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manual onboard!



# User Manual

For Retract Thruster Models  
SR & SR-IP Electric



**SLEIPNER AS**

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Norway

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## Products

SRL130/250T-12V - SRL130 Retract thruster 12V  
 SR100/185T-12V - SR100 Retract thruster 12V  
 SRP80/185T-24V - SRP80 Retract thruster 24V  
 SRP80/185T-12V - SRP80 Retract thruster 12V  
 SRP100/185T-24V - SRP100 Retract thruster 24V  
 SRP100/185T-12V - SRP100 Retract thruster 12V  
 SR80/185T-24V - SR80 Retract thruster 24 V  
 SR80/185T-12V - SR80 Retract thruster 12 V  
 SR100/185T-24V - SR100 Retract thruster 24V  
 SRL80/185T-24V - SRL80 Retract thruster 24V  
 SRL100/185T-12V - SRL100 Retract thruster 12V  
 SRV100/185T-12V - SRV100 Vertical Retract 12V  
 SRV100/185T-24V - SRV100 Vertical Retract 24V  
 SRV80/185T-12V - SRV80 Vertical Retract 12V  
 SRV80/185T-24V - SRV80 Vertical Retract 24V  
 SRL100/185T-24V - SRL100 Retract thruster 24V  
 SRL80/185T-12V - SRL80 Retract thruster 12V  
 SRV130/250T-24V - SRV130 Vertical Retract 24V  
 SRV130/250T-12V - SRV130 Vertical Retract 12V  
 SRV170/250TC - SRV170 Vertical Retract 24V  
 SRVP170/250TC - SRVP170 Vertical Retract 24V  
 SRV210/250TC - SRV210 Vertical Retract 24V  
 SRL130/250T-24V - SRL130 Retract thruster 24V  
 SRL170/250TC-IP - SRL170 Retract thruster 24V

## DECLARATION OF CONFORMITY

MC\_0020



Sleipner Motor AS  
 P.O. Box 519, Arne Svendsensgt. 6-8  
 N-1612 Fredrikstad, Norway

Declare that this product with accompanying standard control systems complies with the essential health and safety requirements according to:

DIRECTIVE 2013/53/EU  
 DIRECTIVE 2014/30/EU  
 DIRECTIVE 2014/35/EU

**IMPORTANT**

**Failure to follow the Considerations and precautions can cause serious injury / damage and will render all warranty given by Sleipner Motor AS VOID.**

**Never use thrusters when close to objects/ persons or pets in the water. The thruster will draw objects into the tunnel and the rotating propellers. This will cause serious injuries and damage the thruster.**

**Always turn the main power switch off before touching any part of the thruster, An incidental start while touching moving parts can cause serious injuries.**

**Never store items (e.g. equipment, sails, ropes etc.) in the same compartment as the thruster. When the thruster runs for an extended period, it can reach 150°C and will cause damage to nearby items or cause a fire. The electromotor will generate some carbon dust so any storage compartment must be separated from the thruster to prevent nearby items from becoming dusty/ dirty.**

**Any loose items near the thruster motor can cause problems with electrical wiring coming loose and short-circuiting.**

- Ensure you know the location of the main battery switch that disconnects the thruster from all power sources (batteries) so the thruster can be turned off in case of serious malfunction.
- Always turn the control device off when the thruster is not in use or when leaving the boat.
- When leaving the boat always turn off the main power switch for the thruster.
- The maximum continuous run time of the electrical thruster is approximately 3 minutes. The motor is equipped with a built-in thermal cut-off switch that will shut the motor off when overheating. Consider this when planning your manoeuvring.
- Never use thrusters out of water.
- If the thruster stops giving thrust while running, there is possibly a problem in the drive system. You must immediately stop running the thruster and turn it off. Running the thruster for more than a few seconds without resistance from the propeller can cause serious damage to the thruster.
- We advise keeping the main engine(s) running while using the thruster. This will keep the batteries in a good charge condition. It will also give better performance to the thruster.
- If the performance of the thruster is reduced check the battery system or check the tunnel for marine growth.
- If two panels are operated with conflicting directions at the same time the thruster will not run. If both are operated in the same direction, the thruster will run in this direction.
- If you notice any faults with the thruster switch it off to avoid further damage.
- The electro motor, its components, contacts/ plugs or other joints in the control cables must be mounted so they will remain dry at all times.
- It is the owner/ captain/ other responsible parties full responsibility to assess the risk of any unexpected incidents on the vessel. If the thruster stops giving thrust for some reason while manoeuvring you must have considered a plan on how to avoid damage to persons or other objects.
- The primary purpose of the thruster is to manoeuvre/ dock the vessel. Forward/ reverse speed must not exceed 4 knots when operated.

