



NR50, NR66 and NR71 Series Heat Exchanger Replacement

Models Include: NR50-OD
N-0531S, N-0531S-OD, NR66-SV, NR66-OD
N-0631S, N-0631S-OD, NR71-SV, NR71-OD

This instructional manual is only intended for use by a qualified service professional or authorized Noritz Service Representative. Any unauthorized use of this manual may result in voiding the warranty.

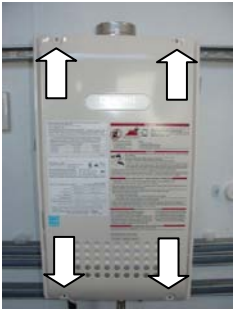

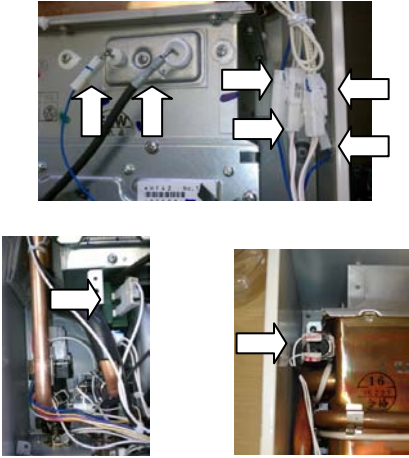
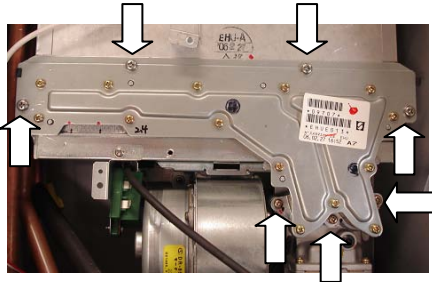
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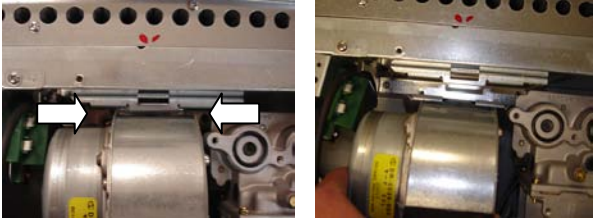

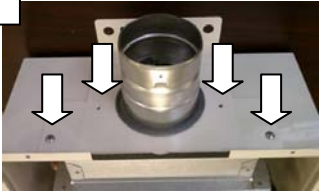

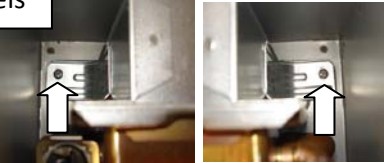


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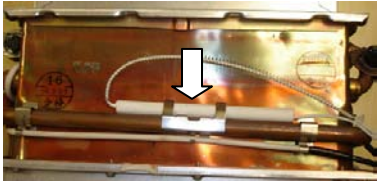

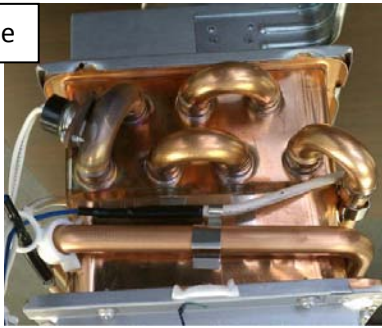



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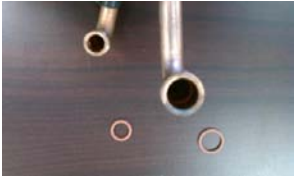

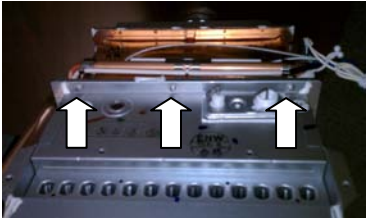
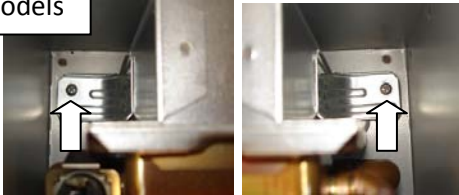
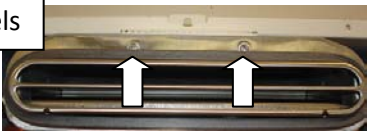



