



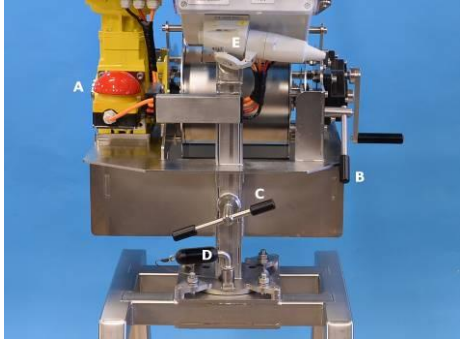

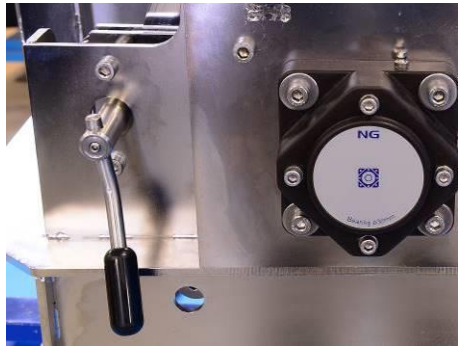
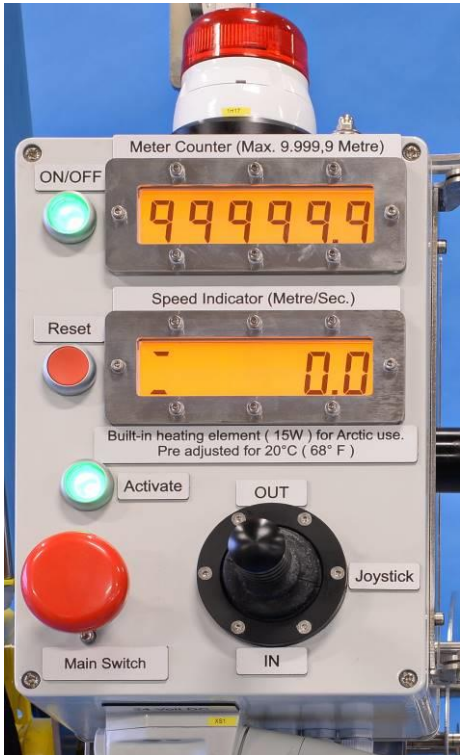
Winch
Model 30.063

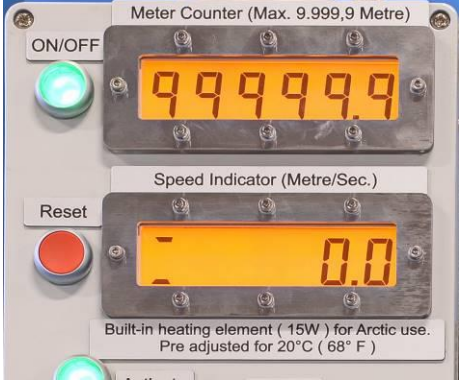
Manual

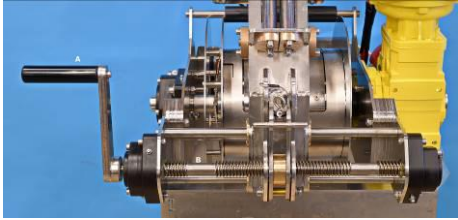
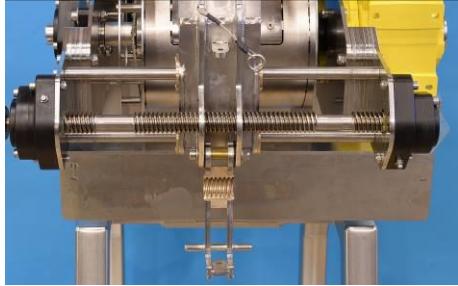
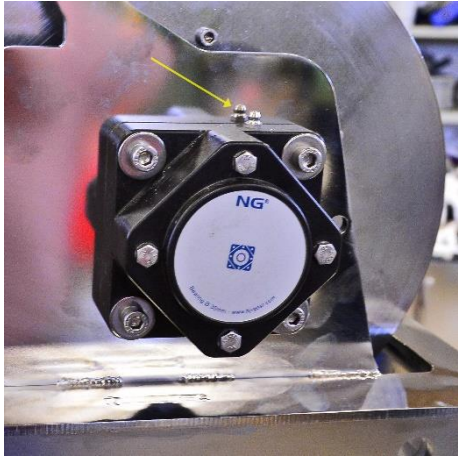

