

Installation Guide

For Proportional Power Controller (PPC) PPC520, PPC820, PPC840



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It is essential to follow all instructions within this document to avoid potential personal injury, death, or damage to existing products in the vessel, the vessel's hull integrity, and including this product during installation or operation. Failure to follow instructions within this document will render all warranties given by Sleipner Motor as VOID.

Warnings and situations requiring extra caution are outlined in the documentation. Take extra consideration when warnings are outlined.



WARNING

Indicate a potentially hazardous situation that, if not avoided, could result in death or severe injury.



CAUTION

Indicates a potentially hazardous situation that could result in minor or moderate injury or critical damage to vessel integrity if not avoided.

Responsibility of the installer

MC_0038

General:

- The installer must read this document to ensure necessary familiarity with the product before installation.
- Directions outlined in this document cannot be guaranteed to comply with all international and national regulations, including but not limited to health and safety procedures. It is the installers responsibility to adhere to all applicable international and national regulations when installing Sleipner products.
- This document contains general installation guidelines intended to support experienced installers. Contact professional installers familiar with the vessel, Sleipner products and applicable regulations if assistance is required.
- If local regulation requires any electrical work to be performed by a licensed professional, seek a licensed professional.
- · When planning the installation of Sleipner products, ensure easy access to the products for future service and inspection requirements.

For Sleipner PPC systems:

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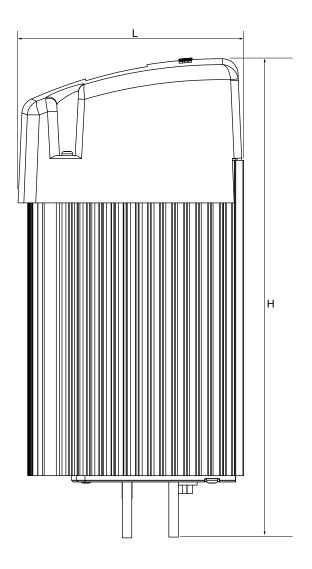
• The PPC Power control unit should be installed in a dry, ventilated place - cable connections facing down. Mount unit with battery positive cable branching out at unit terminal, not at thruster motor. Allow free space at min 50mm over, 150mm under and min. 100mm in front and at sides. Take into consideration that a 5m multi-cable shall be plugged in between thruster motor and PPC unit.

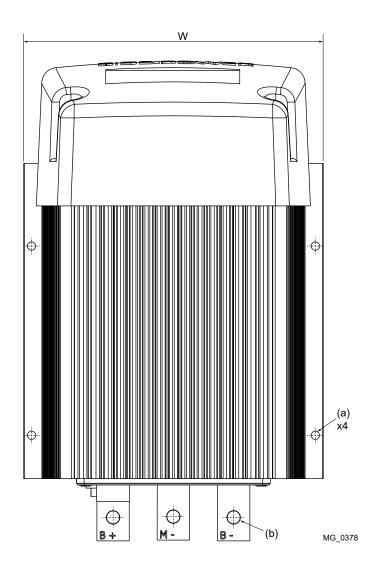
For Sleipner S-Link™ systems:

MC 0105

- When installing an S-Link™ system, connect ONLY original Sleipner S-Link™ products or other authorized control equipment directly to the S-Link™ bus. When connecting non-authorized third-party equipment, it must always be connected through a Sleipner-supplied interface product.
- Any attempt to directly control or connect to the S-Link™ control system without a designated and approved interface from Sleipner will
 void all warranties and responsibilities of the connected Sleipner products. If you interface the S-Link™ 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.

Measurement		PPC	520	PPC	820	PPC840		
code	Measurement description	mm	inch	mm	inch	mm	inch	
Н	PPC Height	226	8.9	304	12	304	12	
W	PPC width	190	7.5	190	7.5	190	7.5	
L	PPC length	143	5.6	143	5.6	143	5.6	
(a)	Diameter of mounting holes	5.3	0.2	5.3	0.2	5.3	0.2	
(b)	PPC terminal hole diameter	8.6	0.3	8.6	0.3	8.6	0.3	





PPC Specifications

Description	PPC 520	PPC820	PPC840
Available DC System (v)	12v & 24v	12v & 24v	48v
Supply Voltage	9 - 31V	9 - 31V	36 - 60V
Output Voltage	20 - 100% x Vbatt	20 - 100% x Vbatt	20 - 100% x Vbatt
Output Current	500A	1000A	550A
Regulation	PWM, S-Link controlled	PWM, S-Link controlled	PWM, S-Link controlled
Protection	Thermal, under-voltage, over-current	Thermal, under-voltage, over-current	Thermal, under-voltage, over-current

Safety features:

The PPC Speed Control unit will turn off motor power each time the main solenoids are activated. This removes any possibility for solenoid lock-in. Any fault in the main solenoids will give feedback to the panel and turn off power to the electric motor.

Ignition protection considerations

The Sleipner system may incorporate both ignition-protected and non-ignition-protected components within a complete setup.



WARNING

For safety, install ignition-protected and non-ignition-protected items in separate, clearly designated compartments.

Proper sealing, ventilation, and adherence to relevant safety standards are essential when establishing these distinct zones, ensuring a safe and compliant system installation.

Electrical Installation

MC 0481

- Plan the location of electrical components before starting with the electrical installation. Main electrical components will typically consist of battery, Automatic Main Switch (AMS) or manual main switch, Proportional Power Controller (PPC) and motor, see Wiring Diagram chapter for an overview.
- Estimate the total length of the power cables to determine the recommended cross section. The total power cable length is defined as
 the distances from the positive battery pole, via fuse, main switch and PPC to the motor and all the way back to the negative battery pole.
 Compromising the cable sections named B+, M- and B- on the drawing in the Wiring Diagram chapter.
- 3. Find the recommended power cable cross section for you installation by using the estimated total power cable length and the table shown in *Electrical Reference Guide* chapter
- 4. Find the recommended fuse size by using the table shown in *Electrical Reference Guide* chapter. Use slow blow rated fuses to hold stated nominal current for minimum 5 minutes.
- 5. Use appropriate dimensioned battery with Cold Cranking Amps (CCA) according to recommendations in *Electrical Reference Guide* chapter. Battery voltage must be compliant with the voltage rating of the thruster motor and control circuitry. Capacity and rated discharge current of battery should be according to rated nominal current drawn and typical duty cycle for thruster operation. Nominal current drawn is listed in the *Electrical Reference Guide* chapter. The actual voltage at the motor while running the thruster determines the motor RPM and thrust. Use larger cable cross section and high-capacity battery for improved performance.
- 6. Install the PPC according to instructions in PPC Installation chapter.
- 7. Install and connect the battery, fuse, main switch and wiring according to instructions in Wiring Diagram chapter. For safety reasons it is always recommended to install a fuse and a main switch on the power cables and as close as possible to the positive battery pole connection. The main switch must be installed such that it is easily accessible to disconnect the thruster when not on-board or in the case of an emergency.

 $Follow\ the\ instructions\ in\ the\ Motor\ Lug\ Connection\ chapter\ when\ fastening\ the\ power\ cables\ to\ the\ motor.$

Sleipner offers both manual main switches and Automatic Main Switches (AMS). Sleipner AMS is controlled by the control panel in addition to the option of manual operation. Turning on the control panel does also turn on the automatic main switch. When the control panel is turned off the automatic main switch is also turned off. This ensures that the control electronics and motor is only energized when the control panel is turned on. Sleipner offers AMS supporting either S-Link or ON/OFF control panels. Ensure to select a main switch with voltage rating according to the chosen motor- and battery-voltage. Note that the AMS requires separate power supply which should be protected by a dedicated fuse.



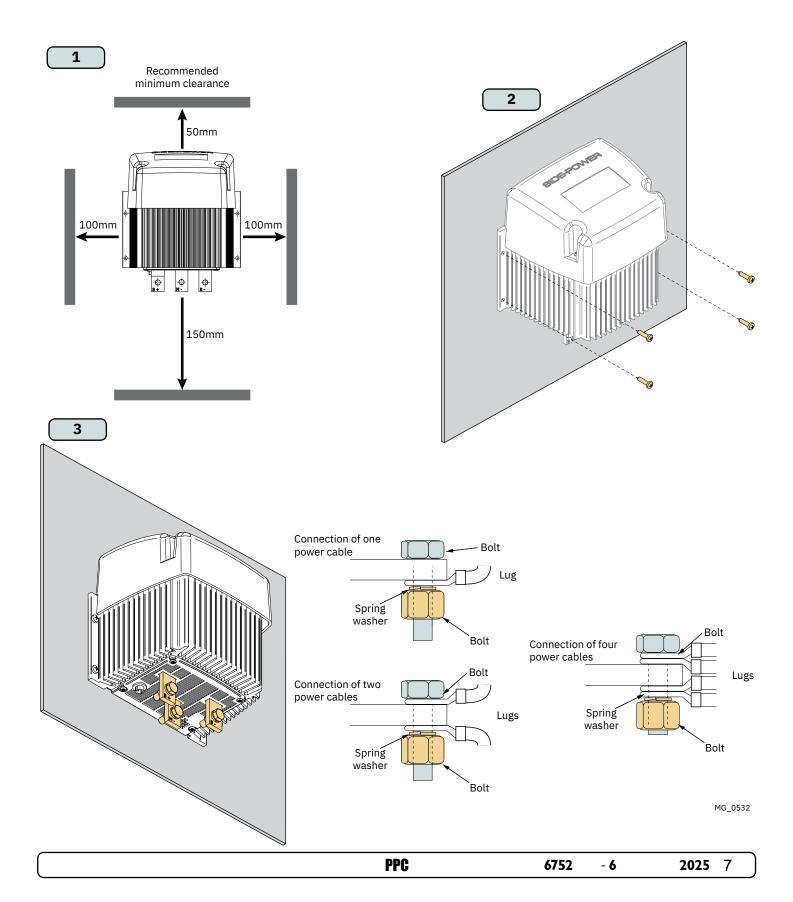
CAUTION

After all electrical connections have been completed, turn off main switch and check the following with an ohmmeter:

- 1. There is no electrical connection between electro-motor flange and the positive terminal on the motor.
- 2. There is no electrical connection between electro-motor flange and the negative terminal on the motor.

 If unsure contact skilled personnel.

- The Proportional Power Controller (PPC) is designed to be wall mounted. It should be installed in a dry and well-ventilated compartment and
 following the clearance recommendation shown in figure below. The PPC can become hot during operation and the recommended minimum
 clearances are to allow for ventilation.
- 2. Attach the PPC using the four attachment screws.
- 3. Attach the power cables to the PPC according to instruction in figure below. Ensure that the cables do not obstruct any other objects and not placed near any object that radiate high temperatures. For complete system wiring configuration refer to the wiring diagram chapter and the S-Link System Description chapter.



