some of the rudder blade. Then, s/he may instruct the crew to push the bow off the wind and climb in. The crew will then lower the daggerboard as depth allows.

The singlehanded sailor may choose to ask someone to help them to launch. If launching alone, stand in the water alongside the gunwhale, holding the boat head to wind. Lower part of the daggerboard and rudder, and then push the bow off the wind while hopping in.

As soon the water is deep enough, make sure that you lower the rudder blade fully by pulling the rudder downhaul hard. You will know it is fully down if you feel a gentle ”thud” as the front face of the blade hits the front face of the stock. Cleat the downhaul and tidy it by winding it around the tiller. Pull the sail in and you are away!

For the best performance, you should ensure that you and your crew position yourselves so that the boat is sailing through the water as flat as possible. Watch the trim (fore and aft) and the heel. The boat should always be sailed as upright as possible.

Top Tip

As a general rule, sit further forward in lighter winds and further aft in stronger breezes.

5.4 Sailing Close-Hauled and Tacking

When sailing close-hauled, or as close as possible to the wind, it is important to get the boom as near as possible to the centreline. The kicking strap should be firmly tensioned for upwind work. To pull it on, quickly put the boat head to wind. You should hold the tiller extension across your body, with a knuckles-up grip, enabling you to use one or two fingers as a temporary cleat when adjusting the mainsheet.

To tack, push the tiller extension away from you and, as the boat starts to turn, step across the cockpit facing forwards. Once the boat has completed the turn, bring the tiller back into the centre before sitting down on the new side, with the tiller extension behind your back. When you are settled, swap the mainsheet and the tiller extension into the new hands.

If the boat slows right down and feels lifeless when close-hauled, you could be sailing too close to the wind. Ease the mainsheet and 'bear off' away from the wind for a while to get the boat going again.

5.5 Sailing Downwind and Gybing

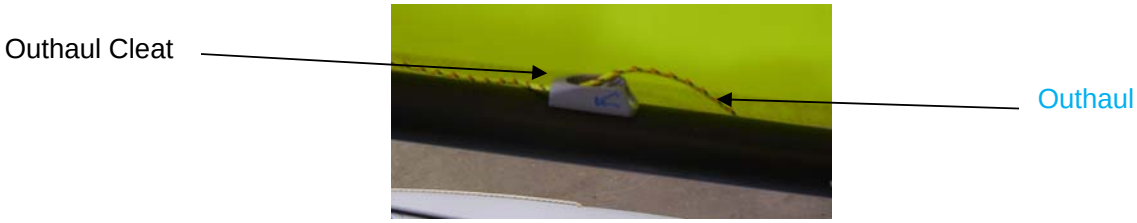
When sailing downwind, the sail should be let out as far as possible. To gybe, pull the tiller towards you and, as the boat starts to turn, step across the cockpit facing forward. Once the boat has completed the turn, bring the tiller back into the centre before sitting down on the new side, with the tiller extension behind your back. Often, the boom will not want to come across until you have nearly completed the gybe, so it often pays to give the mainsheet a tweak to encourage the boom over at the moment that you want it to come! Once you are settled, swap the mainsheet and the tiller extension into the new hands.

5.6 Reefing

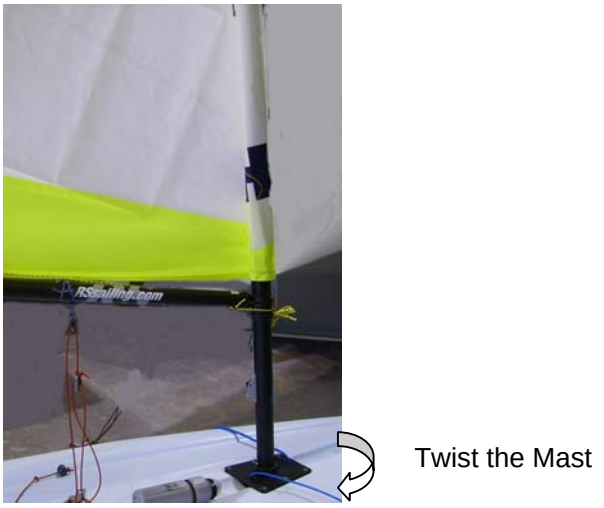
(only applicable to RS Tera Sport & Mini sail rigs)

