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# User Manual

For Thruster Models  
SH Hydraulic



**SLEIPNER AS**

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## Products

SH1000/513-BA45 - SH1000 Tunnel thruster, Ø513mm
SH100/185T-U06 - SH100 Tunnel thruster, U06
SH100/185T-U10 - SH100 Tunnel thruster, U10
SH160/215T-U14 - SH160 Tunnel thruster, U14
SH160/215T-U06 - SH160 Tunnel thruster, U06
SH240/250TC-U08 - SH240 Tunnel thruster, U08
SH240/250TC-U10 - SH240 Tunnel thruster, U10
SH240/250TC-U19 - SH240 Tunnel thruster, U19
SH320/300TC-U16 - SH320 Tunnel thruster, U16
SH320/300TC-U19 - SH320 Tunnel thruster, U19 [Archived]
SH320/300TC-U08 - SH320 Tunnel thruster, U8
SH320/300TC-U23 - SH320 Tunnel thruster, U23
SH320/300TC-U14 - SH320 Tunnel thruster, U14
SH320/300TC-U11 - SH320 Tunnel thruster, U11
SH320/300TC-BA19 - SH320 Tunnel thruster, BA19
SH320/300TC-BA16 - SH320 Tunnel thruster, BA16
SH420/386TC-U37 - SH420 Tunnel thruster, U37
SH420/386TC-BA40 - SH420 Tunnel thruster, BA40
SH420/386TC-BA32 - SH420 Tunnel thruster, BA32
SH420/386TC-U33 - SH420 Tunnel thruster, U33
SH420/386TC-U26 - SH420 Tunnel thruster, U26
SH420/386TC-BA40-S - SH420 Tunnel thruster, BA40
SH420/386TC-U29 - SH420 Tunnel thruster, U29
SH550/BA40-S - Hydraulikk thruster, >550kg
SH550/386TC-P52 - SH550 Tunnel thruster, P52
SH550/386TC-BA60 - SH550 Tunnel thruster, BA60
SH550/386TC-BA32 - SH550 Tunnel thruster, BA32
SH550/386TC-BA40 - SH550 Tunnel thruster, BA40
SH550/386TC-U50 - *Hydraulikk thruster >550-U50
SH550/386TC-U33 - SH550 Tunnel thruster, U33
SH550/386TC-U37 - SH550 Tunnel thruster, U37
SH550/386TC-BA40-S - SH550 Tunnel thruster, BA40
SH550/386TC-BA75 - SH550 Tunnel thruster, BA75
SH550/386TC-G45 - SH550 Tunnel thruster, G45
SH700/412-BA60 - SH700 Tunnel thruster, BA60
SH700/412-BA75 - SH700 Tunnel thruster, BA75
SH700/412-BA45 - SH700 Tunnel thruster, BA45
SH700/412-BA56 - SH700 Tunnel thruster, BA56 [Archived]
SH1000/513-BA110 - * BRUK SH1000/513-BA110D13
SH1000/513-G80 - SH1000 Tunnel thruster, G80
SH1000/513-BA125 - SH1000 Tunnel thruster, BA125
SH1000/513-G75 - SH1000 Tunnel thruster, G75
SH1000/513-BA80 - SH1000 Tunnel thruster, BA80
SH1000/513-G70 - SH1000 Tunnel thruster, G70
SH1000/513-BA60 - SH1000 Tunnel thruster, BA60
SH1000/513-BA110D13 - SH1000 Tunnel thruster, BA110
SH1400/610-BA160 - SH1400 Tunnel thruster, BA160
SH1400/610-BA125 - SH1400 Tunnel thruster, BA125
SH1400/610-BA80 - SH1400 Tunnel thruster, BA80
SH1400/610-BA180 - SH1400 Tunnel thruster, BA180
SH1400/610-BA110 - SH1400 Tunnel thruster, BA110
SH1400/610-BA150 - SH1400 Tunnel thruster, BA150 [Archived]
SH1400/610-BA080 - SH1400 Tunnel thruster, BA80
SH100/185T-U11 - SH100 Tunnel thruster, U11
SH160/215T-U08 - SH160 Tunnel thruster, U08 [Archived]
SH1000/513-BA75 - SH1000 Tunnel thruster, BA75
SH160/215T-U11 - SH160 Tunnel thruster, U11 [Archived]
SH320/300TC-U10 - SH320 Tunnel thruster, U10
SH550/386TC-BA56 - SH550 Tunnel thruster, BA56
SH1000/513-BA90 - SH1000 Tunnel thruster, BA90
SH100/185T-U08 - SH100 Tunnel thruster, U08 [Archived]
SH160/215T-U10 - SH160 Tunnel thruster, U10
SH240/250TC-U14 - SH240 Tunnel thruster, U14
SH240/250TC-U16 - SH240 Tunnel thruster, U16
SH240/250TC-U11 - SH240 Tunnel thruster, U11
SH550/386TC-BA45 - SH550 Tunnel thruster, BA45



