

**Installation Guide** For S-Link Automatic Main Switch 897712, 897724



# **SLEIPNER MOTOR AS**

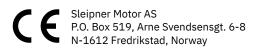
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LANGUAGE: EN

# Contents

Installation Manual Responsibility of the installer	2
Responsibility of the installer Considerations and Precautions	.3
Product Dimensions	. 4
Automatic Main Switch (AMS)	. 5
Automatic Main Switch (AMS) Installation	5
Automatic Main Switch (AMS) Automatic Main Switch (AMS) Installation AMS Fuse and Battery Cable Installation	6
S-link System Description Electrical Installation Technical Wiring Diagram	. 7
Technical Wiring Diagram	. 9
Service	
Service and Support Product Spare Parts and Additional Resources	11 11
Warranty Statement	11



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# **Responsibility of the Installer**

The installer must read this document to ensure necessary familiarity with the product before installation.

Instructions in this document cannot be guaranteed to comply with all international and national regulations. It is the responsibility of the installer to follow all applicable international and national regulations when installing Sleipner products.

The recommendations given in this document are guidelines ONLY, and Sleipner strongly recommends that advice is obtained from a person familiar with the particular vessel and applicable regulations.

This document contains general installation instructions intended to support experienced installers. If you are not skilled in this type of work, please contact professional installers for assistance.

If required by local regulation, electrical work must be done by a licensed professional.

Appropriate health and safety procedures must be followed during installation.

Faulty installation of Sleipner products will render all warranties given by Sleipner Motor AS.

Ensure appropriate access to Sleipner products during installation planning for service, inspection and component replacement.

# General Installation Consideration and Precaution Guidelines

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For Sleipner automatic main switch

- · Install the automatic main switch as close to the battery(ies) as possible.
- Do not connect the Sleipner automatic main switch with other products than appropriate original Sleipner control panels or other SLeipner control devices. (NB: Sleipner products are specifically designed with a separate fifth control cable for the automatic main switch.)
- The automatic main switch must be installed so that it keeps dry at all times.
- The automatic main switch can NOT be fitted in spaces requiring Ignition protected equipment.

• Ensure to use the correct fuse for the main switch depending on the thruster model installed.

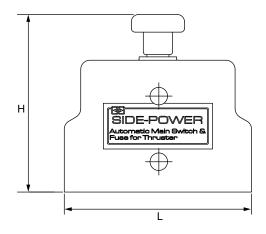
**IMPORTANT** 

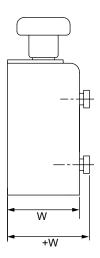
This manual is to be used in addition to the regular installation manual for the Sleipner thruster. This manual is intended for professionals only.

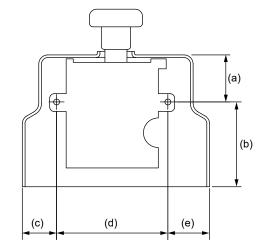
When installing an S-Link<sup>™</sup> system connect ONLY original Sleipner S-Link<sup>™</sup> products or other authorized control equipment directly to the S-Link<sup>™</sup> bus. Connecting non-authorized third-party equipment, it must always be connected through a Sleipner supplied interface product. Any attempt to directly control or connect into the S-Link<sup>™</sup> control system without a designated and approved interface will render all warranties and responsibilities of all of the connected Sleipner products. If you are interfacing the S-Link<sup>™</sup> bus by agreement with Sleipner through a designated Sleipner supplied interface, you are still required to install at least one original Sleipner control panel to enable efficient troubleshooting if necessary.