1. Leaving the downhaul in the cleat, unclip the kicking strap from the eye at the bottom of the mast.

2. Release the outhaul by removing it from the cleat on the boom, and pulling extra line through.



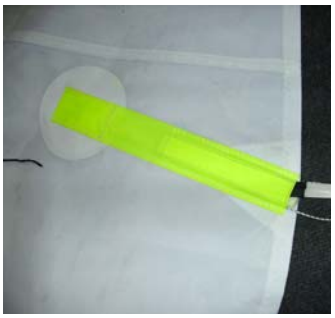
3. Twist the mast so that the sail wraps around it, until you reach the appropriate size of sail.



14. Re-attach the kicking strap to the eye at the bottom of the mast, and pull on the outhaul. You are now reefed and ready to sail!

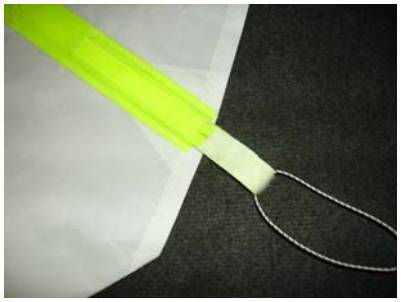
Removing a Batten

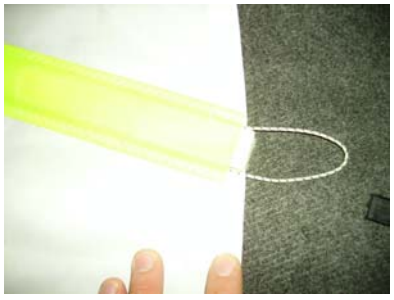
Slide the batten key into the batten pocket to release the Velcro seal. Use the string to pull the flap out from the batten pocket, and then pull the batten out.



Replacing a Batten

Slide the batten into the batten pocket completely. Fold the flap over the end of the batten and, with the batten key, push the flap into the batten pocket as far as you can. Pull the batten key out and, with your hand, press down on the batten pocket to seal the Velcro.





