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Known for being reliable and durable, Hayward pool pumps have always been our leading line of pumps. Hayward pumps come in a variety of horsepower, voltages and speeds. But just like any sort of equipment, even the most well-made products sometimes need repairs. Typically, any dilemmas with your Hayward pool pump are likely related to either electrical or plumbing situations. Don't let pool pump problems drive you crazy! With the information explained in this comprehensive troubleshooting guide, you can diagnose and repair your Hayward single speed or variable speed pool pump with ease! A pump that simply won't start is a frustrating problem. If you get no response from your Hayward pool pump when you flip the switch, first verify the terminal board connections match the wiring diagram on the motor data plate label. Likewise, check if the motor is wired correctly for the available field supply voltage. If that doesn't solve the problem, then work through the steps below. Check all connections, circuit breakers, and fuses. Repair or replace any tripped breakers or blown fuses. Inspect the motor shaft for any obstructions. Remove the pump and basket, then look for and remove any debris in the shaft. Humming Motor: If the pump motor makes a humming sound when starting up, you likely have a clogged impeller. To remedy this, simply open up your pump, and clean out any rubbish. Damaged or inadequate wiring, resulting in a power drop, are likely to blame for your Hayward pool pump shutting off. Fixing this issue can be tricky, so we suggest you get the help of a certified professional. Holy smokes! Improper voltage wiring is the usual culprit for smoking pump motors. Check the motor diagram for the voltage wiring diagram. Another reason for a smoking pump is an incorrectly installed shaft seal, or blown capacitor. Loose wire connections or touching terminal connections cause sparking. Fix this problem simply by tightening or adjusting the wires and connections in the motor. Sparking can also come directly from a short in the windings of the motor. This usually means the motor needs to be replaced. A jammed impeller or blown capacitor can lead to a tripped breaker. Examine your pump's impeller for any obstructions, and replace the capacitor if necessary. In some instances, it could just be a bad breaker. If you suspect your breaker has broken, call a certified electrician to further diagnose the problem. A bad shaft seal or loose pipe is likely the cause of your leaky pump. Leaks can also come from loose drain plugs, or loose bolts on the seal plate, connecting the motor to the pump. If the water is running down between the pump and motor, determine if it's dripping out of the plumbing fitting on top or the shaft seal on the bottom. There can be multiple reasons for a pool pump not priming correctly. Initially, look into the pump/strainer housing. Flush out the housing to clear debris, then refill with water. Additionally, ensure all o-rings, valves, and gaskets are lubricated and situated in the right positions. Air leaks are another source of priming issues. Inspect the pipe/union connections on the suction side for loose connections or damaged pipes. Double check that connections are snug and fitted properly. If the problem continues after fixing the problems above, you may have a clog in the suction side of your pump. Contact a professional for further assistance. If your pool pump is not pumping water, check that all suction and return valves are open, and the pump lid is on tight, with the lid o-ring in place. Lubricating the lid o-ring regularly will help improve the seal. Check that the drain plugs are tightly inserted with Teflon tape, and that the pump basket is inserted in the proper way, and is sitting all the way down. Before you purchase a new Hayward pool pump, it's important to verify that the pump is the right size for your pool piping. Incorrect sizing can cause multiple problems, including low water flow. Additional causes for low water flow in your pump are debris build-up or dirty equipment. Inspect the following areas: Blocked strainer or suction line: If you suspect your strainer or suction line is blocked, contact a professional for assistance. Clogged impeller: Remove any debris from your impeller. If the impeller is damaged, replace it, and install a new seal assembly. Dirty