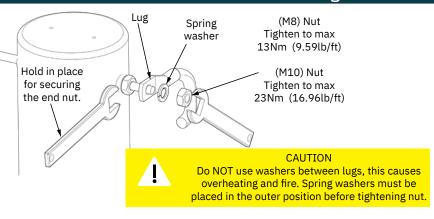
SEP Thrusters

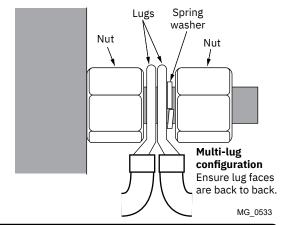
Electrical Reference Guide

MC_0044

					Cross Section Guide for Power Cables												
Model Size	System Voltage	Nominal current	*Min. battery CCA	Rec. fuse	Unit		/m + & -		.4m + & -		21m + & -	22-: total	28m + & -		35m l + & -		45m + & -
						Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.
20/110S	12V	150 A	DIN: 200 SAE: 380	ANL 150	mm²	25	35	35	50	50	70	70	95	95	95	120	2 x 70
20/1100	124	10074	EN: 330	71142 100	AWG	3	2	2	1/0	1/0	2/0	2/0	3/0	3/0	3/0	2 x 4/0	2 x 2/0
25/110S	12V	200 A	DIN: 200 SAE: 380	ANL 150	mm²	25	35	50	50	70	70	95	95	120	120	2 x 70	2 x 70
			EN: 330		AWG	3	2	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 2/0
30/125S	12V	245 A	DIN: 200 SAE: 380	ANL 150	mm²	35	50	50	70	70	95	95	120	120	2 x 70	2 x 70	2 x 95
30/140			EN: 330		AWG	2	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0
40/125S 40/140	12V	315 A	DIN: 300 SAE: 570	ANL 250	mm²	35	50	70	95	95	120	120	2 x 70	2 x 95	2 x 95	2 x 120	2x 120
40/140			EN: 520		AWG	2	1/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0
	12V	370 A	DIN: 350 SAE: 665	ANL 325	mm²	50	50	70	95	120	2 x 70	2 x 70	2 x 95	2 x 95	2 x 120	2 x 120	2 x 120
50/140S			EN: 600		AWG	1/0	1/0	2/0	3/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0
	24V	170 A	DIN: 175 SAE: 332	ANL 150	mm²	25	25	25	35	35	50	35	50	50	70	70	70
			EN: 280		AWG	3	3	3	2	2	1/0	2	1/0	1/0	2/0	2/0	2/0
	12V	370 A	DIN: 350 SAE: 665	ANL 325	mm²	50	50	70	95	120	2 x 70	2 x 70	2 x 95	2 x 95	2 x 120	2 x 120	2 x 120
60/185S 60/140			EN: 600		AWG	1/0	1/0	2/0	3/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0
00/140	24V	170 A	DIN: 175 SAE: 332	ANL 150	mm²	25	25	25	35	35	50	35	50	50	70	70	70
			EN: 280		AWG	3	3	3	2	2	1/0	2	1/0	1/0	2/0	2/0	2/0
	12V	530 A	DIN: 550 SAE: 1045	ANL 400	mm²	70	70	120	2 x 70	2 x 95	2 x 95	2 x 120	2x 120	2 x 120	NA NA	NA	NA
80/185T			EN: 940		AWG	2/0	2/0	4/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0			
	24V	280 A	DIN: 300 SAE:570	ANL 250	mm²	35	35	35	50	50	70	70	95	95	120	120	2 x 95
			EN: 520		AWG	2	2	2	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 3/0
	12V	740 A	DIN: 750 SAE: 1425	ANL 500	mm²	95	95	2 x 70	2 x 95	2 x 120	NA	NA	NA	NA	NA	NA	NA
100/185T			EN: 1320		AWG	3/0	3/0	2 x 2/0	2 x 3/0	2 x 4/0							
	24V	340 A	DIN: 400 SAE: 760	ANL 325	mm²	50	50	50	70	70	95	95	120	120	2 x 95	2 x 95	2 x 120
			EN: 680		AWG	1/0	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 3/0	2 x 3/0	2 x 4/0
120/215T	24V	420 A	DIN: 450 SAE: 855	ANL 325	mm²	70	70	70	70	70	95	95	120	120	2 x 70	2 x 70	2 x 95
			EN: 760		AWG	2/0	2/0	2/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0
	12V	800 A	DIN: 750 SAE: 1425	ANL 500	mm²	95	95	2 x 95	2 x 95	2 x 120	2 x 120	NA	NA	NA	NA	NA	NA
130/250T			EN: 1320		AWG	3/0	3/0	2 x 2/0	2 x 3/0	2 x 4/0	2 x 4/0						
	24V	350 A	DIN: 400 SAE: 760	ANL 325	mm2	50	50	50	70	70	95	95	120	120	2 x 70	2 x 95	2 x 95
			EN: 680		AWG	2	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 3/0	2 x 3/0
150/215T	24V	610 A	DIN: 560 SAE: 1064	ANL 500	mm²	70	70	95	95	120	120	2 x 70	2 x 95	2 x 95	2 x 120	2 x 120	2 x 120
			EN: 940		2	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0
170/250TC	24V	550 A	DIN: 560 SAE: 1064	ANL 400	mm²	70	70	70	95	95	120	120	2 x 95	2 x 95	2 x 95	2 x 120	2 x 120
			EN: 940		AWG	2/0 70	2/0	2/0	3/0	3/0	4/0	4/0	2 x 3/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0
210/250TC	24V	500 A	DIN: 560 SAE: 1064	ANL 400	mm² AWG	2/0	70	70	95	95	120	120	2 x 70	2 x 70	2 x 95	2 x 95	2 x 120
			EN: 940				2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0	2 x 3/0 2 x 120	2 x 4/0 2 x 120
250/300TC	24V	610-670 A	DIN: 700 SAE: 1330	ANL 500	mm²	70	70	95	120	120	2 x 95	2 x 95	2 x 95	2 x 95	2 x 120		
	24*2		EN: 1170 DIN: 400		AWG	2/0	2/0	3/0	4/0	4/0	2 x 3/0	2 x 3/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0
300/300TC	24*2	400-450A (48V)	SAE: 760	ANL 325	mm²	50	70	50	70	70	95	95	120	120	120	140	NA
	48V	, ,	EN: 680		AWG	1/0	2/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	4/0	4/0	

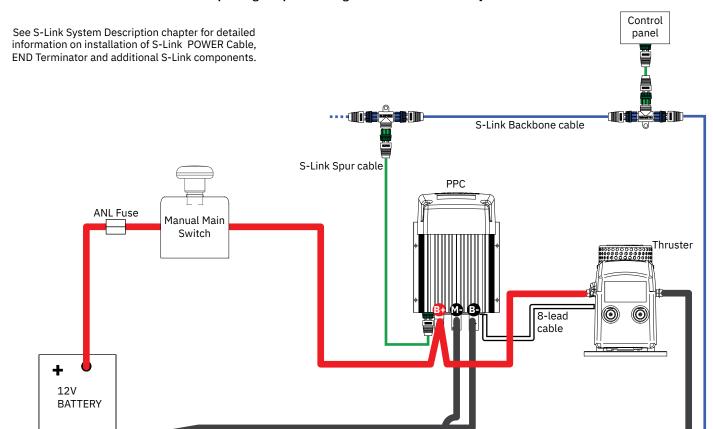
Motor lug connection



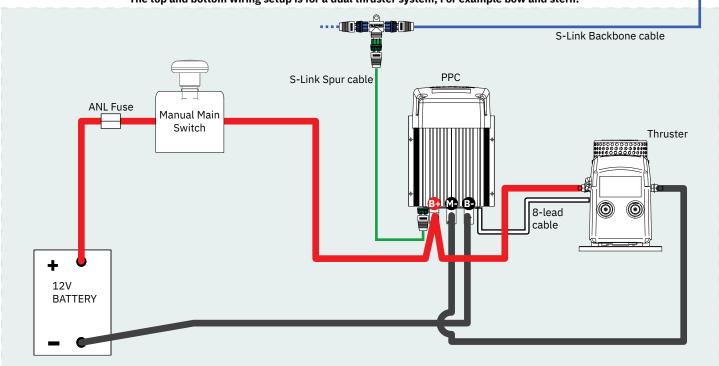


Manual Main Switch Wiring Diagram 12V S-Link Thruster

The Top wiring setup is for a single bow OR stern thruster system



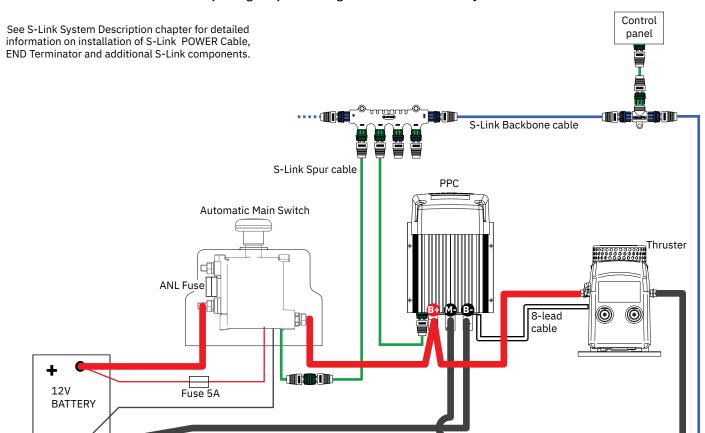
The top and bottom wiring setup is for a dual thruster system, For example bow and stern.



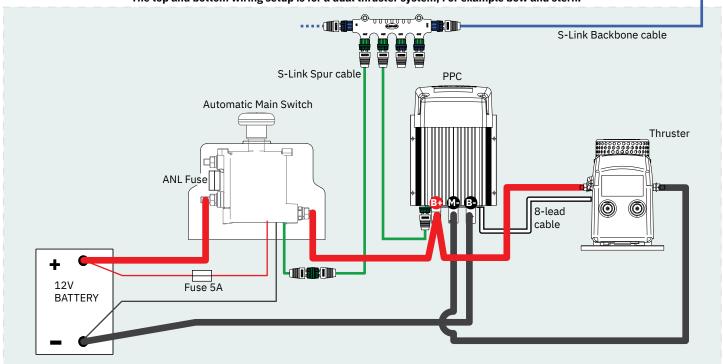
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Automatic Main Switch Wiring Diagram 12V S-Link Thruster

The Top wiring setup is for a single bow OR stern thruster system



The top and bottom wiring setup is for a dual thruster system, For example bow and stern.



