

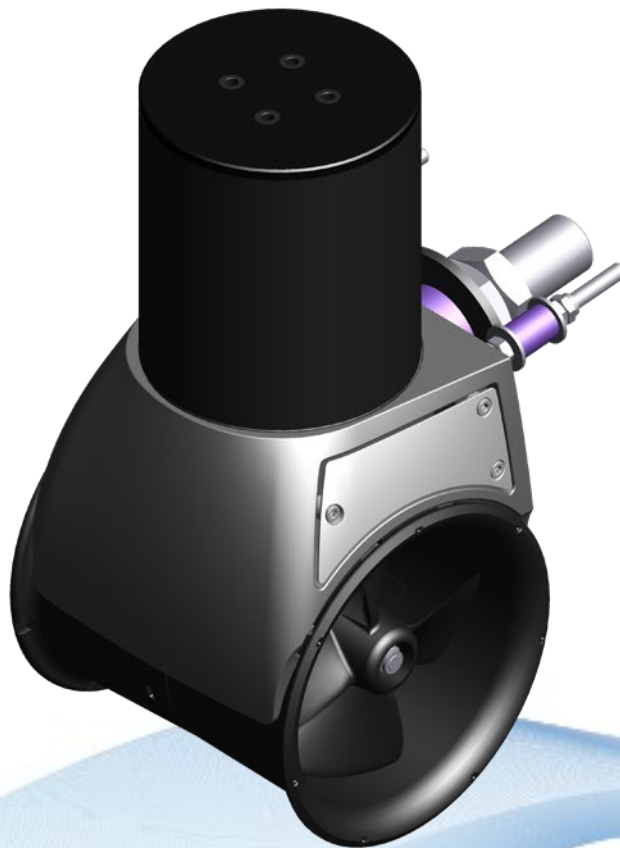


**SIDE-POWER**  
Thruster Systems

**SX SERIES**

# THRUSTER USER MANUAL

Keep this  
manual onboard!



To download your language go to [www.side-power.com](http://www.side-power.com)



**SLEIPNER MOTOR AS**

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N-1612 Fredrikstad  
Norway  
[www.side-power.com](http://www.side-power.com)

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Made in Norway

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**Products**

SX50/140-12V-150MM - SX50/140 - 12V w/Controller  
SX50/140-12V-50MM - SX50/140 - 12V w/Controller  
SX35/140-12V-150MM - SX35/140 - 12V w/Controller  
SX35/140-12V-50MM - SX35/140 - 12V w/Controller

**DECLARATION OF CONFORMITY**

MC\_0020



Sleipner Motor AS  
P.O. Box 519, Arne Svendsensgt. 6-8  
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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.**

- 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, a higher voltage at the thruster results in a higher torque (power) in the electromotor.
- If the performance of the thruster is reduced check the battery system.
- 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 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 the Thruster

1. Turn on the main power switch for the thruster. **(NB: Always turn off the main power switch when not onboard.)**
2. Turn on the control panel by pushing both "ON" buttons on the Side-Power panel simultaneously.  
\* Turn off the control panel by pushing both "OFF" button

#### Joystick Control

To Turn the bow in the desired direction move the joystick in the direction you wish the bow to move.

#### Button Control

To Turn the bow in the desired direction push the red button for port movement or the green button for starboard.

\* For other controls like footswitches or toggle-switches please refer to that products user manual for detailed operational 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 speed (+1-2 kn) the side thruster will have little effect to steer the vessel.**

