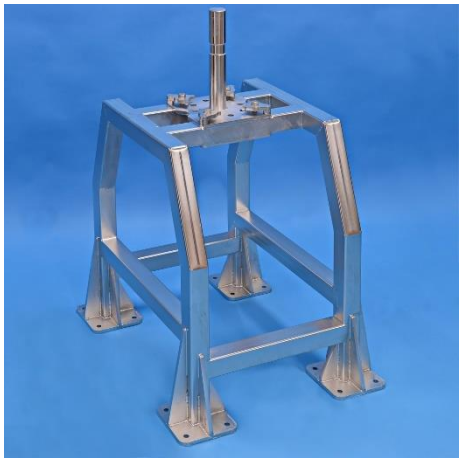
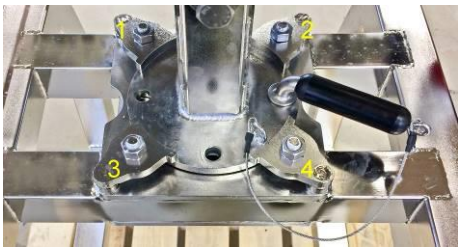
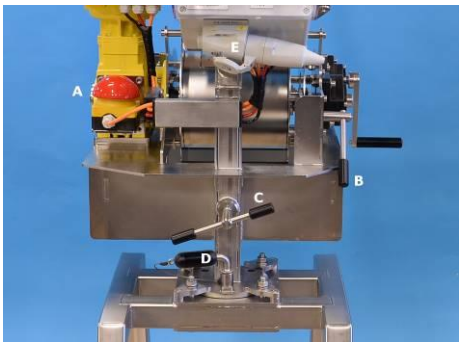
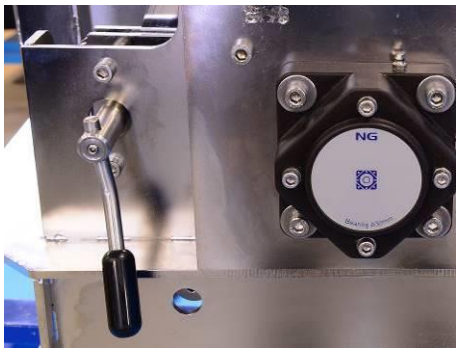
Winch
Model 30.063

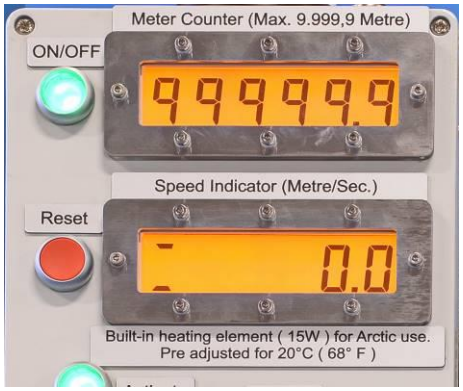
Manual

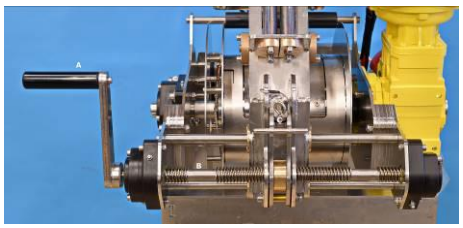
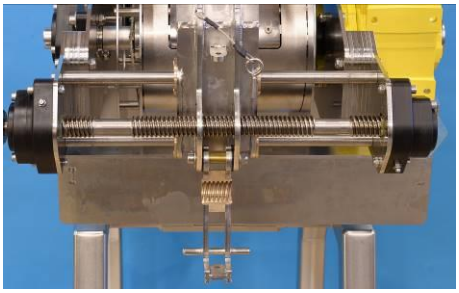
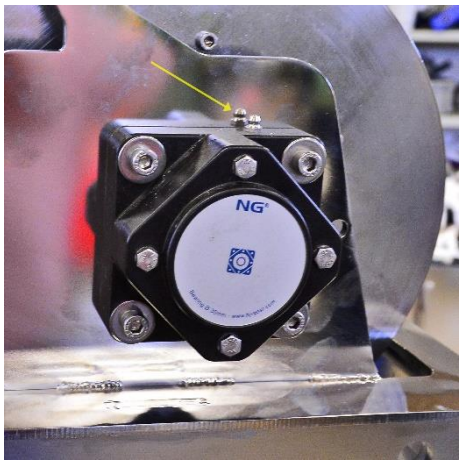
KC Denmark A/S

