





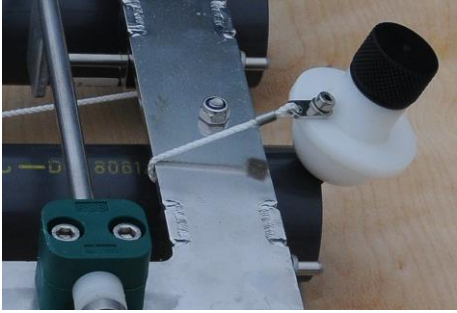
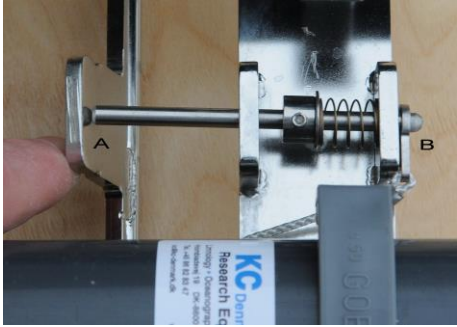
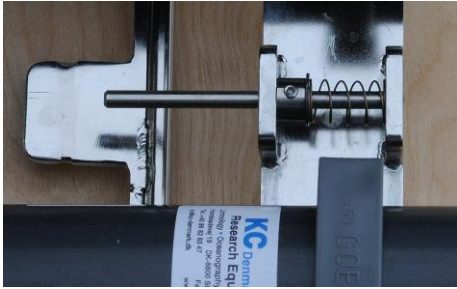
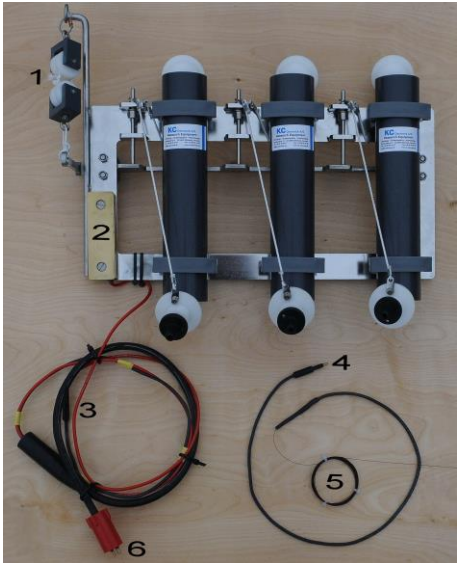
Niskin water sampler 3 x 250 ml  
Model 100.148


# Manual

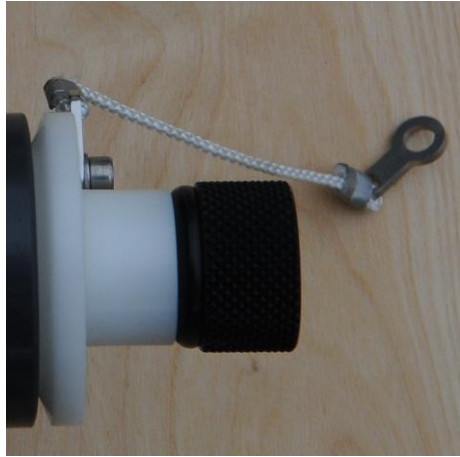

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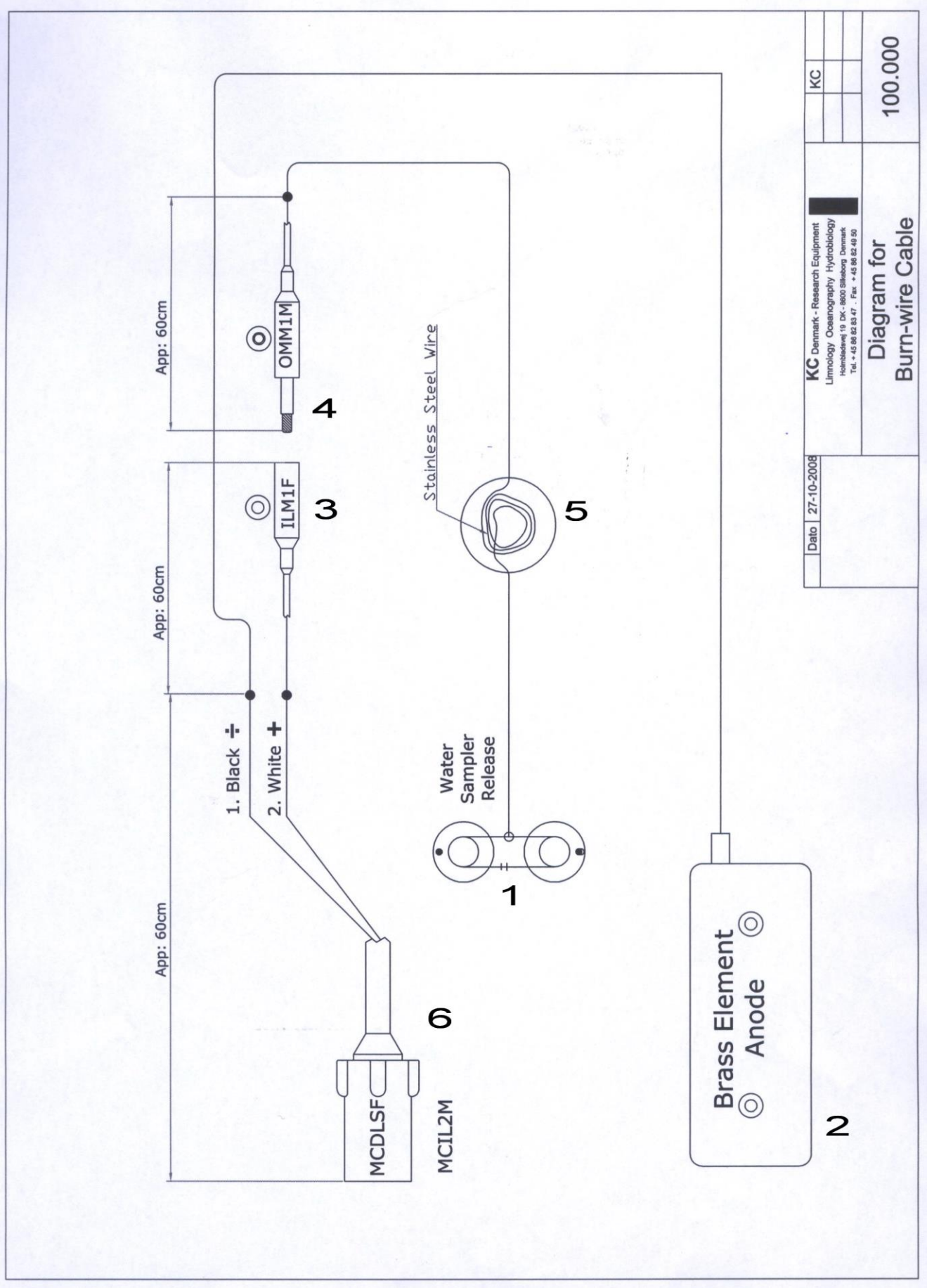
Research Equipment  
Limnology • Oceanography • Hydrobiology