# **Product Dimensions**

Measurement	Measurement description	AMS	
code		mm	inch
н	Height	194.3	7.6
L	Length	205	8.1
W	Width	79	3.11
+ W	Width including fasteners	90	3.54
(a)	Attachment hole from the top	51.5	2.03
(b)	Attachment hole from the bottom	92.8	3.65
(c)	Attachment hole from the side	37.5	1.5
(d)	Distance between attachment hole	121.8	4.8
(e)	Attachment hole from the side	45.7	1.8

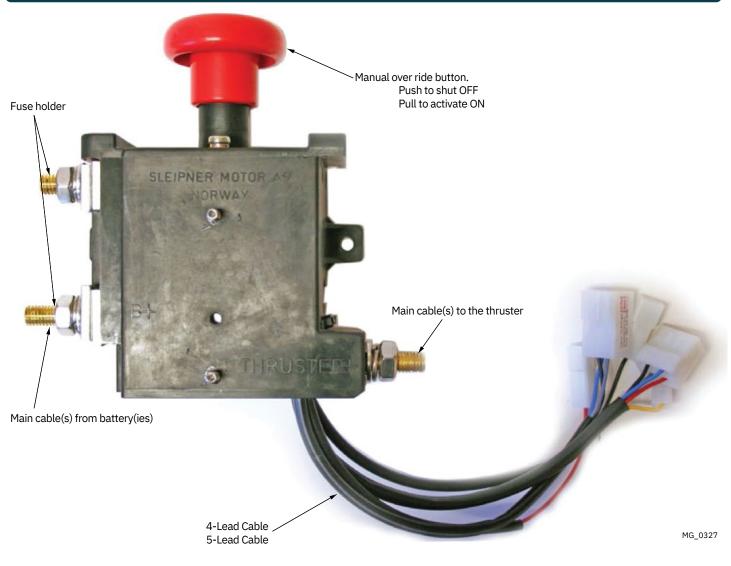






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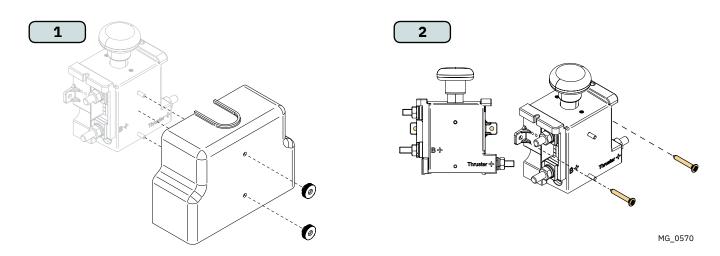
# Automatic Main Switch (AMS)



# Automatic Main Switch (AMS) Installation

Installing the Automatic Main Switch (AMS).

- 1. Remove the cover screws and cover from the Automatic Main Switch.
- 2. Find an appropriate location to install the AMS to allow quick and easy access to the shut-off button and Keeping power cable lengths to a minimum. Attach the AMS using the two fastening holes on each side.



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# AMS Fuse and Battery Cable Installation

### Installing the fuse and battery cable(s).

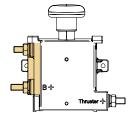
- 1. Remove the nuts and the washers.
- 2. Install the fuse. Select fuse type and rating according to recommendations in thruster installation manual.
- 3. Assemble the washers, battery cable(s) and end washer and nuts. Select fuse type and rating according to recommendations in thruster installation manual.
- 4. Tighten the nut with the recommended torque. The bolts are made of brass and too high torque can damage the threads.

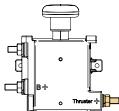
### Fitting the thruster cable(s).

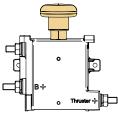
- 5. Remove the nuts and washers.
- 6. Fit the cable(s) to the bolt and assemble washers and nut.
- 7. Tighten the nut with the recommended torque.