**IMPORTANT**

**NEVER Disassemble any part of the Ignition Protected assembly. Tampering with the Ignition Protected assembly will cause it to lose this safety feature.**

**If there is a problem with your Ignition Protected stern thruster, please contact your dealer.**

**! Please refer to the graphic for special considerations relating to your model !**

**Take time to practice operation in open water to become familiar with the thruster and to avoid damages to your boat or people.**

#### How to use a Bow Thruster

1. Turn on the main power switch for the bow thruster. (NB: Always turn off the main power switch when not on-board.)
2. Turn on the control panel by pushing both "ON" buttons on the original Side-Power panel simultaneously. **(NB: If another type of control is installed, push the On/Off switch for the bow thruster.)**  
\*Turn off the control panel by pushing both "OFF" button
4. To Turn the bow in the desired direction push the red button for port movement or the green button for starboard.  
- For joystick control, move the joystick in the direction you wish the bow to move.  
-Other controls like foot switches or toggle-switches on the throttle can be used. Engage the port control, the bow will turn to port etc.
5. Depending on the sideways speed of the bow, you must disengage the control device shortly before the bow is in the desired position. **(NB: The boat will continue to move after disengaging the thruster control.)**

#### How to use a single stern thruster

Due to space limitations, a vessel may only have a stern thruster. In this case, the stern thruster is used in the same way as a single bow thruster for moving the boat's stern. Follow the above instruction for operation use.

#### How to use a combined bow and stern thruster

The combination of a bow and stern thruster offers total manoeuvrability to the boat and the ability to move the bow and the stern separately from each other. This enables you to move the boat sideways in both directions and turn the boat around its axis 360° staying stationary.

**NB: At any significant cruising speed (+1-2 kn) the side thruster will have little effect to steer the vessel.**

ON/ OFF CONTROL PANEL



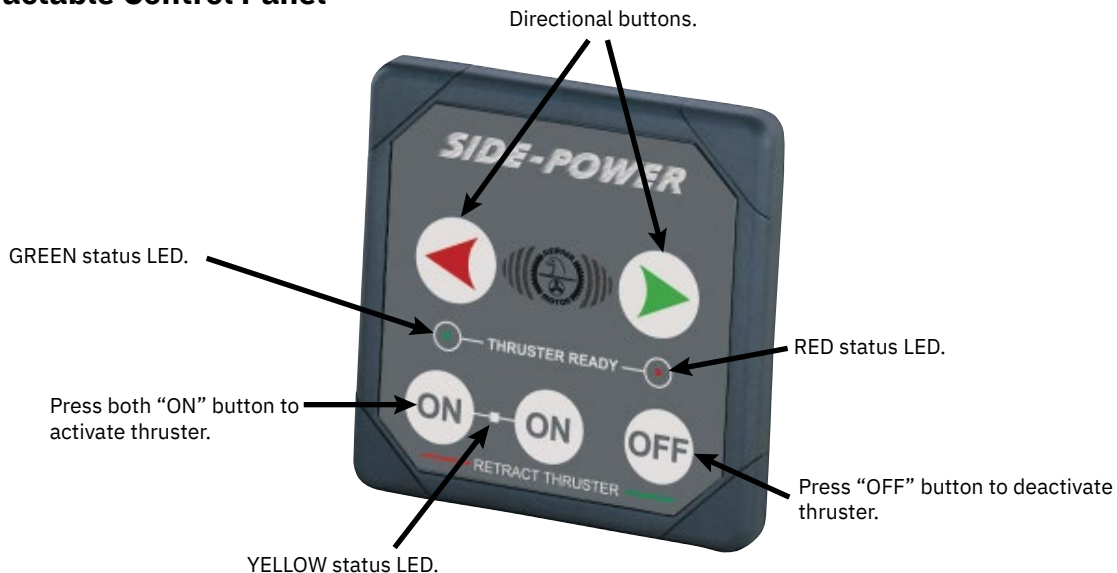
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#### STATUS/ALARM LEDES:

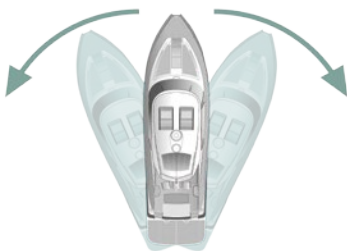
- Solid YELLOW LED light = the panel is on.
- ⚡ Flashing GREEN LED light = thruster is deploying.
- Solid GREEN LED light = thruster is deployed and ready to operate.
- ⚡ Flashing RED LED light flashes = thruster retract phase,
- All LEDs out when panel/thruster is shut down.

**(NB: If something unexpected happens while deploying/retracting thruster, the LEDs will flash alarm codes according to fault codes in this manual.)**

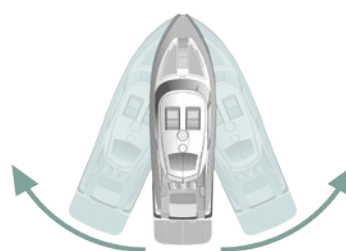
# Retractable Control Panel



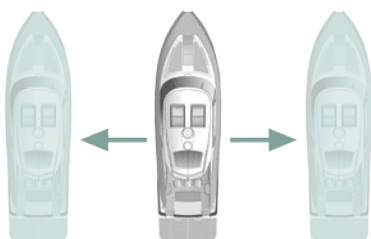
Activating the bow thruster



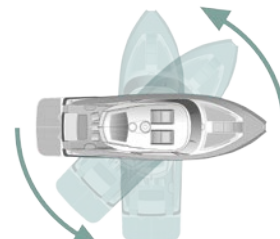
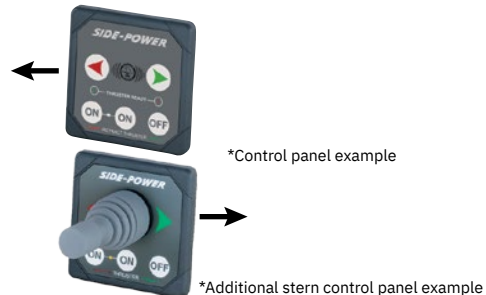
Activating the stern thruster



Activating both bow and stern thruster to push the boat sideways



Activating both bow and stern thruster to rotate the boat on axis



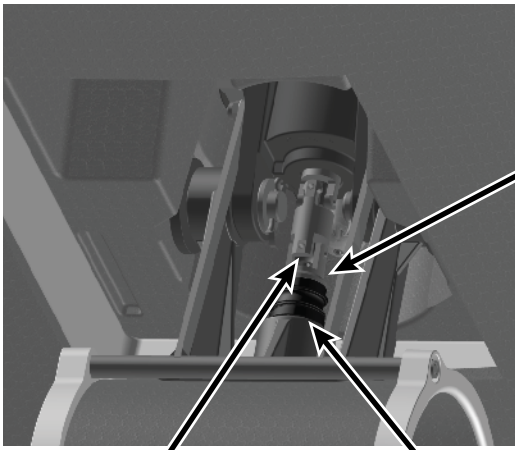
**! Please refer to the graphic for special considerations relating to your model !**