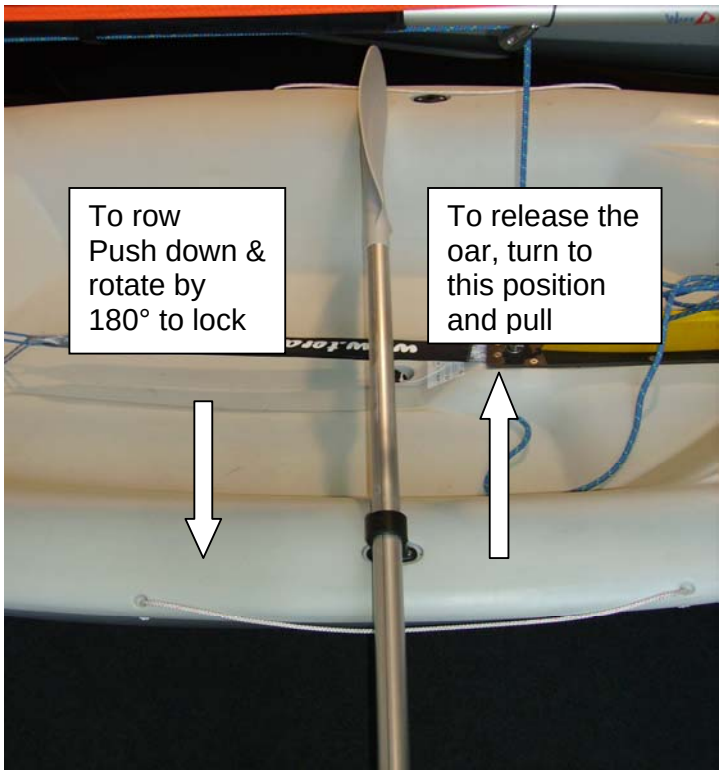
5.7 Using the Mini Sail

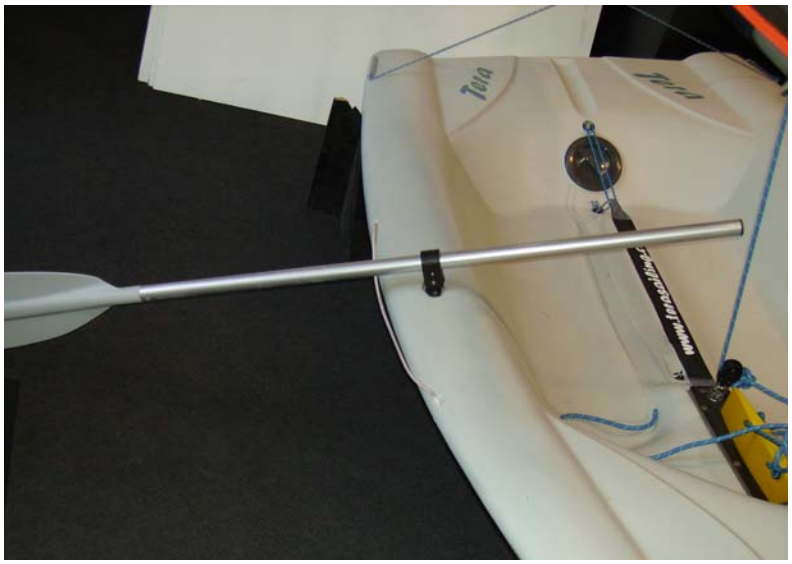
The Mini Sail is perfect for lighter-weight crews or novices, and can be purchased as an additional extra. The Mini Sail differs in appearance to the Sport and the Pro, due to the Dacron sock at the top, but is rigged in exactly the same way as the other sails (see Unit 4.3).

5.8 Using Oars and the Rowing Kit

The RS Tera Rowing Kit may be purchased from LDC Racing Sailboats or from your local RS Dealer, enabling you to use your sailing boat as a tender or small rowing vessel. The oars simply locate in the rowlock holes in the gunwhale.

To locate and lock the oars in position, push the spigot in the rowlock hole (fig 5.8) and rotate the complete oar, so that the paddle is over the cockpit and the handle is over the side of the boat. As you turn the oar into the correct position, with the paddle over the side and the handle over the cockpit, you will feel the oar lock into place (fig 5.9). The oar will not pull out. To release the oar, reverse the procedure.

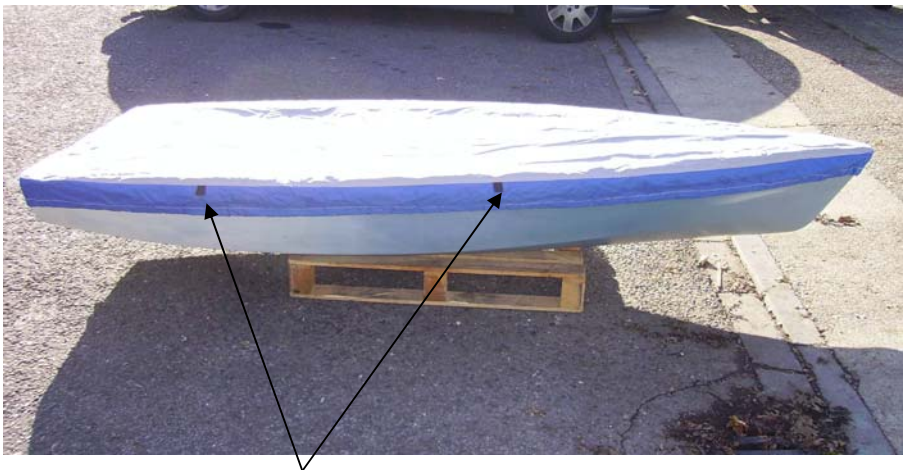




Here, the oar is in the correct position and ready to be used.