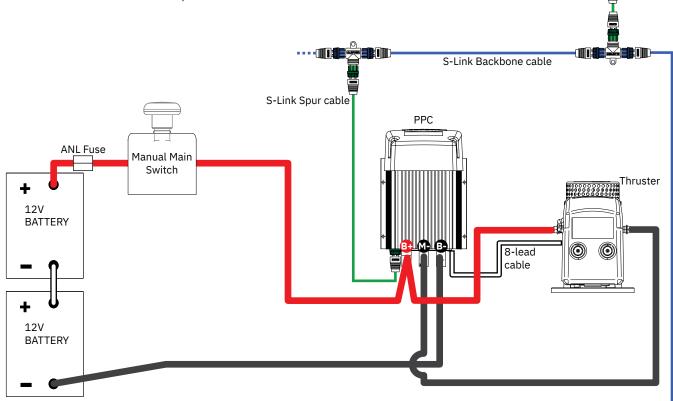
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Control panel

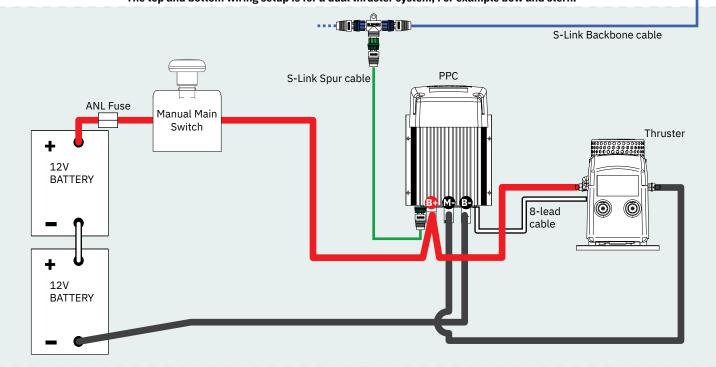
Manual Main Switch Wiring Diagram 24V S-Link Thruster

The Top wiring setup is for a single bow OR stern thruster system

See S-Link System Description chapter for detailed information on installation of S-Link POWER Cable, END Terminator and additional S-Link components.



The top and bottom wiring setup is for a dual thruster system, For example bow and stern.



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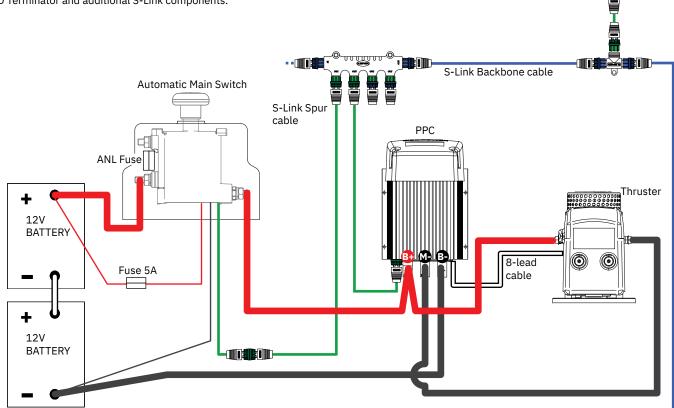
Control

panel

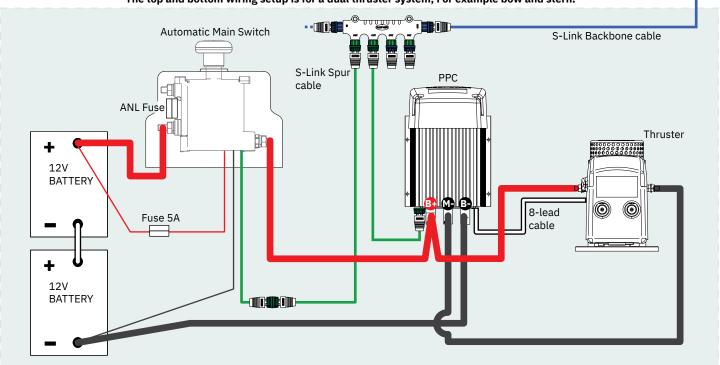
Automatic Main Switch Wiring Diagram 24V S-Link Thruster

The Top wiring setup is for a single bow OR stern thruster system

See S-Link System Description chapter for detailed information on installation of S-Link POWER Cable, END Terminator and additional S-Link components.



The top and bottom wiring setup is for a dual thruster system, For example bow and stern.



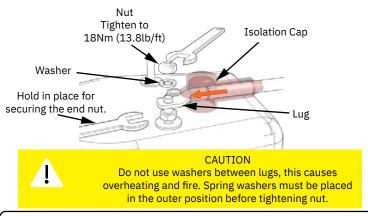
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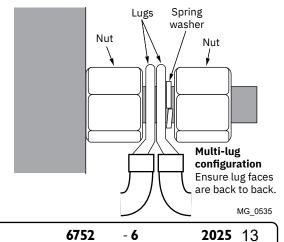
Electrical Reference Guide

MC_0044

									C	ross Sectio	n Guide for	Power Cal	bles	'			
Model Size	System Voltage	Nominal current	*Min. battery CCA	Rec. fuse	Unit		/m + & -		.4m + & -		21m + & -		28m + & -		35m + & -		45m + & -
						Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.
20/110S	12V	150 A	DIN: 200 SAE: 380	ANL 150	mm²	25	35	35	50	50	70	70	95	95	95	120	2 x 70
20/1100		10071	EN: 330	7.11.2 100	AWG	3	2	2	1/0	1/0	2/0	2/0	3/0	3/0	3/0	2 x 4/0	2 x 2/0
25/110S	12V	200 A	DIN: 200 SAE: 380	ANL 150	mm²	25	35	50	50	70	70	95	95	120	120	2 x 70	2 x 70
20,1100		20071	EN: 330	/	AWG	3	2	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 2/0
30/125S	12V	245 A	DIN: 200 SAE: 380	ANL 150	mm²	35	50	50	70	70	95	95	120	120	2 x 70	2 x 70	2 x 95
30/140			EN: 330		AWG	2	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0
40/125S	12V	315 A	DIN: 300 SAE: 570	ANL 250	mm²	35	50	70	95	95	120	120	2 x 70	2 x 95	2 x 95	2 x 120	2x 120
40/140			EN: 520		AWG	2	1/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0
	12V	370 A	DIN: 350 SAE: 665	ANL 325	mm²	50	50	70	95	120	2 x 70	2 x 70	2 x 95	2 x 95	2 x 120	2 x 120	2 x 120
50/140S			EN: 600		AWG	1/0	1/0	2/0	3/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0
	24V	170 A	DIN: 175 SAE: 332	ANL 150	mm²	25	25	25	35	35	50	35	50	50	70	70	70
			EN: 280		AWG	3	3	3	2	2	1/0	2	1/0	1/0	2/0	2/0	2/0
	12V	370 A	DIN: 350 SAE: 665	ANL 325	mm²	50	50	70	95	120	2 x 70	2 x 70	2 x 95	2 x 95	2 x 120	2 x 120	2 x 120
60/185S 60/140			EN: 600		AWG	1/0	1/0	2/0	3/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0
60/140	24V	170 A	DIN: 175 SAE: 332	ANL 150	mm²	25	25	25	35	35	50	35	50	50	70	70	70
			EN: 280		AWG	3	3	3	2	2	1/0	2	1/0	1/0	2/0	2/0	2/0
	12V	530 A	DIN: 550 SAE: 1045	ANL 400	mm²	70	70	120	2 x 70	2 x 95	2 x 95	2 x 120	2x 120	2 x 120	NA	NA	NA
80/185T			EN: 940		AWG	2/0	2/0	4/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0			
	24V	280 A	DIN: 300 SAE:570	ANL 250	mm²	35	35	35	50	50	70	70	95	95	120	120	2 x 95
			EN: 520		AWG	2	2	2	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 3/0
	12V	740 A	DIN: 750 SAE: 1425	ANL 500	mm²	95	95	2 x 70	2 x 95	2 x 120	NA	NA	NA	NA	NA	NA	NA
100/185T			EN: 1320		AWG	3/0	3/0	2 x 2/0	2 x 3/0	2 x 4/0							
	24V	340 A	DIN: 400 SAE: 760	ANL 325	mm²	50	50	50	70	70	95	95	120	120	2 x 95	2 x 95	2 x 120
			EN: 680		AWG	1/0	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 3/0	2 x 3/0	2 x 4/0
120/215T	24V	420 A	DIN: 450 SAE: 855	ANL 325	mm²	70	70	70	70	70	95	95	120	120	2 x 70	2 x 70	2 x 95
			EN: 760		AWG	2/0	2/0	2/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0
	12V	800 A	DIN: 750 SAE: 1425	ANL 500	mm²	95	95	2 x 95	2 x 95	2 x 120	2 x 120	NA	NA	NA	NA	NA	NA
130/250T			EN: 1320		AWG	3/0	3/0	2 x 2/0	2 x 3/0	2 x 4/0	2 x 4/0						
	24V	350 A	DIN: 400 SAE: 760	ANL 325	mm2	50	50	50	70	70	95	95	120	120	2 x 70	2 x 95	2 x 95
			EN: 680		AWG	2	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 3/0	2 x 3/0
150/215T	24V	610 A	DIN: 560 SAE: 1064	ANL 500	mm²	70	70	95	95	120	120	2 x 70	2 x 95	2 x 95	2 x 120	2 x 120	2 x 120
			EN: 940		2	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0
170/250TC	24V	550 A	DIN: 560 SAE: 1064	ANL 400	mm²	70	70	70	95	95	120	120	2 x 95	2 x 95	2 x 95	2 x 120	2 x 120
			EN: 940		AWG	2/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 3/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0
210/250TC	24V	500 A		ANL 400	mm²	70	70	70	95	95	120	120	2 x 70	2 x 70	2 x 95	2 x 95	2 x 120
			EN: 940		AWG	2/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0
250/300TC	24V	610-670 A	DIN: 700 SAE: 1330	ANL 500	mm²	70	70	95	120	120	2 x 95	2 x 95	2 x 95	2 x 95	2 x 120	2 x 120	2 x 120
	0.00		EN: 1170		AWG	2/0	2/0	3/0	4/0	4/0	2 x 3/0	2 x 3/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0
300/300TC	24*2	400-450A (48V)	DIN: 400 SAE: 760	ANL 325	mm²	50	70	50	70	70	95	95	120	120	120	140	NA
	48V	(.50)	EN: 680		AWG	1/0	2/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	4/0	4/0	

