

# INSTRUCTION MANUAL

## *for* NAUTILUS (IW60A) ON DEMAND WATER HEATER DECALCIFICATION

**WARNING!** Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Refer to the installation instructions and/or owners manual provided with your appliance. The removal and re-installation of the appliance as well as the installation of component parts must be made by a qualified installer, service agency or the gas supplier.

**WARNING!** Installation of this appliance must be made in accordance with the written instructions provided in the manual. No agent, representative or employee of AIRXCEL, INC. - SUBURBAN DIVISION or other person has the authority to change, modify or waive any provision of the instructions contained in the manual or this instruction sheet.

### YOU WILL NEED:

KEY	DESCRIPTION	QTY
<b>1</b>	12 VDC WATER PUMP with Strainer	1
<b>2</b>	HOSE with ½" BSPT Fittings	3
<b>4</b>	½" BSPT x ½" PEX Adapters	2
<b>5</b>	HOSE CAPS	2
<b>6</b>	Distilled White Vinegar with a minimum of 5% acidity	8-12 liters
<b>7</b>	5 GALLON PLASTIC BUCKETS	2

### ADDITIONAL REQUIREMENTS:

#### PLUMBING MODIFICATIONS:

1. Depending on your RV, you may need to add additional valves to isolate the water heater from the water system during the decalcification process.
  - a. Figure 1 shows plumbing schematic for the decalcification system without a bypass valve system.
  - b. Figure 2 shows the bypass system in normal operation mode.
  - c. Figure 3 shows the bypass system in bypass mode to prevent water flow through the water heater for servicing and winterization.
  - d. Figure 4 shows a 3 valve crossover system in normal operation mode.
  - e. Figure 5 shows a 3 valve crossover system in bypass mode to prevent water flow through the water heater for servicing and winterization.
  - f. Figure 6 shows the complete installation of the decalcification kit utilizing a 2 way bypass valve system.
2. To connect the decalcification system, "T" fittings must be installed in the hot and cold water lines between the cutoff valves and the water heater. See Figure 6.
3. Connect one valve to each "T" fitting.
4. Connect a coupling that allows a ½" BSPT hose to connect to the valve.

### INSTALLATION AND DECALCIFICATION PROCESS REFER TO FIGURE 6

1. Turn off the gas supply and power supply to the water heater.
2. Close the cutoff valves located on the hot and cold water lines.
3. Turn on one hot water valve in the RV to relieve pressure on the hot water lines.
4. Turn off valve after pressure is relieved.
5. If a crossover is installed, make sure the crossover valve is closed. If 3 valve crossover system is installed, make sure bypass valve is closed.
6. Keep the pump on flat surface, connect strainer to pump inlet, connect one hose to pump outlet and one to the strainer inlet.
7. Connect pump outlet hose to cold-water connection on water heater.
8. Put strainer inlet hose end in bucket.
9. Connect hose to water heater hot water or return connection then put hose end in bucket.
10. Pour in 8 to 12 liters of distilled white vinegar (5% acidic) in the five gallon bucket.
11. Double check all connections, making sure the cold water line is connected to the pump, and all connections are tight.
12. Open the valves in line with the hoses in the hot and cold water lines. Plug the pump in and verify you have flow thru the system. It may take several seconds before you see the flow start.
13. Let the pump run for at least 1 hour to continuously recirculate the vinegar through the water heater. If the vinegar solution is excessively dirty in the first 30 minutes, change the vinegar solution and continue for an additional 30 minutes.
14. After one hour, unplug the pump; allow the vinegar to drain out of the pump. Properly dispose of the used vinegar.

