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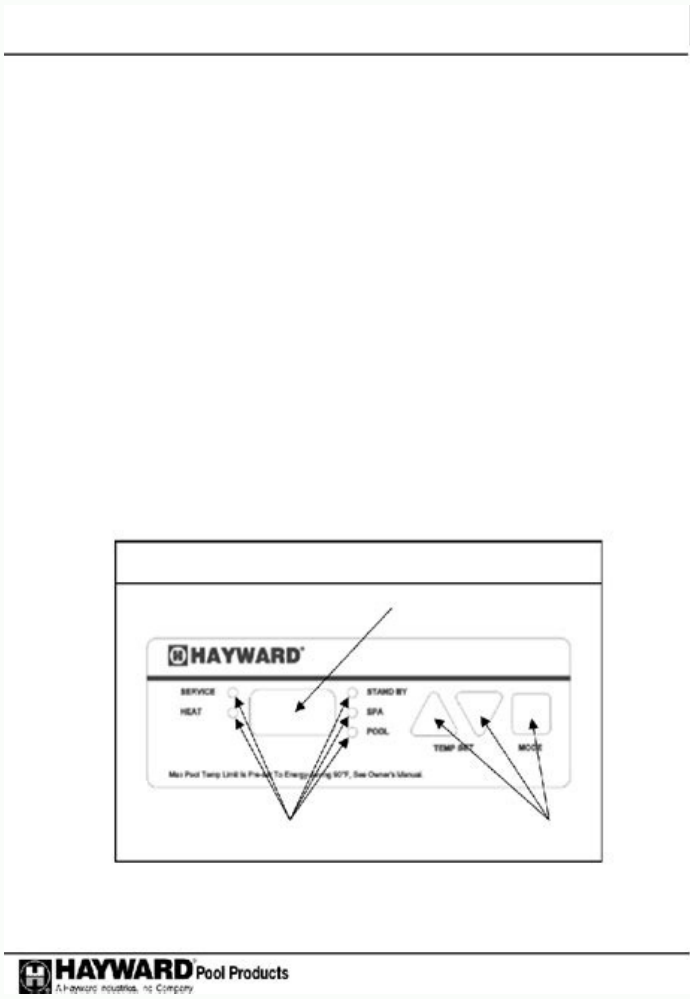
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Hayward h200 pool heater owner's manual

Page 1 POOL AND SPA/HOT TUB HEATERS H150FD, H200FD, H250FD, H300FD, H350FD & H400FD MODELS SERVICE & INSTALLATION MANUAL FOR YOUR SAFETY WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, PRINTED 10/24/2011 AT 1:13 PM injury, or death. Keypad inputs38 Automatic reset time39 Periodic inspection39 Winterization39 Draining the heat exchanger40 Spring start-up40 USE ONLY HAYWARD GENUINE REPLACEMENT PARTS Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Page 3 To reduce the risk of electric shock, the electrician must comply with installation in- structions and must bond the heater accordingly. In addition, the licensed electrician must also conform to local electrical codes for bonding requirements. USE ONLY HAYWARD GENUINE REPLACEMENT PARTS Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... Page 4 Install two or more suction outlets per pump in accordance with latest APSP (formally NSPI) Stan- dards and CPSC guidelines. Follow all applicable National, State, and Local codes. USE ONLY HAYWARD GENUINE REPLACEMENT PARTS Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Page 5 It is also necessary to allow the motor to cool for at least 20 minutes prior to maintenance to minimize the risk of burns. WARNING - Failure to install according to defined instructions may result in severe personal injury or death. USE ONLY HAYWARD GENUINE REPLACEMENT PARTS Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Page 6 A unit for measuring pressure below atmospheric ("suction" or "vacuum") (1.0 inch Hg = .491 PSI) Main Drain - See Suction Outlet PSI - An abbreviation for pounds per square inch. USE ONLY HAYWARD GENUINE REPLACEMENT PARTS Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com...



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LIMITED COMMERCIAL POOL HEATER WARRANTY

WHAT DOES THIS LIMITED WARRANTY COVER?

