Antifreeze Leak

NOTE: To find an antifreeze leak, the system must be Hot (up to operating temperature)
Or pressurized to 15 PSI.

Inspect the following components on the Aqua-Hot Heating System for Leaks Model #'s: 431/12, AHE-100-00S, 01S, 02S, AHE-100-03S & AHE-100-04S, AHE-600 & AHE-675.

1.On the Front-Side of the Aqua-Hot:

A. Fluid Level Sensor/Float Switch
   i. The 431/12 and AHE-100-00S, 01S, 02S do not have a fluid level sensor/ float switch.

B. Control Thermostat
   i. The 431/12 and AHE-100-00S, 01S, 02S, do not have a control thermostat in the antifreeze solution

C. Drain Valve Assembly

D. Electric Heating Element (s).

E. Circulation Pump (s).
   i. When checking the circulation pumps be sure to inspect the plumbing for the hoses, the tank ports, and the circulation pump.

F. Combustion Burn Chamber leak
   i. When the Combustion Burn Chamber leaks, the antifreeze will run out the tip of the exhaust pipe.

2.On the Top of the Aqua-Hot:

A. Radiator Cap
   i. bad seal
   ii. Loose

NOTE: Newer model heaters do not have a radiator cap. They will have a brass hose barb fitting, which the expansion tank tubing connects to. There is also an air release valve on the brass fitting, that may leak.

B. Expansion Tank Tubing
   i. cracked
   ii. Loose

C. Filler Neck
   i. Bent
   ii. Broken nipple
   iii. Bad solder joint

D. Supply and Return interior zone heat ports.
   i. tubing/hose
   ii. Brass fittings

Inspect the following components on the Aqua-Hot Heating System for Leaks Model #'s: HHE-200, HHE -500, AHE-400, AHE-450.

1. On the Front-Side of the Aqua-Hot 400, 450/ Hydro-Hot:

A. Fluid Level Sensor/Float Switch

B. Control Thermostat

C. Drain Valve Assembly

D. Electric Heating Element

E. Circulation Pump (s) / Stir Pump.
   i. When checking the circulation pumps be sure to inspect all of the plumbing: Hoses, the Tank Ports, and the Circulation Pump.

F. Combustion Burn Chamber leak
   i. When the Combustion Burn Chamber leaks, the antifreeze will run out the tip of the exhaust pipe.

3. Antifreeze Leak - (continued)

2.On the Top of the Aqua-Hot 450/Hydro-Hot:

A. Radiator Cap

NOTE: Newer model heaters do not have a radiator cap. They will have a brass hose barb fitting, which the expansion tank tubing connects to. There is also an air release valve on the brass fitting, that may leak.

i. bad seal
ii. Loose

B. Expansion Tank Tubing
i. cracked
ii. Loose

C. Filler Neck
i. Bent
ii. Broken nipple
iii. Bad solder joint

D. Supply and Return interior zone heat ports.
i. tubing/hose
ii. Brass fittings

3. On the Back of the Aqua-Hot 450/Hydro-Hot:

A. Domestic Water and Coach Engine copper plumbing.
i. The copper coils are in the antifreeze solution and where they come through the steal tank is a possible point of leakage for each pipe.

B. Interior Zone Heat Return ports
i. Either the coach manufacturer's fitting could be leaking, or the brass fitting on the back of the Aqua-Hot, supplied by Aqua-Hot could be leaking. The brass fitting may need to be removed to inspect for cracks.

NOTE: On some of the AHE-450 models the return ports are on the top of the heater, and do not utilize the brass fitting supplied by aqua-hot.

NOTE: If no leaks are found on the Aqua-Hot, it is possible the leak is on the interior of the motor home. It could be an interior heat exchanger, or the plumbing for the interior heat exchangers.