5.9 Using the Top Cover

The top cover is a very simple water-proof cover that can keep the spars and sails dry and out of sight when the boat is not in use. It is best to attach the top cover from the bow and work backwards, pulling the elastic drop cloth into place. There are a couple of tie points on the side, if you want to add some ties for extra security (Fig. 5.12).



Tie Tabs for
Extra Security

6. MAINTENANCE

6.1 Boat Care

The RS Tera is made using Comptec PE3, a three-layer polyethylene construction. This is stiff and light, but will dent if subjected to point loading. The boat should be supported ashore on an approved RS trolley, as the hull may distort if not supported properly. For long-term storage, it is better to support the boat on a rack, in slings, or another type of support that spreads the weight and avoids point loads. The hull can also be stored on the transom, but never store the boat for long periods on its side. When dealing with a marine environment, equipment gets wet; this in itself is not a problem. The problem starts when moisture is trapped for any length of time. Therefore, it is very important to store the boat properly ashore.

Keep your dinghy drained and well ventilated

- Ensure that the boat is stored with the bow raised to allow water to drain away.

Wash with fresh water

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

Any stubborn marks on the hull can be removed with a light detergent, such as washing up liquid. Always test cleaning products on a small, inconspicuous part of the deck before applying to the whole boat.

Hull damage falls into three categories:

- **SERIOUS –** large hole, split, crack, or worse. Don't be too distressed! Get the remnants back to RS Racing – most problems can be repaired.
- **MEDIUM –** small hole or split. If this occurs during an event, sailing can often be continued as long as leaking can be prevented by drying the area and applying strong adhesive tape. CAUTION – if the damage is close to a heavily loaded point, then the surrounding area should be closely examined to ensure that it will accept the loads. Get the damage professionally repaired as soon as possible.
- **SMALL –** dents, scratching. This type of damage is not boat threatening.

Comptec PE3 cannot be repaired in the same way as fibre glass. Some scratching can be removed be RS Racing staff, but dents cannot. Therefore we suggest you treat your boat with as much care as you would if it were fibre glass. More serious repairs can be carried out by RS Racing staff; however, the repair will never be invisible, due to the nature of the material.

The joy of owning an RS Tera is that it is very hard wearing, and any dents and scratches it receives will not affect the structural integrity of the hull.

6.2 Foil Care

The foils are made from injection-moulded plastic. They are very strong and hard wearing, but they will get damaged if run aground hard. Due to the nature of its construction, a damaged foil can still be used.

If you run aground hard with the daggerboard down, you should check that the hull has not been punctured at the front or the trailing edge of the daggerboard case. Special 'shock absorbing' pads have been fitted at these points to reduce the risk of damage, and these can be replaced if damaged.

If you are going to trail your boat frequently, you may wish to invest in some RS Racing padded rudder bags. These will protect your RS Tera from any damage caused by the foils.

6.3 Spar Care

The mast and boom are aluminium. Wash with fresh water as often as possible, both inside and out. Check all of the riveted fittings on a regular basis for any signs of corrosion or wear.

6.4 Sail Care

The mainsail should be rolled and stored dry, out of direct sunlight. When using a new sail for the first time, try to avoid extreme conditions as 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 a light detergent and warm water. **DO NOT** attempt to launder the sail yourself.

A sail can be temporarily repaired using a self-adhesive cloth tape, such as Dacron or Mylar. The sail should be returned to a sail maker for a professional repair. Check for wear and tear, especially around the batten pockets, on a regular basis.

6.5 Fixtures and Fittings

All of the fixtures and fittings have been designed for a specific purpose in the boat. These items may break when placed under any unnecessary load, or when used for a different function to their intended purpose. To ensure optimum performance, wash the fixtures and fittings with fresh water regularly, checking shackles, bolts, etc. for tightness.