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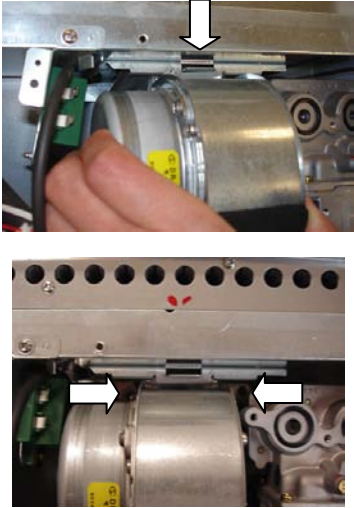
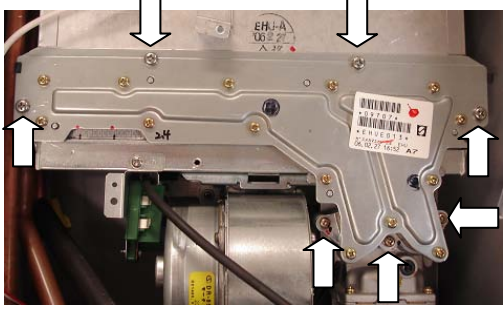
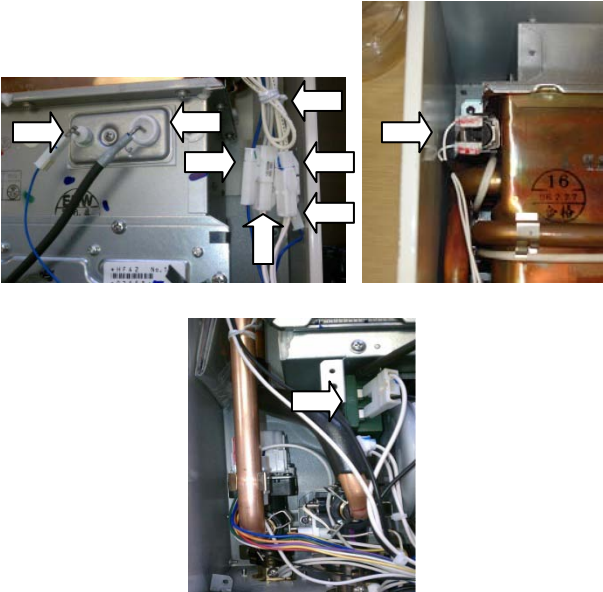
NR50, NR66, and NR71 Heat Exchanger Replacement Procedure

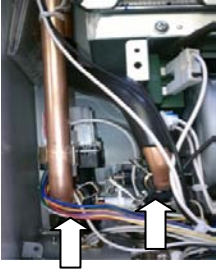

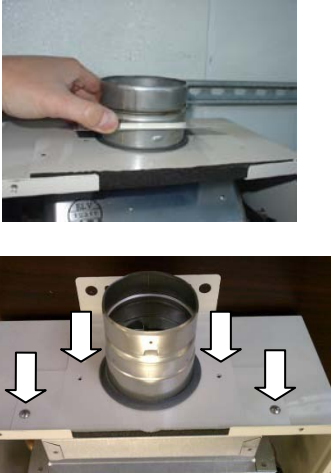
Procedure	Diagram
<p>1. Remove front cover</p> <p>(1) Disconnect electrical power to unit (2) Turn off gas and water (3) Remove 4 screws (4) Remove filter and drain unit completely</p>	
<p>2. Remove circuit board</p> <p>(1) Remove 1 screw that holds the circuit board and let it hang outside of the unit</p>	
<p>3. Unplug all wires that attach to the wiring harness and the body of the water heater</p> <p>(1) Flame rod and ignition plug (2) Freeze prevention heater, thermal fuse (2), high limit switch (3) Igniter plug (4) Freeze prevention sensor</p> <p>Note: The NR50 doesn't have freeze prevention standard, but can be added as an option.</p>	
<p>4. Remove manifold plate</p> <p>(1) Remove the 4 big silver screws on the manifold plate that attach the manifold to the burner (2) Remove the 3 smaller gold screw from the manifold plate that attach the manifold to the gas valve (3) Remove manifold plate</p>	