pool filters: Clean out your pool filter if needed, and check that the valves are open all the way. If you have a sand or Diatomaceous Earth (D.E.) filter, backwash according to the manufacturer's instructions. Clogged baskets and canisters: Clean out your skimmer basket, pump basket and in-line leaf canister if they are clogged. If you see air bubbles coming from the return fittings on the pump, there may be an air leak on the suction side. Inspect and tighten the suction and discharge connections using Teflon tape. It's concerning to suddenly hear strange sounds coming from your Hayward pool pump. To determine the cause of your noisy pump, investigate the following reasons: Foreign object: If you hear a rattling coming from your pump, it's likely due to a foreign object. Open your pump and remove any rocks or debris. Incorrect positioning: An incorrectly stationed pool pump will rattle and vibrate when in use. Make sure the area underneath your pump is level, and secure the pump to the equipment pad. Years of use: Chemical build-up over time can cause seal damage, letting chlorinated water seep into the bearings and erode the lubrication. Replace all bearings together and check seal integrity. There's no need to feel overwhelmed if your Hayward pool pump isn't functioning correctly. This troubleshooting guide should give you all the tools and understanding you need to tackle any issue with your Hayward pool pump with confidence! Here you'll gain easy access to information regarding your favorite Hayward products including, quick reference guides, troubleshooting steps, and product support videos. You have come to the right place. WarrantyBe the coolest pool in town when you add this tech to your pool.ExploreRebate centerUp to \$1,000 in savings*. View rebates or check rebate status.ExploreHayward InsightsLearn about maintenance, innovation, pool safety & other insights from Hayward.ExploreToolsUtilize tools and downloads of mobile apps, calculators, digital books, guides and more.ExploreLiterature and ManualsComprehensive Hayward product manuals & literatureExploreEnergy GuideHayward Product Efficiency Energy LabelsExploreEfficiencyHayward SupportExpert support is just a click away. Connect with our team nowConnectFirmware UpdateKeep your Hayward Software up to date.Explore Page 1 AquaRite® Consumer Troubleshooting Guide CTSG-AQR159a Copyright 2016 Hayward Industries Inc. Safety Precautions Warning High Voltage Electrocutation Hazard Hazardous voltage can shock, burn, cause serious injury and or death. To reduce the risk of electrocution and or electric shock hazards: • Only qualified technicians should remove the dead front • Qualified technicians should: replace damaged wiring immediately • ... Table of Contents How AquaRite® Works & Chemistry Requirements Pg. 4-5 How To: Pg. 6-14 Change Metric to Standard & Change Default Reading Set TurboCell® Type & Reset Average Salt 9-10 Adjust Chlorine Output & Clean TurboCell 11-14 Troubleshooting: Pg. 15-28 1. AquaRite: How It Works • The AquaRite Salt Chlorine Generator is designed to convert 99% pure salt into chlorine gas (HOCl). • The conversion occurs in the Electrolytic Cell, also known as the TurboCell® (used throughout this guide). • Power is sent from the AquaRite Control Center to the TurboCell, when chlorine production is scheduled (based on time percentage). Page 5 AquaRite: Chemistry Requirements... AquaRite® How To:... How To: Switch from Metric to US Standard If the first reading (average salt) is displayed in decimal form instead of a number represented in thousands, then the unit has been set to 'Metric Mode'. Step 1 Step 2 3. 2. 0 To change the unit from Metric Mode to US Standard, start by Once showing the temperature in Celsius, move the switch up to pressing the 'Diagnostics'... Page 8 How To: Change the Default Display If the first reading represents a number followed by the letter 'P', then the default reading has been changed to express the 'Desired Output %'. Step 1 Step 2 AL-4 To change the default reading back to the average salt, start by When the unit reads 'AL-4'... How To: Set TurboCell Type Before operation, the AquaRite must be configured to the correct TurboCell installed. "t-15" is the factory default. If the incorrect cell is chosen the salt level will be inaccurate and the system will likely suspend chlorination as a result. Step 1 Step 2 t -15... Page 10 