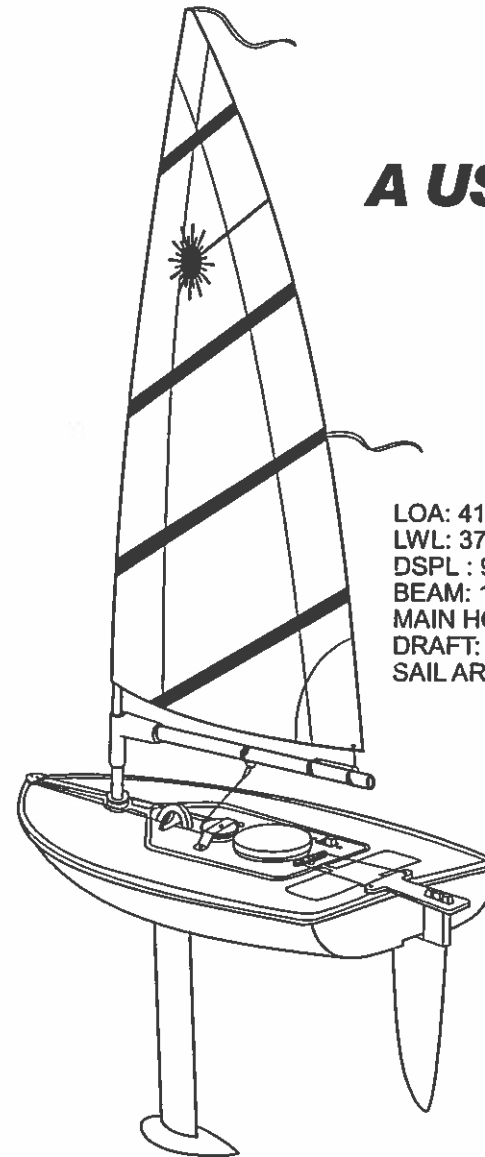




## ***A USER'S MANUAL***



LOA: 41.5" (105.41cm)  
LWL: 37.75" (95.88cm)  
DSPL : 9 lbs (3.4kg)  
BEAM: 13.125" (33.33cm)  
MAIN HOIST: 52" (132.08cm)  
DRAFT: 16" (40.64cm)  
SAIL AREA: 710 sq" (4580.63sqcm)

**DESIGNED BY BRUCE KIRBY  
DEVELOPED BY JON ELMALEH**



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**RC LASER CLASS**  
**International Racing Rules**  
**June 7, 2011**

The radio controlled (RC) Laser was designed by Bruce Kirby and engineered for production as a model by Jon Elmaleh in 1995. The RC Laser is produced by one manufacturer, Out There Technologies (OTT), hereinafter referred to as the builder.

The RC Laser is a One-Design class model yacht regulated by the builder to insure uniform performance and quality control worldwide.

**SECTION A - FUNDAMENTAL RULES STRUCTURE**

**A.1 One-Design Clause** - The primary purpose of the rules is to regulate all RC Laser boats throughout the world, used for racing, to be equal in all characteristics that affect performance.

**Modifications** - No modification or addition shall be made to any manufactured boat part unless it is specifically detailed in this document.

**Manufactured Standard** - Only boat parts manufactured by the builder shall be used. (Hull, Keel, Rudder, Masts, Booms, Fittings, Sails).

**A.2 Authority** - The builder is the final authority for the terms and wording of this rule.

**Rules Committee** - The builder shall appoint an international Rules Committee, composed of at least the three largest national class association secretaries. The builder may be a member of this committee.

**Owner input** - Any class boat owner, or group of owners, may propose a rule change or rules discrepancy to the Rules Committee for consideration. The Rules Committee may propose such rule changes to the builder.

**Legal Responsibility** - Neither the ISAF, nor any NA, nor any recognized measurer is under any legal responsibility with respect to these class rules for accuracy of measurement, nor will any claim arising from them be entertained.

**Certificate** - No measurement certificate is required, however, boats are subject to inspection by the race committee at any time during a regatta or series to determine compliance with these regulations.

### A.3 Definitions

IRCLCA	International RC Laser Class Association
RRS	Racing Rules of Sailing
OTT	Out There Technologies LLC – licensed builder
ISAF	International Sailing Federation
NA	National Authority
NCAS	National Class Association Secretary

### Language

**English** - The official language of the class is English and in case of dispute over translation the English text shall prevail.

**Clarification** - the word "shall" is mandatory and the word "may" is permissive.

## SECTION B - ORGANIZATION

### B.1 Administration of the Class

**Advisory Committee** - The builder may appoint an Advisory Committee to foster class growth and international structure.

**National Class Secretaries** may be appointed, or elected by a vote of class members in their organization.

**Communications** to class members on class business shall be by web site, national affiliation publications and e-mail where available.

## SECTION C – AUTHORIZED MODIFICATIONS TO STANDARD BOAT

**C.1 Electronic Equipment** – Owner may substitute electronic equipment except for the performance-oriented electronics specifications listed below.

