

2018 Para World Championship

2 Person boat
Equipment Regulations (VCER)

Sheboygan, USA

1. General requirements

- 1.1** The equipment for the 2 Person Para Sailing World Championship Event will be the RS Venture Connect with twin side-by-side seats.
- 1.2** The equipment will be supplied by the Organizing Authority and allocated by a draw on Sept 16 2018.
- 1.3** Items in **bold** font are defined in the Equipment Rules of Sailing (ERS).
- 1.4** Items in *italic* font are defined in the Racing Rules of Sailing (RRS).
- 1.5** Vertical, longitudinal and transverse refer to the **major axes** of the **boat**.
- 1.6** RS Venture Connect **boats** will be supplied with the equipment listed below ready for use:
- **Hull** complete with all fittings attached;
 - **Centreboard** complete with all fittings attached;
 - **Rudder** complete with all fittings attached;
 - **Mast** and standing rigging complete with all fittings attached;
 - **Boom** complete with all fittings attached;
 - Complete set of **sails** with all fittings attached;
 - Complete set of **running rigging**.
 - Launching trolley.
- 1.7** Only the Organising Authority supplied and identified equipment listed in VCER 1.6 shall be used for racing unless listed in VCER 1.8.
- 1.8** The following equipment, may be supplied by athletes provided they conform to these regulations:
- 1.8.1** Seating
- a. Seats may be from any manufacturer and shall conform to the following specifications:
 - Maximum overall seat height measured perpendicular to the cockpit floor: 750mm.
 - Maximum transverse dimension in the horizontal plane: 400mm.
 - Maximum longitudinal dimension seat base: 390mm.
 - Minimum weight, including seat base unit and fastenings: 8kg. Any shortfall in weight may be made up by **corrector weights**.
 - b. Each seat shall be mechanically attached to a supplied seat base unit (see drawing in Appendix 1). The seat base unit shall be fitted to the **boat** using the supplied tracks and fixed in place so that the seat cannot become detached while sailing. The tracks shall be fitted in the standard as supplied position.
 - c. Each seat shall be equipped with restraints that shall be used to secure the **crew** to the seating surface at all times whilst racing. Each restraint shall have a visible quick release mechanism.
 - d. With the two seats fitted, two supplied foot bars and tracks shall also be fitted in the standard as supplied position.
- 1.8.2** Steering
- a. With the two seats fitted to the **boat** either manual joystick or electronic steering controls shall be used by the seated **crew** to steer the **boat**.
 - b. The manual joystick steering system, with the exception of the joystick itself, shall be supplied by the Organizing Authority and all equipment shall be fitted in the standard positions. Only one joystick shall be used to steer the **boat** at any time while racing.
 - c. Manual joysticks may be from any manufacturer, but shall conform to the following specifications:
 - The manual joystick shall be based on a single straight tube or a Y shaped design to allow grip with two hands. Handgrips may be added.
 - Dimensions shall be:

Overall length:	Minimum 300mm	Maximum 340mm
Overall width:	Minimum 20mm	Maximum 300mm
 - Tube internal diameter at bottom to fit over joystick receiving tube: 21.5mm.

- d. The electronic steering system, with the exception of the control unit, shall be supplied by the Organizing Authority and all equipment shall be fitted in the standard positions.
- e. Electronic control units may be from any manufacturer and shall be compatible with the wiring set out in appendix 2. The control unit may be of joystick or sip/puff type

1.8.3 Optional Equipment

The following optional equipment may be used and attached to the **hull** or **rig** providing that attachments do not puncture and are not bonded to the surface of the **boat**:

- a. Compass, timing device or a combination of both provided that it/they can only provide information relating to the **boat's** heading and time (current or elapsed);
- b. Non-electronic maps, charts and a marking pencil or pen for recording courses and compass headings;
- c. Mobile phone, solely for emergency communications;
- d. Bags, clips, ties, velcro and tape to secure safety equipment, loose clothing and to stow food and/or drinks (as well as food, drink, tools, paddle and safety equipment);
- e. Any additional equipment required by the Sailing Instructions for the event;
- f. GPS tracking and recording device provided that the data and output is not used while *racing*;
- g. Camera to record video and pictures provided that the data and output is not viewed or used by the crew while *racing*; output may be used for producing broadcasts to the general public while *racing*;
- h. A towing line provided that it is to be attached to existing fittings or parts;
- i. Any number and design of mechanical wind indication devices may be fitted;
- j. Up to 2 mast head floats;
- k. Mounts for any of equipment (a) to (h) in this section. The mounts may be attached to the **boat** using tape, Velcro, cable ties, bonding or sealing material, providing that attachments do not puncture the surface of the **boat** and can be removed without damage to the **boat**.

