

30.064 Winch. Shown with accessories
(deck rack, wire and slip ring device)

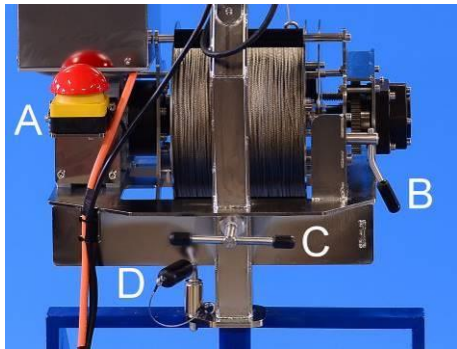

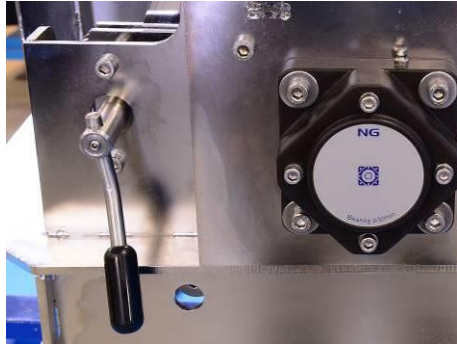

Winch Model 30.064

Manual

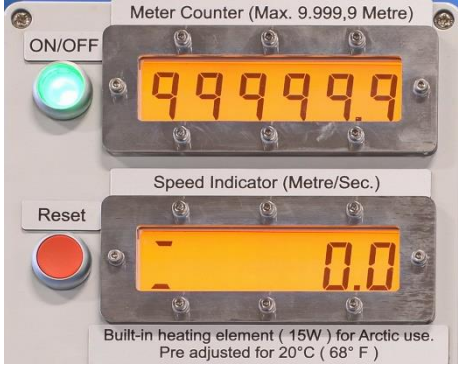
KC Denmark A/S

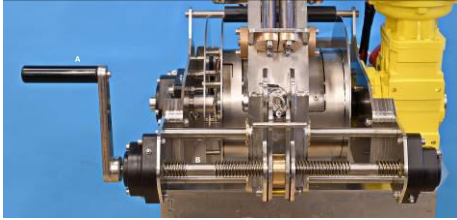
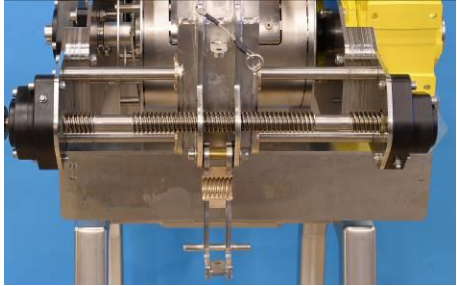