**As a part of the seasonal service of your Thruster before every season, always check that:**

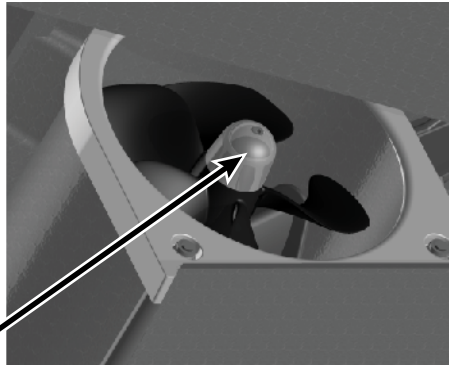
- There must always be oil in the oil reservoir. Refill if necessary with gear oil EP90. Change the gear oil a minimum of every second year. Check the gear oil quality in the gear house every time the boat is out of the water. **(NB: When changing gear oil in older SRV300 models, refill and drain gear leg simultaneously to secure that the system will not be emptied.)**
- The propeller is fastened securely to the gear leg.
- Bolts holding the thruster components together are fastened securely.
- The area around the thruster is clean and dry. Ensure there are no signs of water. **(NB: Pay special attention to the horizontal and vertical shafts.)**
- Paint the propeller and gear leg with anti-fouling before every season to keep it clean from sea growth. **(NB: Never paint the anode, sealing or propeller shaft. Ensure paint does not enter the space between the propeller and the gear leg.)**
- All electrical connections are clean and fastened firmly.
- Ensure that your batteries are in a good condition.  
\*While running the thruster measure volt output is greater than  
(10.5v) for 12v motors  
(21v) for 24v motors
- Change the anode before every season, or when half the anode has eroded. Always use a sealant or thread glue on the holding screw to ensure that it does not fall off. **(NB: In some water conditions, it may be necessary to install an extra anode to ensure that it lasts for the whole period between regular service lifts of the boat. Consult your dealer for information on how to do this.)**
- Check the drive shaft in the retract mechanism is lubricated and any for any excess movement.
- Check for excess movement in the break-away rings securing the actuator. If the actuator can be moved more than 3 mm via manual force, replace the break-away rings. **(NB: Spare rings are included from the factory.)**
- Check Rubber element for leakages or cracks every year and change every 2nd year.
- If there is a problem with your Ignition Protected stern thruster, please contact your dealer.

#### IMPORTANT

**NEVER Disassemble any part of the Ignition Protected stern thruster assembly. Tampering with the Ignition Protected stern thruster assembly or any attempt to disassemble anything on this thruster assembly inside the boat can cause an explosion with severe consequences.**



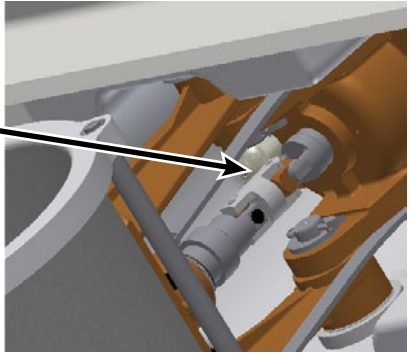
**DO NOT apply anti-fouling  
DO NOT clean with chemicals,  
hot water or high-pressure  
water jet in this area.**



Anode Gear leg

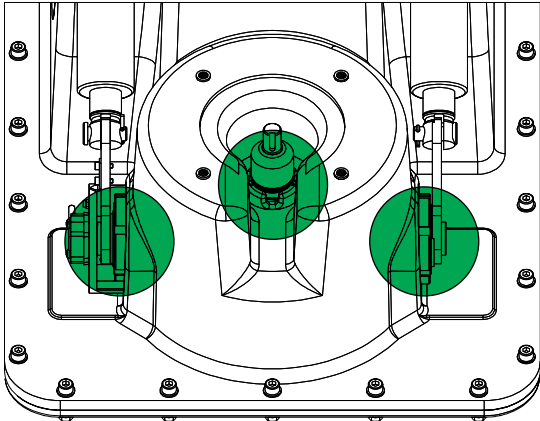
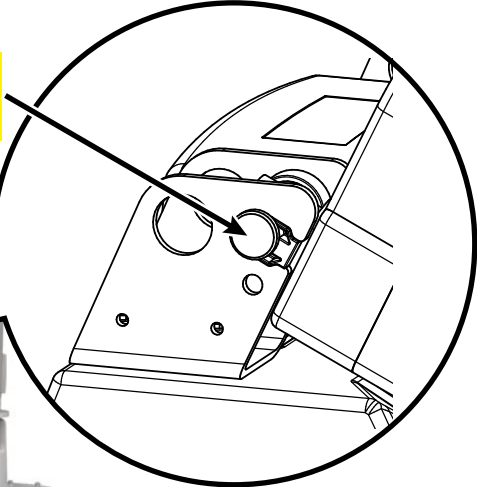
Check and re-lubricate with waterproof grease if necessary