Product Lug Connection Configuration





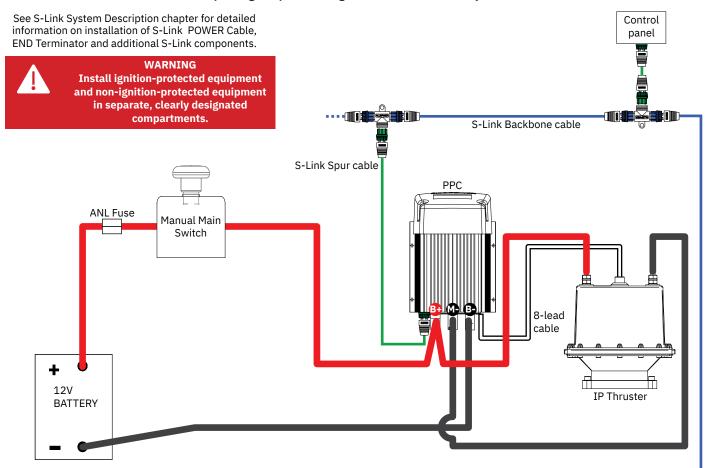
PPC

6752

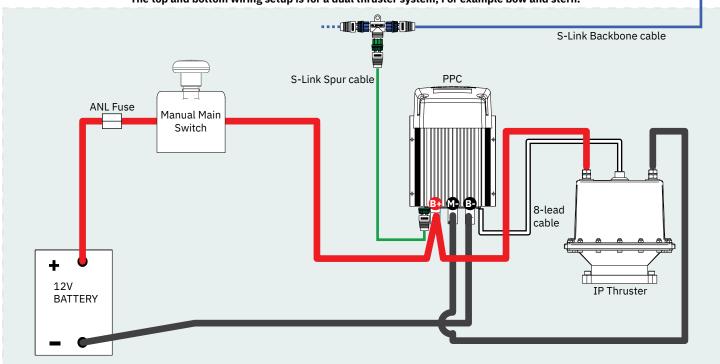
2025 13

Manual Main Switch Wiring Diagram 12V S-Link IP Thruster

The Top wiring setup is for a single bow OR stern thruster system



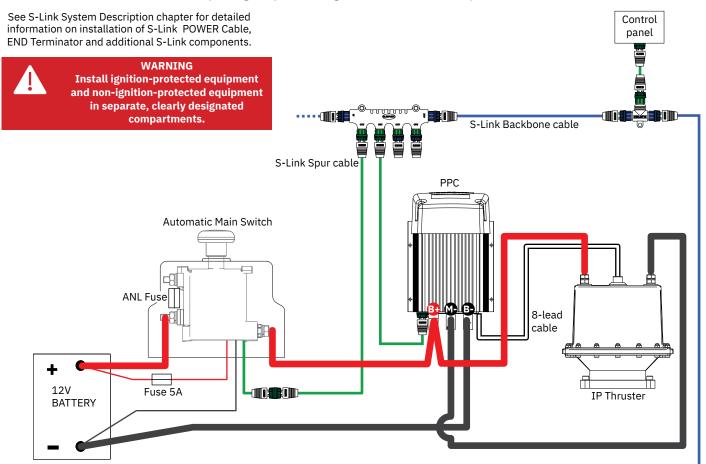
The top and bottom wiring setup is for a dual thruster system, For example bow and stern.



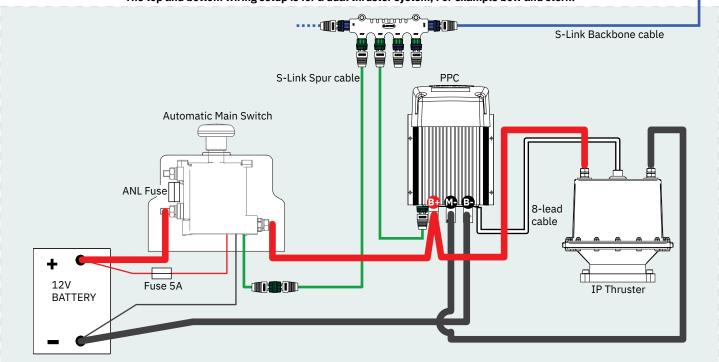
MG_0597

Automatic Main Switch Wiring Diagram 12V S-Link IP Thruster

The Top wiring setup is for a single bow OR stern thruster system



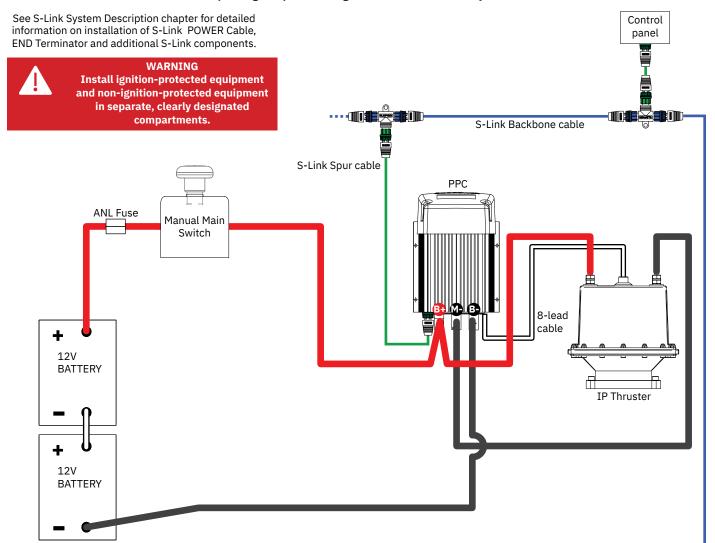
The top and bottom wiring setup is for a dual thruster system, For example bow and stern.



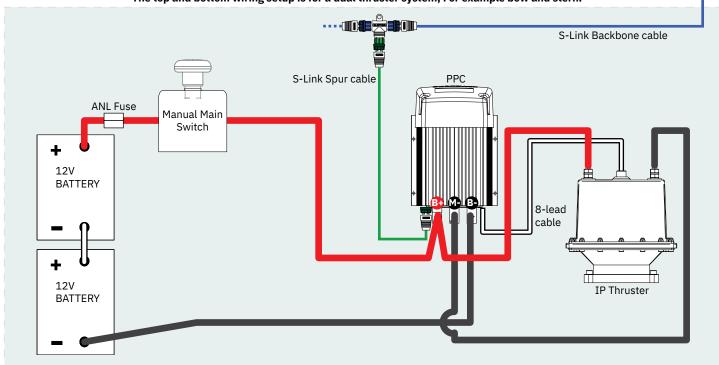
MG_0560

Manual Main Switch Wiring Diagram 24V S-Link IP Thruster

The Top wiring setup is for a single bow OR stern thruster system



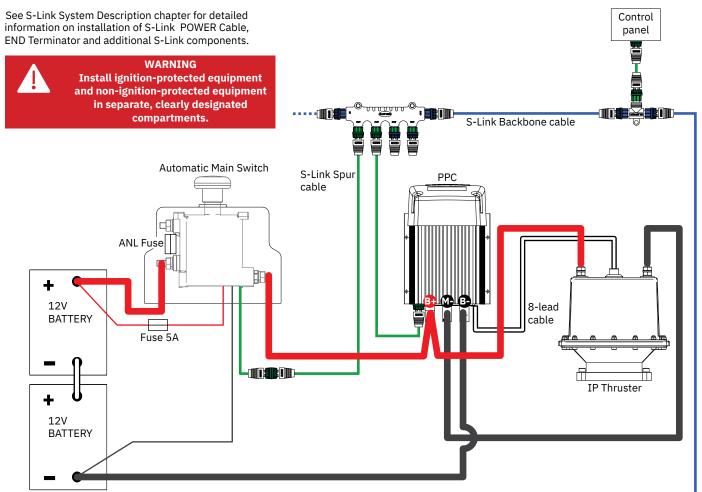
The top and bottom wiring setup is for a dual thruster system, For example bow and stern.



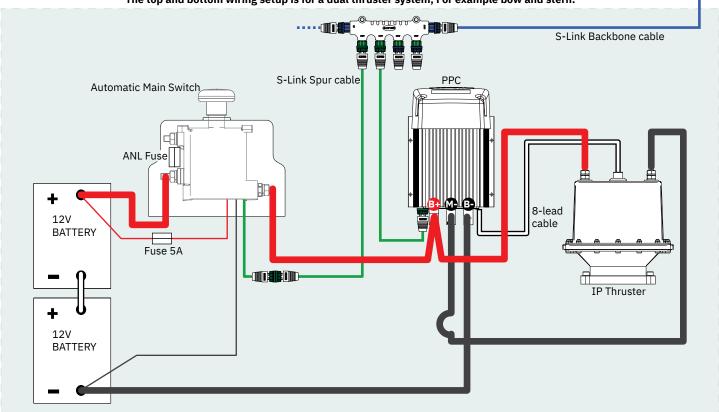
MG_0598

Automatic Main Switch Wiring Diagram 24V S-Link IP Thruster

The Top wiring setup is for a single bow OR stern thruster system



The top and bottom wiring setup is for a dual thruster system, For example bow and stern.



MG_0599

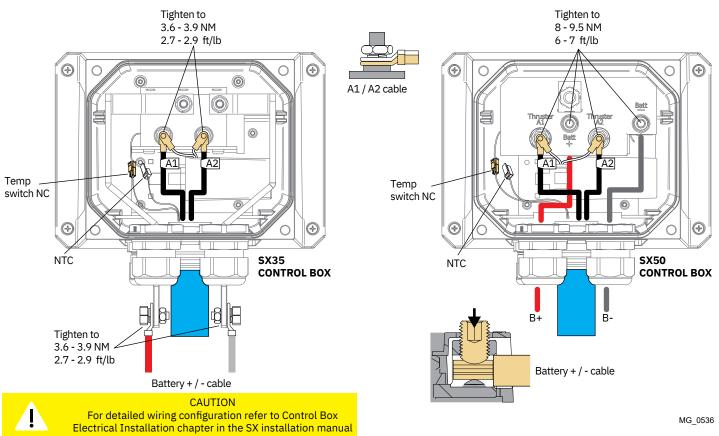
PPC

Electrical Reference Guide

MC_0077

						Cross Section Guide for Power Cables															
Model Si	e System Voltage	Nominal current draw	Min. battery CCA	Rec. fuse					Unit	<7 total	/m + & -	7-1 total	4m + & -	15-2 total		22-: total	28m + & -	28-35m total + & -		36-45m total + & -	
						Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.				
25/440	12V	245 A	DIN: 200 SAE: 380	ANL 150	mm²	35	50	50	70	70	95	95	120	120	2 x 70	2 x 70	2 x 95				
35/140	120	245 A	EN: 330	ANL 150	AWG	2	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0				
50/140	12V	370 A	DIN: 350 SAE: 665		mm²	50	50	70	95	120	2 x 70	2 x 70	2 x 95	2 x 95	2 x 120	2 x 120	2 x 120				
50/140	120	370 A	EN: 600	ANL 325	AWG	1/0	1/0	2/0	3/0	4/0	2 × 2/0	2 x 2/0	2 x 3/0	2 × 3/0	2 x 4/0	2 x 4/0	2 x 4/0				

Product Lug Connection Configuration

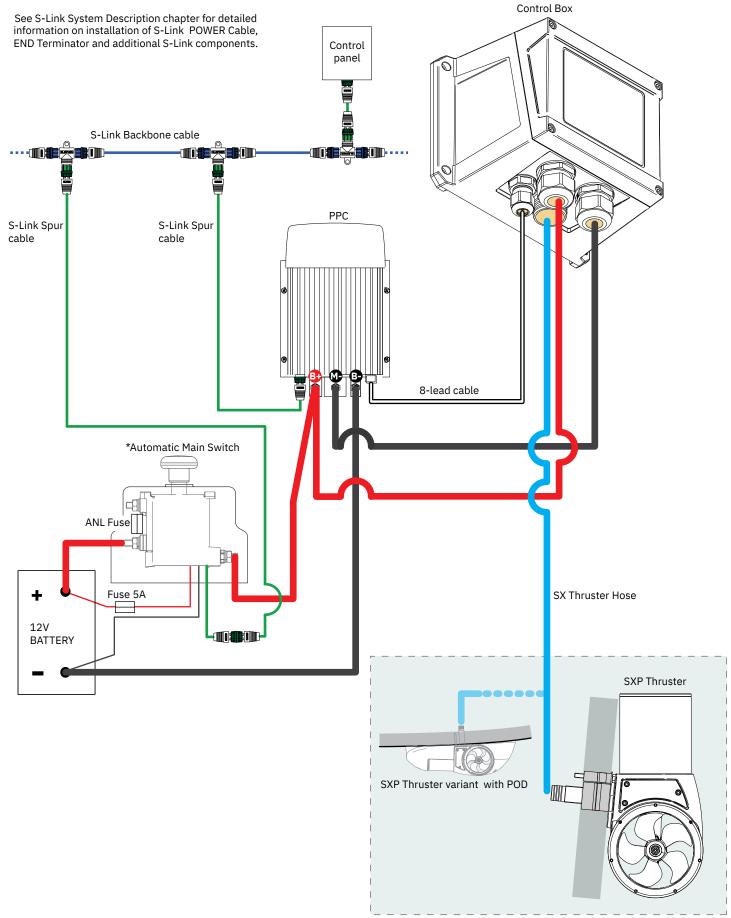


MG_0536

18 **PPC** 6752 2025 - 6

Automatic Main Switch Wiring Diagram 12V S-Link SXP Thruster

Selection of battery, fuse, main switch and cable cross section is described in *Electrical Installation* chapter.



