Continue

Join Date: Oct 2018 Location: USA Posts: 3 Upvotes: 0 Received 0 Upvotes on 0 Posts Replacing 4040 solenoid valve on humidifier Hi all New to the forums (and also a general DIY newbie, so please excuse my ignorance) and hoping for some help. Just found out my Lennox Healthy Climate bypass humidifier stopped working. Did some troubleshooting and googling and I think I have identified the solenoid valve as the culprit (the unit is just over 5 years old). I want to replace the valve myself. I've got the water lines all figured out. My question involves the wiring. Currently, there are two yellow wires coming from the valve which are connected to two brown wires (via wire nuts), one from the humidistat and one from the furnace. There doesn't appear to be any distinguishing marks or labels on the yellow wires. The replacement solenoid has two blue wires coming out of it. How do I know which blue wire to connect to which brown wire? Thanks in advance for your time and help! Welcome to the forums. Yeah..... those solenoids do occasionally fail although it's not very common.A more typical problem is that they allow water to piss thru when un-powered.Since we are dealing with AC here...... there is no polarity to the wires. Join Date: Oct 2018 Location: USA Posts: 3 Upvotes: 0 Received 0 Upvotes on 0 Posts Thanks very much. Got it wired up and its working again! Join Date: Oct 2018 Location: USA Posts: 3 Upvotes: 0 Received 0 Upvotes on 0 Posts Well unfortunately after a couple of days the new solenoid valve seems to have the problem that PJ Max refer to in that it's allowing water to pass through even when unpowered. Not sure if this new valve is defective or if I got the wrong one... have a quick question. The old valve has this line on the label- Ident:05/13. The new replacement valve has this - Ident: 37/13. What does that line refer to? And is the difference important? 05/13 = fifth week or February 2013 production.37/13 = thirty seventh week or September 2013 production.Several companies sell replacement solenoids for humidifiers. They are pretty much all the same thing. Some humidifiers use a reducing bushing in the line...... that is moved to the new valve. Share copy and redistribute the material in any medium or format for any purpose, even commercially. The licensor cannot revoke these freedoms as long as you follow the license terms. Attribution You must give appropriate credit , provide a link to the license, and indicate if changes were made . You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. ShareAlike If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original. No additional restrictions You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits. You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation . No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. Posted by Aprilaire on 9th Dec 2016 Below is the Aprilaire 4040 solenoid valve. Its a 24 volt electrically-operated valve that turns the water on and off to your humidifier. It does not regulate the volume or amount of water- that is done by a separate item called the orifice. Preinstalled inside of this valve, in this lesson section here, is a strainer screen. That is used to filter the water before it gets in the valve, and catch things like sand and dirt which might plug up the valve. Now, this valve needs to be replaced roughly even ten years, more often if it fails, stuck open or closed.Prior to performing any replacement, check the condition of all components, like the wires, tubes and lines looking for any discoloration, buildup, odd smells or other signs that something could be wrong. If you see something odd, STOP and call your licensed tech. After notifying him or her, turn off all power and water to your unit and follow any additional instructions your tech gives you. Replacement is easy. Heres how: Part 1 The first step is to locate the arrow found on the solenoid valve that is currently installed in your unit, write this down and remember that the arrow should be pointed towards the feed tube. When doing this, also note where the wires are connected. Your solenoid should look similar to the one below: The arrow has been circled in RED below: Step 2 Turn off the powerbefore performing any maintenance... Step 3 Shut off the water. You can do this by finding the saddle valve and turning it clockwise until it stops. Pictured below is a saddle valve. Step 4 Gather the following tools: 1/2" Wrench7/16" WrenchPhillips head screwdriver Once you have your tools, double check that the water is turned off and the electrical is disconnected. Now it's time to remove the