This limited warranty covers both the pool heater and component parts for leakage or other malfunction caused by defects in materials and/or workmanship. It extends to the first owner as long as the pool heater remains installed at its original place of installation.

WHAT IS THE PERIOD OF COVERAGE?

This limited warranty is effective 60 days from the date of manufacture as determined by the serial number. Model number and serial number are found on the rating plate affixed to the pool heater.

WHAT DOES THIS LIMITED WARRANTY NOT COVER?

This warranty does not apply if the pool heater is installed in violation of any applicable code or ordinance, or is not installed, operated and maintained in accordance with our instructions, or is misused, damaged by accident, weather, act of God, freezing, water void and/or excess pressure, altered or disconnected. It does not apply with respect to:

UNDER THESE CONDITIONS

Copper tube heat exchangers are warranted against tube leakage for 5 years; parts are warranted for 1 year.

Any replacement heater or copper tube heat exchanger furnished under this warranty shall remain in warranty only for the unexpired portion of the original warranty.

WHAT IS THE DURATION OF THE IMPLIED WARRANTY?

ANY IMPLIED WARRANTY, INCLUDING THE WARRANTY OF MERCHANTABILITY, IMPOSED ON THE SALE OF THE POOL HEATER UNDER THE LAWS OF THE STATE OF SALE ARE LIMITED IN DURATION TO ONE YEAR FROM DATE OF ORIGINAL INSTALLATION.

HOW DOES STATE LAW RELATE TO THE WARRANTY?

Some states do not allow:

1. Limitations on how long an implied warranty lasts.

2. Limitations on incidental or consequential damages.

The above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

1. A heater not equipped with certified CSA limit controls or equal temperature and pressure relief valve, installed in accordance with applicable ordinance.
2. A heater operated with settings in excess of, and/or with fuel not conforming to those shown on rating plate.
3. A heater on which the serial numbers have been altered, defaced or removed.
4. Leaks arising from defective installation.
5. Production of noise, odors or discolored steam, etc. water.
6. Leakage substantially contributed to by sediment, lime, precipitate and/or higher than normal dissolved solids in the boiler, copper tubes or water ways.
7. Leakage substantially contributed to by corrosive elements in the atmosphere (such as the storage of chlorine or other chemicals).
8. Leakage caused substantially or contributed to by corrosive pool water in an acid condition.
9. Damage caused substantially or contributed to by an external source of energy.
10. A pool/spa heater is a water containing device. Leakage of water from this device can be expected at some time due to malfunction or the limitations of the service life of various components. Do not install this product where such leakage can cause damage. MANUFACTURER IS NOT RESPONSIBLE OR LIABLE FOR ANY COSTS INCURRED BY SUCH DAMAGE.
11. Costs associated with replacement and/or repair of the unit, including:
 - I. any freight, shipping or delivery charges
 - II. any removal, installation or reinstallation charges
 - III. any material, and/or permits required for installation, reinstallation or repair
 - IV. charges to return the defective pool heater and/or component to the manufacturer

In addition, the licensed electrician must also conform to local electrical codes for bonding requirements.