**Sail Servo** -must comply with the following specifications:

Maximum specifications of the sail winch servo are speed sail in to out and out to in 3.9 seconds each.

No sail servo shall be modified electronically or mechanically from its factory default performance torque, speed or revolutions.

**Steering Servo** – Max specifications of the rudder servo are speed .15.

**Note:** Over the years various servos were used for both the sail and rudder and they are still in use today, but most of them are not currently available. In the future new servos may be introduced by the manufacturer.

**On Board Batteries** – The boat shall be powered by either 4 ea alkaline AA cells, or 4 or 5 ea NiCad or Nickel Metal Hydride rechargeable AA cells.

**Antenna** – The receiver antenna may be installed in any manner.

**Battery Location** - Battery holder, 4 or 5 packs, may be located anywhere on the cockpit floor.

**C.2. Sail Numbers** – RC Laser sail numbers are a specific size, color and font and are located on the sails as specified in the Sail Number addendum attached to these rules.

**Two Digits** - Only the last two digits of the hull registration number shall be placed on the sails. In the case of two boats competing in the same regatta with identical numbers, the race committee may assign one boat to put a temporary "1" in front of their number.

Both Sides - **All boats used in competition must carry approved sail numbers on both sides of sails.**

### **C.3 – Hull & Deck**

**Hull Finish** - The hull may not be sanded, filled, or painted. Damage may be repaired as long as the hull surface and shape is not improved over the original in any way.

**Hull & Deck Decoration** – Self-adhesive letters, tape, or decals may be fitted to the deck and hull. Felt-tip markers may also be used for decoration. Hull decoration shall not be more than 3" from gunwale

### **C.4 – Underwater Appendages**

**Keel and Rudder** - The keel and rudder may be sanded for the sole purpose of removing rough mold ridges. The shape and smoothness of the keel and rudder may not be changed in any way.

**Keel Ballast** - Ballasts must be completely covered in original soft plastic dip, or the newer hard plastic cover.

## C.5 - Rigging

**Control Line** - The mainsheet control line shall be attached to the winch drum, run either around the mast step, or around the bow pulley, and attached back to the winch drum. A piece of shock cord, or a spring, may be inserted into the control line between the mainsheet attachment loop and the drum on the same side of the line as the mainsheet attachment point.

**Lines** - Lines used for the control line, mainsheet, outhauls and downhauls may be of any material deemed suitable by the boat owner.

**Short Boom** - A standard boom may be shortened to a minimum of 17" (inches) length for use with the C and D sail.

**Clips** - Clips are authorized to fasten the mainsheet to the boom slider, and to fasten the outhaul line to either the boom slider or to the sail clew.

**Finger Savers** - Beads or caps are authorized for use on wire ends of boom sliders.

## C.6 - SAILS

**Official Sails** - Four sail sizes, identified as A, B, C and D, are authorized. Manufactured marks may not be removed, altered, or hidden.

**Grandfathered D Sails** - D sails produced and distributed by John Tushingham of England may be used in competition until January 2012. These sails are not to be purchased past this rule adoption.

**Attachments** - Wind Flow indicators may be attached to any point of the sail and may be made of any material.

**Repair** - Sail damage may be repaired as long as repair does not stiffen or alter the size of the sail.

**Sail decorations** - Sails may be decorated using decals, tape or markers, but such markings shall not interfere with easy identification of the sail numbers or the Laser logo. Sail decorations may not stiffen or change the shape/size of the sail.

## SECTION D - MISCELLANEOUS RACING RESTRICTIONS

**Crew** - The crew shall consist of 1 person, but may be more with special permission by the Race Committee.

**Advertising** - Class races shall be category B in accordance with the ISAF.

## **SECTION E - PENDING RULE CHANGES**

**Weight** - A minimum weight is being determined. As soon as the appropriate investigation is complete, a suitable minimum weight will be designated. All boats will then be required to make the minimum weight. This will be done on a calibrated scale at regattas, and weights added if necessary at that time.

### **ADDENDUMS**

#### **Sail Number Specifications**

**General:** In North America the class has moved to a universal font from the original font that was not readily available from providers. It is understood that the rest of the world has adopted various fonts that are the correct size but not all are the same. The class, at this time, is not forcing a font on the world. Size, color and correct placement are key to race identification and helpful to race committees.

**Two Digit Number** -Each new boat is issued a hull number from the distributor or dealer. The last two digits of the hull number becomes the sail number.

All boat numbers are issued in sequence.

