

# Troubleshooting Guide

## Hot Water System Diagnosis

The hot water system consist of a stainless steel hot tank, a fixed hot thermostat, heat limiter, hot tank switch and heating band. Hot water is vented through the gooseneck on the hot glass filler and will drip during the heating cycle. The hot water system will run approximately 10-15 minutes to product 180° water. Under no load conditions, the hot tank will cycl 2-3 times an hour. An adjustable hot thermostat is available if water above 180° is required.

The most common heating problem is a defective heat limiter. This is a protective device in case the hot thermostat fails or the hot tank is run without water. It's job is to cause an opening in the electrical circuit of the hot water system and must be replaced when it fails. Sometimes the heat limiter will fail on it's own and other times for a good reason, which must be determined before replacement. These items can be checked with an ohm meter for continuity to determine if they are operative.

Problem	Corrective Action
Compressor does not run.	<ol style="list-style-type: none"> <li>1.) Check the electrical recptical for power and correct voltage. This incoming voltage must be within 10% of the rated voltage on the serial nameplate.</li> <li>2.) The cold thermostat is usually located behind the front panel or apron assembly. If the cold thermostat capillary bulb loses its charge or becomes kinked it will fail in the open position causing disruption of power to the compressor. Unplug the water cooler and using an ohm meter, check the continuity across the two electrical terminals on the thermostat. Install a new thermostat if there is not continuity.</li> <li>3.) Check for loose weires within the compressor box. The incoming power leads must be connected to the overload and relay.</li> <li>4.) If all components check positive for continuity then test the wiring harness plug for continuity to see if there is a broken wire within the wiring harness insulation.</li> </ol>
Compressor runs - water is warm.	<ol style="list-style-type: none"> <li>1.) The most common cause for a water cooler to run without producing cold water is due to a loss of refrigerant. The water cooler must be taken to a certified refrigeration technician for repairs.</li> <li>2.) Make sure the condenser fan motor is operative. The fan blades must turn freely to help remove the heat of compression.</li> <li>3.) An incorrect refrigerant charge, restriction or detective compressor (not pumping) will also cause the compressor to run without producing cold water.</li> </ol>
Compressor cycling on overload protector.	<ol style="list-style-type: none"> <li>1.) A dirty condenser or a blocked fan will cause a high head pressure and frequent cycling of the overload protector.</li> <li>2.) Check the incoming voltage to make sure it is within 10% of the serial nameplate rating.</li> <li>3.) A restriction or moisture in the system will also cause intermittent cycling. A certified refrigeration mechanic should be contacted in this situation.</li> <li>4.) Change the overload or relay if defective.</li> </ol>
Noisy operation.	<ol style="list-style-type: none"> <li>1.) Check to make sure the fan blade is rotating freely.</li> <li>2.) Make sure the water cooler is correctly mounted to the wall (if applicable).</li> <li>3.) Check the compressor mounting to make sure the pins and clips are not rattling. If the compressor appears to be noisy internally, it must be replaced.</li> </ol>
Noisy operation.	<ol style="list-style-type: none"> <li>1.) Check to make sure the fan blade is rotating freely.</li> <li>2.) Make sure the water cooler is correctly mounted to the wall (if applicable).</li> <li>3.) Check the compressor mounting to make sure the pins and clips are not rattling. If the compressor appears to be noisy internally, it must be replaced.</li> </ol>



# Troubleshooting Guide

Problem	Corrective Action
No water flow.	<ol style="list-style-type: none"><li>1.) When there is little or no flow from the bubbler or spout check the water inlet strainer screen. Sediment from the main supply can get trapped in the screen along with installation materials such as pipe dope and flux. The screen should be cleaned and checked on a regular basis and replaced if needed.</li><li>2.) The cartridge valve located in the water control assembly or bubbler can also become clogged with foreign material. The cartridge valve can only be replaced and not repaired. See the exploded view section to locate the cartridge on each cooler model.</li><li>3.) The water cooler may also develop a freezing condition in which the water will become frozen inside the evaporator coil. This indicates a refrigeration problem or thermostat failure in which case the water cooler needs to be checked by a qualified technician.</li></ol>
Adjustments	<ol style="list-style-type: none"><li>1.) Cartridge - The water flow may be increased by turning the adjustment screw clockwise on the cartridge valve.</li><li>2.) Cold water thermostat - The water temperature can be made colder by turning the adjustment screw clockwise on the cold water thermostat.</li></ol>