


Date	10 Apr 2013	Service Note #	7100-1076	Updated	NA
Product	symphony 7100	Description	Slip Ring Cap Plugs Modification and RTD Cable Slack		
Created By	J. Yangco				

Release	<input checked="" type="checkbox"/>	Internal	<input checked="" type="checkbox"/>	Distributors	<input type="checkbox"/>	Customers
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Parts Required	Serial Numbers Affected
2 - 4 inch plastic tie wraps 1 - 12 inch plastic tie wrap 6160-0001 Slip Ring Cap Terminal Tool (if needed) 6160-0002 RTD Shaft Spacer Tool	All

Slip Ring Cap Plug Modification and Increasing RTD Cable Slack



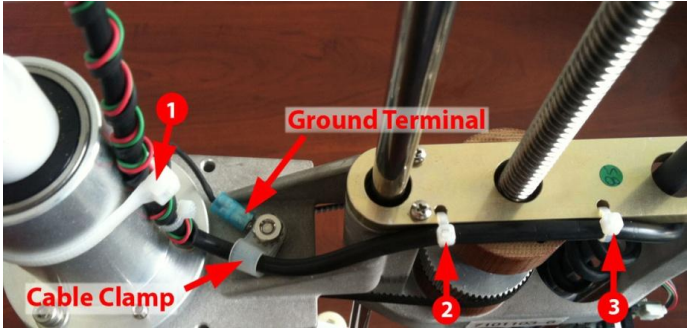
When raising the shaft fully to adjust the height, there could be a situation where there is not enough slack on the RTD cable resulting in increased stress on the slip ring and the slip ring cap connector.

If an instrument has a slip ring failure, the service engineer should take the opportunity and remove all the spindle covers and inspect the RTD cable for proper slack with the shafts fully raised. This service note is intended as a preventative maintenance item to help prevent potential failures in the future.



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.

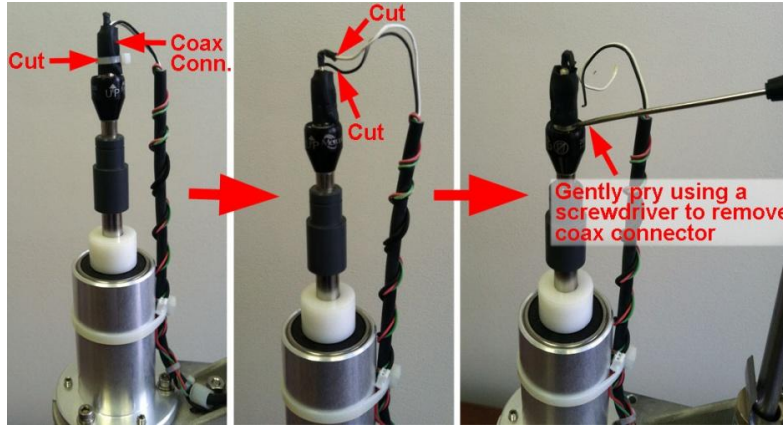
Step 1	Remove the spindle cover and then the module cover.
Step 2	Loosen the shaft collar. Unfasten the RTD Cable Clamp and the Ground Terminal. Cut the three plastic tie wraps as shown.



Step 2

Step 3

Skip this step if the RTD cable has the slip ring cap type connector, otherwise go to Step 5. If the RTD cable has the slip ring coax type connector it needs to be replaced with the current slip ring cap connector (Distek Part # 4900-0023). Cut the tie wrap on the coax connector. Pull the two wires out of the shrink tubing and cut them close to where they are soldered. Using a small screwdriver, gently pry out the slip ring coax connector from the slip ring.



Step3

Step 4

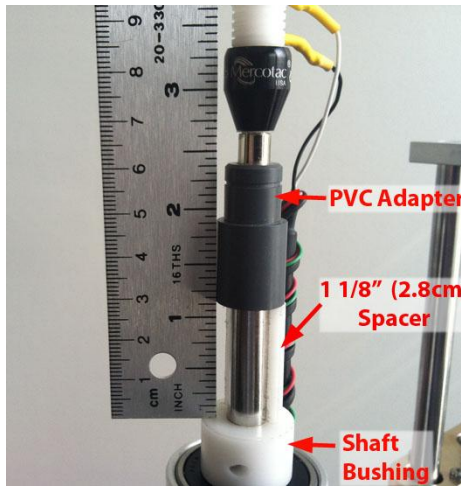
Cut the black and white wires so they are 1.75" (4.5 cm) long and strip both wires approximately 0.25" (6mm) long. Cut a couple of 3/32" (2.3mm) shrink tubing approximately 0.75" (1.9 cm) long and insert them on each wire. Thread the wires including the insulation in to the terminal's eyelet and wrap the bare wires to the terminal as shown. Solder the bare wires making sure they do not melt the insulation but still have enough solder to make a solid connection. Slide in the shrink tubing to cover the solder joints and apply heat to shrink the shrink tubing.



Step 4

Step 5

Slide up the shaft until you can insert the 1 1/8" spacer between the PVC adapter and shaft bushing as shown.



Step 5



If you do not have the 1 1/8" (2.8cm) spacer, use a straight ruler to position the proper height needed, and prevent the shaft from moving, lock the shaft collar in place.

Step 6

Using a 12 inch plastic tie wrap, secure the cable to the spindle as shown. After securing the cable, remove the spacer.



Step 6



Before securing the cable make certain that you have enough slack to remove the top slip ring connector with minimal pulling of the entire cable.

<p>Step 7</p>	<p>If the lower terminal of the slip ring cap plug is not bent follow this step otherwise skip this step.</p> <p>Insert the tool to bend the lower terminal of the slip ring cap plug. Carefully bend the lower terminal until it is almost 90 degrees as shown. After bending the terminal, remove the tool.</p> <div data-bbox="500 384 1247 957" data-label="Image"> </div> <p style="text-align: center;">Step 7</p>
<p>Step 8</p>	<p>Reinstall the ground terminal and RTD cable clamp. Secure the RTD cable using two 4 inch tie wraps on the spindle bracket plate.</p>
<p>Step 9</p>	<p>Reinstall the module cover.</p> <div data-bbox="310 1167 402 1266" data-label="Image"> </div> <p><i>Loosen the shaft collar if tightened from step 5.</i></p>
<p>Step 10</p>	<p>Reinstall the spindle cover.</p> <div data-bbox="310 1352 402 1451" data-label="Image"> </div> <p><i>When installing the spindle cover, make sure that the RTD cable and wires are positioned properly between the wire channels inside the cover.</i></p>
<p>Step 11</p>	<p>Perform the initial height adjustment (refer to operation manual if you are not familiar).</p>
<p>Step 12</p>	<p>Check the instrument for proper operation.</p>