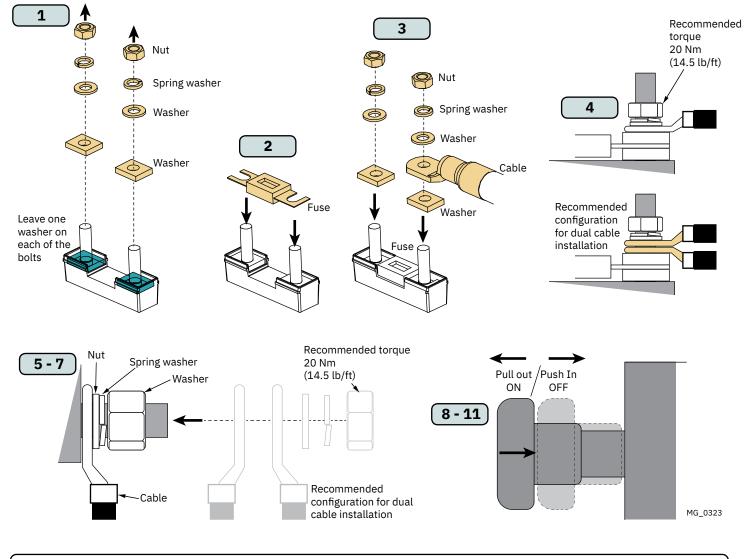
### Manual override button.

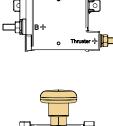
- 8. Pull OUT for ON.
- 9. Push IN for OFF.
- 10. Leave the switch in ON position when on-board.
- 11. Ensure the switch is in the OFF position when leaving the boat for long periods or when installing or servicing the thruster system.











# S-Link System Description

S-Link is a CAN-based control system used for communication between Sleipner products installed on a vessel. The system uses BACKBONE Cables as a common power and communication bus with separate SPUR Cables to each connected unit. Only one S-Link POWER cable shall be connected to the BACKBONE Cable. Units with low power consumption are powered directly from the S-Link bus.

## Main advantages of S-Link system:

- Compact and waterproof plugs.
- BACKBONE and SPUR Cables have different colour coding and keying to ensure correct and easy installation. BACKBONE Cables have blue connectors and SPUR Cables have green connectors.
- Different cable lengths and BACKBONE Extenders make the system scalable and flexible to install.

## Installation of S-Link cables:

Select appropriate cables to keep the length of BACKBONE- and SPUR Cables to a minimum. In case of planned installation with total BACKBONE Cable length exceeding 100 meters please consult your local distributor. The S-Link cables should be properly fastened when installed to avoid sharp bend radius, cable chafing and undesired strain on connectors. Locking mechanism on connectors must be fully closed. To ensure long lifetime, cables, T-Connectors and Extenders should not be located so that they are permanently immersed in water or other fluids. It is also recommended to install cables such that water and condensation do not run along the cables and into the connectors.

The POWER Cable should ideally be connected around the middle of the BACKBONE bus to ensure an equal voltage drop at each end of the BACKBONE Cable. The yellow and black wire in the POWER Cable shall be connected to GND and the red wire connected to +12VDC or +24VDC.

To reduce the risk of interference, avoid routing the S-Link cables close to equipment such as radio transmitters, antennas or high voltage cables. The backbone must be terminated at each end with the END Terminator.

SPUR cables can be left unterminated to prepare for the installation of future additional equipment. In such cases, ensure to protect open connectors from water and moisture to avoid corrosion in the connectors.



\*Green ends

\*Green ends

\*Green ends

# **BACKBONE** Cable

Forms the communication and power bus throughout a vessel. Available in different standard lengths.

### SPUR Cable

**POWER Cable** 

2A fuse.

Used to connect S-Link compliant products to the backbone cable. One SPUR Cable must be used for each connected component, with no exceptions. Recommended to be as short as practically possible. Available in different standard lengths.

Required in all installations for connection of BACKBONE

Cable to a power supply and should be protected with a



# **T-Connector**

Used for connection of SPUR or POWER Cable to the BACKBONE Cable. One T-Connector for each connected cable.