MG_0126

PPC

6752

- 6

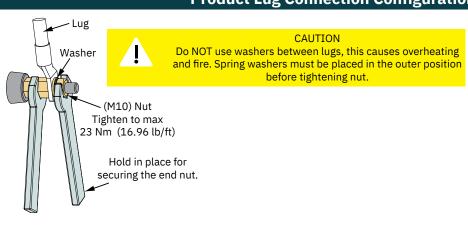
2025 19

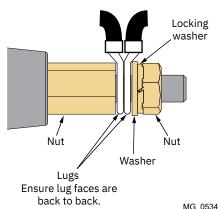
Electrical Reference Guide

MC_0468

									C	ross Sectio	n Guide for	Power Cal	oles									
Model Size	System Voltage	Nominal current draw	Min. battery CCA	Rec. fuse	Unit	<7 total			.4m + & -		21m + & -	22-2 total		28-: total	35m + & -		45m + & -					
						Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.					
	12 V	530 A	DIN: 550 SAE: 1045	ANL	mm2	70	70	120	2 x 70	2 x 95	2 x 95	2 x 120	2x 120	2 x 120	NA	NA	NA					
*80/185T	12 V	550 A	EN: 940	400	AWG	2/0	2/0	4/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0	INA	INA	INA					
00/1051	24 V	280 A	DIN: 300 SAE:570	ANL	mm2	35	35	35	50	50	70	70	95	95	120	120	2 x 95					
	24 V	260 A	EN: 520	250	AWG	2	2	2	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 3/0					
	12 V	740 A	DIN: 750 SAE: 1425	ANL	mm2	95	95	2 x 70	2 x 95	2 x 120	NA	NA	NA	NA	NA	NA	NA					
*100/185T	12 V	740 A	EN: 1320	500	AWG	3/0	3/0	2 x 2/0	2 x 3/0	2 x 4/0	INA	INA	INA	IVA	INA	INA	INA					
100/1031	24 V	340 A				DIN: 400 SAE: 760			ANL	mm2	50	50	50	70	70	95	95	120	120	2 x 95	2 x 95	2 x 120
	24 V	340 A	EN: 680	325	AWG	1/0	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 3/0	2 x 3/0	2 x 4/0					

Product Lug Connection Configuration

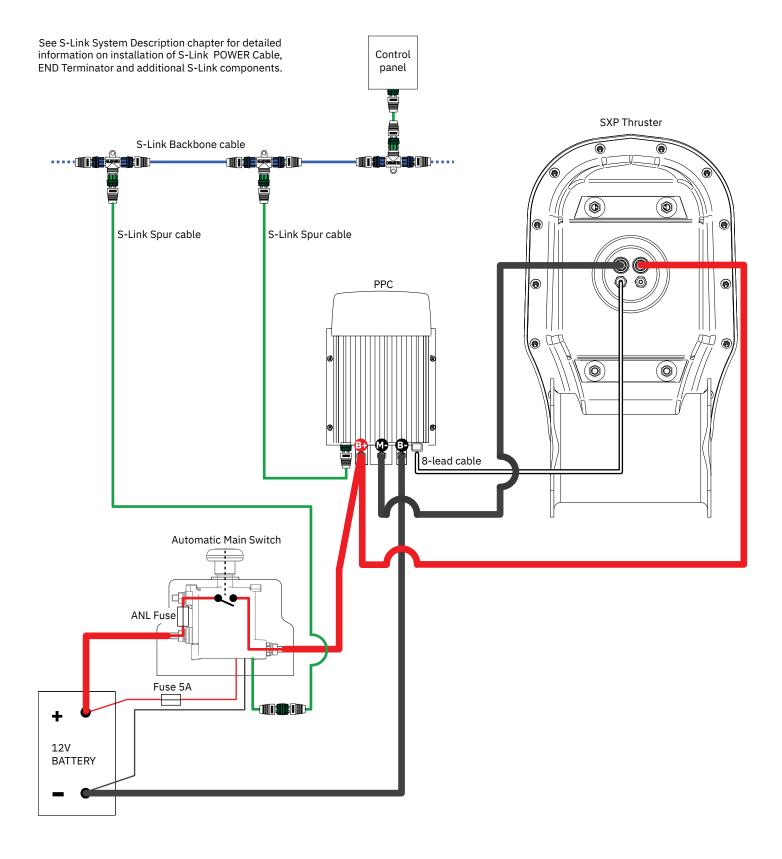




MG_0534

20 **PPC** 6752 2025 - 6

Automatic Main Switch Wiring Diagram 12V S-Link SXP Thruster



MG_0559

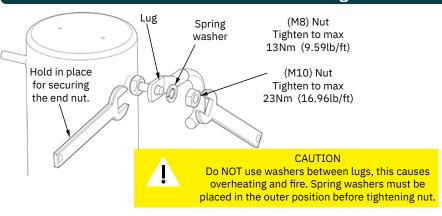
SRP Thrusters

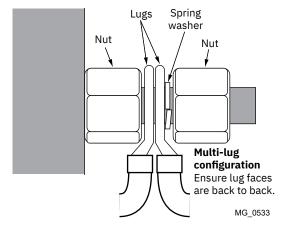
Electrical reference guide

MC_0475

									Cros	s Section	Guide fo	r Power (Cables				
Model Size			Min. battery CCA	Rec. fuse	Unit	<7 total	'm + & -		.4m + & -	15-2 total	21m + & -	22-2 total		28-3 total	35m + & -		45m + & -
						Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.	Min.	Rec.
	40.1/	500 A	DIN: 550	ANL	mm2	70	70	120	2 x 70	2 x 95	2 x 95	2 x 120	2x 120	2 x 120	NA	NIA	NA
00/4057	12 V	530 A	SAE: 1045 EN: 940	400	AWG	2/0	2/0	4/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0	I NA	NA	NA
80/185T	0437		DIN: 300	ANL	mm2	35	35	35	50	50	70	70	95	95	120	120	2 x 95
	24 V	280 A	SAE:570 EN: 520	250	AWG	2	2	2	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 3/0
	12 V	740 A	DIN: 750 SAE: 1425	ANL	mm2	95	95	2 x 70	2 x 95	2 x 120	NA	NA	NA	NA	NA	NA	NA
400/4057	12 V	740 A	EN: 1320	500	AWG	3/0	3/0	2 x 2/0	2 x 3/0	2 x 4/0	INA	INA	INA	INA	INA	INA	INA
100/185T	24 V	340 A	DIN: 400 SAE: 760	ANL	mm2	50	50	50	70	70	95	95	120	120	2 x 95	2 x 95	2 x 120
	24 V	340 A	EN: 680	325	AWG	1/0	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 3/0	2 x 3/0	2 x 4/0

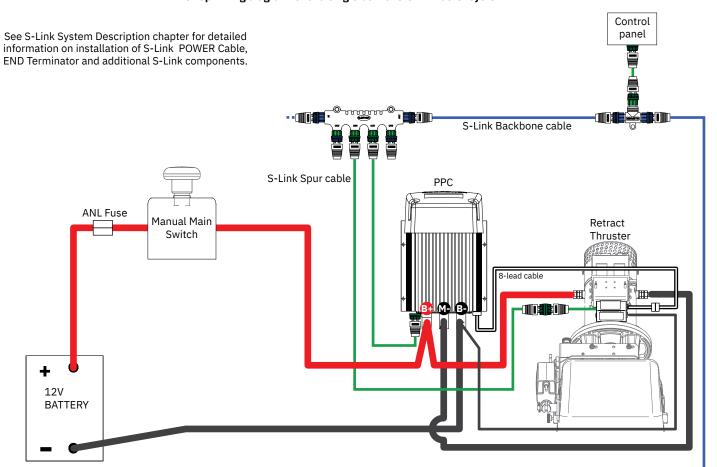
Motor lug connection



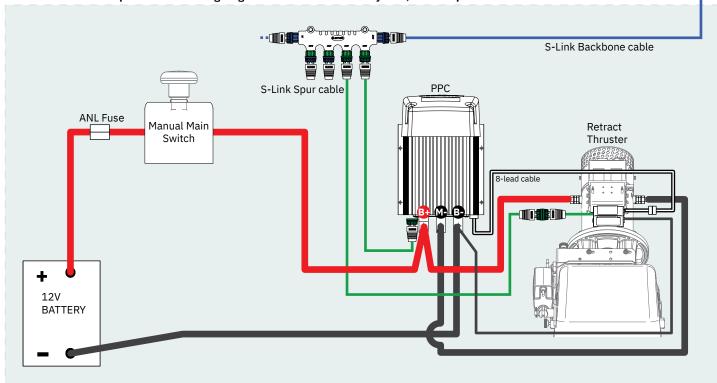


Manual Main Switch Wiring Diagram 12V Proportional Retract Thruster

The Top wiring diagram is for a single bow or stern thruster system



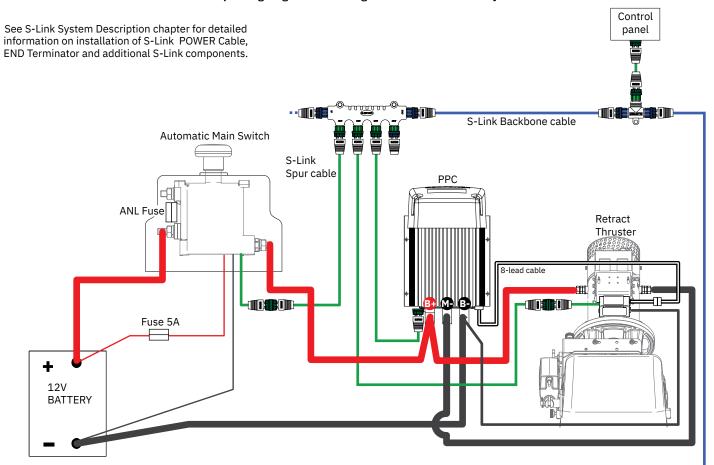
The top and bottom wiring diagram is for a dual thruster system, for example a bow and stern installation.



