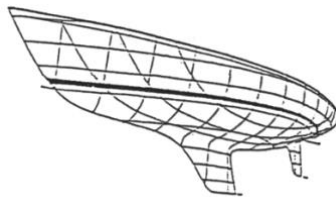




ELECTRON RADIO CONTROLLED YACHTS

DESIGNED BY DES TOWNSON | BUILT BY ELECTRON R/C YACHTS



SPECIFICATIONS

Length: 895 mm Width: 260 mm Draught: 200 mm Weight: 5 kg Sail area: 0.3 sq.m

The Electron is a strict one-design radio controlled model yacht, ideal for class or match racing or just plain fun sailing. It is also an excellent teaching aid for novice yachties.

Size and set-up has been carefully considered for easy transport. The hull sits in a cradle fitted with carry straps. An Electron fits easily into a saloon car boot.

Construction is G.R.P., similar to full-scale yachts and the model is rugged and durable, requiring a minimum of maintenance.

The model is a delight to sail through a wide range of wind and sea conditions.

Battery consumption is light, as it is wind driven - only control is required. Radio range is well beyond useful visual limits subject, of course to the state of the batteries.

The classical styling and high quality finish make the Electron a fine showpiece. The keel can be set outside the cradle keel support tilting the model to enhance the display qualities.

The Electron is supplied completely finished and ready to sail. Included is the carry cradle and transmitter with one set of alkaline batteries. The model can be supplied packed in a protective cardboard box.

There is a range of colours available.

PARTS SUPPLIED

Hull & cabin top, Sail servo, rudder servo & receiver

Mainsail & headsail, Mast sections (two), Main boom, Jib boom

Transmitter, Battery holder, Bowguard

ASSEMBLY

Remove hull & cradle from carton using carrying straps.

Turn the four cabin locks 1/4 towards the cabin sides then lift cabin off.

Lay the sails out flat.

Feed mainsail luff into the slot of the lower mast section. Slip the top mast section over the luff at the headboard and press the top section firmly into the lower section.

Slide the boom on and push staple connection through the boom and the mast holes.

Place the mast in the mast step and locate fore and aft.

Press mainsheet slider over end of boom and position directly above outlet.

Place bowguard in position with the wire loop over deck eye.

Slip headsail boom hook through deck eye from aft.

Bending mast forward hook headsail through upper ring on front of mast.

Press headsail sheet slider along boom and position directly above deck outlet.

Loop vang over hook on underside of main boom and tighten until firm.

Never lift the boat by the mast.

RADIO OPERATION

Load four batteries into the holder noting the polarity of each cell.

Place the holder in the boat and plug into the switch connection.

Place sponge inside boat behind or under the servo pan.

Check that the plastic cover is beneath the sheets.

Replace cabin, turning cabin locks 1/4 turn to point aft.

Load batteries into the transmitter observing the diagram inside the battery cavity.

Turn on the boat switch and transmitter switch.

Check that the transmitter is operating the rudder (right-hand control stick) and that the rudder is on centre using the slide button below the control stick.

The sails are pulled in by pulling down the left-hand control.

The sails are fully out when the stick and trim slide is pushed up the whole way and fully in when the stick and trim slide are in the whole way.

Never lift the boat by the mast.

ADJUSTMENTS

The model as supplied is set up in good average trim but there are several fine tuning adjustments.

The headsail toplift can be tightened by pushing the slider aft which eases the headsail leach. Adjustment of this can be an advantage in certain conditions.

Altering the boom vang in certain conditions can also be a possible advantage.

The relative angle of the mainsail to the headsail can be altered by turning the discs on the sail control arm.

CAUTION: Should a buzzing be heard from the sail control arm servo when the sheets are hard in, the batteries will be quickly flattened. One or both sheets are too tight. Ease sheet until no buzz is heard.

Never lift the boat by the mast.

GENERAL NOTES

Most radio problems are caused by low batteries or bad battery contacts.

Turning the batteries a little while in position usually solves the contact problem.

Transmitter range is well beyond useful visual limits subject to the state of the batteries.

Should control be lost, switch the transmitter off for 5 to 10 seconds then switch on: hold as high as possible while turning the boat on a return course.

Retrieve boat and renew the batteries.

Ensure that the mast is correctly located in the mast support.

Check rudder is centred before use.

For the benefit of other boats, ensure a nose cone is fitted before use.

It is advisable to remove batteries from your Electron and transmitter if storing even for a short period of time.

Never lift the boat by the mast.

MAINTENANCE

It is important to check the bilge regularly and remove any water with the sponge.