solenoid valve. Step 5 First thing well do is loosen up the pipes. Step 6 Now well remove the mounting. This is done by unscrewing the two mounting screws. Step 7 With care unscrew the down-or take a photo-of which direction the arrow is pointing? Now it's time to begin Part 2: Installing the New Valve Its important that the arrow be pointing towards the feed tube. Thats the direction of the water flow. Step 1 Lets mount it to the unit first. Make sure to tighten up the screws. Step 2 Now were ready to connect the water lines. Heres the water inlet line. Make it hand-tight. And the feed tube. Make it hand-tight as well. Step 3 Now lets snug them up. Now the only thing remaining is to connect the electrical.If you encounter problems, please watch these other videos for assistance:Aprilaire Strainer ScreenAprilaire Feed Tube AssemblyWater LeakageAprilaire Orifice Basics All information above is owned by and created by Aprilaire. Climatedoctors is not responsible for the content or advise contained above. Join Date: Aug 2008 Location: Kansas Posts: 19 Upvotes: 0 Received 0 Upvotes on 0 Posts Clean or replace humidifier solenoid valve After purchasing our first home this summer we purchased a new evaporative pad for the General Aire 1042 humidifier that is installed on the return of the furnace. When the humidistat is turned up the solenoid clicks however no water passes through to the pad. The valve to this water line is open and water will flow to this solenoid however it will not go beyond this. Can a solenoid be cleaned, and if so how? Or must a new one be purchased? Or must a new one be purchased? Join Date: Sep 2001 Location: Rochester, Minnesota Posts: 16,983 Upvotes: 0 Received 0 Upvotes on 0 Posts Try cleaning it out. Turn off the water, and undo the water line from the valve... Remove the brass strainer body from the valve. Reverse the strainer with care from the fitting. Clean the parts and of the small orifice is plugged, unplug it with a small needle. Join Date: Aug 2008 Location: Kansas Posts: 19 Upvotes: 0 Received 0 Upvotes on 0 Posts I disassembled everything, cleaned the in line filter w/ vinegar and used a safety pin and vinegar to clean the solenoid valve assembly. After reassembling everything water still will not pass through. It will continue to make a single click when the humidistat is raised when the blower is operating. Any other suggestions would be appreciated. Thank you for trying to help thus far. Join Date: Sep 2001 Location: Rochester, Minnesota Posts: 16,983 Upvotes: 0 Received 0 Upvotes on 0 Posts Do you have a meter? Take a meter and check for voltage at the valve on call of humidity. It should read around 24 volts. If you got voltage, and know for a fact that the water does flow up to the valve, then guess time to replace the valve. Woman looking at an adjustable wrench in her hand Image Credit: STUDIO GRAND OUEST/iStock/Getty Images During the normal operation of an Aprilaire home humidifier, the unit opens a water valve, operated by a special electrical device, called a solenoid. When the unit needs water, it sends an electrical impulse to the solenoid, magnetizing a coil in the device. The magnet then pulls the valve back, magnetically, to allow the water to flow. If the solenoid fails, the water will not flow, providing too little moisture in the home. The solenoid is self-contained. It requires replacement to service and repair it. Unplug the humidifier unit, if possible. Turn off the breaker to the unit. Turn off the water supply to the unit. Disconnect the water line from the solenoid valve by turning the inlet and outlet compression nuts counterclockwise with the adjustable wrench. Slide the compression nuts away from the solenoid valve. Remove the inline strainer in the inlet and the orifice in the outlet of the solenoid valve. Disconnect the wire nuts on the wiring and remove the solenoid valve wires from the humidifier wires. Unscrew the mounting bolt from the solenoid valve with the Phillips head screwdriver and remove the valve. Position the new solenoid valve in the humidifier. Attach the mounting bolt to secure the valve in place. Rewire the valve to the humidifier, and replace the wire nuts on the wires. Insert the inline strainer into the inlet and the orifice into the outlet in the new solenoid valve. Reattach the inlet and outlet compression nuts. Turn the water supply on. Check for any leaks and readjust the compression nuts, as necessary. Wipe any water from the unit with a towel. Turn the breaker to the humidifier back on. Plug it in, if necessary. Turn the control dial on the humidifier to the "Off" setting. Turn