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MC\_0020

**Failure to follow the considerations and precautions can cause serious injury, damage and will render all warranties given by Sleipner Motor as VOID.**

MC\_0411

## General Operation Considerations and Precautions Guidelines

MC\_0444

### For the operation of thrusters

MC\_0418

Never use thrusters when close to objects, persons or animals 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.

It is the owner, captains or 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.

- 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.
- 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.
- 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 primary purpose of the thruster is to manoeuvre or dock the vessel. Forward or reverse speed must not exceed 4 knots when operated.

### For the operation of hydraulic motor thrusters

MC\_0421

- If the performance of the thruster is reduced check the hydraulic system or check the tunnel for marine growth.

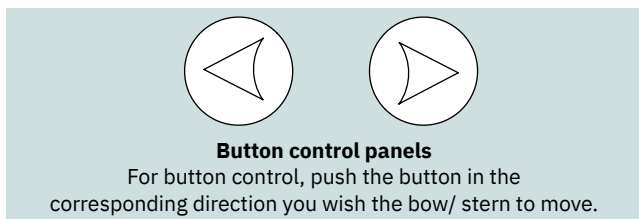
**! Please refer to the graphic for special considerations relating to your model !**

The following is an operation guide to ALL Sleipner control products. Ensure to familiarise yourself with the functionality and operation of your specific control device.

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

### General operation

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 the/ both "ON" button(s) on the original Sleipner panel simultaneously.  
\*Turn off the control panel by pushing the "OFF" button
3. To Turn the bow/ stern in the desired direction:

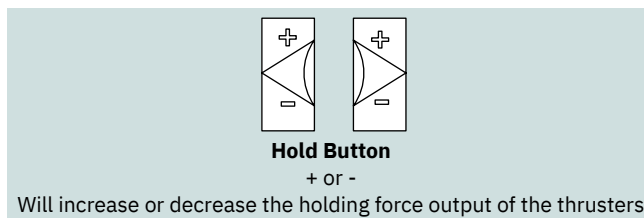


*(NB: If equipped for proportional control move the joystick equivalent to the amount of thrust you intend to receive.)*

\* For other controls like foot switches or toggle-switches please refer to that products user manual for detailed operational use.

### Hold functionality

If equipped with 'hold' functionality push the button in the corresponding direction you wish the thrusters to engage a holding pattern:

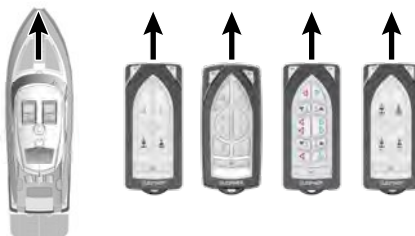


### Operating a combined bow and stern thruster

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

### Remote controls

**Ensure the remote control is held in the same direction as the boat during operation.**



### Drift

Depending on the sideways speed of the bow/ stern, you must disengage the control device shortly before the vessel is in the desired position.

*(NB: Be aware the boat will continue to move after disengaging the thruster control.)*