	<p style="text-align: center;"><b>Manual for Niskin water sampler, 3 x 250 ml</b></p>	<p style="text-align: center;"><b>Model no. 100.148</b></p>
	<p><b>Preparation:</b></p>	
<p>1</p>	<p>Each sampler must be loaded correctly. See item 3/4.</p>	
<p>2</p>	<p>The line for the bottom lid will pass at the top of the main rack and the line for the top lid must pass at the reverse side.</p>	

3	A close up showing the mounting of the line for the top lid (at the reverse side of the rack).	
4	While pressing the release arm (A) secure both lines from the Niskin bottle to the pawl (B)	
5	When the releaser is activated, the pawl falls back and releases the lines.	
<h2>The Burn Wire System</h2>		
6	<p><b>Brief characteristic for the burn wire system:</b></p> <p>The burn wire link (5) is a small loop of stainless steel wire encapsulated in a holder with 2 wheels (1). The burn wire (erosion link) will release the water sampler by a fast electrolytic erosion of the exposed stainless steel part of the loop (C – see item 7) and the anode (2), thereby freeing the release bracket. This occurs when a positive voltage is connected to it by an internal electronic timer (computer or similar, none of these are part of standard delivery).</p> <p>The burn wire itself is partially coated with an epoxy coating to restrict the intended erosion to two points at the base of the loop to speed the release and save on battery drain.</p> <p>The burn wire must be replaced after each release.</p>	

<p>7</p>	<p>The burn wire system includes: (The corresponding numbers can also be found on the schematics, pg. 6).</p> <ol style="list-style-type: none"> <li>1. The release mechanism</li> <li>2. The brass anode</li> <li>3. Female connector for the burn wire</li> <li>4. Male plug for the burn wire</li> <li>5. The burn wire</li> <li>6. Subconn connector</li> </ol>	
<p>8</p>	<p>The polyester line secures the release system during shipping. Cut the line, mount the free end of the burn wire (5) in the same way, and secure with a knot. Do not cut the line.</p>  <p><b>Caution</b></p> <p>You must remove the encapsulation for a length of approx. 5 mm. (C) A small knife will do the job.</p>	
<p>9</p>	<p>Connect the plugs 3 and 4. The Subconn connector (6) goes to the computer or the electronic timer. Now the unit is ready.</p>	

<b>Emptying the sampler</b>		
10	Keep the sampler in upright position. Loosen the air valve at the top of the sampler.	 A close-up photograph of the top of a Niskin water sampler. The device is white and black. A black, textured cylindrical cap is being pulled away from the top of the white plastic body. A white braided rope is attached to the top of the cap, and a metal ring is visible at the end of the rope.
11	The bottle can now be emptied by pulling the valve backwards (5-6 mm).	 A close-up photograph of the Niskin water sampler. The black textured cap is now fully pulled back, revealing a black valve mechanism. The white plastic body of the sampler is visible, and the black cap is positioned to the right of the main body.



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Diagram for			100.000	
Burn-wire Cable				

<b>Maintenance</b>	
	<p>For certain items, (PVC tubes, rubber bands and rubber seals), a long exposure to direct sunlight or lack of clean-up for salt water might affect the durability and stability of the products and will remain uncovered by the warranty.</p> <p>All parts of the Niskin water sampler can be rinsed using salt water or fresh water. Regular cleaning with fresh water is recommended and all moveable parts must be moved individually to ensure all dirt has been removed.</p>

<b>Technical information</b>	
	<p><b>Materials, main rack:</b> AISI 316 stainless steel. Finish: Electro polish. Anode for burn wire: Brass</p>
	<p><b>Tubes:</b></p> <ul style="list-style-type: none"> <li>• Contents: 3 x 250 ml</li> <li>• The water sampler tube is made of PVC.</li> <li>• The top and bottom lids are made of POM,</li> <li>• O.D /I.D Ø50 mm/Ø38 mm</li> <li>• Length: 250 mm</li> <li>• The top and bottom lids are held together with a rubber tube (Para/Latex).</li> </ul>
	<p><b>Release system:</b> To be released by a burn-wire system. (Optional)</p>
	<p><b>Operational depth:</b> &gt;6000 m (No limits).</p>

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