KC Denmark A/S

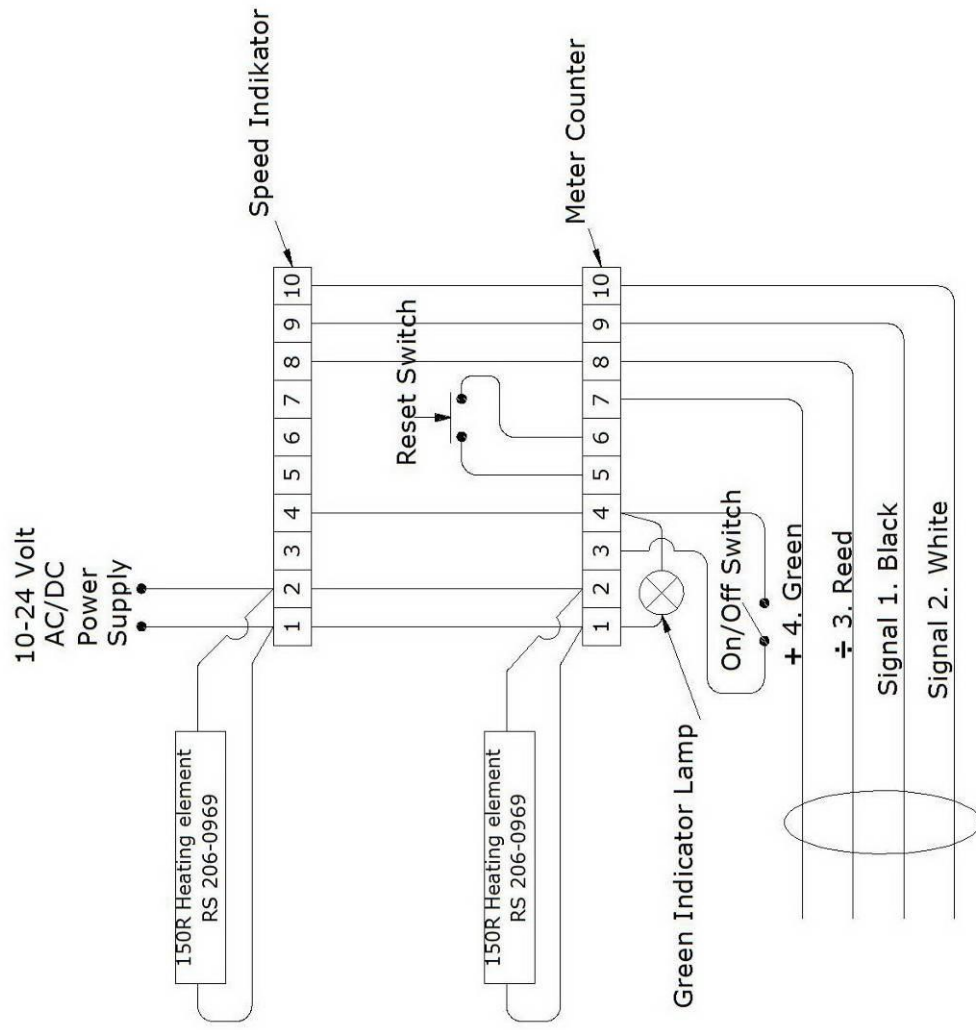
Research Equipment
Limnology • Oceanography • Hydrobiology

	Manual for winch, 24 V DC – 750 W	Model no. 30.063
	<div data-bbox="225 277 341 405" data-label="Image"> </div> <p data-bbox="225 443 912 539">This winch is very dangerous in unskilled hands and serious precautions must be taken to avoid accidents.</p> <p data-bbox="225 573 906 734">KC Denmark A/S is not, and cannot be held, responsible for any damage(s) made to equipment or to operators who ignore safety precautions or because of misuse or wrong operation.</p>	<div data-bbox="971 271 1433 853" data-label="Image"> </div>
	Preparation:	
1	<p data-bbox="225 981 912 1043">Standard delivery of the winch requires a steel bar with diameter of 33,5 mm for the mounting.</p> <p data-bbox="225 1077 912 1238">Secure the winch properly using the deck rack (optional) for mounting on the deck. Holes for fixation the rack to the deck: 16 pcs of Ø12,5 mm. The vertical bar has a plate with holes for the locking device.</p> <p data-bbox="225 1272 901 1335">We also provide other models for mounting of the winch.</p> <p data-bbox="225 1368 887 1431">To avoid any damage or injury, you must ensure free space for the wire in all positions.</p>	<div data-bbox="971 976 1433 1429" data-label="Image"> </div>
2	<p data-bbox="225 1704 895 1767">Add 4 clamps (1-4) and secure with the 4 locking nuts.</p>	<div data-bbox="943 1615 1402 1856" data-label="Image"> </div>