7. WARRANTY

1. This warranty is given in addition to all rights given by statute or otherwise.
2. LDC Racing Sailboats warrants all boats and component parts manufactured by it to be free from defects in materials and workmanship under normal use and circumstances, and the exercise of prudent seamanship, for a period of twelve (12) months from the date of commissioning by the original owner. The owner must exercise routine maintenance and care.
3. This warranty does not apply to defects in surface coatings caused by weathering or normal use and wear.
4. This warranty does not apply if the boat has been altered, modified, or repaired without prior written approval of LDC Racing Sailboats. Any changes to the hull structure, deck structure, rig or foils without the written approval of LDC Racing Sailboats will void this warranty.
5. Warranty claims for materials or equipment not manufactured by LDC Racing Sailboats can be made directly to the relevant manufacturer. LDC Racing Sailboats warrants that these parts were installed correctly and according to the instructions provided by the manufacturer.
6. Warranty claims shall be made to LDC Racing Sailboats as soon as practicable and, in any event, within 28 days upon discovery of a defect. No repairs under warranty are to be undertaken without written approval of LDC Racing Sailboats.
7. Upon approval of a warranty claim, LDC Racing Sailboats may, at its expense, repair or replace the component. In all cases, the replacement will be equal in value to the original component.
8. Due to the continuing evolution of the marine market, LDC Racing Sailboats reserves the right to change the design, material, or construction of its products without incurring any obligation to incorporate such changes in products already built or in use.

8. GLOSSARY

A

Aft	At the back
Anchor Line	Rope that attaches the anchor to the boat
Astern	Behind the boat
Asymmetric	Spinnaker flown from a retractable pole at the bow

B

Back	To ‘back the sail’; allowing the wind to fill the back of the sail
Bailer	A bucket or other container used for bailing water
Batten	A thin strip of wood/plastic inserted in the sail to keep it flat
Batten Key	A key used to adjust the batten
Batten Pocket	A pocket on the sail that holds the batten
Beam	Width of the boat at the widest point of the side of the boat. The phrase ‘wind on the beam’ means that the wind is coming from the side.
Bear away	To turn downwind
Beat	To sail a zig-zag course to make progress upwind
Beaufort Scale	A measure of wind strength, from Force 1 to Force 12
Bilge Rail	The moulded line that marks the transition from the side to the bottom of the hull
Block	A pulley used for sail control lines
Boom	The spar at the bottom edge of sail
Boom Pad	The pad that fits onto the boom
Bow	The front of the boat
Bow Lifting Handle	The handle at the front of the boat, used for lifting

Bowline	A useful and reliable knot, with a loop in it
Bow Snubber	The part of the trolley that the bow rests on
Builder's Plate	Plate that contains build information
Bung	A stopper for the drain hole
Buoy	Floating object attached to the bottom of sea – used variously for navigation, mooring, and to mark out a race course
Buoyancy Aid	Helps you to stay afloat if you fall in the water
Buoyancy Compartment	Water-tight compartment in the hull that maintains buoyancy
Burgee	Small flag at the top of the mast to show wind direction

C

Capsize	To overturn
Capsize Recovery	To right, or recover, the boat after a capsize
Catamaran	A boat with two hulls
Centreline	An imaginary line that runs through the centre of the hull, from the bow to the stern
Chart datum	Depths shown on a chart, at the lowest possible tide
Cleat	A device to grip ropes and hold them in place – some grip automatically, while others need the rope tying around them
Clew	Lower corner of the sail, closest to the stern
Close hauled	Sailing as close to the wind as you can; point of sailing to sail upwind
Cockpit	The open area in the boat providing space for the `helm and the crew
Collision Regulations	The 'rules of the road' to avoid collisions
Compass Rose	The compass shown on a chart to aid navigation

Crew	Helps the helmsman to sail the boat, and usually handles the jib sheets
Cutter	A boat with two headsails or jibs