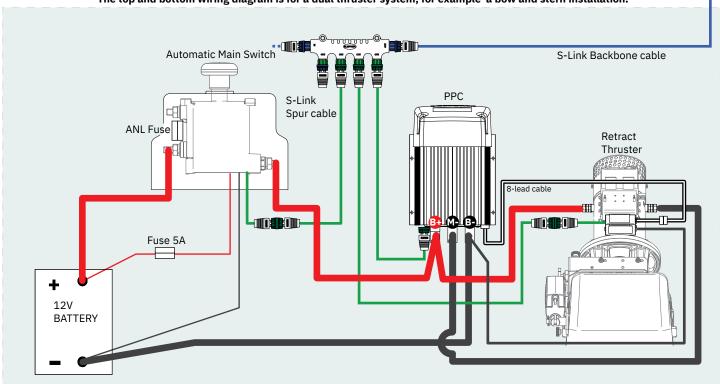
MG_0609

Automatic Main Switch Wiring Diagram 12V Proportional Retract Thruster

The Top wiring diagram is for a single bow or stern thruster system



The top and bottom wiring diagram is for a dual thruster system, for example a bow and stern installation.



MG_0550

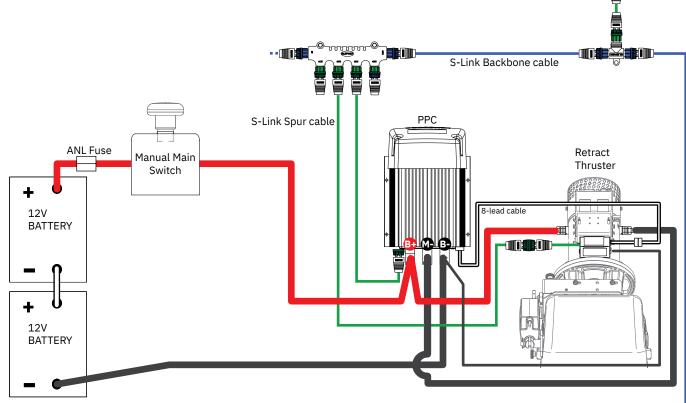
Control

panel

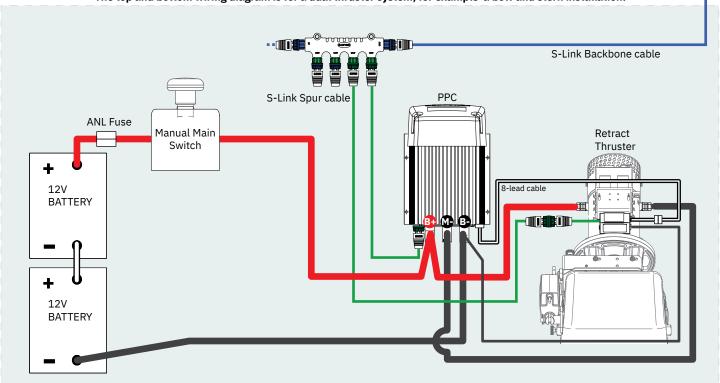
Manual Main Switch Wiring Diagram 24V Proportional Retract Thruster

The Top wiring diagram is for a single bow or stern thruster system

See S-Link System Description chapter for detailed information on installation of S-Link POWER Cable, END Terminator and additional S-Link components.



The top and bottom wiring diagram is for a dual thruster system, for example a bow and stern installation.



MG_0608

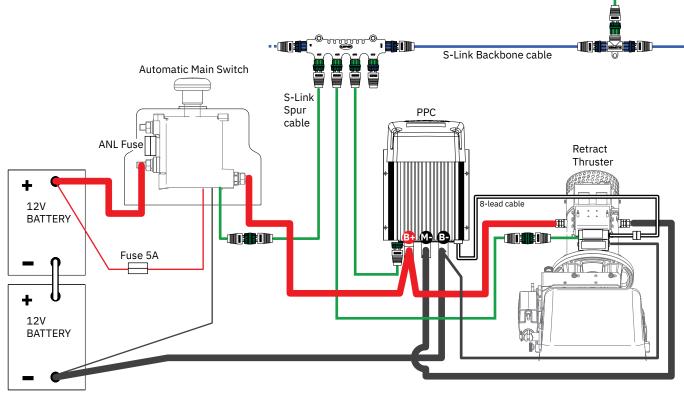
Control

panel

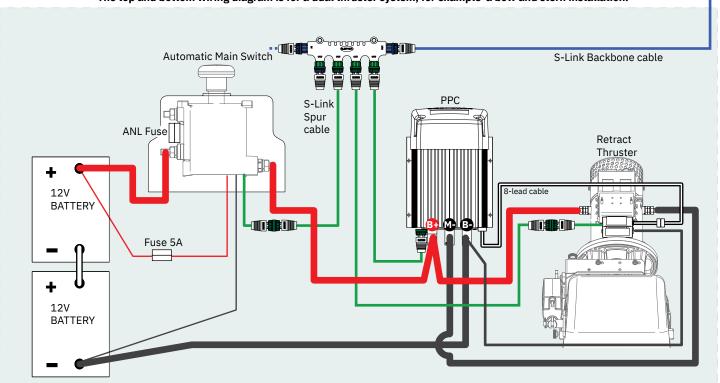
Automatic Main Switch Wiring Diagram 24V Proportional Retract Thruster

The Top wiring diagram is for a single bow or stern thruster system

See S-Link System Description chapter for detailed information on installation of S-Link POWER Cable, END Terminator and additional S-Link components.



The top and bottom wiring diagram is for a dual thruster system, for example a bow and stern installation.



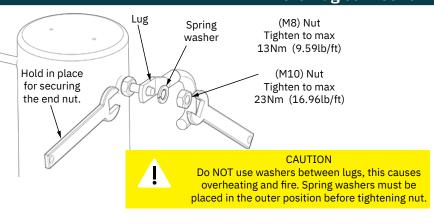
MG_0607

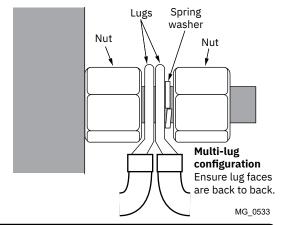
Electrical Reference Guide

MC_0044

					Cross Section Guide for Power Cables												
Model Size	System	Nominal	*Min. battery	Rec.			'm		.4m	15-	21m	22-	28m		35m		45m
Model Size	Voltage	current	CCA	fuse	Unit	total Min.	+ & - Rec.										
			DIN: 200		mm²	25	35	35	50	50	70	70	95	95	95	120	2 x 70
20/110S	12V	150 A	SAE: 380 EN: 330	ANL 150	AWG	3	2	2	1/0	1/0	2/0	2/0	3/0	3/0	3/0	2 x 4/0	2 x 2/0
			DIN: 200		mm²	25	35	50	50	70	70	95	95	120	120	2 x 70	2 x 2/0
25/110S	12V	200 A	SAE: 380 EN: 330	ANL 150	AWG	3	2	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 2/0
			DIN: 200		mm²	35	50	50	70	70	95	95	120	120	2 x 70	2 x 70	2 x 95
30/125S 30/140	12V	245 A	SAE: 380 EN: 330	ANL 150	AWG	2	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0
			DIN: 300		mm²	35	50	70	95	95	120	120	2 x 70	2 x 95	2 x 95	2 x 120	2x 120
40/125S 40/140	12V	315 A	SAE: 570 EN: 520	ANL 250	AWG	2	1/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0
			DIN: 350		mm²	50	50	70	95	120	2 x 70	2 x 70	2 x 95	2 x 95	2 x 120	2 x 120	2 x 120
	12V	370 A	SAE: 665 EN: 600	ANL 325	AWG	1/0	1/0	2/0	3/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0
50/140S			DIN: 175		mm²	25	25	25	35	35	50	35	50	50	70	70	70
	24V	170 A	SAE: 332 EN: 280	ANL 150	AWG	3	3	3	2	2	1/0	2	1/0	1/0	2/0	2/0	2/0
			DIN: 350		mm²	50	50	70	95	120	2 x 70	2 x 70	2 x 95	2 x 95	2 x 120	2 x 120	2 x 120
	12V	370 A	SAE: 665 EN: 600	ANL 325	AWG	1/0	1/0	2/0	3/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0
60/185S 60/140			DIN: 175		mm²	25	25	25	35	35	50	35	50	50	70	70	70
	24V	170 A	SAE: 332 EN: 280	ANL 150	AWG	3	3	3	2	2	1/0	2	1/0	1/0	2/0	2/0	2/0
			DIN: 550		mm²	70	70	120	2 x 70	2 x 95	2 x 95	2 x 120	2x 120	2 x 120			
	12V	530 A	SAE: 1045 EN: 940	ANL 400	AWG	2/0	2/0	4/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0	NA	NA	NA
80/185T			DIN: 300		mm²	35	35	35	50	50	70	70	95	95	120	120	2 x 95
	24V	280 A	SAE:570 EN: 520	ANL 250	AWG	2	2	2	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 3/0
			DIN: 750		mm²	95	95	2 x 70	2 x 95	2 x 120				i	i		
	12V	740 A	SAE: 1425 EN: 1320	ANL 500	AWG	3/0	3/0	2 x 2/0	2 x 3/0	2 x 4/0	NA						
100/185T			DIN: 400		mm²	50	50	50	70	70	95	95	120	120	2 x 95	2 x 95	2 x 120
	24V	340 A	SAE: 760 EN: 680	ANL 325	AWG	1/0	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 3/0	2 x 3/0	2 x 4/0
			DIN: 450		mm²	70	70	70	70	70	95	95	120	120	2 x 70	2 x 70	2 x 95
120/215T	24V	420 A	SAE: 855 EN: 760	ANL 325	AWG	2/0	2/0	2/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0
			DIN: 750		mm²	95	95	2 x 95	2 x 95	2 x 120	2 x 120						
	12V	800 A	SAE: 1425 EN: 1320	ANL 500	AWG	3/0	3/0	2 x 2/0	2 x 3/0	2 x 4/0	2 x 4/0	NA	NA	NA	NA	NA	NA
130/250T			DIN: 400		mm2	50	50	50	70	70	95	95	120	120	2 x 70	2 x 95	2 x 95
	24V	350 A	SAE: 760 EN: 680	ANL 325	AWG	2	1/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 3/0	2 x 3/0
	201		DIN: 560		mm²	70	70	95	95	120	120	2 x 70	2 x 95	2 x 95	2 x 120	2 x 120	2 x 120
150/215T	24V	610 A	SAE: 1064 EN: 940	ANL 500	2	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0
170/05070	04)/	550.4	DIN: 560	ANII 400	mm²	70	70	70	95	95	120	120	2 x 95	2 x 95	2 x 95	2 x 120	2 x 120
170/250TC	24V	550 A	SAE: 1064 EN: 940	ANL 400	AWG	2/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 3/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0
240/25270	201	F00.4	DIN: 560	ANII 400	mm²	70	70	70	95	95	120	120	2 x 70	2 x 70	2 x 95	2 x 95	2 x 120
210/250TC	24V	500 A	SAE: 1064 EN: 940	ANL 400	AWG	2/0	2/0	2/0	3/0	3/0	4/0	4/0	2 x 2/0	2 x 2/0	2 x 3/0	2 x 3/0	2 x 4/0
250/20070	201	640.670	DIN: 700	ANII 500	mm²	70	70	95	120	120	2 x 95	2 x 95	2 x 95	2 x 95	2 x 120	2 x 120	2 x 120
250/300TC	24V	610-670 A	SAE: 1330 EN: 1170	ANL 500	AWG	2/0	2/0	3/0	4/0	4/0	2 x 3/0	2 x 3/0	2 x 3/0	2 x 3/0	2 x 4/0	2 x 4/0	2 x 4/0
300/300TO	24*2	400-450A	DIN: 400	ANII 205	mm²	50	70	50	70	70	95	95	120	120	120	140	NIA
300/300TC	48V	(48V)	SAE: 760 EN: 680	ANL 325	AWG	1/0	2/0	1/0	2/0	2/0	3/0	3/0	4/0	4/0	4/0	4/0	NA