3	<p>IMPORTANT: An authorized technician must perform all power installation in the control box, please refer to the separate wiring schematic.</p> <p>Power supply: 24 V DC/31 A. Expect a higher current during start-up of the motor.</p>	
4	<p>On back of the winch you will find:</p> <p>A: Emergency stop B: Disc brake C: Handle for securing the winch to the bar D: Lock for securing the winch every 45° E: Connector for 24 V DC power supply</p>	
5	<p> Caution</p> <p>Release the brake before use. Otherwise, you might cause serious damage to the winch.</p>	
6	<ol style="list-style-type: none"> 1. Pull the red knob (main switch) towards you. 2. Press On/off to power up the winch; both displays are illuminated. 3. Press the green "Activate" button. 4. The joystick controls the wire direction and the speed of the winch. The more you press the higher speed. <p><i>When changing direction of the wire, return the joystick to its neutral position. It is very important the drum has stopped before you activate the joystick in the opposite direction.</i></p> <p>By emergency or in need of a fast stop press SAFETY SWITCH and the winch will stop immediately, see item 3. The base of the winch has an extra emergency switch, see item 3.</p> <p>After finishing your job, press the "On/off" switch.</p>	

	Meter counter	
7	<p>Operation: Push the green button to start the counter and the night visibility.</p> <p>When you lower the equipment and it hits the sea level, you can reset the counter to zero by pushing the red button.</p> <p>The displays: The upper display shows actual speed. The lower display will show the cable length with a resolution of 10 cm. Built-in light for night visibility and for easy read-out even in strong sun light.</p> <p>The digits: For a count of max. 9.999,9 m, the very first digit will show a maximum of 3 horizontal bars. The upper and lower bar indicates the counting impulses (and direction of the wire); the bar at the middle lights up when the reset button is activated.</p> <p>Slave displays: It is possible adding one or more slave displays for simultaneously use on deck and in the wheelhouse as well. Linking the counters requires a 5-conductor cable; to avoid accidental resetting we recommend that on/off and reset function are available on one counter only.</p>	
	Troubleshooting for counter system	
8	<p><i>No count or flashing bars on the display:</i></p> <p>Look for the correct power supply; it must be in the range of 10 – 30 V AC or DC. If one or more bars are missing (for the very first digit to the left) it will indicate missing power supply or missing signal from the sensors in the meter counter wheel.</p> <p>The upper and lower bar will flash by turns while turning the counter wheel slowly. A missing bar indicates no signal from one of the sensors in the meter wheel. Test all connections through the cable. Using a voltmeter please test for the voltage across the negative cord (8) to P1 and P2. The voltage must be equal to the power supply and will change from 0 to max. voltage by turning the meter wheel.</p>	