Check annually rubber element.



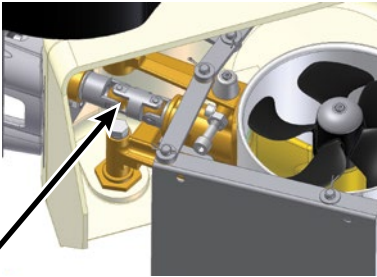
Anode Retract

**IF over 3 mm movement,  
Break-away rings must be  
replaced**

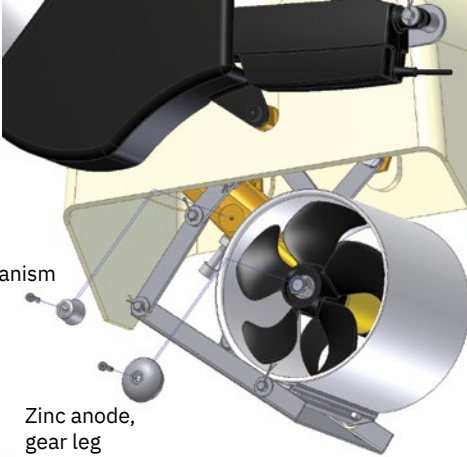


**IMPORTANT  
Check these areas for leaks**

\* For SR80 & SR100



Check and re-lubricate with waterproof grease if necessary



Zinc anode,  
retract mechanism

Zinc anode,  
gear leg

Before seeking assistance from the website help desk from your Side-Power dealer/ distributor, please perform these tests.

**(NB: If you are unable to understand what to check, you must consult a Side Power distributor.)**

CHECK	SOLUTION
<b>The motor runs, but there is no thrust</b>	
Check propellers are fitted, fastened correctly and not damaged on the prop shaft.	Re-fasten or replace if necessary
* Check the flexible coupling between the motor and drive shaft is fitted correctly and not damaged.	Replace if necessary
* Check the gear box is not damaged.	Replace if necessary
<b>The thrusters performance is reduced</b>	
Check the propeller, gear house and tunnel are free from growth/ barnacles or debris and damage.	If there is growth in the tunnel, this will disturb/ block the water flow and significantly reduce performance
Check the battery is in a good working condition.	<p><b>(NB: Keep the main engine(s) running in use to have a continuous charge to the batteries)</b></p> <ul style="list-style-type: none"> <li>• Check batteries are not worn out or in a bad charged condition</li> <li>• Check electrical connections/ wiring for damage or wear (corrosion)</li> <li>• Check cables are the correct size per the product manual</li> <li>• Tighten/ re-adjust connections</li> </ul>
<b>The thruster does not start/ works in only one direction or does not turn off</b>	
Check the main switch is active/ on.	Switch the main switch open if it is closed.
Check all battery fuses are in good condition.	<ul style="list-style-type: none"> <li>• Check batteries</li> <li>• Check electrical connections/ wiring for damage or wear (corrosion)</li> <li>• Tighten/ re-adjust and clean connections</li> </ul>
The thruster is not shutting off after the Joy Stick/ panel is disengaged.	Hit the main switch to disengage the thruster. Contact and consult a Side Power distributor as the control system has been damaged.
<b>The thruster works in only one direction</b>	
Damaged relay.	Hit the main switch to disengage the thruster. Contact and consult a Side Power distributor as the control system has been damaged.
<b>The thruster runs in a pulsing action</b>	
This is a build-in error response. -Solenoids failure	Hit the main switch to disengage the thruster. Contact and consult a Side Power distributor.
The solenoid might be in a lock-in/ auto stop position.	Hit the main switch to disengage the thruster. Contact and consult a Side Power distributor.