#### ON/ OFF CONTROL PANEL



#### REMOTE CONTROL



# Control Panel



Turn ON thruster



Turn OFF thruster

\*Control panel example



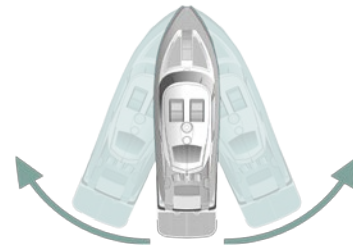
Activating the bow thruster



Activating the stern thruster

\*Control panel example

\*Control panel example



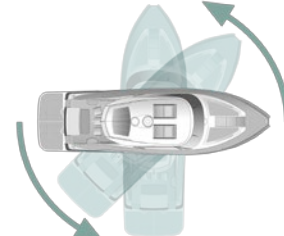
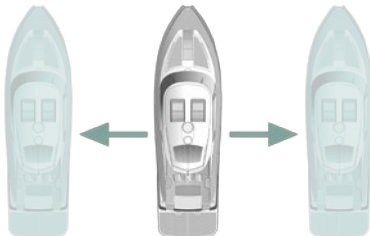
Activating both bow and stern thruster to push the boat sideways



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

\*Control panel example

\*Control panel example



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

#### In Water

- The area around the cables inside the boat are clean and dry. Ensure there are no signs of water leakage in the area.
- All electrical connections are clean and fastened firmly.
- Ensure that your batteries are in good condition.  
\*While running the thruster measure volt output is not below.  
(10.5v) for 12v motors  
(21v) for 24v motors