How to: Reset Average Salt Level The Average Salt level needs to be reset after initial start up, after a board replacement, following major pool chemistry adjustments, and when a cell is replaced. Step 1 Step 2 -3200 1600 To reset, move the switch to 'Off' and then back to 'Auto'. Wait Press Diagnostics button 5 times to display the Instant Salt level. How To: Adjust Chlorine Output The 'Desired Output %' dial, sets the level of cell operation in % of operating time, in 3 hour increments. Example: 50% (factory default) implies the cell is producing chlorine half the total pump/filter operating time; so the cell should produce chlorine for the first 90 minutes of 3 hours before repeating. Page 12 Even if a TurboCell appears clean, it may still equipment. It is highly recommended to use a require cleaning if salt accuracy is off AND/OR chlorine Hayward Cell Cleaning Stand as shown on the right production has diminished. (GLX-CELLSTAND) NOTE: ALWAYS WEAR PROPER EYE PROTECTION AND PROTECTIVE GLOVES. Page 13 How To: Clean the TurboCell (Cont.) The TurboCell draws amperage when power is applied, during chlorination. The amperage draw will be impaired when calcium and other debris exist within the cell's electrolytic grid; this in turn effects the salt reading and chlorination efficiency. Mix: 4 Parts H O / 1 Part Muriatic Acid Carefully Pour Solution into Cell... Page 14 How To: Clean the TurboCell (Cont.) The Inspect Cell LED, when flashing alone, indicates that the system is recommending the TurboCell should be inspected and cleaned (if necessary). The LED will flash alone every 500 operational hours as a reminder to inspect and/or clean the TurboCell. Thoroughly Rinse Cell &... AquaRite® Troubleshooting... 1. Check Salt & Inspect Cell: flashing or ON When these lights flash, the cell reports salt levels between 2400-2700ppm; this does not affect chlorine production. When these LEDs are ON solid, the cell reports 2300ppm or less and chlorine production is suspended. Test the Salt Level Inspect the TurboCell Step 1A... Page 17 1. Check Salt & Inspect Cell: flashing or ON (cont.) The AquaRite control center may be programmable to interact with different cell models ("t-15" is the factory default). Verify the TurboCell model (located on the label the wraps around the body) then compare it to what is programmed in the system. Correct Cell Programmed? Reset the Average Salt Level Step 1C... Page 18 908.355.7995 or email reset the average salt level (instructions on pg. 10). support via Hayward.com's support page. *NOTE: IF you suspect your turbo cell is still under warranty please contact a Warranty Service Center. To locate one, please visit: ... 2. High Salt: LED ON The High Salt LED will appear ON solid when the maximum allowable cell amperage has been reached. The AquaRite control center will shutdown all chlorine production until the problem is solved and the LED light clears. Test the Salt Level Correct Cell Programmed? Step 2A... Page 20 2. High Salt: LED ON (cont.) Although debris such as calcium typically cause low salt reading and not high ones, it is still recommended to clean out the cell. Conductive debris may cause an unwanted variance. Inspect TurboCell Reset the Average Salt Level Step 2C Step 2D Side A... Page 21 Replace solved. IF not please contact technical support directly the cell with the same model as it had prior and then by dialing: 908.355.7995 or email via Hayward.com's reset the average salt level (instructions on pg. Page 22 2. High Salt: LED ON (cont.) To calculate how much water will need to be removed from a pool, with too much salt, follow the formula provided below (Proportional Method): Step 2G Part 1 Part 1: Take the average depth of the pool in inches and multiply that by 3200. 