

<b>Date</b>	10 Oct 2013	<b>Service Note #</b>	TCS-1086	<b>Revision</b>	None
<b>Product</b>	TCS-0200C	<b>Description</b>	Motor Pump Retrofit		
<b>Created By</b>	J. Yangco				

<b>Release</b>	<input checked="" type="checkbox"/>	<b>Internal</b>	<input checked="" type="checkbox"/>	<b>Distributors</b>	<input checked="" type="checkbox"/>	<b>Customers</b>
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Parts Required	Serial Numbers Affected
115 Volts Motor Pump Kit (2800-0368) 230 Volts Motor Pump Kit (2800-0367)	2135118 and older

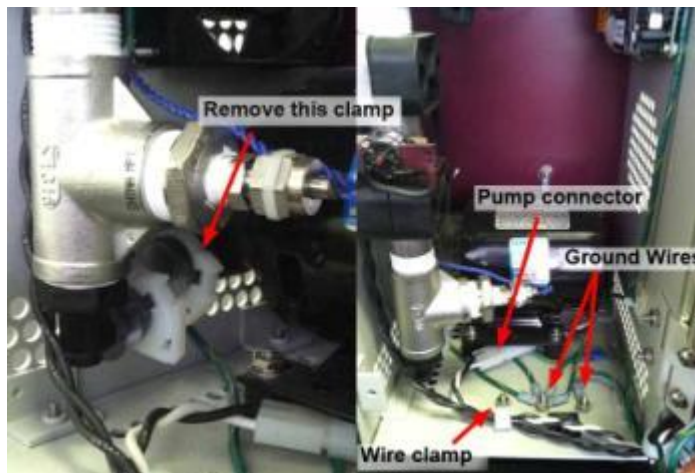
**Pump Motor Retrofit**




*Before proceeding, discharge any static electricity from your body by touching a bare screw from the instrument. Turn off the instrument and disconnect the AC power cord.*

<b>Step 1</b>	Disconnect the TCS tubing from the bath and set the TCS on a clean area to work on.
<b>Step 2</b>	Open the rear panel by the two screws as shown.  <div data-bbox="657 1020 1088 1596" data-label="Image"> </div> <p style="text-align: center;"><b>Step 2</b></p>

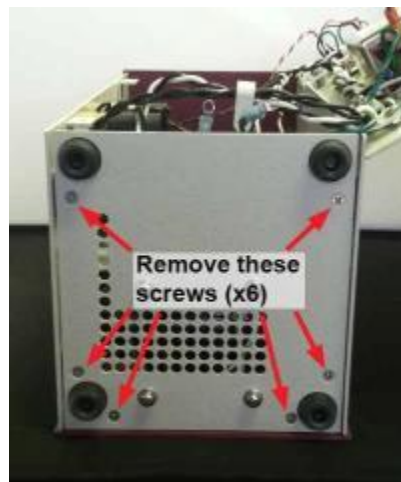
- Step 3** With the rear panel open, locate and disconnect the following items:
1. Ground wire terminals in three locations (total of 5 terminals)
  2. Wire clamp
  3. Motor pump connector
  4. Motor pump tubing clamp



Step 3

	<ul style="list-style-type: none"> <li>• <i>It is not necessary to remove the ground wire from the motor.</i></li> <li>• <i>Depending on the condition of the motor pump tubing, it may be necessary to remove both tubing clamps to replace the tubing.</i></li> </ul>
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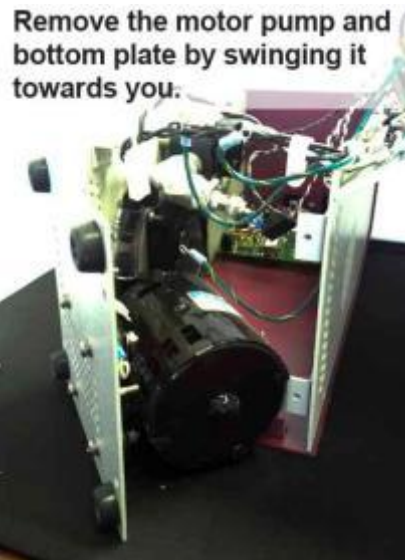
- Step 4** Orient the TCS as shown, and remove the screws that hold the motor pump plate to the TCS chassis.