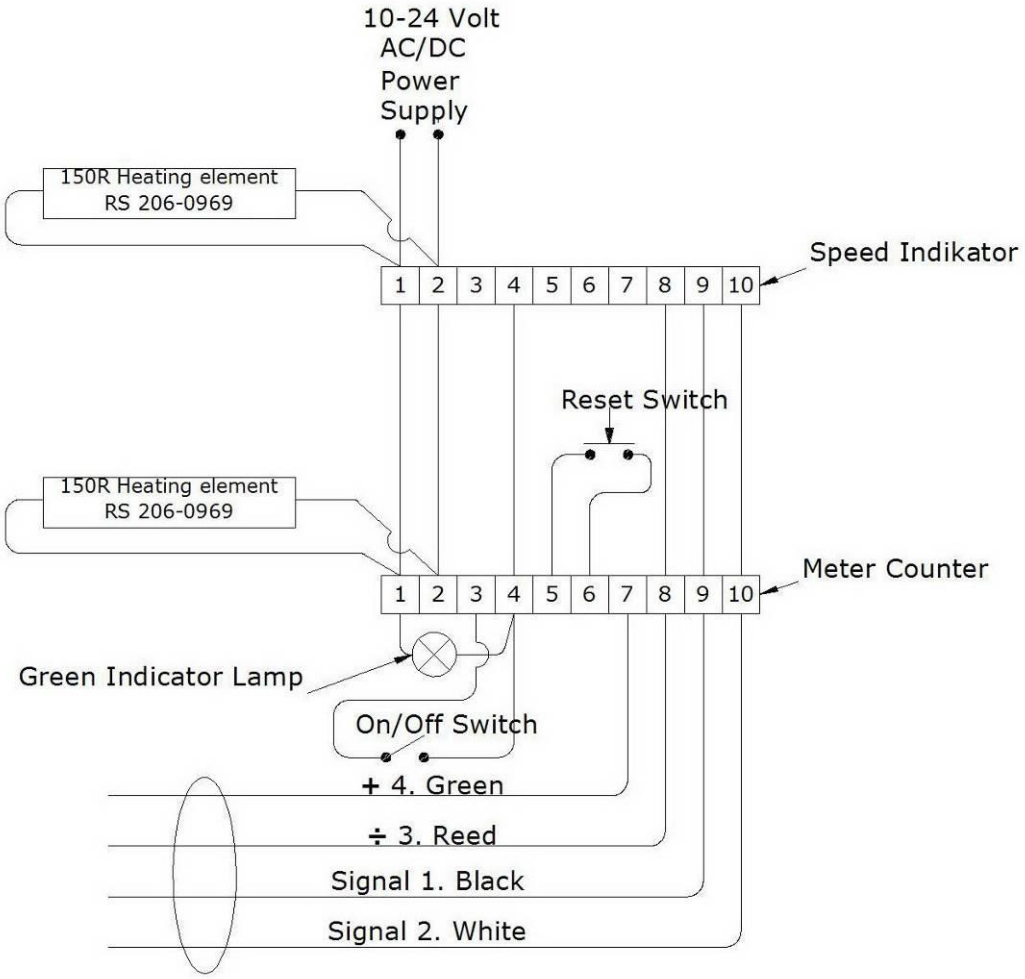
Research Equipment
Limnology • Oceanography • Hydrobiology

	Manual for winch, 24 VDC – 750 W	Model no. 30.063
	Caution **This winch is very dangerous in unskilled hands and serious precautions must be taken to avoid accidents.** **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.**	
	Preparation:	
1	Standard delivery of the winch requires a steel bar with diameter of 33,5 mm for the mounting. Secure the winch properly using the deck rack (optional) for mounting on the deck. The vertical bar has a plate with holes for the locking device. We also provide other models for mounting of the winch. To avoid any damage or injury, you must ensure free space for the wire in all positions.	
2	Add 4 clamps (1-4) and secure with the 4 locking nuts.	

3	**IMPORTANT:** An authorized technician must perform all power installation in the control box, please refer to the separate wiring schematic. Power supply: 24 VDC/31 A. Expect a higher current during start-up of the motor.	
4	On back of the winch you will find: 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 VDC power supply	
5	Caution **Loose the break before use**. Otherwise, you might cause serious damage to the winch.	
6	1. Pull the 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. 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. By emergency or in need of a fast stop press SAFETY SWITCH and the winch will stop immediately, see item 3. After finishing your job, press the "On/off" switch.	

	Meter counter	
7	**Operation:** Push the green button to start the counter and the night visibility. When you lower the equipment and it hits the sea level, you can reset the counter to zero by pushing the red button. **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. **The digits:** The very first digit will show a maximum of 3 horizontal bars. The upper and lower bar indicates the counting impulses and at the middle, the bar will show that the power supply is present. **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.	
	Troubleshooting for counter system	
8	*No count or flashing bars on the display:* Look for the correct power supply; it must be in the range of 10 – 30 Volt AC or DC. If one or more bars are missing (for the very first digit at the left side), it will indicate missing power supply or missing signal from the meter counter wheel. The upper and lower bar will flash by turns while turning the counter wheel slowly.	