Motor lug connection

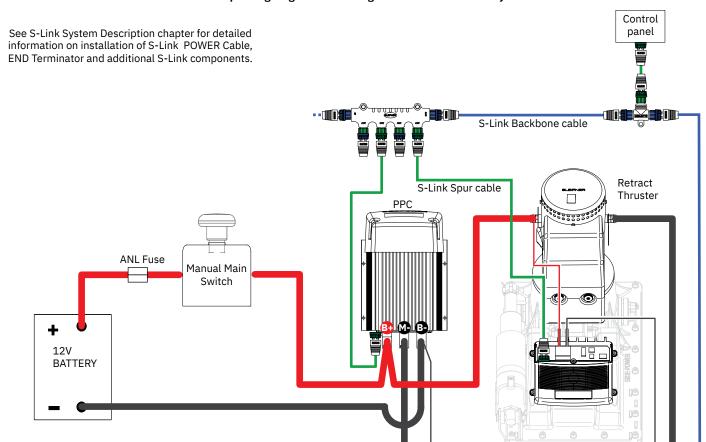




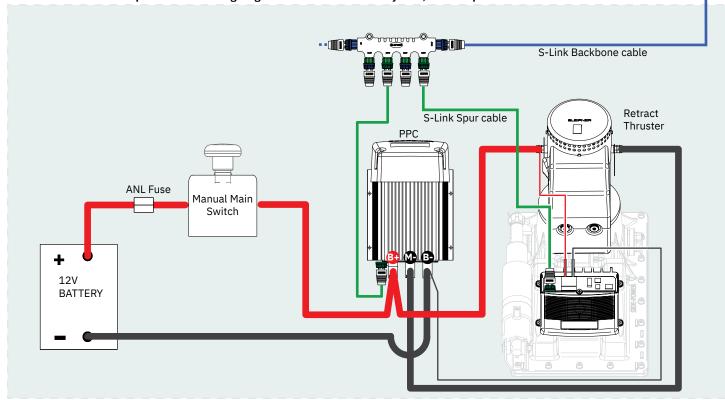
- 6

Manual Main Switch Wiring Diagram 12V Proportional Retract Thruster

The Top wiring diagram is for a single bow or stern thruster system



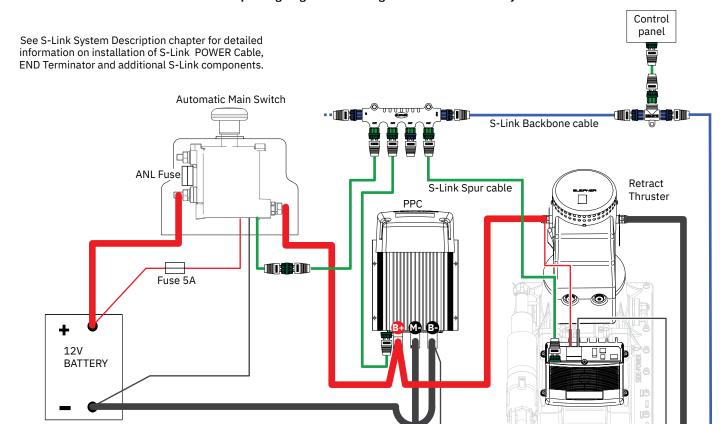
The top and bottom wiring diagram is for a dual thruster system, for example a bow and stern installation.



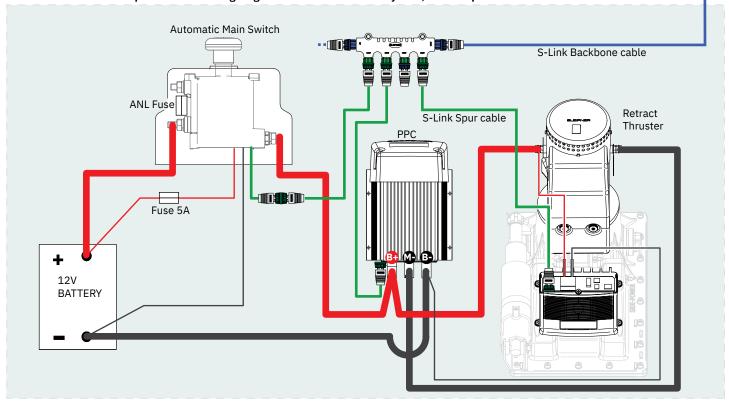
MG_0631

Automatic Main Switch Wiring Diagram 12V Proportional Retract Thruster

The Top wiring diagram is for a single bow or stern thruster system



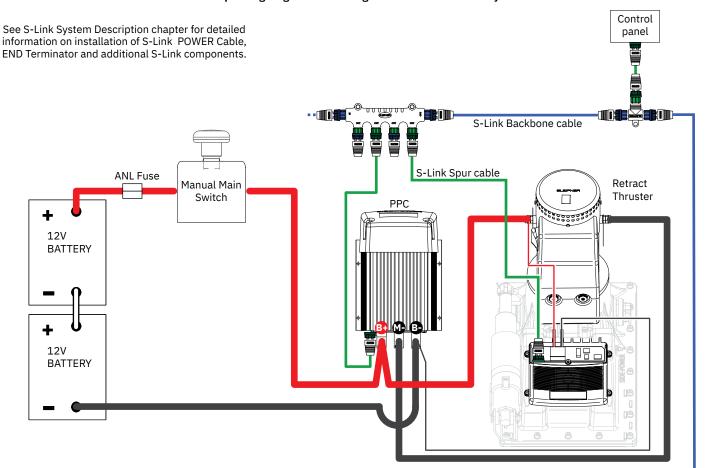
The top and bottom wiring diagram is for a dual thruster system, for example a bow and stern installation.



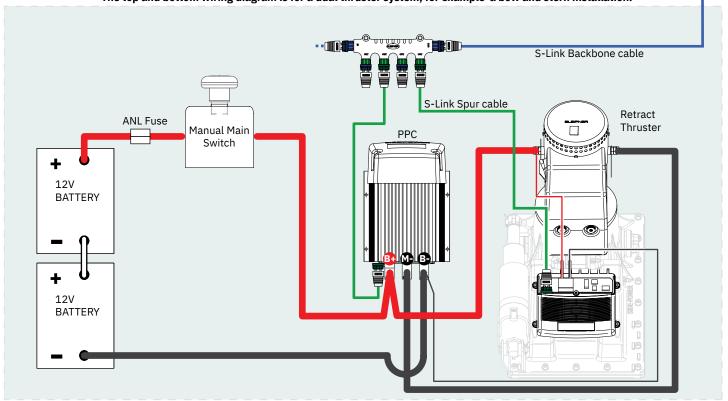
MG_0555

Manual Main Switch Wiring Diagram 24V Proportional Retract Thruster

The Top wiring diagram is for a single bow or stern thruster system



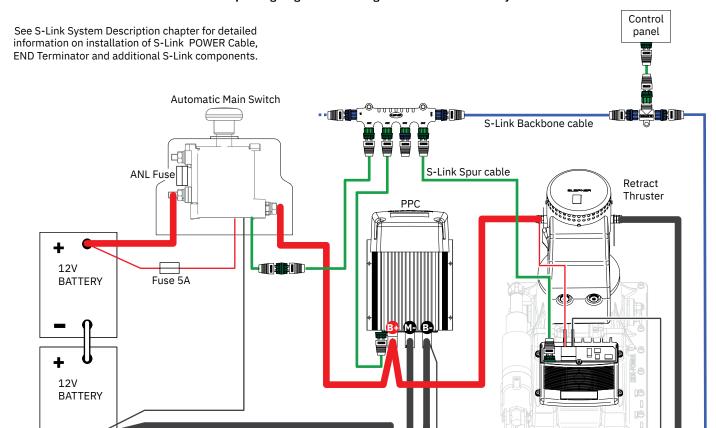
The top and bottom wiring diagram is for a dual thruster system, for example a bow and stern installation.



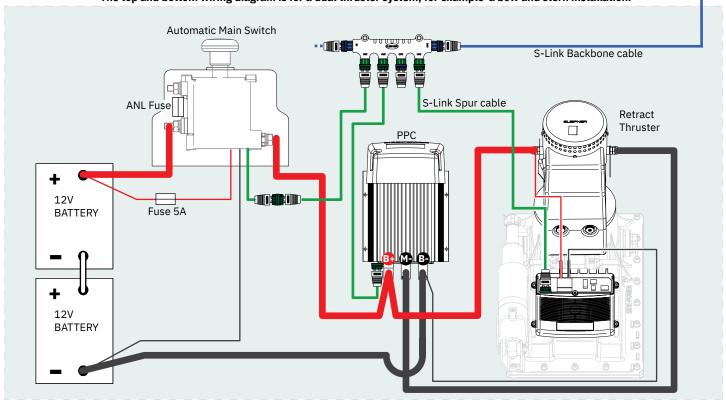
MG_0632

Automatic Main Switch Wiring Diagram 24V Proportional Retract Thruster

The Top wiring diagram is for a single bow or stern thruster system



The top and bottom wiring diagram is for a dual thruster system, for example a bow and stern installation.