\* Not applicable to SX thrusters.



LED	Panel alarm indication	Failure	Thruster reaction	User action
1	1 flash YELLOW & GREEN - Pause	Thruster, overtemp	Retracts	Turn off panel, wait for 20 mins.
2	2 flashes YELLOW & GREEN - Pause	Thruster, low power	Retracts	Turn off panel, charge batteries.
3	3 flashes YELLOW & GREEN - Pause	Deploy operation obstructed	Retracts	Turn off panel. Go for lower speed/deeper water. Retry.
4	4 flashes YELLOW & GREEN - Pause	SR150000 position sensor fail	Retracts	Position sensor short or open circuit. Check wiring and connection.
5	5 flashes YELLOW & GREEN - Pause	SR150000 solenoid output short circuit, port or starboard.	Retracts	Check solenoid wiring and connection, and check if solenoid is shorted.
6	6 flashes YELLOW & GREEN - Pause	SR150000 motor temp sensor fail	Retracts	Check motor temp sensor, wiring and connection.
1	1 flash YELLOW & RED - Pause	Power failure, Actuator	System shuts down	Turn off panel. Check actuator connections . Retry.
2	2 flashes YELLOW & RED - Pause	Thruster IPC error	Retracts	Turn off panel - thruster must be serviced by authorized personel.
3	3 flashes YELLOW & RED - Pause	Retract operation obstructed	Aborts retract, deploys and retries to retract 3 times. If operation still is obstructed, retract stops on obstruction	Press both ON-buttons to deploy thruster. Turn Main-Switch off. Remove obstruction.
1	1 flashes YELLOW, GREEN & RED - Pause	Automatic Main Switch Power failure	None	Check power to Automatic Main Switch
2	2 flashes YELLOW, GREEN & RED - Pause	Automatic Main Switch fuse blown	None	Replace fuse on Automatic Main Switch. If new installation, check if input and output is correct connected.
3	3 flashes YELLOW, GREEN & RED - Pause	Automatic Main Switch manual override	None	Pull up Automatic Main Switch
4	4 flashes YELLOW, GREEN & RED - Pause	Panel has no contact with thruster.	None	Turn off panel. Check main switch, fuse, cable connections, cables. Retry.

**(NB: THE MAIN SWITCH MUST BE TURNED OFF IMMEDIATELY WHEN AN IPC-ERROR OCCURS, TO PREVENT OVERHEATING OF THE THRUSTER MAIN RELAYS.)**

**THRUSTER WILL NOT RETRACT WHILE REVERSING AT "HIGH" SPEED. THIS WILL TRIGGER THE "Retract operation obstructed" ALARM.**

**IF ALARM IS TRIGGERED, REDUCE SPEED AND PRESS BOTH "ON" BUTTONS BEFORE RETRYING "OFF" BUTTON**

CHECK TO PERFORM	DATE											
The propeller is fastened securely to the gear leg.												
Bolts holding the thruster components together are fastened securely.												
The area around the thruster is clean and dry. If there are signs of water, try to find the source and eliminate it.												
Paint the propeller and gear leg with anti-fouling.												
Batteries are in good condition.												
All electrical connections are clean and fastened firmly.												
Check the drive shaft in the retract mechanism is lubricated.												
Check for excess movement in the break-away rings securing the actuator.(Keep spares on-board)												
Change the zinc anode.												
Check Rubber element for leakages. *REPLACE EVERY 2 YEARS												
Check oil in the oil reservoir on older SRV300 models. *REPLACE EVERY 2 YEARS												
Check the twist rings, hatch and excess movement in the drive shaft.												