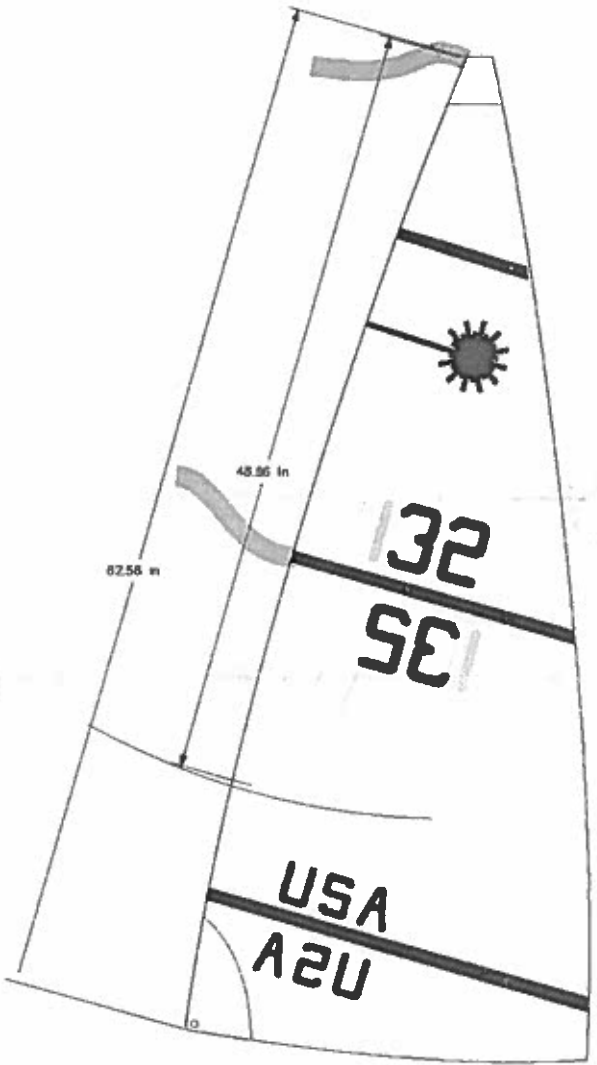
**Size and Font** -Numbers and country designators must be a certain size and font.

**Number size: 4" Font: Arial Rounded MT Bold; Color: Black**

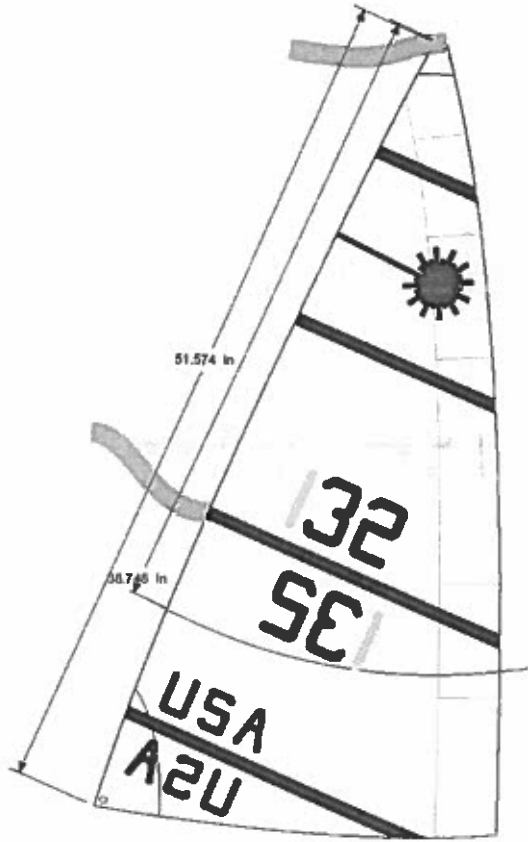
**Country Designator size: 2-1/2" Font: Arial Rounded MT Bold; Color: Black**

NOTE: Numbers are available at local sign shops that may have the peel off material. An alternative method is to print your own numbers on paper (select above font and size on your computer). Place the number template under the sail and trace onto the sail with "permanent" marker. Take care on the "fuzzy" side of sail to do edges of the number quickly so the ink does not wick outward.

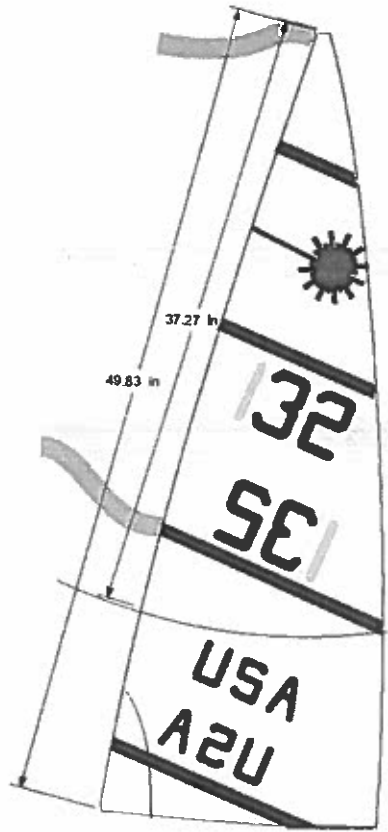
**Installation** -All numbers and letters must be installed on the sail as per the diagram below. NOTE: the number set on the starboard (right) side of the sail is the higher installation location. C & D sail locations are the same.



A



B



C & D

75015 PARIS

17, rue Henri Bocquillon

FEDERATION FRANCAISE DE VOILE

17 OCT. 2017
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