\*Blue ends

## BACKBONE Extender Connects two BACKBONE

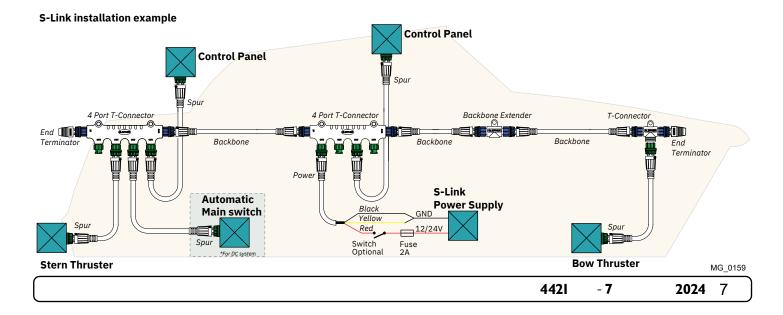
Cables to extend the length.

### END Terminator Must be one at each end of the BACKBONE bus.

\*Blue ends \*Blue ends

# 4-Port T-Connector

The 4-PORT T-connector allows multiple SPUR Cables to be connected. The 4-PORT T-connector comes with two sealing caps to protect unused ports.



# **Electrical Installation**

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

## **ON/ OFF configuration**

Use a 4-lead control cable between the thruster and the automatic main switch. (NB: Only 3 leads are used, The red wire is not connected into the automatic main switch.)

### **Proportional configuration**

Use 5-lead control cables between the automatic main switch and control panels. (NB: use 5-lead Y-connectors to branch off to all controls fitted.)



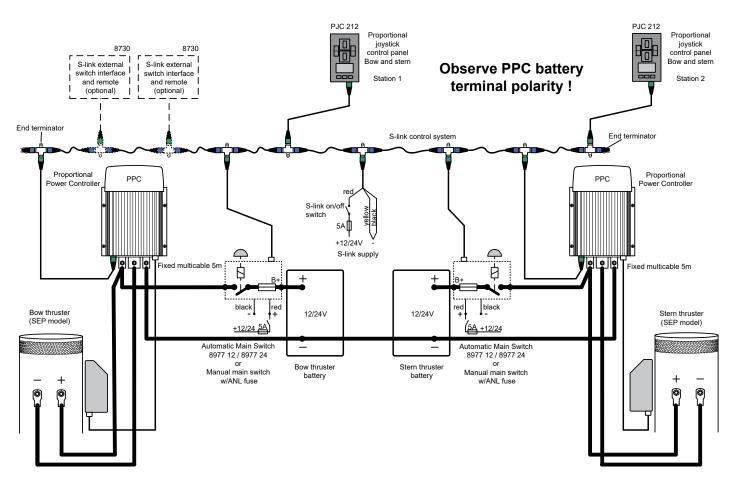
WARNING

Check the following with the main switch is set to off : er all electrical connections have been completed check with an ohm meter that there is no electrical conn

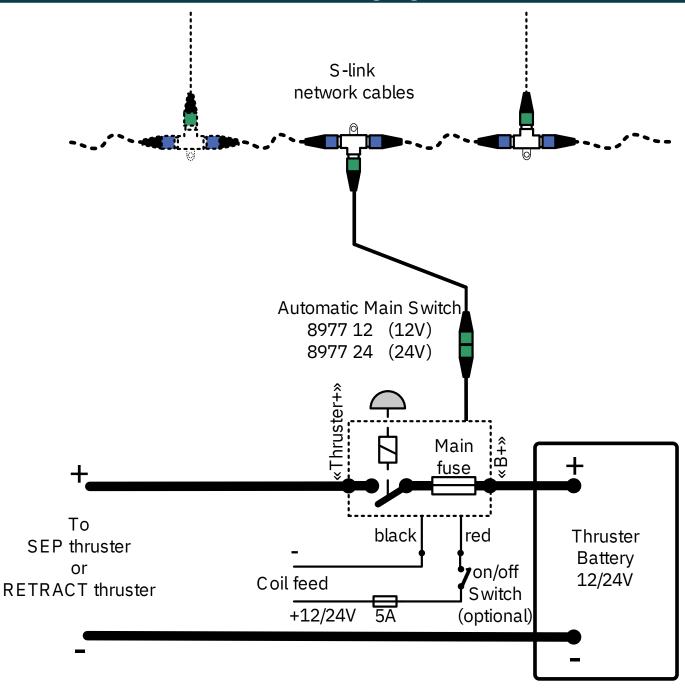
After all electrical connections have been completed check with an ohm meter that there is no electrical connection between 1. electro-motor flange and the positive terminal on the motor