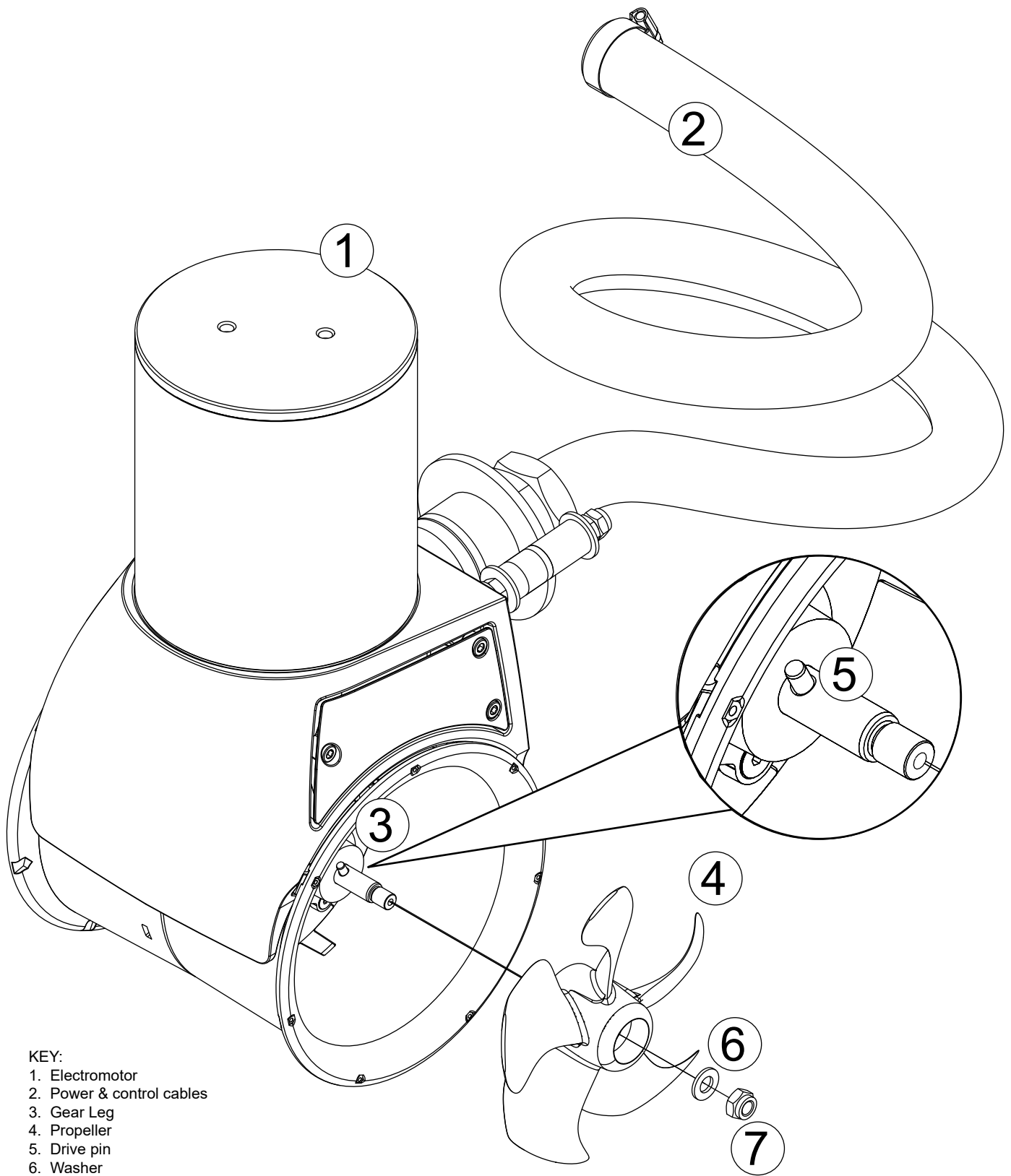
#### Out of Water

- The propeller is fastened securely to the gear leg.
- Bolts holding the thruster to the hull are fastened securely.
- Paint the SX unit with antifouling before every season to keep it clean from sea growth. **(NB: Never paint the sealings or propeller shaft. Ensure paint does not enter the space between the propeller and the gear leg.)**
- Check the gear leg is not leaking oil

#### 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.**



KEY:

- 1. Electromotor
- 2. Power & control cables
- 3. Gear Leg
- 4. Propeller
- 5. Drive pin
- 6. Washer
- 7. Lock Nut

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
<b>The thrusters performance is reduced</b>	
Check the propeller, gear house and tunnel are free from growth/ barnacles or debris	If there is growth in the tunnel, this will disturb/ block the water flow and significantly reduce performance
<p>While in use, check the voltage of the motor is not lower than the specified amount. The voltage when in use should be:</p> <ul style="list-style-type: none"> <li>= 10,5V system</li> <li>= 21V system</li> </ul> <p>- If running at below voltage:</p>	<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 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> <p style="text-align: right;">} Replace if necessary</p>
<b>The thruster does not start/ works in only one direction</b>	
Check the voltage of the electromotor is correct for your installation and model.	If wrong, contact your dealer or distributor to obtain parts with the correct voltage.
<p>When not in use, check the voltage at the thruster. The voltage when not in use should be:</p> <ul style="list-style-type: none"> <li>= 12V system @ 12,7 V (not below 12,3V)</li> <li>= 24V system @ 25,4 V (not below 24,6V)</li> </ul> <p>- If running at below voltage:</p> <p><b>(NB: if less than 8V the thruster will not operate)</b></p>	<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> <p style="text-align: right;">} Replace if necessary</p>
<p>If the main solenoids in the thruster are not trying to engage (clicking) the thruster might not be receiving a "run" signal from the control panel. Try to run the thruster without the control panel by directly connecting the red and blue or red and grey wires in the control cable contact end coming from the thruster.</p>	<ul style="list-style-type: none"> <li>• If the thruster runs in both directions, repeat the same process at the connector going into the back of the control panel. <ul style="list-style-type: none"> <li>~ If it also works in this position, check the contact and wiring on the back of the panel and engage the thruster again by pushing both ON buttons simultaneously</li> </ul> </li> <li>• If the panel does not turn on (see control light), measure the voltage between the Red and the Black cable at the contact point going into the thruster. <ul style="list-style-type: none"> <li>~ If the voltage is good, the chances are that the panel is not working.</li> <li>~ If it works by the thruster, not by the panel, there is a bad contact or broken cables between these two test points.</li> </ul> </li> <li>• Measure that you have the correct voltage between the Red (+) and all the other colours in the contact.</li> </ul>
<p>If The thruster does not run at all, or only in one direction from the above tests, check the solenoids and electronic motor interface box in accordance with the wiring diagram in the installation manual and ensure that all connections are clean and tight.</p>	<ul style="list-style-type: none"> <li>• Between the main negative (A1 on motor) and the blue and the grey wires connected to the sides of the main solenoids, the voltage should be the same as between the main battery cables on the thruster. <ul style="list-style-type: none"> <li>~ If not, check that the internal wiring on the solenoid and measure that there is contact through the magnetising spools of each side of the solenoid <b>(NB: test between the red and blue on one side, and the red and grey on the other side with an Ohm meter.)</b></li> <li>~ If there is no contact between these, the solenoid is broken and needs replacing.</li> </ul> </li> </ul>
The thruster is not shutting off after the Joy Stick/ panel is disengaged.	Contact and consult a Side Power distributor.
<b>The thruster runs for approximately 0,5 seconds every 4 seconds</b>	
This is a build-in error response. -Solenids failure	Contact and consult a Side Power distributor.
<b>The thruster runs for approximately 0,5 seconds every 10 seconds</b>	
The solenoid might be in a lock-in/ auto stop position.	<ul style="list-style-type: none"> <li>• Shut off thrusters main switch, tap slightly on the motor to release the solenoid pin. Turn on the main thruster switch and test again, If the solenoid is still in a lock-in position, contact your dealer.</li> </ul>