### FLUSHING PROCESS

1. Rinse the bucket and fill it with 15 to 20 liters of clean water.
2. Move the loose end of the outlet hose to separate bucket.
3. Flush the vinegar from the water heater and repeat the fresh water flush until you have pumped 75 liters of fresh/clean water thru the water heater. **Do not reuse the water.**
4. After flushing, completely turn off the valves connected to the hose fittings.
5. Disconnect the hoses and replace the caps.
6. Open the hot and cold cutoff valves.
7. Open the hot water side of a valve in the RV to flush any remaining vinegar and air out of the lines.
8. Thoroughly rinse all hoses, bucket and pump after process is completed. NOTE: Vinegar is corrosive and will cause rusting of the hose connections. Store pump and hoses in the bucket for easy access when decalcification is required.

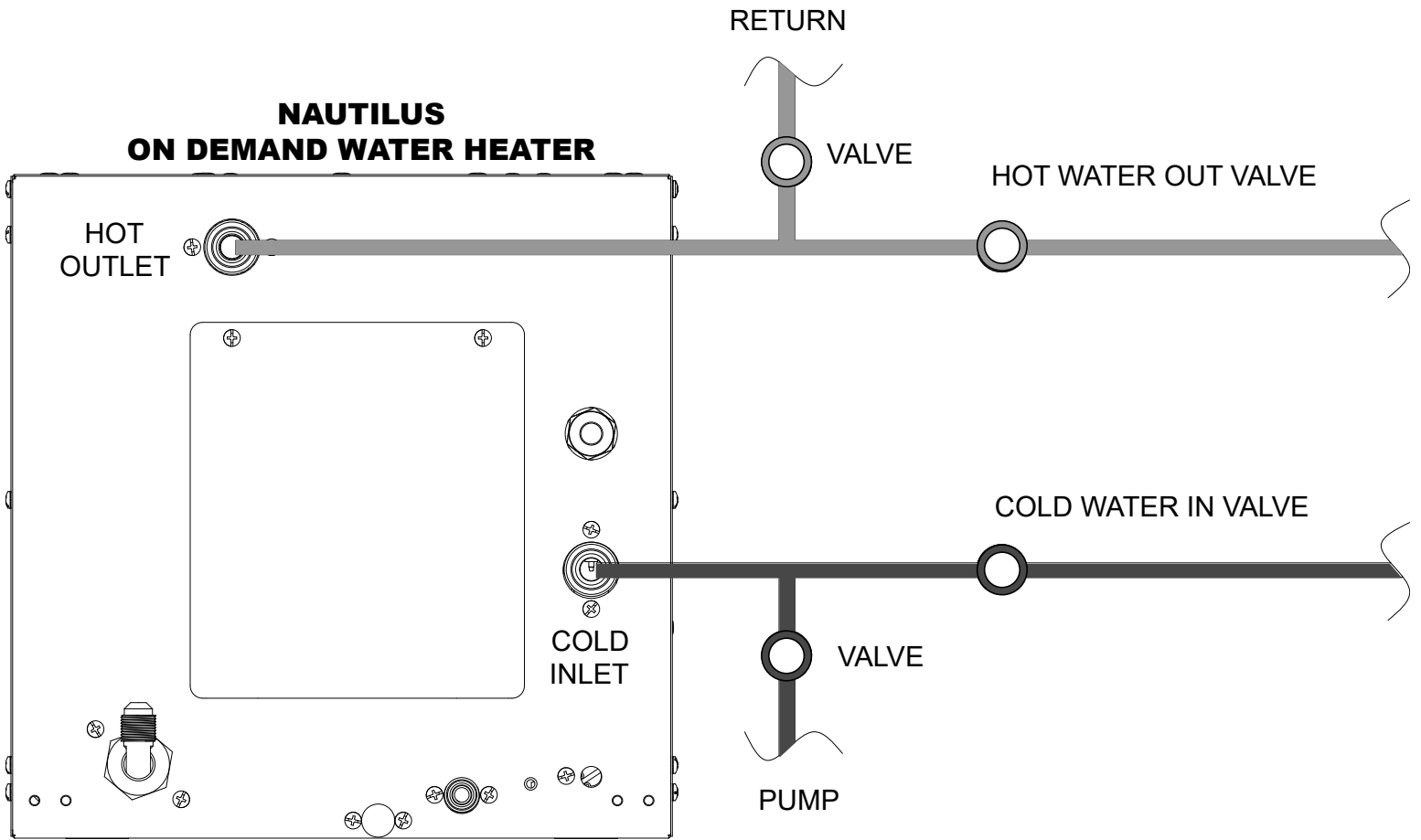


FIGURE 1

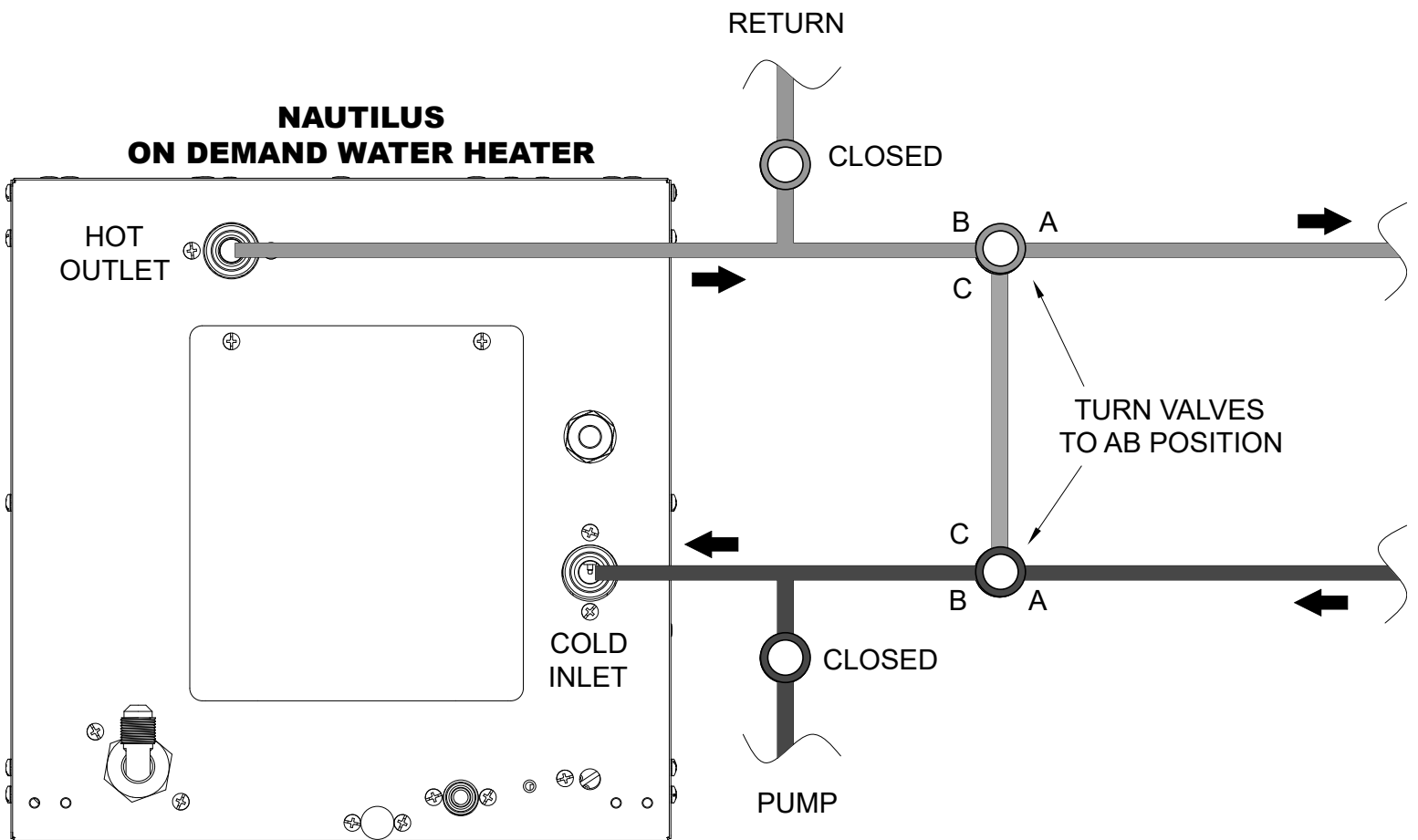


FIGURE 2