Page 4 Install two or more suction outlets per pump in accordance with latest APSP (formally NSPI) Stan- dards and CPSC guidelines. Follow all applicable National, State, and Local codes. USE ONLY HAYWARD GENUINE REPLACEMENT PARTS Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Page 5 It is also necessary to allow the motor to cool for at least 20 minutes prior to maintenance to minimize the risk of burns. WARNING - Failure to install according to defined instructions may result in severe personal injury or death. USE ONLY HAYWARD GENUINE REPLACEMENT PARTS Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Page 6 A unit for measuring pressure below atmospheric ("suction" or "vacuum") (1.0 inch Hg = .491 PSI) Main Drain - See Suction Outlet PSI - An abbreviation for pounds per square inch. USE ONLY HAYWARD GENUINE REPLACEMENT PARTS Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... WARNING: Premature Heat Exchanger Damage or Failure The heat exchanger in your Hayward pool heater is made from the highest quality of copper and nickel (Cupronickel) materials. The premium materials and the exacting processes used in the manufacture of the heat exchanger is state of the art in pool heater design and manufacture. Page 8 Refer to page 26 for further information. USE ONLY HAYWARD GENUINE REPLACEMENT PARTS Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Page 10 * All indoor installations at altitudes above 2,000 ft also require a special vent pressure switch to be installed in addition to the blower air inlet plate. The special vent pressure switch is included with the appropriate indoor vent kit (UHXNEGV1xxx or UHXPOSHZ1xxx), or the high-altitude vent pressure switch kit FDXLVP1931. USE ONLY HAYWARD GENUINE REPLACEMENT PARTS Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... 4. Do not install the heater where water spray from ground sprinkler can contact the heater. The wa- ter could splash on the controls causing electrical damage. 5. Do not install under a deck. USE ONLY HAYWARD GENUINE REPLACEMENT PARTS Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... Install concrete tapping screws (field-supplied) secured to the heater and the pad.



POOL AND SPA/HOT TUB HEATERS
H150FD, H200FD, H250FD, H300FD,
H350FD & H400FD MODELS

SERVICE & INSTALLATION MANUAL

FOR YOUR SAFETY

⚠ WARNING: If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, injury, or death.

- Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency, or the gas supplier.



FOR YOUR SAFETY

This product must be installed and serviced by authorized personnel, qualified in pool/spa heater installation. Improper installation and/or operation can create carbon monoxide gas and flue gases that can cause serious injury, property damage, or death.

J.S. PATENT NOS. 6,026,894, 6,321,833, & 7,871,803

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Page 5 It is also necessary to allow the motor to cool for at least 20 minutes prior to maintenance to minimize the risk of burns. **WARNING** - Failure to install according to defined instructions may result in severe personal injury or death. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Page 6 A unit for measuring pressure below atmospheric ("suction" or "vacuum") (1.0 inch Hg = .491 PSI) Main Drain - See Suction Outlet PSI - An abbreviation for pounds per square inch. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... **WARNING:** Premature Heat Exchanger Damage or Failure The heat exchanger in your Hayward pool heater is made from the highest quality of copper and nickel (Cupronickel) materials.



