

# Troubleshooting guide, Electric in-mast furling

This guide applies to Seldén part numbers:  
532-501 MOTOR UNIT RB P81 12V COMPL  
532-502 MOTOR UNIT RC SPG105 12V COMPL  
532-503 MOTOR UNIT RC SPG105 24V COMPL

Date of matching supplier document: 08-04-04

## Trouble shooting

It is very important that the electrical installation is done by a person familiar with electronic installations.

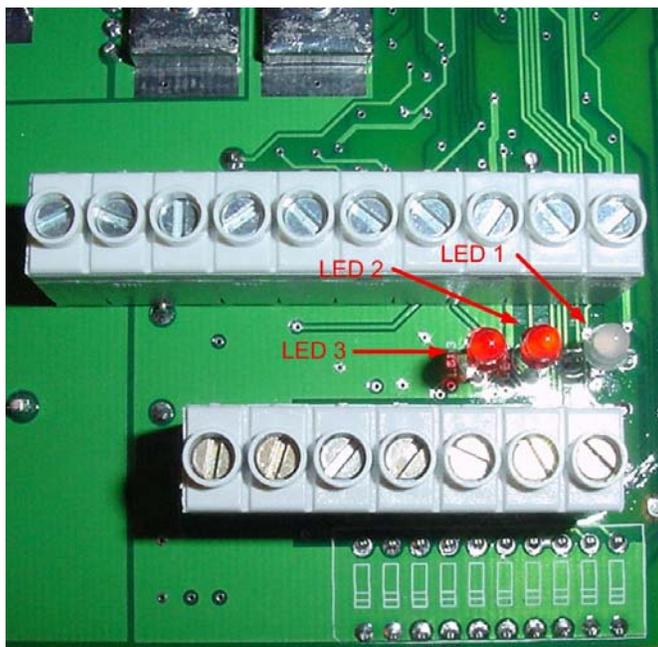
Before connecting power to the Mast unit all the wiring must carefully be checked.

**If mixing 12-24V battery cables with the 3 power cables to the motor, the electronic drive unit can be destroyed.**

The drive unit is protected from wrong polarity from battery supply.  
A standard Digital volt meter is used for trouble shooting.

**Warning: - when connecting and disconnecting power wires wait for 1 minute after power switch off.**

The drive unit has Light Emitting Diodes ( LED ) placed as shown in picture.



### **LED 1**

Indicator for power supply to the drive unit.

When power is applied to the unit the LED is red.

This LED will change from red to green when drive is activated and motor rotates normally.

If mast motor is overloaded and not rotating or rotation very slow the LED will have an orange colour.

### **LED 2**

Is Error indication and can indicate following errors.

Steady red when power is applied to drive unit, indicates that there is a permanent command signal at one of the inputs to operate the sail in P1-6 or out P1-5.

Check wiring and related manoeuvre switches.

If Drive unit is overloaded and overheated the LED will signal one single flash.

If battery voltage is low the LED will flash 2 flashes. And if an attempt to manoeuvre sail is done immediately after a low battery stop the motor will operate sail at a low speed which will reduce current draw from battery.

If motor is overloaded to stall, the drive is inhibited and LED will flash 3 times.

Indication of errors will disappear when sail in or out switch is released.

### **LED 3**

When red indicates that sensors in motor is faulty or that there is a short or open circuit in sensor wiring to the motor.



<p>If <b>LED 1</b> turns from red to green when trying to operate sail and after 2s the error <b>LED 2</b> will indicate with 3 flashes. Motor is not operating Indication of errors will disappear when sail in or out switch is released.</p>	<p>One power wire to motor open circuit</p>	<p>Check motor power wires for open circuits or bad connections.</p>
<p>If <b>LED 3</b> is lit red, motor will not operate</p>	<p>Control signals to motor has open or short circuits.  Motor sensors faulty</p>	<p>Check control signal wires for open or short circuits. Check that control signal for motor are in right positions. If no fault in wiring motor sensor defect, replace mast unit.</p>
<p>Mast unit is not operating or only operating for a short moment and <b>LED 2</b> will indicate with 2 flashes. Indication of error will disappear when sail in or out switch is released.</p>	<p>Battery voltage to low Bad power connections from battery to control unit.</p>	<p>Charge battery Check for bad connections at power wires and power fuse. If voltage at power terminal in control unit when operated is less than 10V <b>LED 2</b> will indicate for low battery voltage.</p>
<p><b>LED 2</b> indicates with 1 flash</p>	<p>System is overloaded and drive unit overheated.</p>	<p>Wait for drive unit to cool down</p>

