Disinfecting the Aqua-Hot Water System

Background:
Aqua-Hot systems contain copper tubing and are not compatible with prolonged exposure to sodium hypochlorite (bleach, or bleach products.) Exposing the domestic water coil to products which contain sodium hypochlorite for extended periods of time can lead to corrosion of the domestic water coil and eventually catastrophic failure of the Aqua-Hot unit.

These products can, however, be used as a short term disinfectant. If bleach products are used to disinfect the water system, it is crucial that the system be purged of these products until there is no evidence of chlorine left in the water system. Damage resulting from a failure to purge the domestic water coil of sodium hypochlorite solutions is NOT covered by the Aqua-Hot warranty. In addition, Aqua-Hot Heating Systems disadvises the use of water fresheners containing sodium hypochlorite in its units. If a water freshener is required, take special care to ensure that the product does NOT contain sodium hypochlorite.

To disinfect the hot water heating system, refer to NFPA 1192 Standard on Recreational Vehicles. An excerpt pertaining to disinfection of potable water systems has been included below. These, and additional standards can be found by visiting the National Fire Protection Association online at www.nfpa.org.

NFPA 1192: Standard on Recreational Vehicles

A.7.3.7.5
Disinfection of the Potable Water System
To ensure complete disinfection of the potable water system, it is recommended that the following procedures be followed on a new system, one that has not been used for a period of time, or one that could have become contaminated. This procedure is also recommended before long periods of storage such as over winter.

1. Prepare a chlorine solution by using 1 gal. (3.8 L) of water and 1/4 cup (60 ml) household bleach (sodium hypochlorite solution). With tank empty, pour chlorine solution into the tank. Use 1 gal. (3.8 L) solution for each 15 gal (57 L) of tank capacity. This procedure will result in a residual chlorine concentration of 50 ppm in the water system. If a 100 ppm concentration is required, as discussed in A.7.3.5(3), use 1/2 cup of household bleach with 1 gal. of water to prepare the chlorine solution. Use 1 gal. of the solution for 15 gal. of tank capacity.
2. Complete filling of tank with potable water. Open each faucet and run the water until a distinct odor of chlorine can be detected in the water discharged. Do not forget the hot water taps.
3. Allow the system to stand for at least 4 hours when disinfecting with 50 ppm residual chlorine. If a shorter time period is desired, a 100 ppm chlorine concentration should be permitted to stand in the system for at least 1 hour.
4. Drain and flush with potable water.

If something is unclear, or you would like further direction regarding this matter, please contact our technical support team at (800) 685-4298 and we will be glad to assist you further. Standard hours of operation are Monday through Friday, 7AM to 4PM MST.