To obtain Performance Data:

1. Press and hold the (Up) button for 2 seconds.
2. While holding the (Up) button for 2 seconds, press and hold the "On/Off" button (hold both buttons simultaneously).

Important Safety Notes:

There are a number of steps (test) required when performing performance diagnostics on this product. Proceed with caution at all times to avoid contact with energized components inside the water heater. Only trained and qualified service technicians should attempt to repair this product. Before checking for resistance readings, disconnect the power source to the unit and isolate the horn from the circuit (singly) or (doubly) from the circuit.

Freeze Protection

This unit has freeze protection heaters mounted at different points to protect the water heater from freezing. All of them should display a positive resistance reading.

Flame Rod

Place one lead of your meter to the flame rod and the other to ground. With the water running, your meter should read between 0.5 - 1.5 Ohms per meter for the micro (µ) scale and another meter leads in line with the flame rod. You should set a limp or greater for proper flame circuit. In the event of low flame circuit, remove the flame rod and recheck for carbon or damage.

Amp Fuses

This is a 6 amp fuse located on the PC board, one inline (UI) and one (9) amp glass fuse. Remove the fuse and check continuity through it. If you have continuity through each fuse then it is functioning. Otherwise the fuse is blown and must be replaced.

Thermostats

Check all thermostats by inserting meter leads in each of the thermostat plug, set your meter to the 20 scale and read resistance. Applying heat to the thermostat bulb should decrease the resistance. Applying air to the thermostat bulb should increase the resistance.

NOTE: Wiring diagram is available in manual and on the inside front cover.

To display diagnostic codes:

1. Turn the water heater by pressing the "On/Off" button.
2. Press and hold the "On/Off" button for 3 seconds and then the (Up) button simultaneously.
3. The last 8 maintenance codes display and fans off after the other.
4. To exit diagnostic codes and return the water heater to normal operation, press and hold the "On/Off" button for 3 seconds and then the (Up) button simultaneously.
5. Turn on the water heater by pressing the "On/Off" button.
<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>105000262</td>
<td>Heat Exchanger Pipe Connection</td>
</tr>
<tr>
<td>107000265</td>
<td>Freeze Protection heater (set)</td>
</tr>
<tr>
<td>107000400</td>
<td>Flow Turbine Assembly</td>
</tr>
<tr>
<td>106000119</td>
<td>Igniter Ground Harness</td>
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<tr>
<td>107000093</td>
<td>Ceramic Valve heater FF</td>
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<td>105000240</td>
<td>Bypass Servo Assembly</td>
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<tr>
<td>107000317</td>
<td>PCB Electrical Cover</td>
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<tr>
<td>109000611</td>
<td>Burner Plate Assembly</td>
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<tr>
<td>109000616</td>
<td>Upper Wall Mount Bracket</td>
</tr>
<tr>
<td>109000649</td>
<td>Secondary Heat Exchanger Bracket</td>
</tr>
</tbody>
</table>

**ITEM**

- RUR160i
- RUR199e
- RUR160e

**PART**

- RUR160i
- RUR199i
- RUR160e

**NUMBER**

- RUR160i
- RUR199e
- RUR160e