Research Equipment
Limnology • Oceanography • Hydrobiology

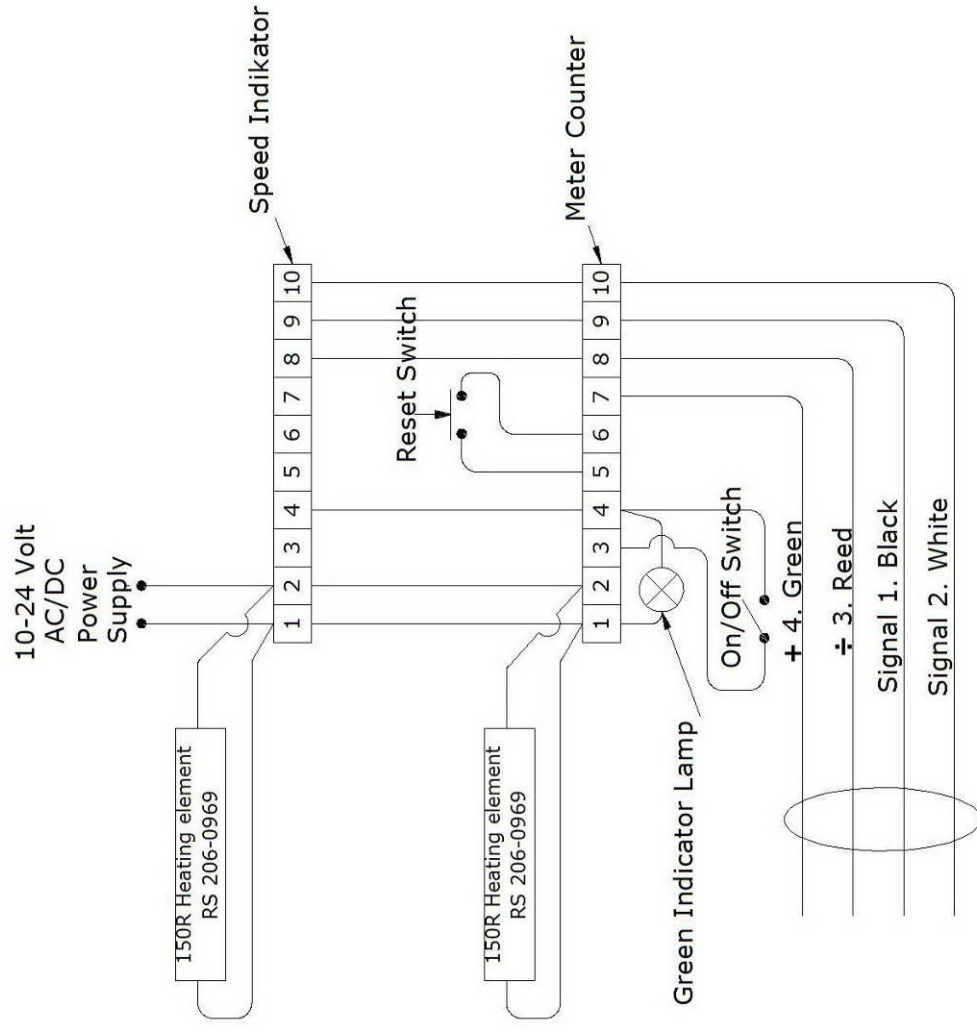
	<p align="center">Manual for winch, 1 x 230 V AC – 1500 W</p>	<p align="center">Model no. 30.064</p>
	 <p>Caution</p> <p>This winch is very dangerous in unskilled hands and serious precautions must be taken to avoid accidents.</p> <p>KC Denmark A/S is not, and cannot be held, responsible for any damage(s) made to equipment or to operators who ignore safety precautions or because of misuse or wrong operation.</p>	
	<p>Preparation:</p>	
<p>1</p>	<p>Standard delivery of the winch requires a steel bar with diameter of Ø43 mm for the mounting.</p> <p>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>We also provide other models for mounting of the winch.</p> <p>To avoid any damage or injury, you must ensure free space for the wire in all positions.</p>	
<p>2</p>	<p>Add 4 clamps (1-4) and secure with the 4 locking nuts.</p>	
<p>3</p>	<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: 1 x 230 V AC/50 Hz. Power consumption: 1500 W.</p>	

4	<p>On back of the winch you will find: A – Emergency stop B – Disc brake C – Handle for securing the winch to the bar D – Using the previous shown plate, you can secure the winch every 45°.</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. Turn the main switch clockwise to position 1. 2. Press the green "Activate" button. 3. 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. The base of the winch has an extra emergency switch, see item 3.</p> <p>Pushing the safety switch leaves the red bottom in safe mode. Pull the knob towards you before re-activating the winch.</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>



	<p>The wire guide system</p>	
<p>9</p>	<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 to guide the wire by hand may cause injury to people.</p>	
<p>10</p>	<p>The wire guide shown in disabled mode.</p>	
	<p>Maintenance</p>	
<p>11</p>	<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>	
<p>12</p>	<p>Also, grease the threaded spindle.</p>	
	<p>Error code</p>	
<p>13</p>	<p>If you cannot activate the winch, and the frequency converter shows "Fejl 44 - safe torque off" you must check, if any of the emergency stops have been pressed. Release the knob(s) and press "Activate" for restarting the winch.</p>	