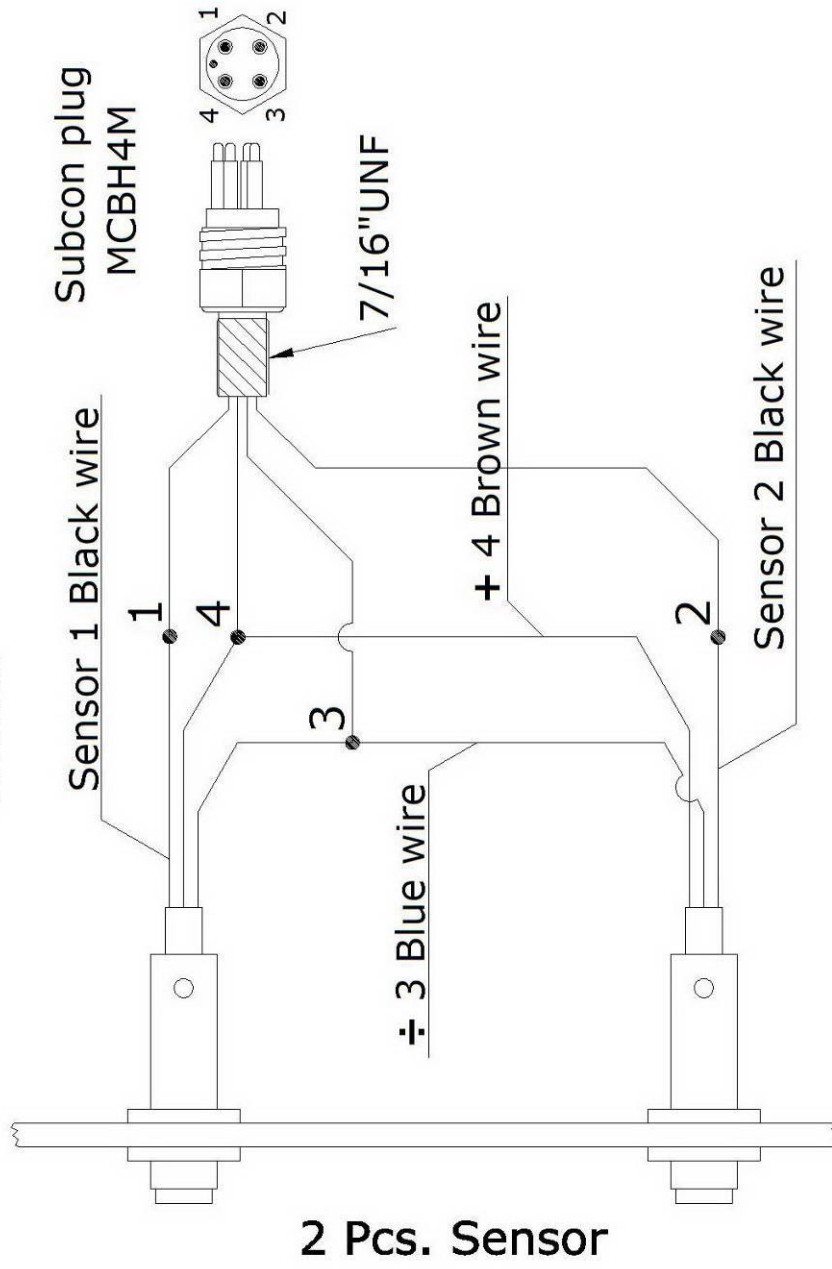
	The wire guide system	
9	<p>Operate the wire guide by turning the handle "A" in clockwise as well as anti-clockwise direction to move the guide on the spindle "B". Removal of pin "C" disables the wire guide, please see next photo.</p> <p>Disabling the wire guide in order to guide the wire by hand may cause injury to people.</p>	
10	The wire guide shown in disabled mode.	
	Maintenance	
11	<p>The winch has 3 ball bearings, grease regularly or at least every 6 months. The ball bearings are located on the opposite side of the motor and each end of the spindle system for the wire guide. See also item 12.</p>	
12	Also, grease the threaded spindle.	



5 or 10 Meter Subconn Connector Cable MCIL4F

	Dato	28-11-2006	<div><div></div><div>KC Denmark - Research Equipment Uniprog, Copenhagen, Denmark Tel. +45 86 82 83 47 Fax. +45 86 82 48 50</div></div>			KC
				Connection diagram for Speed and Meter Counter	30.364	

Wheel



2 Pcs. Sensor

Subconn Connector MCBH4M

	Dato	5-12-2006	<div>KC Denmark - Research Equipment Limnology, Oceanography, Hydrobiology Tel: +45 86 92 83 47 Fax: +45 86 92 45 20</div>	<div><div></div></div>	KC	
	Connection diagram for Meter Counter and Wheel				30.368	



SubConn® handling instructions

Follow these instructions carefully to ensure correct use of your SubConn® connectors.

Handling

- Always apply grease before mating (see next page)
- Disconnect by pulling straight, not at an angle
- Do not pull on the cable and avoid sharp bends at cable entry
- When using a bulkhead connector, ensure that there are no angular loads
- Do not over-tighten the bulkhead nuts
- SubConn® connectors should not be exposed to extended periods of heat or direct sunlight. If a connector becomes very dry, it should be soaked in fresh water before use

Untagged cable and pigtail colour coding

2 - 25 pin connectors (excluding 3 pin connectors):

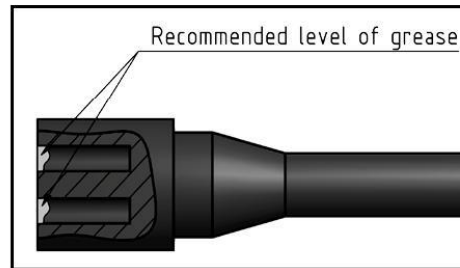
1 Black	7 White / Black	13 Red / White
2 White	8 Red / Black	14 Green / White
3 Red	9 Green / Black	15 Blue / White
4 Green	10 Orange / Black	16 Black / Red
5 Orange	11 Blue / Black	17-25 Tagged numbering
6 Blue	12 Black / White	

3 pin connectors:

1 Black	2 White	3 Green
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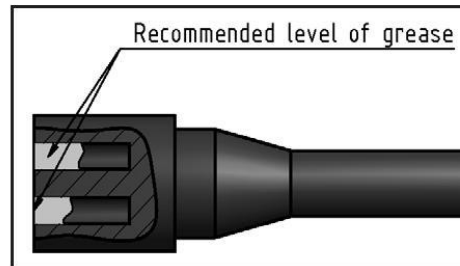


Greasing and mating above water (dry mate)



- Connectors must be greased with Molykote 44 Medium before every mating
- A layer of grease corresponding to minimum 1/10 of socket depth should be applied to the female connector
- The inner edge of all sockets should be completely covered, and a thin transparent layer of grease left visible on the face of the connector
- After greasing, fully mate the male and female connector in order to secure optimal distribution of grease on pins and in sockets
- To confirm that grease has been sufficiently applied, de-mate and check for grease on every male pin. Then re-mate the connector

Greasing and mating under water (wet mate)



- Connectors must be greased with Molykote 44 Medium before every mating
- A layer of grease corresponding to approximately 1/3 of socket depth should be applied to the female connector
- All sockets should be completely sealed, and transparent layer of grease left visible on the face of the connector
- After greasing, fully mate the male and female connector and remove any excess grease from the connector joint

Cleaning

- General cleaning and removal of any accumulated sand or mud on a connector should be performed using spray based contact cleaner (isopropyl alcohol)
- New grease must be applied again prior to mating

Scan to access
SubConn® greasing
and cleaning
instruction videos



Bulkhead Connectors

Tightening force

Type	Material	Rec. Torque - Nm
3/8" - 24 UNF	Brass, Aluminium	4,0
	Stainless Steel, Titanium	6,0
	Non-metallic (Peek)	2
7/16" - 20 UNF	Brass, Aluminium	10,0
	Stainless Steel, Titanium	14,0
	Non-metallic (Peek)	4,2
1/2" - 20 UNF	Brass, Aluminium	15,0
	Stainless Steel, Titanium	21,0
	Non-metallic (Peek)	5,2
5/8" - 18 UNF	Brass, Aluminium	29,0
	Stainless Steel, Titanium	41,0
	Non-metallic (Peek)	10,0
3/4" - 16 UNF	Brass, Aluminium	44,0
	Stainless Steel, Titanium	63,0
	Non-metallic (Peek)	15
7/8" - 14 UNF	Brass, Aluminium	60
	Stainless Steel, Titanium	80
	Non-metallic (Peek)	20

Use of Loctite

- Always use Loctite 5910 to lock non-metallic (Peek) connectors
- For locking metallic connectors, the use of Loctite 243 is recommended

For further support and advice, please contact your local SubConn® distributor or MacArtney (www.macartney.com)

07-2013

Technical specifications for winch

Description	
Portable winch with arm, 24 V DC/750 Watts (1 HP) electro-motor.	Suitable for max. 50 kg load incl. wire or cable.
Electrical	
Power Supply:	24 V DC/31 Amp
Control box:	Cast aluminium. Enclosure rating: IP 66 All switches is enclosure rating: IP 67
Drum revolutions per minute:	Regulated by joystick and electronic converter. 1000 Watt
Power:	Rev. 3000/min, 750 Watt = 1 HP
Power supply, external (optional):	Input 230 V AC, output 24 V DC/60 A, other input voltages on request
Emergency switch:	1 pc placed on the gear box and 1 pc mounted on the control box.
Mechanical	
Material:	All parts are made of AISI 316 stainless steel with a finish of electro polish. Optional: Painting with Ral 7035
Main rack:	Profiled tube, AISI 316 stainless steel, 40 x 40 x 3 mm
Drum:	Inner diameter: Ø204 mm Outer diameter: Ø320 mm Width: 210 mm
Wire speed:	Approx. 59 rev./min.
Drum and disc brake:	AISI 316 stainless steel, 4 mm plate
Drum speed:	Approx. 59 rev./min.
Wire speed:	Approx. 38 m/min. (0,63 m/sec.)
Drum capacity:	Approx. 1500 m Ø2 mm wire.
Cable guide system:	Operated by hand
Mechanical brake:	Ø320 mm disc brake
Bonfiglioli angel gear	A102, ratio 51,3:1
Ball bearing:	1 pc Ø30 mm AISI 316 flange ball bearing 2 pcs Ø20 mm AISI 316 flange ball bearings
Shaft for mounting on bulwark:	Ø33,5 mm
Height, no rack:	125 cm
Turning diameter:	212 cm approx.
Weight and dimensions	
Weight:	95 kg

Rev.: April 28, 2022 – lkj

KC Denmark A/S

Research Equipment
Limnology • Oceanography • Hydrobiology

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