D

Dacron	A brand of polyester sailcloth that is wrinkle-resistant and strong
Daggerboard	The foil that sits below the hull to counteract the sideways push of the wind, and to create forward motion
Daggerboard Case	The casing in the hull through which the daggerboard is pushed into place
Deck	A floor-like surface occupying part of the hull
Deck Moulding	A moulded deck
Downhaul	Applies downwards tension to a sail
Downwind	To sail in the direction that the wind is blowing
Drain Hole	A hole in the hull from which trapped water can be drained
Draught	The depth of the vessel below the surface

E

Ease	To ‘ease sheets’ means to let the sail out gently

F

Foils	The daggerboard and the rudder
Folding Launching Trolley	A launching trolley that can be folded for easy stowage
Foot	The bottom edge of a sail
Fore	Towards the front of the boat

G

Gooseneck	The ‘jaws’ of the boom that clip onto the mast
Gunwhale	The top edge of the hull, that you sit on when leaning out to balance the boat
Gybe	To change tack by turning the stern of the boat through the wind.

H

Halyard	The rope used to hoist sails
Head	The top corner of a sail
‘Head to Wind’	To point the bow in the direction that the wind is blowing from, causing the sails to flap
‘Heave to’	To stop the boat by easing the main sheet and backing the jib
Heel	A boat ‘heels’ when it leans over due to the sideways force of the wind
Helm/Helmsman	The person who steers the boat, or another name for the tiller
Hull	The hollow, lower-most part of the boat, floating partially submerged and supporting the rest of the boat

I

‘Into the Wind’	To point the bow in the direction that the wind is blowing from, causing the sails to flap
Inversion	A capsize where the boat turns upside down, or ‘turtles’

J

Jammer	Another word for a cleat
Jib	The small sail in front of the mast
Jib Sheet	The rope used to control the jib

K

Kicking strap	The rope system that is attached to the base of the mast and the boom, helping to hold the boom down
Knot	A measurement of speed, based on one minute of latitude

L

Launching	To leave the slipway
Latitude	Imaginary lines running parallel round the globe from east to west. They help you measure position and distance on a chart.
Leech	The back edge of the sail
Leeward	The part of the boat furthest away from the direction in which the wind is blowing
Leeway	The amount of sideways drift caused by the wind
Leverage	The result of using crew weight as a ‘lever’ to counteract heel caused by the wind
Lie to	A way of stopping the boat temporarily by easing sheets on a close reach
Lifejacket	Unlike a buoyancy aid, a lifejacket will keep a person fully afloat with their head clear of the water
Longitude	Imaginary lines running round the globe from north to south, like segments of an orange. Used with lines of latitude to measure position and distance

Luff	The front edge of the sail

M

Mainsail	The largest sail on a boat
Mainsheet	The rope used to control the mainsail
Mainsheet Bridle	The rope runs across the transom of the boat, to which the mainsheet is attached
Mainsheet Centre Block	The main block, usually fixed to the cockpit floor, through which the mainsheet passes
Man Overboard Recovery	The act of recovering a ‘man overboard’ from the water
Mast	The spar that the sails are hoisted up
Mast Lower Section	The bottom section of a two-piece mast
Mast Plate	The fitting on the deck that the mast fits into
Mast Top Section	The top section of a two-piece mast
Meteorology	The study of weather forecasting
Moor	To tie the boat to a fixed object
Mylar	A brand of strong, thin, polyester film used to make racing sails

N

National Sailing Federation	Body that governs sailing in a nation. In the UK, this is the Royal Yachting Association
Navigation	To find a way from one point to the other
Neap Tide	Tides with the smallest tidal change

O

‘Off the Wind’	To sail in the direction that the wind is blowing
Outhaul	The control line that applies tension to the foot of the sail, by pulling the sail along the boom

Outhaul Hook	The fitting on the boom that hooks the eye at the back of the sail, and to which the outhaul is attached

P

Painter	The rope at the bow used to tie the boat to the a fixed object
Pontoon	A floating jetty to moor your boat to
Port	The left-hand side of the boat, when facing forwards