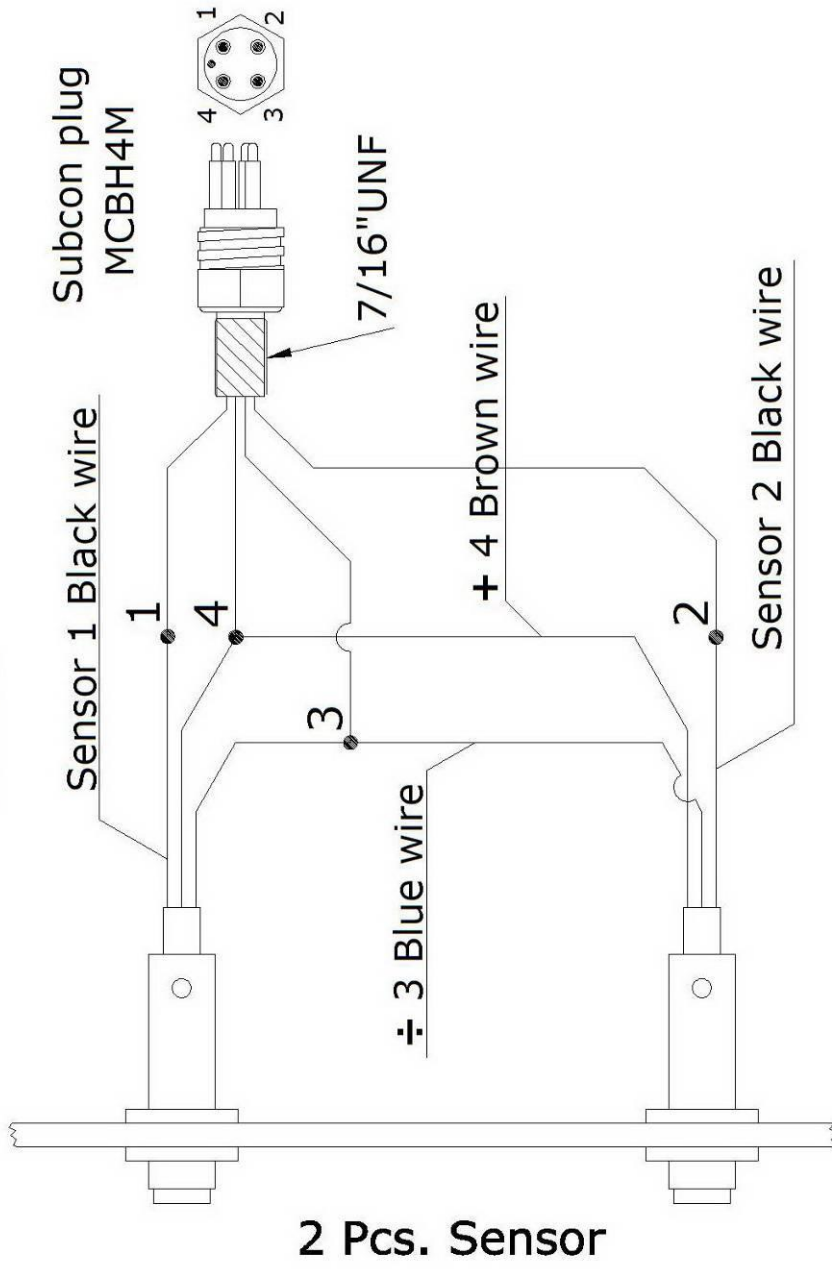


- Colour code for MCIL4F cable
1. Black wire signal 1
 2. White wire signal 2
 3. Reed wire ÷ 3
 4. Green wire + 4

5 or 10 Meter Subconn Connector Cable MCIL4F

Date	28-11-2006	KC Denmark - Research Equipment Undersøgelser og Fysiklaboratorier Tlf. +45 86 82 83 47 Fax. +45 86 82 48 50	KC
Connection diagram for Speed and Meter Counter			30.364

Wheel



Subconn Connector MCBH4M

Dato	5-12-2006	KC	
KC Denmark - Research Equipment Limnologi, Ocreap, ogaphy, Hydrologi Tlf. +45 86 92 83 47 Fax. +45 86 92 49 20			
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

- Connectors must be greased with Molykote 44 Medium before every mating
- Always grease O-rings on BH, BCR and FCR connectors with Molykote 111
- Disconnect by pulling straight out, 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
- Make sure to apply the recommended torque when tightening 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

