

## Diagnostic Code Chart

DIAGNOSTIC LIGHT	INDICATES	CORRECTIVE ACTION*
LIGHT ON	Normal operation	None
NO LIGHT	No power to control board or diagnostic light burned out	1. Check for blown fuses or tripped breaker 2. Check power leads on control board with meter for 240 volts 3. If power is okay, replace control board
1 FLASH	Power on with no water in tank	1. Add water and reset temperature control system. See "Reset Function" on page 10
2 FLASHES	Water temperature exceeded high limit	1. Make sure upper and lower access doors and insulation are properly in place 2. Check element circuits for resistance of 5 - 25 ohms 3. Replace element if necessary and reset control system
3 FLASHES	Sensor failure	1. Remove power 2. Check temperature sensor for open or shorted circuit 3. If no problem is found, replace sensors
4 FLASHES	Upper element circuit failure	1. Remove power 2. Check element circuit for resistance of 5 - 25 ohms 3. Check wires at element and board for damage 4. If this 4 flashes condition continues, replace control board
5 FLASHES	Lower element circuit failure	1. Remove power 2. Check element circuit for resistance of 5 - 25 ohms 3. Check wires at element and board for damage 4. If this 5 flashes condition continues, replace control board

\*These instructions are brief and intended as guidance for a qualified service technician. If you lack the necessary skills to perform these procedures call **1-877-817-6750** for assistance.

## Troubleshooting Chart

PROBLEM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
NO HOT WATER	1. No power to heater 2. High temperature limit shut-down 3. Defective sensor	1. Refer to "No Light" of Diagnostic Code Chart 2. Refer to "2 Flashes" of Diagnostic Code Chart 3. Refer to "3 Flashes" of Diagnostic Code Chart
INSUFFICIENT HOT WATER	1. Defective lower element 2. Temperature set too low 3. Sediment or lime in tank 4. Defective Dip Tube 5. Heater too small for job 6. Wrong piping connections 7. Leaking faucets 8. Wasted hot water 9. Long runs of exposed pipe 10. Hot water piping on outside wall	1. Refer to "5 Flashes" of Diagnostic Code Chart 2. Set temperature to desired setting 3. Drain. Determine if water treatment is needed 4. Replace Dip Tube 5. Check and install adequate water heater 6. Correct piping 7. Repair faucets 8. Advise customer 9. Insulate piping 10. Insulate piping
HIGH OPERATION COSTS	1. Temperature set too high 2. Sediment or lime in tank 3. Heater too small for job 4. Leaking faucets 5. Wasted hot water 6. Long runs of exposed piping 7. Hot water piping in exposed wall	1. Lower temperature control or change to Energy Saver Mode 2. Drain. Flush-Provide water treatment if needed 3. Install adequate heater 4. Repair faucets 5. Advise customer 6. Insulate piping 7. Insulate piping
SLOW HOT WATER RECOVERY	1. Upper element defective 2. Leaking faucets	1. Refer to "4 Flashes" of Diagnostic Code Chart 2. Repair faucets
DRIP FROM T&P VALVE	1. Excessive water pressure 2. Closed system 3. Defective T & P valve	1. Use pressure reducing valve and pressure relief valve (See page 6) 2. See page 6, "Closed System/Thermal Expansion" 3. Replace T & P valve
WATER ODOR	1. Sulfides in the water	1. See page 11, "Water Odor"