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

## Compatible Control Device Products

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

### ON/ OFF CONTROL PANEL



### REMOTE CONTROL

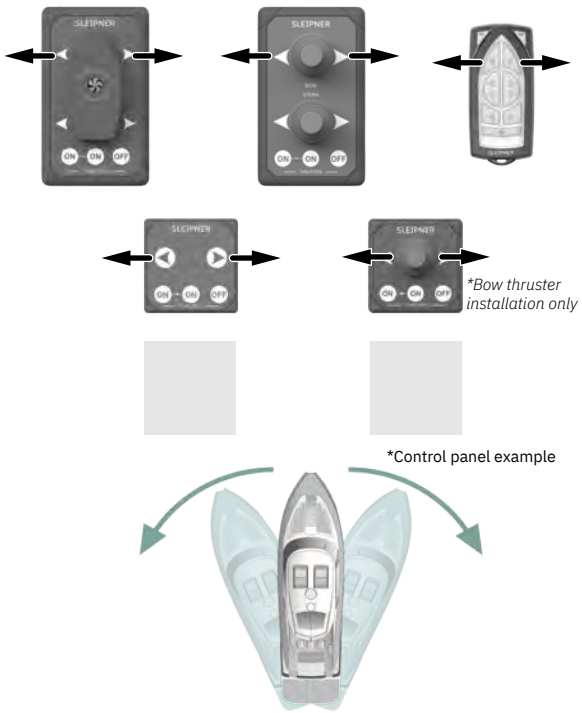


For additional information refer to your control device manual

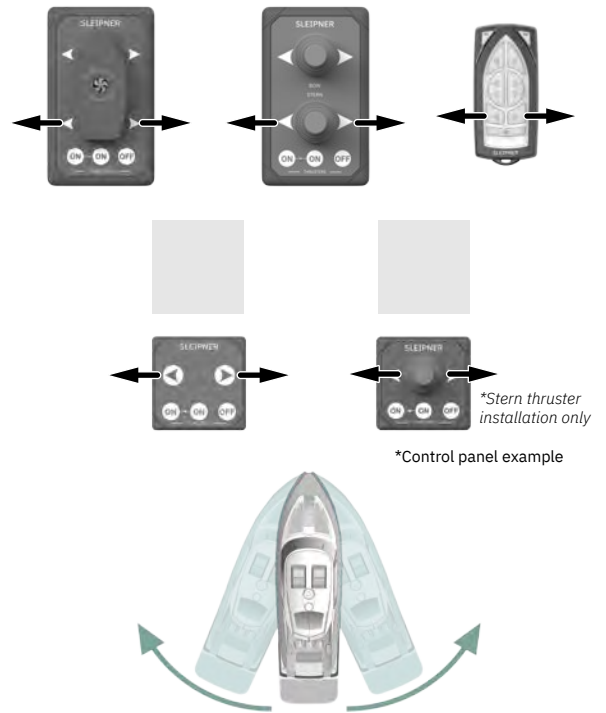


# Control Panel

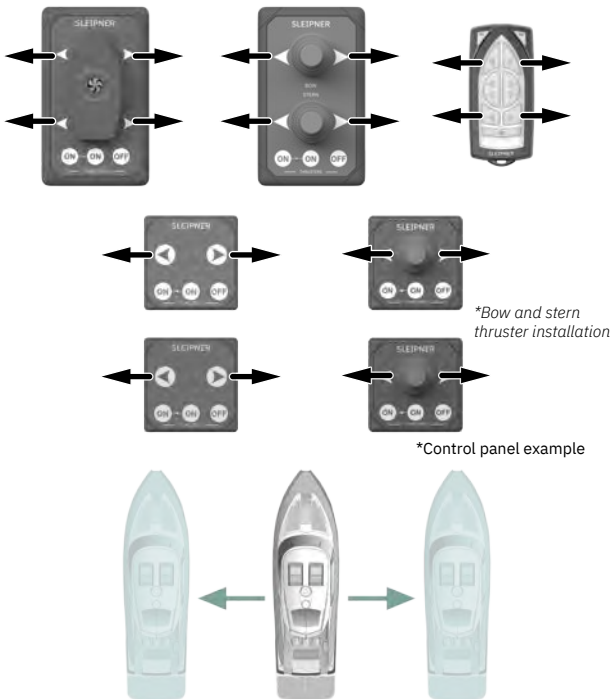
## Activating the bow thruster



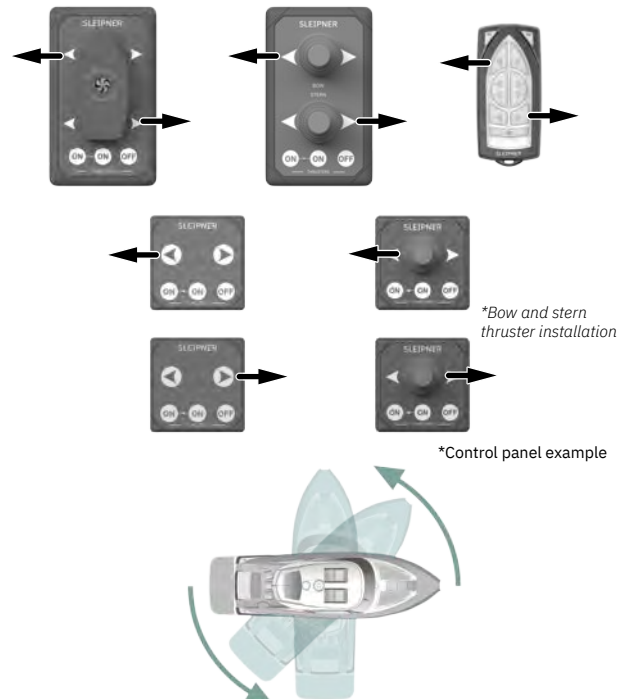
## Activating the stern thruster



## 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:**

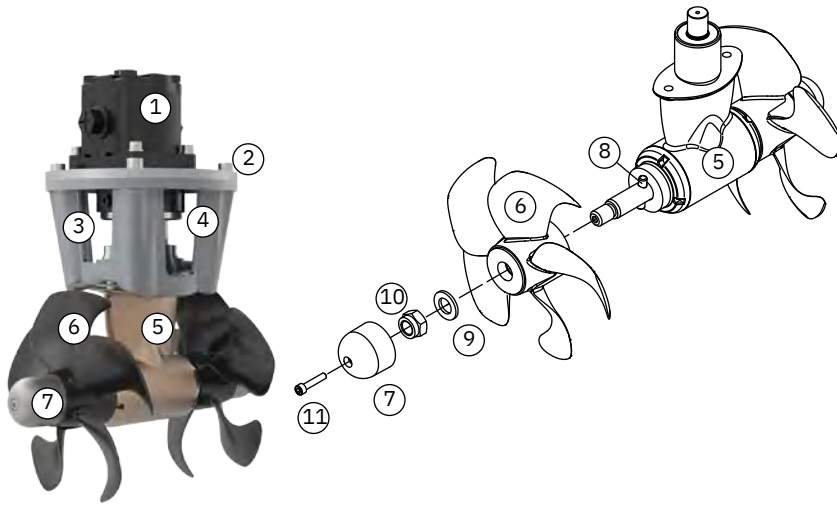
**In Water/ Out of the Water**

- The area around the thruster inside the boat is clean and dry. Ensure there are no signs of water or oil leaks.
- All electrical connections are clean and fastened firmly.
- Ensure that your batteries are in good condition.

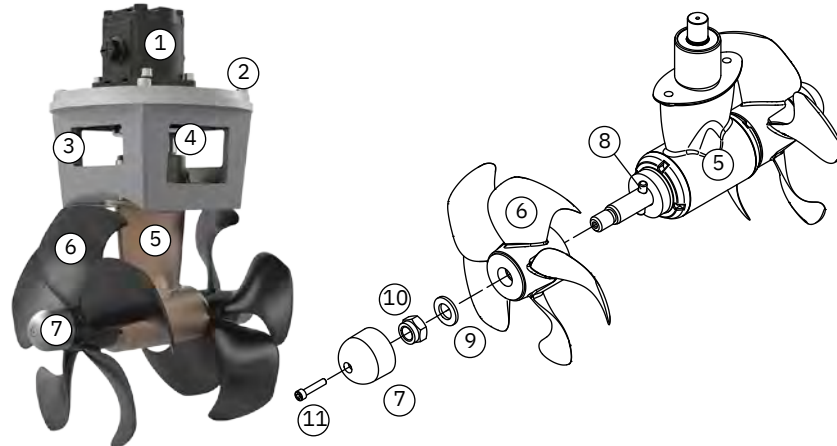
**Out of Water**

- Check the propeller(s) or tunnel for any damage for example impact damage.
- The propeller(s) is fastened securely to the gear leg.
- Check all components of thruster are fastened securely.
- Clean the tunnel and gear leg from marine growth.
- Paint the propeller and gear leg with anti-fouling before every season to keep it clean from sea growth. **(NB: Never paint the anode, rubber seals or propeller shaft. Ensure paint does not enter the space between the propeller and the gear leg.)**
- Change the anode before every season, or when half the anode has eroded. Always use a sealant or thread glue on the securing screw to ensure that it does not fall off.
- Ensure propellers are attached correctly. **(NB: Counter rotating models use a left hand/ right hand propeller.)**
- If an external oil tank is installed with your model, ensure the oil level remains the same.