Step 4

**Step 5**

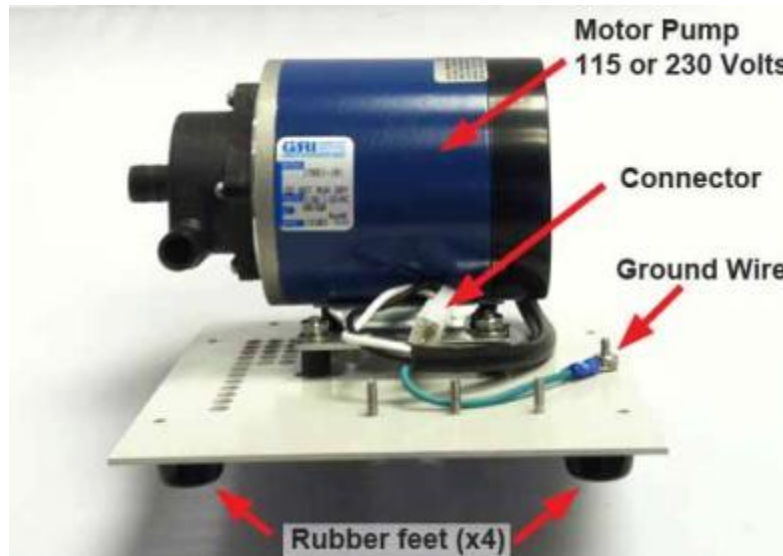
Remove the motor pump and bottom plate by carefully swinging it towards you as shown being careful not to open fully and damage the wiring. With the motor pump partially exposed disconnect the motor pump tubing by pulling the motor downwards to separate it from the heater assembly.



**Step 5**

**Step 6**

The motor pump kit should already be assembled as shown below. Prior to installation confirm the proper voltage.



**Step 6**

**Step 7**

With one end of the tubing installed on the heater assembly, insert the other end onto the motor pump outlet as shown below. Install tubing clamps to secure the tubing.



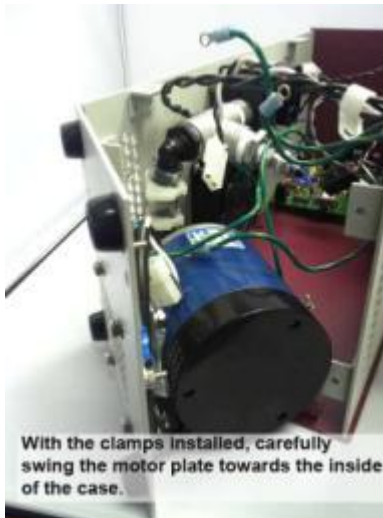
**Step 7**




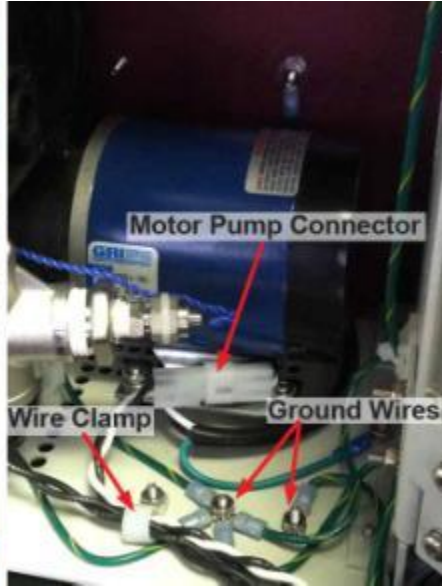

*During this step, make sure that all the ground wires are accessible for reinstallation later.*

**Step 8**

Carefully swing the motor pump plate towards the inside of the case as shown below. It might be necessary to flex the right side panel slightly so the motor pump body installs smoothly into the case.



**Step 8**

<p><b>Step 9</b></p>	<p>Secure and fasten the bottom motor pump plate with 6 flat head screws (taken from Step 4). Stand up the TCS.</p>
<p><b>Step 10</b></p>	<p>Install and secure the following items:</p> <ol style="list-style-type: none"> <li>1. Motor pump connector</li> <li>2. Wire clamp</li> <li>3. Ground wires (make sure to install the star washer to provide a good chassis ground)</li> </ol> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p><b>Step 9</b></p>
<p><b>Step 11</b></p>	<p>Check that all wirings are secured before closing the rear panel with the two flat head screws from Step 2.</p>
<p><b>Step 12</b></p>	<p>Reconnect the TCS to the dissolution bath and test the instrument for proper operation.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;">  <p><b><i>Follow the procedure on the manual on how to connect and prime the TCS prior to powering up the instrument.</i></b></p> </div>