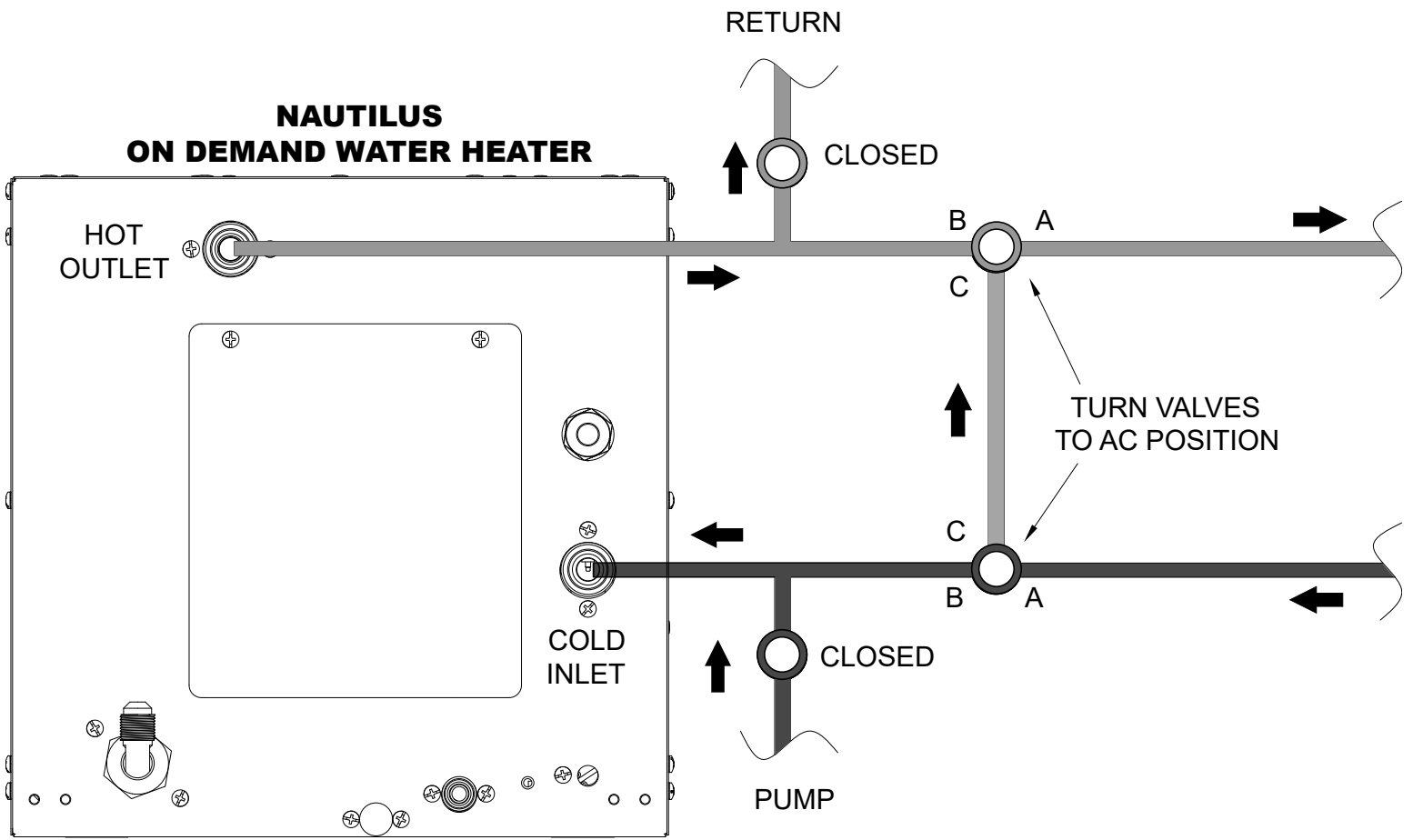


FIGURE 3

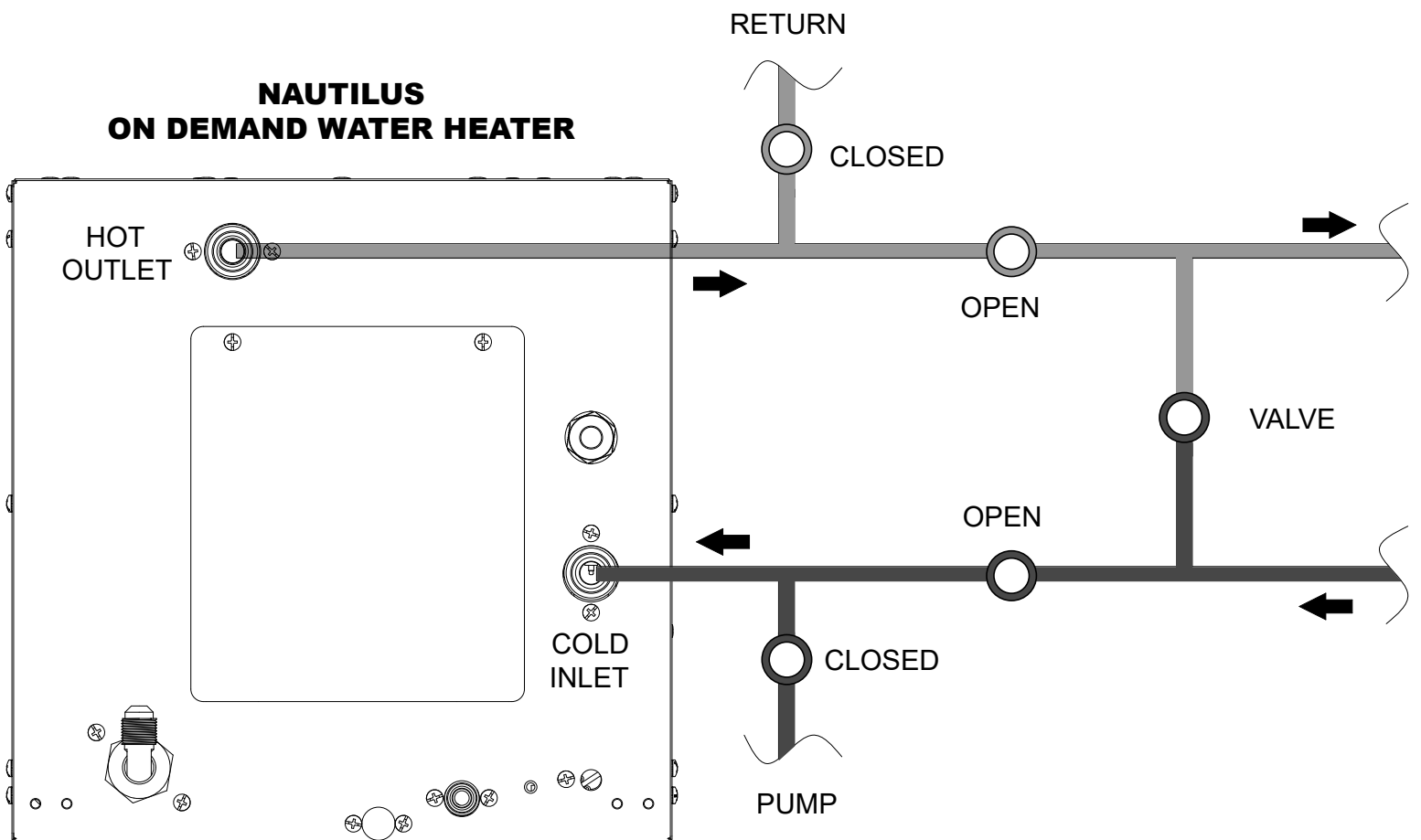


FIGURE 4

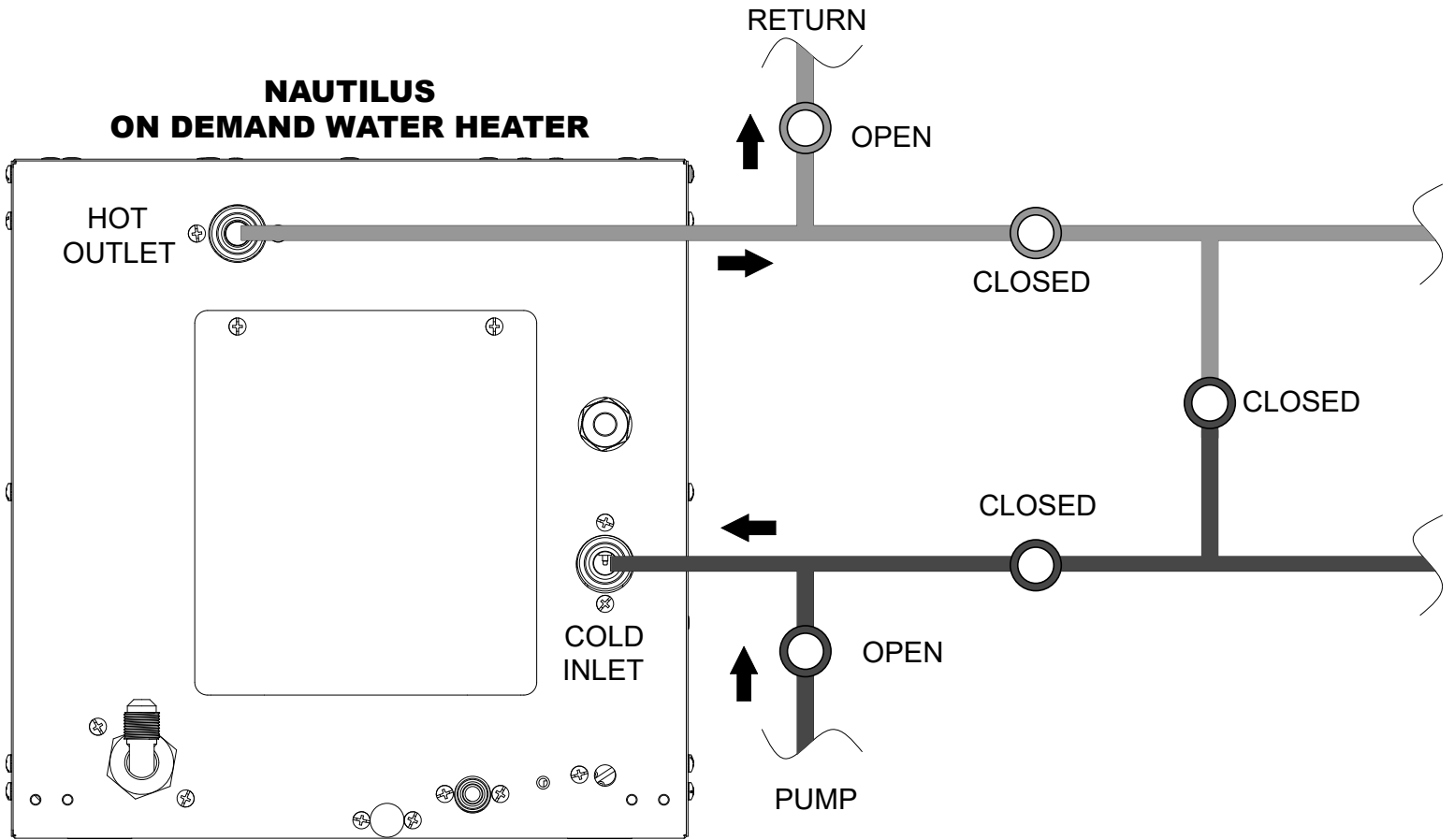


FIGURE 5

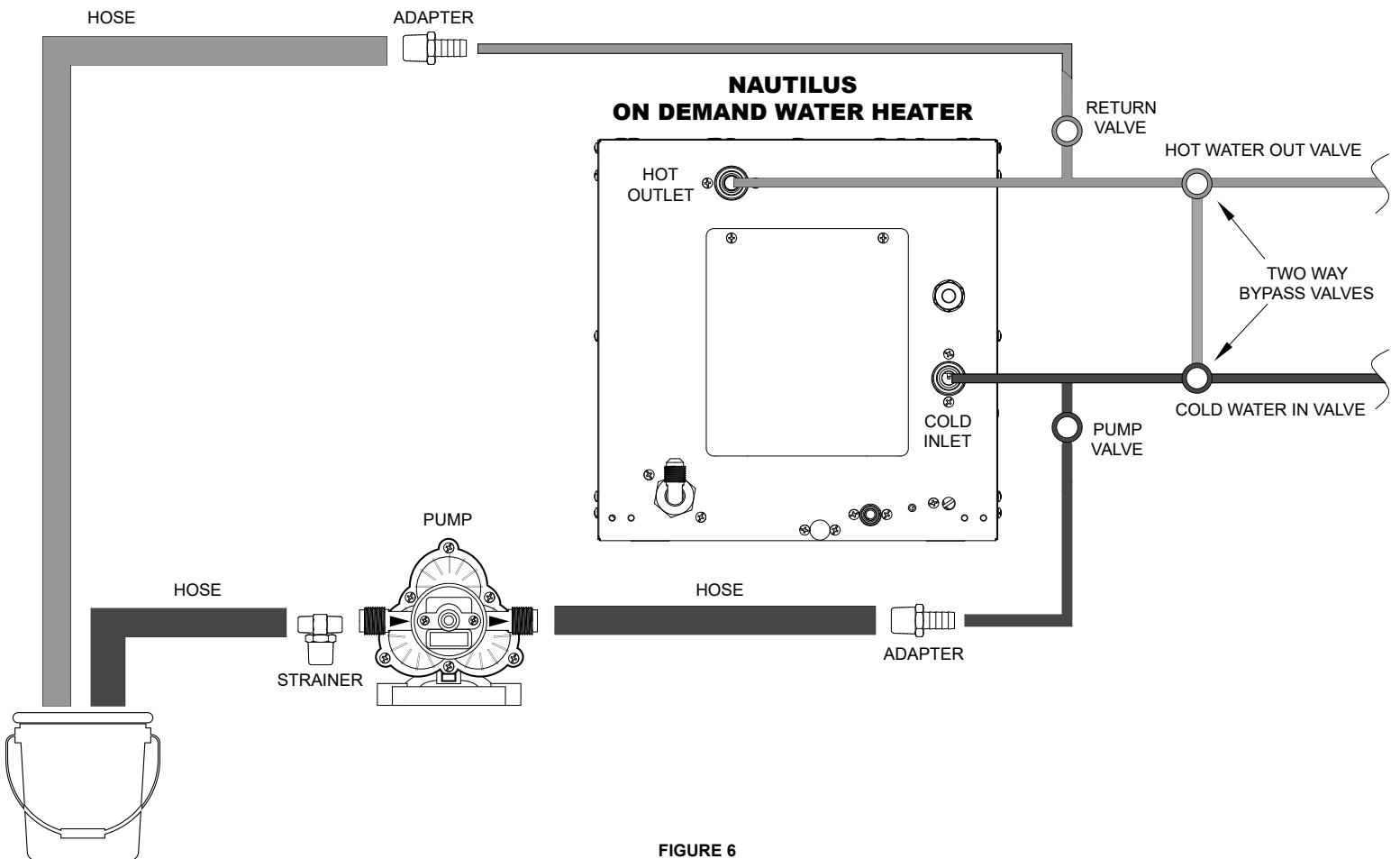


FIGURE 6