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Page 4 Install two or more suction outlets per pump in accordance with latest APSP (formally NSPI) Standards and CPSC guidelines. Follow all applicable National, State, and Local codes. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Page 5 It is also necessary to allow the motor to cool for at least 20 minutes prior to maintenance to minimize the risk of burns. **WARNING** - Failure to install according to defined instructions may result in severe personal injury or death. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Page 6 A unit for measuring pressure below atmospheric ("suction" or "vacuum") (1.0 inch Hg = .491 PSI) Main Drain - See Suction Outlet PSI - An abbreviation for pounds per square inch. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... **WARNING:** Premature Heat Exchanger Damage or Failure The heat exchanger in your Hayward pool heater is made from the highest quality of copper and nickel (Cupronickel) materials. The premium materials and the exacting processes used in the manufacture of the heat exchanger is state of the art in pool heater design and manufacture. Page 8 Refer to page 26 for further information. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Page 10 * All indoor installations at altitudes above 2,000 ft also require a special vent pressure switch to be installed in addition to the blower air inlet plate. The special vent pressure switch is included with the appropriate indoor vent kit (UHXNEGVT1xxx or UHXPOSHZ1xxx), or the high-altitude vent pressure switch kit FDXLVPS1931. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... 4. Do not install the heater where water spray from ground sprinkler can contact the heater. The water splash on the controls causing electrical damage.
5. Do not install under a deck. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400...
Install concrete tapping screws (field-supplied) secured to the heater and the pad. Install the access panels when complete. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... When air blowers are used in spa/hot tub installations and are located in proximity to the heater, caution must be observed to ensure sufficient combustion air is available to the heater for proper combustion. A separate blower air duct is recommended. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... Page 14 Fuel Gas Code (ANSI Z223.1/NFPA 54). 400,000 150,000 1 sq. in. per 250 btu/hr 200,000 (paragraph B-4) 250,000 1000 1000 300,000 1200 1200 350,000 1400 1400 400,000 1600 1600 **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Over 16/12 to 18/12 7.0 ft Minimum height from roof to lowest discharge opening Over 18/12 to 20/12 7.5 ft Over 20/12 to 21/12 8.0 ft **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... The available parts are listed in the service parts section in the back of this manual. Also, Hayward publishes an instruction sheet which can be used as a guide in specifying installation. It can be obtained on Hayward's website at www.haywardnet.com. If you need more specialized fittings, you may order them directly from Heatfab, or from an authorized Heatfab dealer. Page 17 * For vent pipe section length, "xx" should be: 1, 2, 4, 5, or 7, where: 1=6 inches, 2=12 inches, 4=18 inches, 5=24 inches, and 7=36 inches. ** For vent pipe section length, "xx" should be: 06, 09, 12, 18, 24, or 36 indicating the length of the vent pipe section in inches. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... 15. Connect vent piping system to heater vent adapter. 16. If connected, turn pump, main gas valve, and heater power back on. 17. Activate heater and check for proper function. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... Page 19 **FIGURE 7** **FIGURE 6** Flue Cover **FIGURE 8** **FIGURE 9** Vent Pressure Switch Blower Air Inlet Plate Blower Pressure Vent Pressure **FIGURE 10** Switch Tubing **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... 12. Re-connect the heater wire harness to the water pressure switch and temperature limit. 13. Reverse the above steps to reassemble the heater. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... Page 21 Upper Plastic Heater Side Panel Ignition Control Upper Plastic Heater Circuit Board Side Panel Front Access Panel **FIGURE 2** **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** 1303264301 rev B Page 2 of 2 Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... * Based upon an inlet gas pressure of 10 psig at a pressure drop of 1 psi ** Based upon an inlet gas pressure of 2 psig at a pressure drop of 10 in-wc at a pressure drop of 0.5 in-wc **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Page 24 (Example: 225 meter = 225,000 BTU/H). If doubt exists as to the meter size, consult the local gas utility for assistance.