the dial clockwise, slowly, until you hear the solenoid valve click open. Check for water to flow into the unit. Turn the dial back, slowly, until you hear the solenoid valve click off. Check for the water flow to cease. The unit is now ready for operation again. Adjustable wrenchPhillips head screwdriver Aprilaire recommends any wiring on your humidifier be done by a professional contractor. If you want to find out why your humidifier isn't working, one of the parts that you should check is the solenoid valve. If you need help with how to do it, you've landed on the right page. We've researched the proper way to test the solenoid valve to share with you!To test a humidifier solenoid valve, you need to:Turn on the furnace and humidistat.Attach a multimeter to the wires that connect the humidistat to the solenoid valve.Turn the humidistat on and off and check the register on the multimeter.If there's no problem with the humidistat, then the issue is with the solenoid valve.Keep reading for a more detailed guide on testing your solenoid valve. We'll also teach you how to repair and replace it. Lastly, we'll let you know what the ideal indoor humidity level is. Let's get to work!How do you test a solenoid on a humidifier?Can a humidifier be a household essential, especially during the colder months when the air gets too dry. It increases the moisture level in the air so that you'll be more comfortable. Low humidity can cause dry eyes, nose, skin, and hair. It also makes you more susceptible to colds and other respiratory issues.That's why it is important to turn your humidifier on so that you can enjoy optimal humidity levels inside your home and reap its benefits.Knowing how to troubleshoot your humidifier also helps a lot. You don't have to call an electrician right away if you know what to look out for and how to fix it. This way, you can have your humidifier back in good working condition in no time without having to pay labor fees.If the humidity level in your home is still low despite using a humidifier, you should go and check what's wrong with the device. The solenoid valve is one of its main components. It opens and closes as needed to maintain the ideal humidity level in the house. The solenoid valve opens to allow water from the reservoir to flow to the humidifier's evaporator system so that it can add moisture to the air. Otherwise, the valve has to stay shut when the desired humidity is already achieved so that no water can flow out of the reservoir.The humidistat controls whether the solenoid valve will open or close by sending a current to it. It detects the humidity level in the room and once it senses that it is below the ideal range, it tells the valve to open. Once the desired level is achieved, it'll direct the valve to close.If you suspect a faulty solenoid because you noticed that the water from the reservoir doesn't reach the main unit, here's what you can do to confirm. Don't worry, it's easy enough to do. All you need is a multimeter and a Phillips screwdriver to get the job done. It would also help to familiarize yourself with the different humidifier parts so go through them on your owner's manual or manufacturer's website.Check out this multimeter on Amazon.Testing The SolenoidFollow these steps to confirm if your solenoid valve is defective.First, program your thermostat to a lower temperature. This will in turn activate your furnace and humidistat.Attach the multimeter to the two wires that connect the humidistat to the solenoid valve.Manually turn off the humidistat.Check the register on the multimeter. There should be no voltage at this time since the humidistat is off.Turn on the humidistat and choose a high humidity level near 90%. This will activate the humidifier.Check the multimeter to see if the voltage. It should register around 24V. If there's no continuity, then the problem is with the humidistat.But if the multimeter reads 24V, check if water is flowing from the reservoir to the humidifier's evaporator system. If it's not, then you have a problem with your solenoid valve.Now that you've confirmed that the solenoid valve is the one acting up and not the humidistat, you can concentrate on troubleshooting this component.Repairing Your Solenoid ValveNow that you know the solenoid valve is the issue, here's what you need to do to have it fixed.You have to remove the solenoid valve from its position. Unscrew it with the use of a Phillips screwdriver. Set aside the screws and inspect the solenoid valve carefully.Look for any rusting, dirt, or debris that may be clogging the water flow. If anything is blocking the way, then