2. electro-motor flange and the battery negative terminal on the motor

If unsure contact skilled personnel.



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DESCRIPTION OF WIRING DIAGRAMS:

- Install the correct main fuse depending on thruster model fitted.

- Coil feed can be taken from any 12V or 24V battery source. If the coil is fed from a source that already has a main switch, an on/off switch is not required.

- The S-Link cable must be connected to the S-Link network on the Automatic Main Switch assigned to be bow or stern

IMPORTANT Fit only one thruster to each automatic main switch.

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

## Service/ maintenance

on all-electric equipment regularly Ensure:

- Equipment is clean and dry.
- Ensure all cable and other connections are tight and without signs of excessive heat or corrosion.

## Troubleshooting

Feedback to control panels:

- Manual override:
- If the manual override button has been pushed, pull the manual override button to activate. Fuse is blown:
- Replace the fuse or check if the main cable from the battery and main cable to the thruster. Communication fail:
  - The panel has no communication with the main switch. Check S-link or power connection.
- Power failure:
  - The main switch has no power, Check 5A fuse, power connection and if the main switch has power on the red and black wire.

# Read the troubleshooting guide in the thrusters manual.

If you are unable to identify and resolve the problem, contact the nearest Sleipner service point for assistance. Have the notes from your troubleshooting handy to inform the service person of what you have already checked and observed.

- 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 purpose for which the equipment is intended and under normal use and maintenance 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 delivery/purchase by the end user, with the following exceptions;
  - (a) For demonstration vessels, or vessels kept on the water, the dealer is considered as the end user from 6 months after their launch of the vessel:

(b) The warranty period starts no later than 18 months after the first launch of the vessel.

Please note that the boat manufacturer and dealer must pay particular attention to correct maintenance and service both by the products manuals as well as general good practice for the location the boat is kept in the period the boat is in their care. In cases where the 6 and 18 months grace periods for boat builders and dealers are passed, it is possible to obtain a full warranty upon inspection and approval of the warrantor or such representative.

- Certain parts, classified as wearable or service parts, are not covered by the warranty. A failure to follow the required maintenance and service 3. work as described in the product manual render all warranty on parts or components directly or indirectly affected by this void. Please also note that for some parts, time is also a factor separately from actual operational hours.
- 4. This Warranty is transferable and covers the equipment for the specified warranty period.
- The warranty does not apply to defects or damages caused by faulty installation or hook-up, abuse or misuse of the equipment including 5. exposure to excessive heat, salt or fresh water spray, or water immersion except for equipment specifically designed as waterproof. 6. 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.sleipnergroup.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.

Examination and handling of the warranty claim: 7.

(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.

- Warranty service shall be performed only by the Warrantor, or an authorised service representative, and any attempt to remedy the defect by 8. anyone else shall render this warranty void.
- 9. 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.
- There shall be no responsibility or liability whatsoever on the part of the Warrantor or its employees and representatives based on this Warranty 10. 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.

Patents

This warranty gives you specific legal rights, and you may also have other rights which vary from country to country. 11.

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.sleipnergroup.com/patents

# **Product Spare Parts and Additional Resources**

For additional supporting documentation, we advise you to visit our website www.sleipnergroup.com and find your Sleipner product.

Warranty statement

# Service and Support

Find your local professional dealer from our certified worldwide network for expert service and support. visit our website www.sleipnergroup.com/support

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