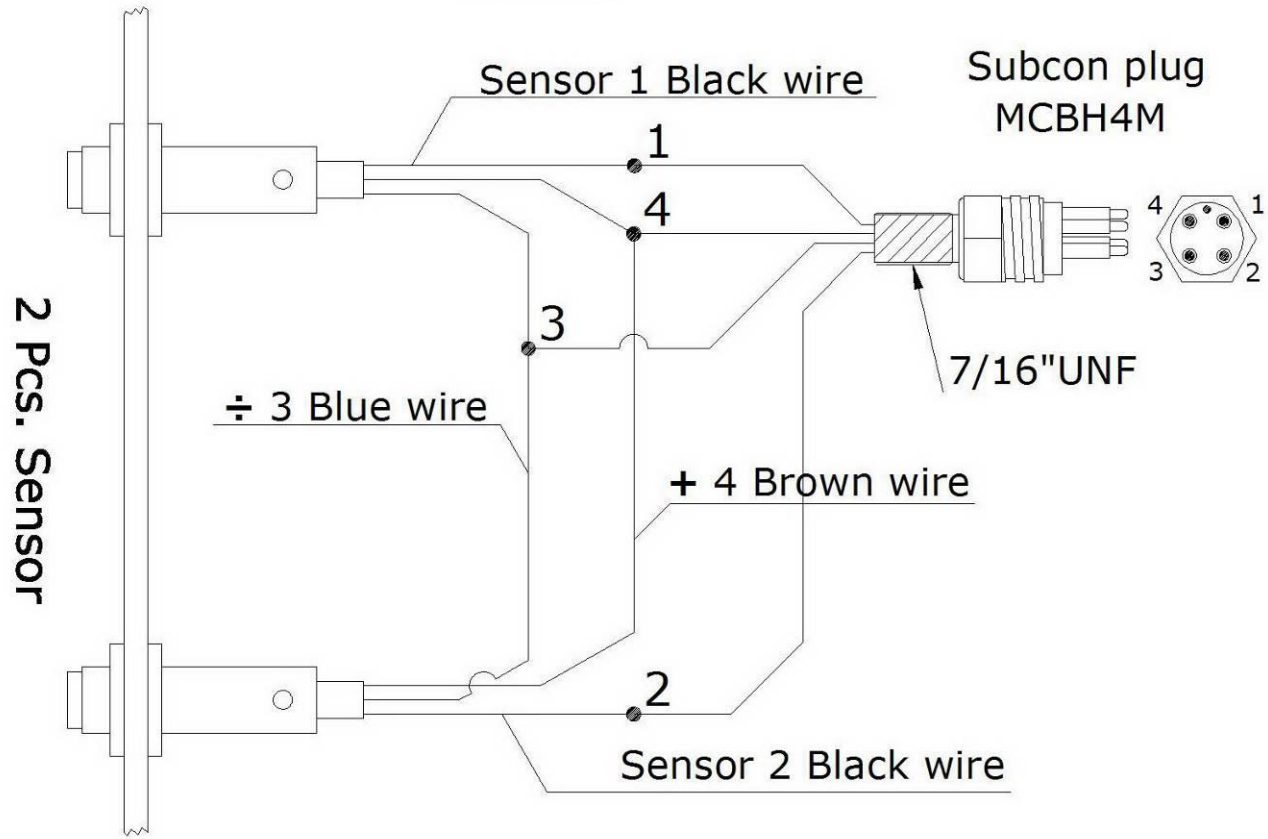
	The wire guide system	
9	Operate the wire guide by turning the handle "A" in clockwise as well as anti-clockwise direction to move the guide on the spindle "B". Removal of pin "C" disables the wire guide, please see next photo. Disabling the wire guide in order to guide the wire by hand may cause injury to people.	
10	The wire guide shown in disabled mode.	
	Maintenance	
11	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.	
12	Also, grease the threaded spindle.	



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

Dato 28-11-2006	KC Denmark - Research Equipment Limnology, Oceanography, Hydrobiology Tel. + 45 86 82 83 47 . Fax + 45 86 82 49 50	KC	
	Connection diagram for Speed and Meter Counter	30.364	



Subconn Connector MCBH4M

Dato 5-12-2006	KC Denmark - Research Equipment Limnology, Oceanography, Hydrobiology Tel. +45 86 82 83 47 - Fax. +45 86 82 49 50		KC
	Connection diagram for Meter Counter and Wheel		30.368

Technical specifications for winch	
Description	
Portable winch with arm, 24 Volt DC/750 Watts (1 HP) electro-motor.	Suitable for max. 50 kg load incl. wire or cable.
Electrical	
Power Supply:	24 Volt 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 Volt AC, output 24 Volt 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.

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