water won't be able to pass through the valve to make it to the humidifier's evaporator system. Without water, the system won't have anything to work with since they need to spray water droplets on the air to increase the moisture or humidity level. Clean the interior of the solenoid valve.Once you've cleared the valve of any unwanted particles, put it back in place. This time, manually turn on the humidifier and check if the water will flow out of the reservoir. If it still doesn't work, you must replace your solenoid valve with a new one.How To Replace a Solenoid Valve It's a good thing that this component can be replaced. You can check your owner's manual for the specifications that you need and look for it in the market or order online. Make sure you buy a solenoid valve that's compatible with your humidifier so that it'll run smoothly.Now, here's what you need to do to replace a solenoid valve. Again, we recommend you check your owner's manual or manufacturer's website to familiarize yourself with the different parts of the humidifier so you'll know your way around.Tools and Materials Needednew solenoid valvePhillips screwdriveradjustable wrenchsmall bucket or plastic containerzipped bagFind this set of Phillips screwdrivers on Amazon.Procedure:For safety purposes, disconnect your humidifier or turn off the power source it pulls from.You also need to turn off the water supply line that brings water to your humidifier's reservoir.Locate the solenoid valve and expose the wires.Unscrew the compression nut to remove the distributor tube. Use your adjustable wrench for this.Drain excess water on your bucket or plastic container.Loosen the screws connecting the solenoid valve to the humidifier with the use of a Phillips screwdriver.Set aside the old valve. Put the old screws and unit in a zippered bag and dispose of them properly.Position the new solenoid valve in its proper place.Screw it in place.Reconnect the water supply line and distributor tube.Fasten the compression nut tightly.Connect the electrical wires to the new solenoid valve.Turn on the humidifier's water line. Check if there are any leaks. Tighten the connection to stop power back on.That's it! You know how to replace an old solenoid valve with a new one. Simple, isn't it? You don't have to spend extra bucks on the labor cost since you can do it yourself. Here's a video for a humidifier solenoid valve replacement for your reference.What is the healthiest humidity level for a home?This is a common question! Experts recommend that the indoor humidity level should only range from 30% to 50%. This means that your indoor air should only hold up to 50% moisture level. If it exceeds this level, you will encounter moisture issues at home and related health concerns.But it also isn't advisable for the air to get too dry. As mentioned earlier, it can make you uncomfortable and cause dryness and irritation to your skin and body. Wood furniture can also crack and get damaged when the humidity level is too low. As such, you need to program your humidistat to not allow moisture levels to drop below 30%.You can also get a hygrometer to monitor the humidity in your home. This is helpful, especially for those with allergies, asthma, and respiratory issues. This way, you can ensure that the humidity at home stays at a healthy level.Click this link to find this hygrometer on Amazon.Final ThoughtsKnowing how to test your humidifier solenoid will help you determine what's wrong with your humidifier right away. This will eliminate the guesswork on how to put it back in order and it's so easy to do, you can have it fixed all by yourself.Feel free to visit the following links for some related reading:How To Clean Humidifier Without Vinegar [Step By Step Guide]How To Tell If Humidifier Filter Is Bad [Telltale Signs] The Humidifier Solenoid Valve A Common Frustration J. Paige Freeland; Marketing Manager, General Filters, Inc. A common frustration among homeowners who installed and use a whole house humidifier in their HVAC system is a malfunctioning solenoid valve. A solenoid valve is a control unit that uses electricity to automate the opening and closing of an orifice in the valve body, allowing, preventing, or redirecting the flow of water, gas, or other medium. It is made up of three main parts: the solenoid body, the electromagnetically inductive coil, and internal components (stem, plunger, and spring). Solenoid valves are used in washing machines, dishwashers, ice makers, refrigerators, vending machines, sprinklers, and many other systems requiring water flow. As such, whole-house humidifiers utilize a solenoid valve to control the amount of water flowing to the humidifier; specifically, an electromagnetic two-way (with 2 ports; inlet and outlet) solenoid valve. Why do they fail? Can they be cleaned? Or do they need to be replaced? There are several reasons a solenoid valve may stop working properly. The most common reason solenoid valves fail is that dirt or other contaminants become lodged in the valve seat, preventing the solenoid from opening or closing properly. Solution: A simple cleaning may be all that is needed. 