3. No Flow: LED flashing or ON The "No Flow" LED indicates that the flow switch is not reporting consistent flow. When the pump initially turns on, this LED should flash for 10-60 seconds while the system verifies consistent flow. Pump Running &... Page 24 3. No Flow: LED flashing or ON (cont.) The flow switch only works in one orientation. An arrow (molded into the top of the flow switch) indicates the direction water should be flowing through the switch. Verify Flow Switch Orientation Unplug Connector &... Page 25 3. No Flow: LED flashing or ON (cont.) The flow switch wire carries the signal between the AquaRite and the flow switch. If damaged, the switch reports as an open circuit, which will suspend chlorination. Inspect Flow Switch Wire Inspect Filter & all Baskets Step 3E Step 3F IF the flow switch wire is damaged, the signal will be... Page 26 "No Flow" issue has been resolved. Please contact a technician Step 3G STOP: It seems the problem is likely related to the Flow Switch OR the system's internal hardware. Please contact tech service: (908) 355- 7995 OR please visit: ... OR follow the link included below. NEVER remove the dead front of a breaker panel, this should only be done by a licensed professional. IF unsure which breaker power the AquaRite system please contact a pool professional for further assistance: ... 5. LCD: Displaying "HOT" or "COLD" The LCD display will read "COLD" when the cell is reading water temps below 50° F. The LCD display will read "HOT" when the cell is reading water temps above 140 ° F. Inspect Cell Upstream Equipment Step 5A Step 5B... AquaRite® Additional Information... Salt Additional Chart: lbs. required for 3200ppm Pool Size - Gallons Current Salt Level 8,000 10,000 12,000 14,000 16,000 18,000 20,000 22,000 24,000 26,000 28,000 30,000 32,000 34,000 36,000 38,000 40,000 1013 1067 1000 1000 1200 1400 1600 1800 2000 2200 2400 2600... Chlorine Output & Salt Levels 1. With Firmware Revision 1.55 (5/8/2009) the cycle time (reversal of polarity) changed from 120 minutes (2 hrs) to 180 minutes (3 hrs). When you set the 'Desired Output %' dial on the main panel this sets the level of salt cell operation as a percent of the operating time of each cycle. Page 32 Chlorine Output & Salt Levels (cont.) 3. It is possible that the displayed salt level can be significantly different from the actual salt level (when measured through an independent test). This can happen as a result of a dirty cell or from a cell that is experiencing the aging process. Low salt readings should ALWAYS be followed by a cell cleaning first and then an actual meter measurement of the salt level in the water. Pairing Alexa with Hayward Omni ProductsiPad Clipboard Icon - OmniLogic Automation SystemiPad Definitions - OmniLogic Automation SystemiPad Heater Navigation - OmniLogic Automation SystemiPhone Favorites - OmniLogic Automation SystemiPad Creating a Favorite - OmniLogic Automation SystemiPad Create and Edit Favorites - OmniLogic Automation SystemiPad Create A Theme - OmniLogic Automation SystemOmniLogic - Home Screen and IconsOmniLogic - Home Screen and IconsOmniLogic - Display SettingsOmniLogic - Filter Pump SchedulesiPad Adjust a Variable Speed Pump - OmniLogic Automation SystemiPad Pump Schedule - OmniLogic Automation SystemiPad Navigate Lights - OmniLogic Automation SystemiPhone Heater Navigation - OmniLogic Automation SystemiPhone Lights Navigation - OmniLogic Automation SystemiPhone Pump Schedule - OmniLogic Automation SystemPool-Spa Dual ApplicationsPool-Spa Standard ApplicationsProgramming - Basic ConfigurationProgramming - Maintenance6-button Remote ConfigurationProgramming - DiagnosticsAquaRite and AquaRite Pro Installation and Start Up VideoHow to Clean Your Hayward Salt Chlorination TurboCellAquaRite Settings and Frequently Asked QuestionsHydroRite UVO: InstallationHydroRite UVO: Operation, Maintenance & TroubleshootingAquaRite and AquaRite Pro Installation and Start Up VideoHayward Salt & Swim InstallationSalt & Swim 3C and Salt & Swim 3C Pro Salt Chlorination Installation & StartupPairing Alexa with Hayward Omni ProductsHow To Install a Hayward EcoStar Variable-Speed PumpTriStar Pump Seal and Motor ReplacementMax-Flo VS Variable-speed Pump Programming and TroubleshootingSuper Pump VS Variable-speed Pump Programming and TroubleshootingUniversal TriStar VS Installation and Start-upTriStar VS Programming and OperationUniversal H Series and ASME Gas Heater Installation, Start-up and TroubleshootingVideoTigerShark and SharkVac XL Robotic Pool TroubleshootingHow to troubleshoot a Navigator and PoolVAC XL Automatic Pool Cleaner poolsideAqua Vac 500 Installation and Operation Video A SmartDrive Hayward navigator designed for all types of pool ground, and it is expensive to buy and to maintain or repair. When you have this navigator, it seems how much dedicated you are to keep your pool free from debris. But like all other navigators, it needs to troubleshoot as the maintenance cost is expensive so it would be great when you can do it alone. We will narrow down some key points so that you will come to know about Hayward navigator troubleshooting. Top 5 tips for Hayward navigator troubleshooting Normally Hayward navigator is a top-notch pool vacuum cleaner that performs approximately in every place of your pool. When you use it for a few seasons occasionally, it required to go through some troubleshooting. Luckily, you can do it alone. However, you need to know precisely how does the troubleshooting works. 