Procedure	Diagram
<p>5. Remove fan</p> <p>(1) Remove the 2 screw on both sides of the fan, screws are located on back side of the case</p> <p>(2) When the screws are remove the back side of the fan with drop down and fan will rotate out</p>	
<p>6. Disconnect water pipes coming from the heat exchanger.</p> <p>(1) Remove both "C" clamps for the inlet and outlet pipes from the heat exchanger</p>	
<p>7. Remove heat exchanger from case</p> <p>(1) Remove the 4 case top cover screws (This step will be skipped with OD Model Units)</p> <p>(2) Remove the 2 set screws on the bottom of the burner</p> <p>(3) Remove the upper left and right set screws near the top of the case (OD Models the screws will be at the top center of the case) (support bottom of assembly)</p>	<p>SV Models</p>   <p>SV Models</p>  <p>OD Models</p> 
<p>8. Separate burner from heat exchanger</p> <p>Remove 10 screws holding burner to heat exchanger</p>	

Procedure	Diagram
<p>9. Remove heat exchanger components from old heat exchanger and put on new heat exchanger</p> <ol style="list-style-type: none"> (1) Freeze prevention heater (front) (2) Freeze prevention sensor (left side) (3) High limit switch (right side) (4) Thermal fuse and fasteners from 4 sides of heat exchanger, See the 4 views of the heat exchanger to make sure the thermal fuse is routed correctly 	 
<p>Right Side</p>	
<p>Back Side</p>	
<p>Left Side</p>	
<p>Front Side</p>	

Procedure	Diagram
<p>10. Place new O-Rings on new heat exchanger</p> <p>(1) Cold Water Pipe (smaller of 2 o-rings) (2) Hot water Pipe</p>	
<p>11. Replace burner gasket</p> <p>(1) Remove old gasket (2) Replace with new gasket</p>	
<p>12. Reattach burner and heat exchanger assembly</p> <p>(1) 10 screws around perimeter of burner</p>	
<p>13. Replace assembly back inside case</p> <p>(1) Secure top left and right screws (OD Models the screws will be at the top center of the case) (2) Secure bottom burner screws</p>	<p>SV Models</p>  <p>OD Models</p>  
<p>14. Reconnect water connections</p> <p>(1) Push the pipes in the main water valve and flow sensor (2) Locate 2 "C" clamps and connect to (from left to right) main water valve and flow sensor. The flow sensor clamp will be smaller.</p>	 

Procedure	Diagram
<p>15. Replace Fan</p> <p>(1) Located metal tab on top of fan and use slot on burner to guide fan in place</p> <p>(2) Tighten 2 screws on both sides of the fan towards the back of case</p>	
<p>16. Replace manifold plate</p> <p>(1) Secure the 3 smaller gold screw from the manifold plate that attach the manifold to the gas valve (do not fully tighten)</p> <p>(2) Secure the 4 big silver screws on the manifold plate that attach the manifold to the burner (do not fully tighten)</p> <p>(3) Hand tighten all 7 screws equally.</p>	
<p>17. Reconnect all wires that attach to the wiring harness and the body of the water heater</p> <p>(1) Flame rod and ignition plug</p> <p>(2) Freeze prevention heater, thermal fuse (2), high limit switch</p> <p>(3) Freeze prevention sensor</p> <p>(4) Igniter plug</p> <p>(5) Secure the wire anchor on right side of the case</p>	

Procedure	Diagram
<p>18. Check for water leaks</p> <ol style="list-style-type: none"> (1) Replace water inlet filter (2) Turn on cold water shut off valve slowly (check for leaks around “C” clamps) (3) If you get leaks shut off water and re-secure “C” Clamps. 	
<p>19. Replace Circuit Board</p> <ol style="list-style-type: none"> (1) Replace circuit board on right side of the case (2) Secure the screw to the circuit board 	
<p>20. Replace case top covers</p> <ol style="list-style-type: none"> (1) Place larger top cover first, then gasket, then smaller cover over flue (2) Secure top covers with 4 screws <p>NOTE: This step will be skipped with OD Model Units</p>	
<p>21. Replace Front Cover</p> <ol style="list-style-type: none"> (4) Secure front cover with 4 screws (5) Turn on gas (6) Return electrical power to the unit 	