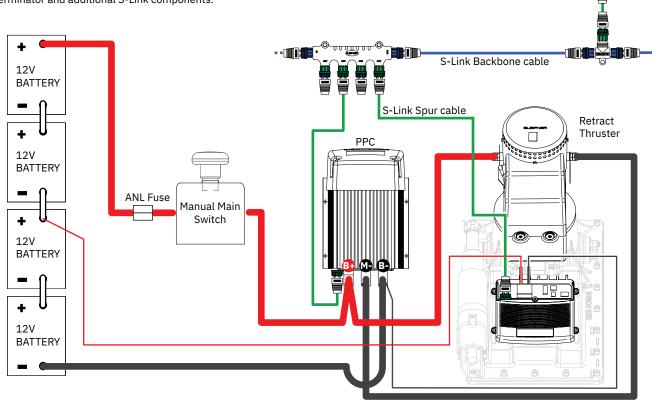
MG_0633

Control panel

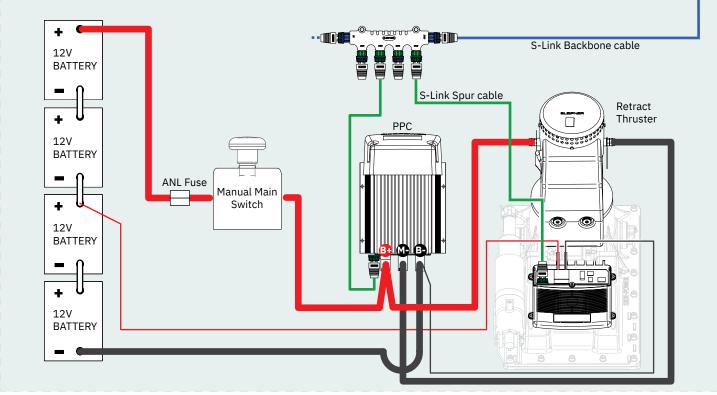
Manual Main Switch Wiring Diagram 48V Proportional Retract Thruster

The Top wiring diagram is for a single bow or stern thruster system

See S-Link System Description chapter for detailed information on installation of S-Link POWER Cable, END Terminator and additional S-Link components.



The top and bottom wiring diagram is for a dual thruster system, for example a bow and stern installation.



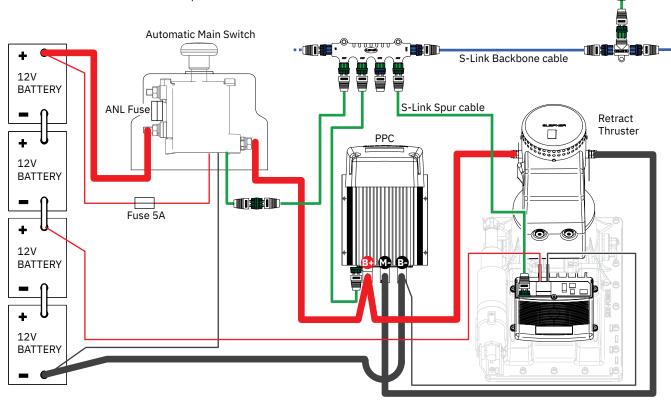
MG_0709

Control panel

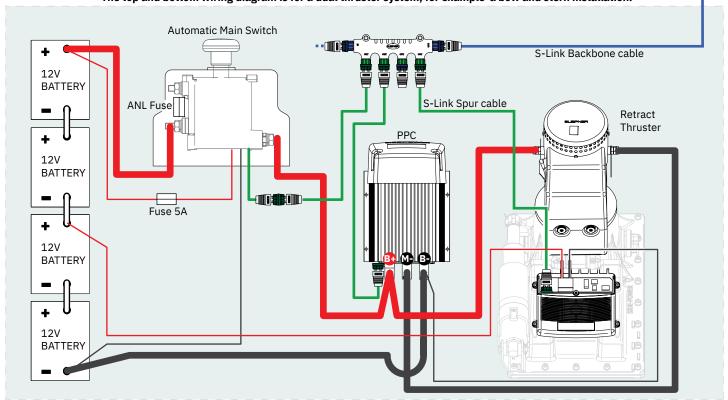
Automatic Main Switch Wiring Diagram 48V Proportional Retract Thruster

The Top wiring diagram is for a single bow or stern thruster system

See S-Link System Description chapter for detailed information on installation of S-Link POWER Cable, END Terminator and additional S-Link components.



The top and bottom wiring diagram is for a dual thruster system, for example a bow and stern installation.



MG_0610

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.

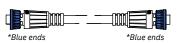
Installation of S-Link cables:

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 recommended to install cables in such a way that water and condensation do not flow along the cables into the connectors. This can be done for example by introducing a u-shape bend before the cable enters the product connector.

Ideally, the POWER Cable should be connected to the middle of the BACKBONE bus to ensure an equal voltage drop at both ends 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.

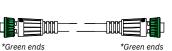
To reduce the risk of interference, avoid routing the S-Link cables close to equipment such as radio transmitters, antennas or high voltage cables. The backbone must be terminated at each end with the END Terminator.

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.



BACKBONE Cable

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



SPUR Cable

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.



*Blue ends

*Blue ends

T-Connector

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



BACKBONE Extender

Connects two BACKBONE Cables to extend the length.



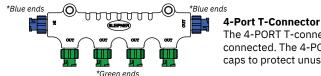
POWER Cable

Required in all installations for connection of BACKBONE Cable to a power supply and should be protected with a 2A fuse.



END Terminator

Must be one at each end of the BACKBONE bus.



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.

S-Link installation example Control Panel Control Panel 4 Port T-Connector 4 Port T-Connector Backbone Extende T-Connector on The o End **Backhone** Backhone Backbone Terminato Powe S-Link Automatic **Power Supply** Black Main switch Yellow 12/24V Spui Red Spur Switch Optional Fuse 2A **Bow Thruster** Stern Thruster MG 0159

34 **PPC** 6752 2025 - 6

For PPC setup follow your **Control Panel** installation guide.

Control panel installation

MC_0398

For **Control Panel** installation please refer to the Installation Guide accompanying the control panel to be installed.



Fill in the type, location and serial numbers of the S-Link devices installed. Keeping this as a reference will make the setup procedure easier!

S-Link device	Location	Serial number
(ie Thruster, AMS, PPC etc)	(Bow, Bow-STB, Stern, Stern-STB)	

Scan the QR code below to access Sleipner's Fault Code Navigator. Fault codes can be entered in the Fault Code Navigator to receive fault description and guidance on resolving the issue.

A complete list of fault codes and troubleshooting tips can also be downloaded.



www.sleipnergroup.com/support/fault-code-navigator

Sleipner Group Waste Disposal and Recycling Guide

MC_0848

Introduction:

At Sleipner Group, we prioritize sustainability and encourage the repair and re-manufacturing of products to extend their life cycles. If disposal is necessary, please follow these guidelines to recycle and manage waste responsibly, ensuring our efforts align with environmental protection efforts.

Electric Motors and Electronics:

- Disconnect from any power sources and dismantle them carefully.
- · Recycle components through certified e-waste recycling centers that can adequately handle and recover electronic materials.
- Dispose of any non-recyclable electronic parts according to local environmental regulations.

Metals:

- Collect and sort metal parts for recycling as scrap metal.
- To increase recycling efficiency, ensure that metals are clean and free from non-metal attachments.

Plastics:

- Identify recyclable plastics based on local recycling guidelines.
- · Remove any non-plastic components and clean them before recycling to improve the quality of the recycled material.

Hazardous Materials:

- · Correctly identify any hazardous substances within components, such as batteries or capacitors etc.
- Follow local regulations for the safe disposal of hazardous materials to prevent pollution and protect environmental health.

General Disposal Instructions:

- Consult local recycling programs to determine the acceptability of various materials.
- Use authorized disposal services to ensure compliance with environmental standards.

Safe Disposal Practices:

· Adhere to local laws and regulations for waste management to minimize environmental impact and ensure community safety.

This guide is designed to help reduce our products' environmental footprint through responsible end-of-life management. Please contact your local waste management supplier or our support team for more specific disposal information or further assistance.

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

Product spare parts and additional resources

MC 0024

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

Warranty statement

MC_0024

- 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.
- 3. Certain parts, classified as wearable or service parts, are not covered by the warranty. A failure to follow the required maintenance and service 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.
- 5. 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:

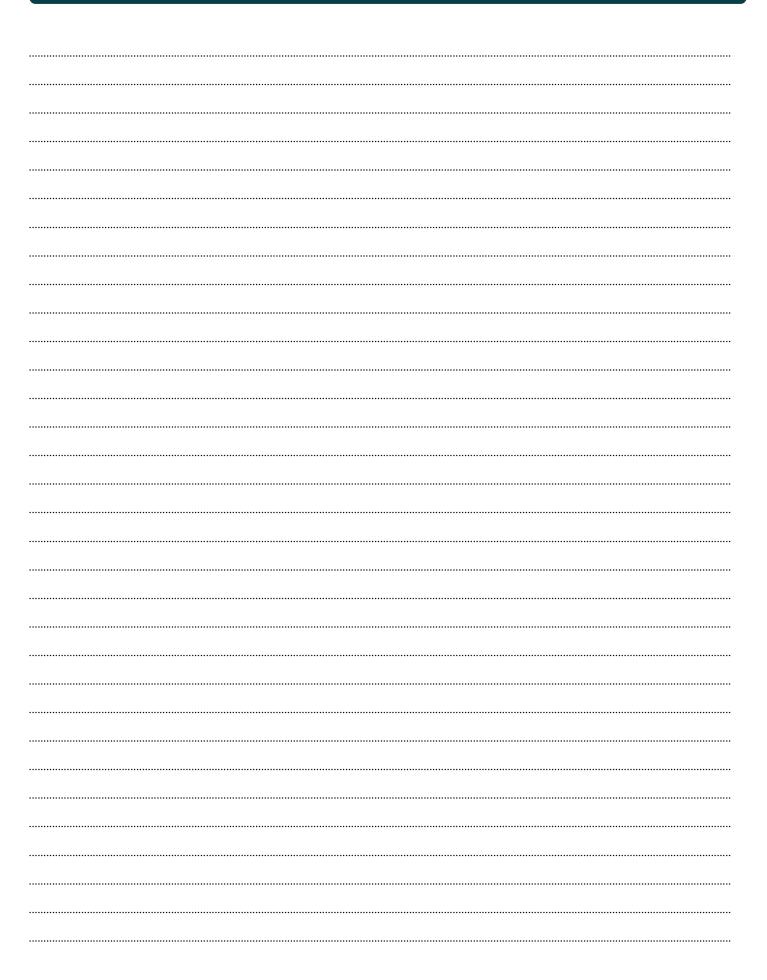
 (a) Contact the dealer or service centre where the equipment was purchased and make the claim. Alternatively, the Claimant can make the claim to a dealer or service centre found at www.sleipnergroup.com. The Claimant must present a detailed written statement of the nature and circumstances of the defect, 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.
- 7. 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.
- 8. 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.
- 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.
- 10. 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.
- 11. This warranty gives you specific legal rights, and you may also have other rights which vary from country to country.

Patents

MC_0024

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

Notes MC_0037



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Learn more about our products at www.sleipnergroup.com



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