Hayward will not be responsible for heaters that soot up due to improper meter and gas line sizing resulting in improper gas volume. Make sure that 1st and 2nd stage regulators are large enough to handle the BTUH input listed for the heater(s) being used. Hayward will not be responsible for heaters that soot up due to improper gas line or propane tank sizing resulting in improper gas volume. Page 26 **ATTENTION:** Improperly adjusted manual bypass valves will result in damage to the heater if the flow rates are not maintained as specified in Table 14 under all operating conditions. The heat exchanger will fail and this damage will not be covered under the Hayward warranty. **Figure 16:** Manual Bypass valve... Backsiphoning usually occurs when the pump is shut off and a pressure differential is created. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... If desired, you may order the pressure relief valve from Hayward; order p/n CHXR1930. Remove the factory-installed pipe plug, and install the pressure relief valve using a suitable amount of pipe thread sealant or teflon tape on the threads. Install the pressure relief valve with the discharge connection facing the ground. **CAUTION** - This heater must be connected to a bonding grid with a solid copper conductor wire gauge 8 AWG or larger.
All Hayward heaters are designed for copper conductors only. The National Electrical Code (NEC), and most other codes require that all metallic components of a pool structure, including reinforcing steel, metal fittings and above ground equipment, be bonded together with a solid copper conductor wire gauge 8 AWG or larger. High the "SPA" LED will be illuminated and the water temperature will be displayed. The heater will use its internal thermostat to regulate the water temperature to the set point of the mode selected.
USE ONLY HAYWARD GENUINE REPLACEMENT PARTS Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Page 31 **Figure 23:** Wiring connection diagram. Page 32 **Figure 24:** Lighting & Operating Instructions label... Gas supply line must be capped when not connected. After pressure testing, reconnect the gas piping to the gas valve. Turn gas supply "ON" and test all pipe and tubing joints for leaks. Use a soap and water solution. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... If there is more than one pool/spa heater **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** connected to the gas supply line, turn each of those appliances "ON" while testing the heater. If the pump and piping arrangement are such that the required 1-pound minimum pressure cannot be obtained, do not attempt to operate the heater.
Correct the installation. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... This feature is useful for preventing unauthorized users from manually adjusting the temperature settings higher than desired.
On a new heater, the maximum allowed **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** temperature lock settings are initially set at the factory to 90°F for POOL mode, and 104°F for SPA mode. 6. When the thermostat is satisfied and the call for heat ends the control immediately de-energizes the gas valve. Flame is extinguished. 7. The control operates the blower during a 30-second post-purge period. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... 4. The control will accept a mode change during lockout after 5 seconds. The control will continue to display the error code and remain in lockout until it is reset. At reset the control will go to the last saved mode. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... 5. If the heater is operating on propane gas, the tank must not fall below 30% full or damage to the heater may occur. Hayward will not be responsible for heaters that soot up due to improper gas level in the tank resulting in inadequate gas volume. **Figure 28:** Heat exchanger header components Bypass Service Cartridge Inlet/Outlet Water Pressure Cartridge Retaining Nut Header Switch Temperature Limits Thermistor Drain Plug Pressure Relief Valve Port **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... 1. External heat exchanger 2. Internal heat exchanger 3. Main burner flame patterns 4. Main burner orifices 5. Operating controls **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Spider nests in the burner and/or gas orifices may also cause yellow tips. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Do not place pipe dope on the first two threads of any joint. 8.
Reverse the above procedure to re-install the gas manifold. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... **ATTENTION:** Conversion kits are not available in Canada. Conversions must be performed by the conversion station at Hayward Pool Products Canada, Inc. **ELECTRICAL WIRING:** **ATTENTION:** If it is necessary to replace any of the original wiring, it must be replaced with Hayward supplied replacement parts. 4. Pull the tubing from the hose barb on the switch. 5.
Remove the (2) screws that secure the pressure switch to the control panel. 6. Reverse the above procedure to install the blower vacuum switch. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... 5. Replace the high limit switch. Use new sealant on the high limit switch threads before reinstalling. Reverse the above procedure to install the high limit switch. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... 5. Using two ½" open-end wrenches disconnect the pressure switch from the pressure switch tubing. 6. Replace the pressure switch. Use new sealant on the pressure switch threads before re-installing. 7.