2.Improper voltages, electrical malfunction, or loss of power canalso cause: Improper opening or closing. Corrosion. Burnt-out coils. Freezing in the open, closed or partially-opened position it was last operating in. Solution: Check that the manufacturer-recommended voltage to the humidifier and valve are correct. Excessive fluid pressure differentials between the inlet and outlet sides of a valve can cause internal valve components to buzz or clack during operation. Solution: Check fluid pressure and make adjustments as necessary. A leaky valve usually means that the solenoid is stuck open or partially open. This can be caused by a number of issues, but inevitably creates leakage of liquid. Causes included degraded O-rings, a plunger valve that does not close completely, cracks in the plunger valve seat, or internal dirt particle build up. Solution: The solenoid valve needs to be replaced. Clean vs. replace When debris collects in the valve seat of the solenoid valve body, it can simply be cleaned and returned to the humidifier. Corrosion can be removed by soaking in vinegar and water. As with any mechanical apparatus, proper and proactive maintenance and care of a solenoid valve can extend product life and ensure predictable operation. On average, a solenoid valve should last between 1 and 3 years. Does water supply matter? It can, yes. Water with high sediment levels can clog a solenoid valve more quickly; however, installing a filter in the water supply line prior to the solenoid valve will reduce the number of particles reaching the valve. Where theres water, theres maintenance; whether you have a decorative fountain, a bathtub with jets, a faucet aerator, or a humidifier. Your humidifier provides a valuable service in providing healthier indoor air quality. Maintaining it will ensure it will do so for years to come. Page 2 The Humidifier Solenoid Valve A Common Frustration J. Paige Freeland; Marketing Manager, General Filters, Inc. A common frustration among homeowners who installed and use a whole house humidifier in their HVAC system is a malfunctioning solenoid valve. A solenoid valve is a control unit that uses electricity to automate the opening and closing of an orifice in the valve body, allowing, preventing, or redirecting the flow of water, gas, or other medium. It is made up of three main parts: the solenoid body, the electromagnetically inductive coil, and internal components (stem, plunger, and spring). Solenoid valves are used in washing machines, dishwashers, ice makers, refrigerators, vending machines, sprinklers, and many other systems requiring water flow. As such, whole-house humidifiers utilize a solenoid valve to control the amount of water flowing to the humidifier; specifically, an electromagnetic two-way (with 2 ports; inlet and outlet) solenoid valve. Why do they fail? Can they be cleaned? Or do they need to be replaced? There are several reasons a solenoid valve may stop working properly. The most common reason solenoid valves fail is that dirt or other contaminants become lodged in the valve seat, preventing the solenoid from opening or closing properly. Solution: A simple cleaning may be all that is needed. 2.Improper voltages, electrical malfunction, or loss of power canalso cause: Improper opening or closing. Corrosion. Burnt-out coils. Freezing in the open, closed or partially-opened position it was last operating in. Solution: Check that the manufacturer-recommended voltage to the humidifier and valve are correct. Excessive fluid pressure differentials between the inlet and outlet sides of a valve can cause internal valve components to buzz or clack during operation. Solution: Check fluid pressure and make adjustments as necessary. A leaky valve usually means that the solenoid is stuck open or partially open. This can be caused by a number of issues, but inevitably creates leakage of liquid. Causes included degraded O-rings, a plunger valve that does not close completely, cracks in the plunger valve seat, or internal dirt particle build up. Solution: The solenoid valve needs to be replaced. Clean vs. replace When debris