After sailing, remove sponge and battery holder, hold the plastic servo cover up and ventilate the boat thoroughly before replacing the cabin top. DO NOT store the damp sponge or batteries inside the boat.

A plastic bag or protective cover over the transmitter is advisable during rain.

The hull requires no maintenance other than a wipe down after sailing and an occasional coat of wax to retain the high finish. The boat should be fresh water rinsed after sailing on salt water.

The sails should be lightly hosed to remove any salt or dirt then hung in a still place to avoid creasing the material.

Never fold the sails and never attempt to iron them.

Fold lines cannot be removed and heat will cause instant distortion which is not recoverable.

The sails are best stored laid flat and should only be rolled and stowed in the boat while in transit.

Never lift the boat by the mast.



Electron Class Rules

V 2.0 September 2026

The Electron model is built to provide competition where the variation in boat performance is reduced to a minimum. Success is dependent on the skipper to tune and sail the boat as supplied ex-factory.

The hull and its equipment are to remain as supplied by the Builder.

Weight.

The weight of an Electron R/C Yacht is 5.0 kg; however, recognising normal variations arising from age, construction and equipment, minor deviations from this weight may be accepted by the Builder, provided the yacht remains otherwise compliant with these Class Rules.

Rig.

The sails, spars and rigging as supplied will not be modified other than by the following adjustments.

Sheet lengths can be altered by turning the rotors on the sail swing arm.

Leech tensions can be altered by the boom vang or topping lift.

The length of the hook at the top of the headsail can be altered.

The mast bend can be altered; Booms are not to be bent.

3D printed booms and their accessories as supplied by the Builder are allowed.

A swivel is **only** allowed on the 3D printed jib boom as supplied by the Builder.

Sails.

Approved sails are only as signed and dated by the Builder.

The hull number of the boat will be fixed to the mainsail on the port side, in black vinyl 25mm in height.

The boats registered identification number or letter and number, in black vinyl as allocated, will be displayed each side of the jib in the prescribed position. The size of the jib letters/numbers will be 60mm or smaller as approved by the builder for future needs

No other vinyl items can be added to the sails other than those as supplied by the builder. Colours can be added to the sail using pen, ink or paint.

Full length battens, tell tales, “woollies” or other wind indicators are not permitted.

Controllers.

The **only** approved controllers are analogue controllers in 27 and 29 frequencies as supplied by Des, Futaba 2HR and Flysky FS-i6 including their standard receivers.

The Builder has the right to change if future availability changes.

Servos.

Only approved steering and sail servos are to be used as supplied by the Builder.

General

No additional ballast is allowed, unless deemed necessary by the Builder to meet correct boat specifications.

Boats are to have a vinyl waterline being the Electron shaped waterline or two stripes.

Pin stripes beneath the gunwale are optional.

Boats must have a soft nose cone as supplied by the builder. Note that some older nose cones over time become very hard and these should be replaced.

Should there be any indecision on the legality of any part of an Electron, a binding decision will be given by the Builder.

The overriding principle of these Class Rules is that all Electrons shall race on as equal a basis as reasonably practicable



RACING RULES FOR ELECTRON MODEL YACHTS

1. OPPOSITE TACKS - PORT/STARBOARD

The Port Tack boat gives way to the Starboard Tack Boat.

2. SAME TACK - WINDWARD/LEEWARD

The Windward boat give way to the Leeward boat.

3. OVERTAKING

The Overtaking boat keeps clear until Rule 2 can be applied.

4. START

a) Any boat over the line at the start signal will return completely behind the line and re-start, without interfering with any other boat - otherwise Rule 7 will also apply.

b) Barging is not permitted at start line marks - refer Rule 2.

5. MARKS

- a) If the Inside boat approaching a mark has established an OVERLAP at four boat lengths from the marks (i.e. bow ahead of stern) then the Outside boat will give the Inside boat BUOY ROOM. Otherwise the Overtaking boat will keep clear of the boat ahead.
- b) If a boat misses a mark it will re-round that mark without interfering with any other boat - otherwise Rule 7 applies also.
- c) There is no penalty for boats touching marks.

6. OBSTRUCTIONS

If a boat is in danger of hitting the bank or is in any other potential collision situation, it must be allowed to tack away after calling for "WATER, PLEASE!"

7. PENALTIES

- a) Any boat that infringes a Racing Rule will carry out a 360 degree turn A.S.A.P. - without interfering with any other boat.
- b) More than three infringements in one race will lead to disqualification from that race.

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