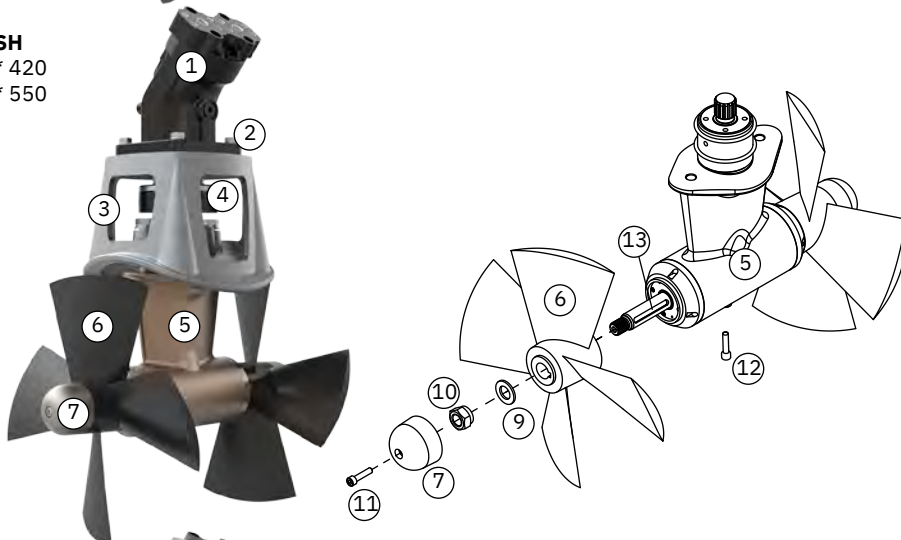
SH  
\* 100  
\* 160  
\* 240



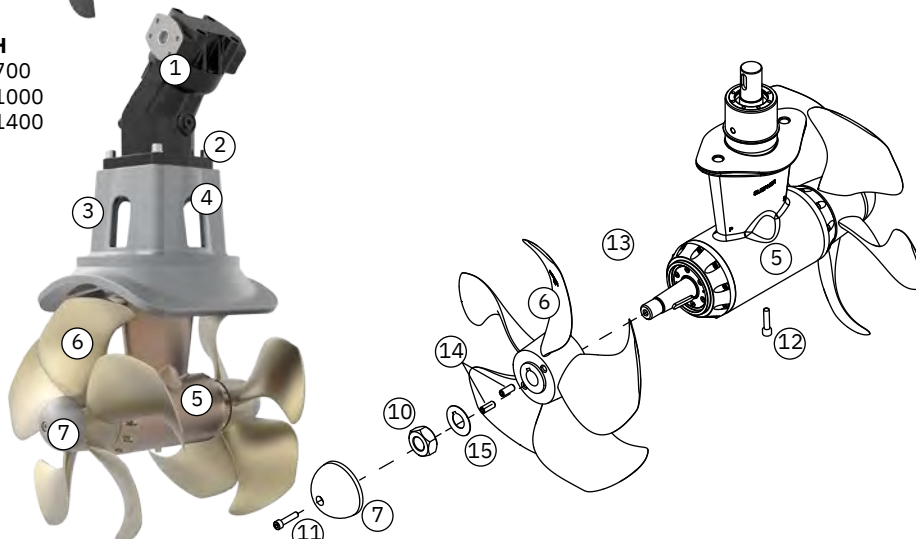
SH  
\* 320



SH  
\* 420  
\* 550



SH  
\* 700  
\* 1000  
\* 1400



**KEY:**

- 1. Hydraulic Motor
- 2. Mounting Plate
- 3. Motor bracket
- 4. Flexible coupling
- 5. Gear Leg
- 6. Propeller
- 7. Anode
- 8. Drive pin
- 9. Washer
- 10. Lock Nut
- 11. Fastening Screw for anode
- 12. Oil drain screw
- 13. Shaft Key
- 14. Anode pins
- 15. Locking Washer

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
On counter rotating models ensure LH and RH propellers are installed correctly	Install correctly
Check the flexible coupling between the motor and drive shaft is fitted correctly and not damaged.	Replace if necessary
Check the gears are 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 oil pressure and levels.	Fill if necessary



CHECK TO PERFORM	DATE											
The thruster components are fastened securely.												
The area around the thruster is clean and dry. If there are signs of water or oil leaks												
Paint the propeller and gear leg with anti-fouling.												
Batteries are in good condition.												
All electrical connections are clean and fastened firmly.												
Change the anode.												
Check oil in the oil reservoir.												

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

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

## Product Spare Parts and Additional Resources

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

## Warranty statement

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.sleipnergroun.com](http://www.sleipnergroun.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.

## Patents

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



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