collects in the valve seat of the solenoid valve body, it can simply be cleaned and returned to the humidifier. Corrosion can be removed by soaking in vinegar and water. As with any mechanical apparatus, proper and proactive maintenance and care of a solenoid valve can extend product life and ensure predictable operation. On average, a solenoid valve should last between 1 and 3 years. Does water supply matter? It can, yes. Water with high sediment levels can clog a solenoid valve more quickly; however, installing a filter in the water supply line prior to the solenoid valve will reduce the number of particles reaching the valve. Where theres water, theres maintenance; whether you have a decorative fountain, a bathtub with jets, a faucet aerator, or a humidifier. Your humidifier provides a valuable service in providing healthier indoor air quality. Maintaining it will ensure it will do so for years to come. Page 3 The Humidifier Solenoid Valve A Common Frustration J. Paige Freeland; Marketing Manager, General Filters, Inc. A common frustration among homeowners who installed and use a whole house humidifier in their HVAC system is a malfunctioning solenoid valve. A solenoid valve is a control unit that uses electricity to automate the opening and closing of an orifice in the valve body, allowing, preventing, or redirecting the flow of water, gas, or other medium. It is made up of three main parts: the solenoid body, the electromagnetically inductive coil, and internal components (stem, plunger, and spring). Solenoid valves are used in washing machines, dishwashers, ice makers, refrigerators, vending machines, sprinklers, and many other systems requiring water flow. As such, whole-house humidifiers utilize a solenoid valve to control the amount of water flowing to the humidifier; specifically, an electromagnetic two-way (with 2 ports; inlet and outlet) solenoid valve. Why do they fail? Can they be cleaned? Or do they need to be replaced? There are several reasons a solenoid valve may stop working properly. The most common reason solenoid valves fail is that dirt or other contaminants become lodged in the valve seat, preventing the solenoid from opening or closing properly. Solution: A simple cleaning may be all that is needed. 2.Improper voltages, electrical malfunction, or loss of power canalso cause: Improper opening or closing. Corrosion. Burnt-out coils. Freezing in the open, closed or partially-opened position it was last operating in. Solution: Check that the manufacturer-recommended voltage to the humidifier and valve are correct. Excessive fluid pressure differentials between the inlet and outlet sides of a valve can cause internal valve components to buzz or clack during operation. Solution: Check fluid pressure and make adjustments as necessary. A leaky valve usually means that the solenoid is stuck open or partially open. This can be caused by a number of issues, but inevitably creates leakage of liquid. Causes included degraded O-rings, a plunger valve that does not close completely, cracks in the plunger valve seat, or internal dirt particle build up. Solution: The solenoid valve needs to be replaced. Clean vs. replace When debris collects in the valve seat of the solenoid valve body, it can simply be cleaned and returned to the humidifier. Corrosion can be removed by soaking in vinegar and water. As with any mechanical apparatus, proper and proactive maintenance and care of a solenoid valve can extend product life and ensure predictable operation. On average, a solenoid valve should last between 1 and 3 years. Does water supply matter? It can, yes. Water with high sediment levels can clog a solenoid valve more quickly; however, installing a filter in the water supply line prior to the solenoid valve will reduce the number of particles reaching the valve. Where theres water, theres maintenance; whether you have a decorative fountain, a bathtub with jets, a faucet aerator, or a humidifier. Your humidifier provides a valuable service in providing healthier indoor air quality. Maintaining it will ensure it will do so for years to come. Page 4 The Humidifier Solenoid Valve A Common Frustration J. Paige Freeland; Marketing Manager, General Filters, Inc. A common frustration among homeowners who installed and use a whole house humidifier in their HVAC system is a malfunctioning solenoid valve. A solenoid valve is a control unit that uses electricity to automate the opening and closing of an orifice in the valve body, allowing, preventing, or redirecting the flow of water, gas, or other medium. It is made up of three main parts: the solenoid body, the