1. Perfect hose length The hose size should be perfect neither long nor short so that the cleaner can reach everywhere. Normally, hose size is 20 to 40 feet long depending on the pool. Solution: You can not make it bigger when it comes to short in size. However, you can make it short when it comes to long. So be careful with the perfect measure and hence, you can bring tape and measure it properly then cut the extra and fix it back so don't need any expert hand. 2. Pipes knot or tangle The pipes sometimes get stuck and doesn't perform due to knot or tangle. Therefore, you won't be comfortable to move Hayward navigator everywhere in the pool. Sadly, it will be stuck in somewhere and doesn't move freely. Solution: When you can see any knot then remove the pipe from the cleaner and untie the knot carefully, make sure it won't worn-out. For avoid any tangle, choose a sunny day and keep the pipe under the sun. When it gets enough sunlight with a hit then the pipe will become soften and remove the stretch and become straight; therefore, it will be more fun to play with your Hayward navigator. Check similar zodiac troubleshoot solutions 3. Pressure cleaner moves slowly Pool cleaner pressure should be correct to pull out all the debris unless it fails to serve its purpose. It is a tricky part actually to get to know whether the pressure is low or not; at the same time, the pressure cleaners moves slowly or not. Solution: You need to go through leak detection. Normally, the low-pressure consequences when there is any leak in the pipe. Use pressure-testing fitting, and when you find the meter doesn't show the result 27psi, then something goes wrong with that. 4. Stopped spin out Do you ever go through such situation that one day the cleaner decides to spin out? Normally, this problem comes with the phantoms when it doesn't perform, and the defect is in the manifold. The spinout system run via the gearbox and you can find it inside the unit. The gearbox triggers the backup system for spinout. Solution: Most people are wondering whether they should replace the manifold or the gearbox? Before replace we will recommend you to check out the gearbox. When you can find the gearbox fail to operate, then remove the cover and make sure the red cam is moving. Again, ensure all the hoses are attached to the gearbox. 5. Unable to go top/bottom mode during auto mode While the Hayward goes to the auto mode, you will expect the cleaner will go to the top or bottom mode by default. Sadly, it fails to run automatically. Let's find the solution below: Solution: First of all, you should check out the top/bottom valve as it could be damaged or the debris causes obstacles from closing and sealing the ball. The problem may cause for several reasons, so the solution to it will come out differently. First of all, you should check out the top/bottom valve as it could be damaged or the debris causes obstacles from closing and sealing the ball. Secondly, the selector collar inside of the gearbox would be damaged or broken, so you need to replace the gearbox or manifold. Thirdly, check out the valve hose as it would be disconnected at the gearbox or manifold. Finally, the upper thrust of the jet hose which is located at the manifold could be disconnected, and in that case, you may need to contact the authorized dealer. Final thought: Most of the products of Hayward come with great quality and pre-programmed to move and collect the debris using the SmartDrive navigation system. It takes to clean a big pool for about four hours. However, after using it for many seasons, you can find some problems with it. Fortunately, you can solve it alone and unfortunately, you can't. The problem you can serve alone that is easy and relates to the basic maintenance, and the other issues need to solve by replacing many parts of it. Make sure you know all the Hayward navigator troubleshooting what we have described here and then try out these soft skills.