**Find your local professional dealer from our certified worldwide network for expert service and support.**

**visit our website [www.sleipnergrouper.com/support](http://www.sleipnergrouper.com/support)**

**For additional supporting documentation, we advise you to visit our website [www.sleipnergrouper.com](http://www.sleipnergrouper.com) and find your Sleipner product.**

1. Sleipner Motor AS (The "Warrantor") warrants that the equipment (parts, materials and embedded software of products) manufactured by the Warrantor is free from defects in workmanship and materials for the purpose for which the equipment is intended and under normal use and service (the "Warranty").
2. This Warranty is in effect for two years (Leisure Use) or one year (Commercial and other Non-leisure Use) from the date of purchase by the end user (for demonstration vessels, the dealer is deemed as end user).
3. This Warranty is transferable and covers the equipment for the specified warranty period.
4. The warranty does not apply to defects or damages caused by faulty installation or hook-up, abuse or misuse of the equipment including exposure to excessive heat, salt or fresh water spray, or water immersion except for equipment specifically designed as waterproof.
5. In case the equipment seems to be defective, the warranty holder (the "Claimant") must do the following to make a claim:
  - (a) Contact the dealer or service centre where the equipment was purchased and make the claim. Alternatively, the Claimant can make the claim to a dealer or service centre found at [www.sleipnergrouper.com](http://www.sleipnergrouper.com). The Claimant must present a detailed written statement of the nature and circumstances of the defect, to the best of the Claimant's knowledge, including product identification and serial nbr., the date and place of purchase and the name and address of the installer. Proof of purchase date should be included with the claim, to verify that the warranty period has not expired;
  - (b) Make the equipment available for troubleshooting and repair, with direct and workable access, including dismantling of furnishings or similar, if any, either at the premises of the Warrantor or an authorised service representative approved by the Warrantor. Equipment can only be returned to the Warrantor or an authorised service representative for repair following a pre-approval by the Warrantor's Help Desk and if so, with the Return Authorisation Number visible postage/shipping prepaid and at the expense of the Claimant.
6. Examination and handling of the warranty claim:
  - (a) If upon the Warrantor's or authorised service Representative's examination, the defect is determined to result from defective material or workmanship in the warranty period, the equipment will be repaired or replaced at the Warrantor's option without charge, and returned to the Purchaser at the Warrantor's expense. If, on the other hand, the claim is determined to result from circumstances such as described in section 4 above or a result of wear and tear exceeding that for which the equipment is intended (e.g. commercial use of equipment intended for leisure use), the costs for the troubleshooting and repair shall be borne by the Claimant;
  - (b) No refund of the purchase price will be granted to the Claimant, unless the Warrantor is unable to remedy the defect after having a reasonable number of opportunities to do so. In the event that attempts to remedy the defect have failed, the Claimant may claim a refund of the purchase price, provided that the Claimant submits a statement in writing from a professional boating equipment supplier that the installation instructions of the Installation and Operation Manual have been complied with and that the defect remains.
7. Warranty service shall be performed only by the Warrantor, or an authorised service representative, and any attempt to remedy the defect by anyone else shall render this warranty void.
8. No other warranty is given beyond those described above, implied or otherwise, including any implied warranty of merchantability, fitness for a particular purpose other than the purpose for which the equipment is intended, and any other obligations on the part of the Warrantor or its employees and representatives.
9. There shall be no responsibility or liability whatsoever on the part of the Warrantor or its employees and representatives based on this Warranty for injury to any person or persons, or damage to property, loss of income or profit, or any other incidental, consequential or resulting damage or cost claimed to have been incurred through the use or sale of the equipment, including any possible failure or malfunction of the equipment or damages arising from collision with other vessels or objects.
10. This warranty gives you specific legal rights, and you may also have other rights which vary from country to country.

At Sleipner we continually invest to develop and offer the latest technology in marine advancements. To see the many unique designs we have patented visit our website [www.sleipnergrouper.com/patents](http://www.sleipnergrouper.com/patents)

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**Register your product and learn more at [www.sleipnergroun.com](http://www.sleipnergroun.com)**



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Norway

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