electromagnetically inductive coil, and internal components (stem, plunger, and spring). Solenoid valves are used in washing machines, dishwashers, ice makers, refrigerators, vending machines, sprinklers, and many other systems requiring water flow. As such, whole-house humidifiers utilize a solenoid valve to control the amount of water flowing to the humidifier; specifically, an electromagnetic two-way (with 2 ports; inlet and outlet) solenoid valve. Why do they fail? Can they be cleaned? Or do they need to be replaced? There are several reasons a solenoid valve may stop working properly. The most common reason solenoid valves fail is that dirt or other contaminants become lodged in the valve seat, preventing the solenoid from opening or closing properly. Solution: A simple cleaning may be all that is needed. 2.Improper voltages, electrical malfunction, or loss of power canalso cause: Improper opening or closing. Corrosion. Burnt-out coils. Freezing in the open, closed or partially-opened position it was last operating in. Solution: Check that the manufacturer-recommended voltage to the humidifier and valve are correct. Excessive fluid pressure differentials between the inlet and outlet sides of a valve can cause internal valve components to buzz or clack during operation. Solution: Check fluid pressure and make adjustments as necessary. A leaky valve usually means that the solenoid is stuck open or partially open. This can be caused by a number of issues, but inevitably creates leakage of liquid. Causes included degraded O-rings, a plunger valve that does not close completely, cracks in the plunger valve seat, or internal dirt particle build up. Solution: The solenoid valve needs to be replaced. Clean vs. replace When debris collects in the valve seat of the solenoid valve body, it can simply be cleaned and returned to the humidifier. Corrosion can be removed by soaking in vinegar and water. As with any mechanical apparatus, proper and proactive maintenance and care of a solenoid valve can extend product life and ensure predictable operation. On average, a solenoid valve should last between 1 and 3 years. Does water supply matter? It can, yes. Water with high sediment levels can clog a solenoid valve more quickly; however, installing a filter in the water supply line prior to the solenoid valve will reduce the number of particles reaching the valve. Where theres water, theres maintenance; whether you have a decorative fountain, a bathtub with jets, a faucet aerator, or a humidifier. Your humidifier provides a valuable service in providing healthier indoor air quality. Maintaining it will ensure it will do so for years to come. Page 5 The Humidifier Solenoid Valve A Common Frustration J. Paige Freeland; Marketing Manager, General Filters, Inc. A common frustration among homeowners who installed and use a whole house humidifier in their HVAC system is a malfunctioning solenoid valve. A solenoid valve is a control unit that uses electricity to automate the opening and closing of an orifice in the valve body, allowing, preventing, or redirecting the flow of water, gas, or other medium. It is made up of three main parts: the solenoid body, the electromagnetically inductive coil, and internal components (stem, plunger, and spring). Solenoid valves are used in washing machines, dishwashers, ice makers, refrigerators, vending machines, sprinklers, and many other systems requiring water flow. As such, whole-house humidifiers utilize a solenoid valve to control the amount of water flowing to the humidifier; specifically, an electromagnetic two-way (with 2 ports; inlet and outlet) solenoid valve. Why do they fail? Can they be cleaned? Or do they need to be replaced? There are several reasons a solenoid valve may stop working properly. The most common reason solenoid valves fail is that dirt or other contaminants become lodged in the valve seat, preventing the solenoid from opening or closing properly. Solution: A simple cleaning may be all that is needed. 