Reverse steps above to complete the procedure. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... 6. Check the function of the bypass valve to ensure the valve flaps rotate smoothly on the shaft, and the spring fully closes the valve. 7. Apply silicone o-ring grease (Hayward Jack's 327 MultiLube p/n SP032712, or equivalent) on o-ring seals on the bypass cartridge before inserting into the heater. When a heater is wired to the line side of the power circuit (continuous power) the blower will not operate when the pump is cycled via a time clock or other switch method. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... The fuse designations are printed on the ignition board and the control board. See **Figure 25** for board locations. Fuses are available as common hardware items or may be purchased from Hayward in a service parts kit.
The fuse specifications are: • "out of bounds" condition on both sensors (less than 10°F or greater than 180°F) will result in the error code. Automatic restart is 2 minutes after the error is corrected. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... Page 53 See below for more detail. **EEPROM ERROR** An error was detected in the ignition control circuit board. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... **Figure 32:** TROUBLESHOOTING Code Fault Diagnosis Step
Remedy Heater will not 1.
Check for Low & High Disconnect plug from P5 connector from Fuse Board. Measure power up. Voltage Output from Fuse for 24VAC between pins of receptacle on Fuse Board. Reconnect Board plug. Page 55 Igniter Failure 1. Check for faulty wiring or Inspect Igniter wiring. Ensure Igniter Plug is securely attached to connection. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Control Module. If OK, proceed to step 2. 2. Igniter is defective Replace Igniter. Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400 www.haywardpool.com... Page 56 Verify that water flow to heater is above minimum required (20 GPM for adequate H150FD and H200FD, 25 GPM for H250FD and H300FD, 30 GPM for H350FD and H400FD). Note that intermittent periods of low water flow will cause this error. If OK, proceed to step 3. Page 57 Verify that water flow rate to heater is above the minimum required adequate (20 GPM for H150FD and H200FD, 25 GPM for H250FD and H300FD, 30 GPM for H350FD and H400FD). If OK, proceed to step 4. 4.
Temperature limit switch Replace temperature limit switch. **HAYWARD POOL HEATER CERTIFICATE OF LIMITED WARRANTY** Limited heater warranty: **TERMS AND COVERAGE:** We warrant our pool heater to be free from defects in workmanship and materials under normal use and service. Pursuant to this warranty and subject to the Conditions and Exceptions indicated below: 1. Page 59 **ALS, SUCH AS GASOLINE OR PAINT THINNERS, BE USED OR STORED IN THE VICINITY OF THE HEATER OR IN ANY LOCATION FROM WHICH FUMES COULD REACH THE HEATER.** For your comfort, enjoyment and safety, please read the enclosed operating instructions carefully. **USE ONLY HAYWARD GENUINE REPLACEMENT PARTS** Pomona, CA Clemmons, NC Nashville, TN Tel: 908-351-5400... **SERVICE PARTS** Bronze Header Models (ASME) Plastic Header Models (Non-ASME) Page 61 **TOP FLUE COVER, GRAY, ASME - H250FD FDXLTCF1400A TOP FLUE COVER, GRAY, ASME - H400FD FDXLFAD1150 FRONT ACCESS DOOR ASSY - H150FD FDXLFAD1200 FRONT ACCESS DOOR ASSY - H200FD FDXLFAD1250 FRONT ACCESS DOOR ASSY - H250FD FDXLFAD1300 FRONT ACCESS DOOR ASSY - H300FD FDXLFAD1350...** Page 62 **CONVERSION KIT, NA TO LP, QUICK-CHANGE - H150FD FDXLGCK1150PN CONVERSION KIT, LP TO NA, QUICK-CHANGE - H150FD FDXLGCK1150PN CONVERSION KIT, LP TO NA, QUICK-CHANGE - H150FD FDXLGCK1200PN CONVERSION KIT, NA TO LP, QUICK-CHANGE - H200FD FDXLGCK1250PN CONVERSION KIT, NA TO LP, QUICK-CHANGE - H250FD...** Page 63 **FDXLTER1930 THERMISTOR FDXLGSK1934 GASKET, CC FRONT/AIR BOX - ALL MODELS**
FDXLHXA1150 HEAT EXCHANGER ASSY - H150FD FDXLHXA1200 HEAT EXCHANGER ASSY - H200FD FDXLHXA1250 HEAT EXCHANGER ASSY - H250FD FDXLHXA1300 HEAT EXCHANGER ASSY - H300FD FDXLHXA1350 HEAT EXCHANGER ASSY - H350FD...
Page 64 **FDXLDVR1930A DRAIN VALVE, ASME UHXNEGVT11501 INDOOR VENT ADAPTER KIT, NEG-PRESS (VERTICAL) - H150FD UHXNEGVT12501 INDOOR VENT ADAPTER KIT, NEG-PRESS (VERTICAL) - H200FD UHXNEGVT13001 INDOOR VENT ADAPTER KIT, NEG-PRESS (VERTICAL) - H300FD...** Section I General Information7Maintaining Proper Water Chemistry7Altitude of Installation9Indoor Installation and Venting13Horizontal or Vertical Venting16Reversible Water Connections20Installation above Pool Surface27Chlorinator/Chemical Feeder27Drain Valve Installation (ASME Models)28Electrical Specifications28Remote Control Connection30Section III Check-Out & Start-Up33Retry (Failure of Light)38Recycle (Loss Of Flame)38Draining the Heat Exchanger40Section IV Technician Service41Heat Exchanger Inspection and Cleaning42Burner Inspection and Cleaning42Burner Removal and Replacement43Ignition Control System46Bypass **SERVICE CARTRIDGE49**Section V Troubleshooting50