Scan to access
SubConn® greasing
and cleaning
instruction videos



Greasing products



Molykote 44 Medium

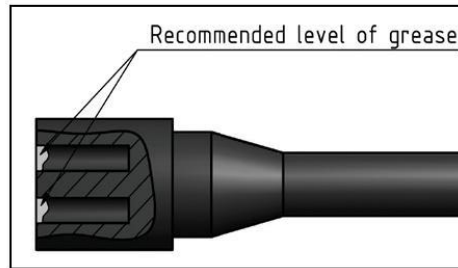


WD-40
or similar products



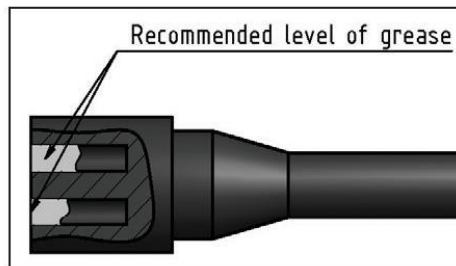
Compound
or similar greasing
products

Greasing and mating above water (dry mate)



- Connectors must be greased with Molykote 44 Medium before every mating
- A layer of grease corresponding to a minimum of 1/10 of the 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 all pins and in the 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 a socket depth should be applied to the female connector
- All sockets should be completely sealed, and a 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 products



- * 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

Use of Loctite

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



COAX connector

- Only grease the rubber parts - do not grease coax pin and socket
- Do not mate under water. To be used with locking sleeves only

Bulkhead Connectors - Tightening force

Type	Material	Rec. Torque - Nm
3/8" - 24 UNF	Brass, aluminium	4.0
	Stainless steel, titanium	6.0
	PEEK	2.0
7/16" - 20 UNF	Brass, aluminium	10.0
	Stainless steel, titanium	14.0
	PEEK	4.2
1/2" - 20 UNF	Brass, aluminium	15.0
	Stainless steel, titanium	21.0
	PEEK	5.2
5/8" - 18 UNF	Brass, aluminium	29.0
	Stainless steel, titanium	41.0
	PEEK	10.0
3/4" - 16 UNF	Brass, aluminium	44.0
	Stainless steel, titanium	63.0
	PEEK	15.0
7/8" - 14 UNF	Brass, aluminium	60.0
	Stainless steel, titanium	80.0
	PEEK	20.0
1" - 14 UNF	Brass, aluminium	75.0
	Stainless steel, titanium	100.0
	PEEK	25.0

Recommended oil for pressure balanced systems

- MacArtney recommend DC-200/350 or PMX-200/350 in oil compensated systems

11-2018

Technical Specifications for winch

Portable winch with an extended arm. Motor: 1 x 230 V AC/50 Hz – 1500 W, (2 HP).	Suitable for max. 90 kg load incl. wire or cable.
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Electrical

Power supply (standard):	1 x 230 V AC/50 Hz. Optional: 3 phase, 3 x 440 V AC 50 or 60 Hz
Control box:	Cast aluminium: Enclosure rating: IP 66 All switches: Enclosure rating: IP 67
Drum revolutions per minute:	Regulated by a frequency converter, ABB, 2200 W
Emergency switches:	1 pc placed on gear box and 1 pc mounted on the control box
Brake resistor:	1 pc 600 W/100 Ohm mounted in an AISI 316 stainless steel housing

Motor

Motor:	Bonfiglioli, 1500 W, with an electromagnetic brake. 1 x 230 V AC/50 Hz. Rev.: 1440/min
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Mechanical

Material:	All parts are made of AISI 316 stainless steel with a finish of electro polish. Optional: Painting with RAL 7035
Main rack:	50 x 50 x 3 mm profile tube
Finish:	Main rack: Electro polish
Drum:	Inner diameter: Ø204 mm Outer diameter: Ø340 mm Width: 310 mm
Drum and disc brake:	4 mm AISI 316 stainless steel
Drum speed:	Approx. 66 rev./min.
Wire speed:	Approx. 0,7 m/sec.
Cable guide system:	Operated by hand
Mechanical brake:	Ø340 mm disc brake
Bonfiglioli angel gear:	Type A202, gear ratio 21,2:1
Required shaft for mounting:	Ø43 AISI 316 stainless steel
Turning diameter:	2,71 m approx.

Weight and Dimensions

Winch, no wire:	Approx.: 180 kg
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Research Equipment
Limnology • Oceanography • Hydrobiology

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