1.9 No alterations shall be made to any part of the **boat**, its equipment, spars or fittings, or fittings removed, even if subsequently replaced, without the written approval of the Technical Committee, except for those fittings and items of equipment defined in VCER 1.8.

1.10 Unless permitted by the Technical Committee, the **hull, sails, mast and boom, centreboard and rudder** may be washed with soap and water and wiped down manually. No polishing, reshaping or sanding of the **centreboard, rudder** or any portion of the **hull** is permitted.

1.11 On completion of the event, all equipment supplied to athletes shall be returned to the Organising Authority in accordance with instructions that will be posted on the Official Noticeboard.

1.12 Technical Committee members will be published on the Official Noticeboard by Sept 15 2018.

Appendix 1

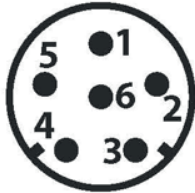
Technical drawing of a seat base assembly. The drawing includes a front view and a side view. Key dimensions are: overall width 234, distance between mounting points 150, depth 231, side view width 200, side view depth 221, and a small offset of 5. Radii R12 and R17 are indicated at the corners. A hole diameter of $\text{Ø}8.3$ TYP is shown.

No	Qty	Revision	Date	Sign

	SEAT BASE ASSEMBLY 373 X 235 X 105 RS VENTURE CONNECT
Estimated mass 1273.7g	Volume 492.2cm ³
Tolerance acc. to SS-ISO 2768-x unless otherwise stated	First date for printing 2017-11-23
Drawn OH	Date 16-08-22
Scale 1:2	Revision 1
Release X	Approved AM
Design AM	Part No. 480-522-01

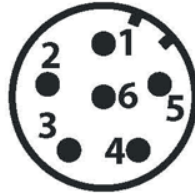
RS Venture Control Connections

Wiring



Socket
(Cable)

Bulgin PX0410/06S
Pins: SA3347/1



Plug
(panel)

Bulgin PX0412/06P
Pins: SA3348/1

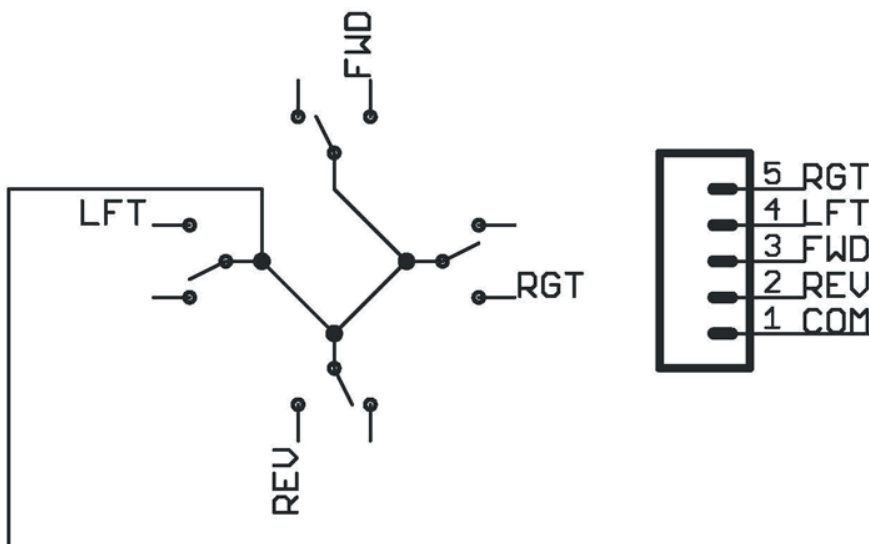
Output Pin Designation

1. Com - Red
2. Sheet Rev - Blue
3. Sheet Fwd - Orange
4. Steering Lft - Green
5. Steering Rgt - White
6. -

Electrical Functions

Pin 1 provides a 5V common output, making a connection with this and any of the other designated pins will initiate that function.

Joystick Schematic



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