<b>CHECK TO PERFORM</b>	<b>DATE</b>											
The SX unit is fastened securely to the hull.												
Bolts holding the SX components are fastened securely.												
Paint the SX unit with antifouling.												
batteries are in good condition.												
All electrical connections are clean and fastened firmly.												

**For the most up to date documentation, we advise you to visit our website [www.side-power.com](http://www.side-power.com) for the spare parts list.**

1. The equipment manufactured by Sleipner Motor AS (The "Warrantor") is warranted to be free from defects in workmanship and materials under normal use and service.
2. This Warranty is in effect for of two years (Leisure Use) or one year (Commercial use) from the date of purchase by the user. Proof of purchase must be included, to establish that it is inside the warranty period.
3. This Warranty is transferable and covers the product for the specified time period.
4. In case any part of the equipment proves to be defective, other than those parts excluded in paragraph 5 below, the owner should do the following:
  - (a) Prepare a detailed written statement of the nature and circumstances of the defect, to the best of the Owner's knowledge, including the date of purchase, the place of purchase, the name and address of the installer, and the Purchaser's name, address and telephone number;
  - (b) The Owner should return the defective part or unit along with the statement referenced in the preceding paragraph to the warrantor, Sleipner Motor AS or an authorized Service Centre, postage/shipping prepaid and at the expense of the Purchaser;
  - (c) If upon the Warrantor's or Authorized Service Centre's examination, the defect is determined to result from defective material or workmanship, the equipment will be repaired or replaced at the Warrantor's option without charge, and returned to the Purchaser at the Warrantor's expense;
  - (d) no refund of the purchase price will be granted to the Purchaser, unless the Warrantor is unable to remedy the defect after having a reasonable number of opportunities to do so. Prior to refund of the purchase price, Purchaser must submit 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;
  - (e) warranty service shall be performed only by the Warrantor, or an authorized Service Centre, and any attempt to remedy the defect by anyone else shall render this warranty void.
5. There shall be no warranty for 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.
6. No other express warranty is hereby given and there are no warranties which extend beyond those described in section 4 above. This Warranty is expressly in lieu of any other expressed or implied warranties, including any implied warranty of merchantability, fitness for the ordinary purposes for which such goods are used, or fitness for a particular purpose, and any other obligations on the part of the Warrantor or its employees and representatives.
7. There shall be no responsibility or liability whatsoever on the part of the Warrantor or its employees and representatives for injury to any person or persons, or damage to property, loss of income or profit, or any other consequential or resulting damage or cost which may be claimed to have been incurred through the use or sale of the equipment, including any possible failure or malfunction of the equipment, or part thereof.
8. The Warrantor assumes no liability for incidental or consequential damages of any kind including damages arising from collision with other vessels or objects.
9. This warranty gives you specific legal rights, and you may also have other rights which vary from country to country.

Area with horizontal dotted lines for taking notes.

# Worldwide sales and service



[www.side-power.com](http://www.side-power.com)



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