R

RS Dealer	A third-party who sells the RS range
Reach	Sailing with the wind on the side of the boat
Reef	To make the sails smaller in strong winds
Retaining Pin	On a trolley, to hold the launching trolley to the road base
Road Base	A trolley that you place your boat and launching trolley upon to trail behind a vehicle
Rowlocks	U shaped fittings that fix onto the gunwale and holds your oars in position while rowing
Rowlock Holes	The holes in the gunwhale into which the rowlocks fit
Rudder	The foil that, when attached to the stern, controls the direction of the boat
Rudder Blade	The large, rigid, thin part of the rudder
Rudder Downhaul	The control line that enables you to pull the rudder into place
Rudder Pintle	The fitting on the transom onto which the rudder stock fits

Rudder Stock	The top part of the rudder, usually including the tiller, into which the rudder blade fits, and which then attaches to the rudder pintle
Run	To ‘run with the wind’, or to sail in the direction that the wind is blowing

S

Safety-Boat Cover	Support boats, usually RIBs, in case of emergency
Sail	An area of material attached to the boat that uses the wind to create forward motion
Sailmaker	A manufacturer of sails
Sail Number	The unique number allocated to a boat, displayed on the sail when racing
Sail Pressure	A sail has ‘pressure’ when it is working with the wind to create motion
Sailing Regatta	An event that usually comprises of a number of sailing races
Shackle	A metal fitting for attaching ropes to blocks, etc.
Sheet	A rope that controls a sail
Shroud	The wires that are attached to the mast and the hull, holding the mast up
Side Safety Line	The line that runs along the side of the hull
Single Handed	To sail a boat alone
Soundings	The numbers on a chart showing depth
Spars	The poles, usually carbon or aluminium, to which the sail is attached
Spring Tide	The tides with the biggest range and strongest currents
Starboard.	The right-hand side of the boat, when facing forwards
Stern	The back of the boat
Stern Lifting Handles	The handles at the stern, used for lifting the boat

Stopper Knot	A form of knot used to prevent a rope from sliding through a fitting, such as a pulley or a cleat

T

Tack	a) To change direction by turning the bow of the boat through the wind b) The bottom front corner of a sail
Tender	A small vessel, usually used to transport crew to a larger vessel
Tidal height	The depth of water above chart datum
Tidal range	The difference between the depth of water at low and high tide
Tidal stream	The direction in which the tide is flowing
Tiller	The stick attached to the rudder, used to steer the boat
Tiller Extenstion	A pole attached to the tiller to extend its reach, usually used when hiking
Toe Straps	The straps to tuck your feet under when you lean out to balance the boat.
Towing Line	A rope attached to the boat, used to connect to a towing vessel
Transit	An imaginary line between two fixed objects, used to ensure that you are staying on course
Transom	The vertical surface at the back of the boat
Trim	Keeping the boat level fore and aft
Trimaran	A boat with three hulls
Trolley	A wheeled structure, used to move the boat around on land
Trolley Supports	The part of the trolley in direct contact with the hull

U

‘Under Weigh’	A term derived from the act of ‘weighing’ anchor, meaning to be in motion
Upwind	To sail against the direction in which the wind is blowing

W

Wetsuit	Neoprene sailing suit designed to keep you warm when wet
Windward	The part of the boat closest to the direction in which the wind is blowing

9. Useful Websites & Recommended Reading

RYA Go Sailing: Activity book for Young Sailors. ISBN 1-905104-36-7

RYA Go Sailing: A Practical Handbook For Young People. ISBN 9-781905-10-7

RYA Advanced Sailing Handbook. ISBN 1-905104-05-07

RYA National Sailing Scheme Syllabus and Logbook ISBN 0-901501-45

RYA Start Sailing Beginner's Handbook ISBN 0-901501-82-4

Royal Yachting Association www.rya.org.uk

RNLI – for help and advice about safety at sea – www.rnli.org.uk

RS Class Association and Manufacturers:

www.rs-association.com

www.rssailing.com

www.ldcracingsailboats.co.uk

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