2.Improper voltages, electrical malfunction, or loss of power canalso cause: Improper opening or closing. Corrosion. Burnt-out coils. Freezing in the open, closed or partially-opened position it was last operating in. Solution: Check that the manufacturer-recommended voltage to the humidifier and valve are correct. Excessive fluid pressure differentials between the inlet and outlet sides of a valve can cause internal valve components to buzz or clack during operation. Solution: Check fluid pressure and make adjustments as necessary. A leaky valve usually means that the solenoid is stuck open or partially open. This can be caused by a number of issues, but inevitably creates leakage of liquid. Causes included degraded O-rings, a plunger valve that does not close completely, cracks in the plunger valve seat, or internal dirt particle build up. Solution: The solenoid valve needs to be replaced. Clean vs. replace When debris collects in the valve seat of the solenoid valve body, it can simply be cleaned and returned to the humidifier. Corrosion can be removed by soaking in vinegar and water. As with any mechanical apparatus, proper and proactive maintenance and care of a solenoid valve can extend product life and ensure predictable operation. On average, a solenoid valve should last between 1 and 3 years. Does water supply matter? It can, yes. Water with high sediment levels can clog a solenoid valve more quickly; however, installing a filter in the water supply line prior to the solenoid valve will reduce the number of particles reaching the valve. Where theres water, theres maintenance; whether you have a decorative fountain, a bathtub with jets, a faucet aerator, or a humidifier. Your humidifier provides a valuable service in providing healthier indoor air quality. Maintaining it will ensure it will do so for years to come. Page 6 The Humidifier Solenoid Valve A Common Frustration J. Paige Freeland; Marketing Manager, General Filters, Inc. A common frustration among homeowners who installed and use a whole house humidifier in their HVAC system is a malfunctioning solenoid valve. A solenoid valve is a control unit that uses electricity to automate the opening and closing of an orifice in the valve body, allowing, preventing, or redirecting the flow of water, gas, or other medium. It is made up of three main parts: the solenoid body, the electromagnetically inductive coil, and internal components (stem, plunger, and spring). Solenoid valves are used in washing machines, dishwashers, ice makers, refrigerators, vending machines, sprinklers, and many other systems requiring water flow. As such, whole-house humidifiers utilize a solenoid valve to control the amount of water flowing to the humidifier; specifically, an electromagnetic two-way (with 2 ports; inlet and outlet) solenoid valve. Why do they fail? Can they be cleaned? Or do they need to be replaced? There are several reasons a solenoid valve may stop working properly. The most common reason solenoid valves fail is that dirt or other contaminants become lodged in the valve seat, preventing the solenoid from opening or closing properly. Solution: A simple cleaning may be all that is needed. 2.Improper voltages, electrical malfunction, or loss of power canalso cause: Improper opening or closing. Corrosion. Burnt-out coils. Freezing in the open, closed or partially-opened position it was last operating in. Solution: Check that the manufacturer-recommended voltage to the humidifier and valve are correct. Excessive fluid pressure differentials between the inlet and outlet sides of a valve can cause internal valve components to buzz or clack during operation. Solution: Check fluid pressure and make adjustments as necessary. A leaky valve usually means that the solenoid is stuck open or partially open. This can be caused by a number of issues, but inevitably creates leakage of liquid. Causes included degraded O-rings, a plunger valve that does not close completely, cracks in the plunger valve seat, or internal dirt particle build up. Solution: The solenoid valve needs to be replaced. Clean vs. replace When debris collects in the valve seat of the solenoid valve body, it can simply be cleaned and returned to the humidifier. Corrosion can be removed by soaking in vinegar and water. As with any mechanical apparatus, proper and proactive maintenance and care of a solenoid valve can extend product life and ensure predictable operation. On average, a solenoid valve should last between 1 and 3 years. Does water supply matter? It can, yes. Water with high sediment levels can clog a solenoid valve more quickly; however, installing a filter in the water supply line prior to the solenoid valve will reduce the number of particles reaching the valve. Where theres water, theres maintenance; whether you have a decorative fountain, a bathtub with jets, a faucet aerator, or a humidifier. Your humidifier provides a valuable service in providing healthier indoor air quality. Maintaining it will ensure it will do so for years to come. Page 7 The Humidifier Solenoid Valve A Common Frustration J. Paige Freeland; Marketing Manager, General Filters, Inc. A common frustration among homeowners who installed and use a whole house humidifier in their HVAC system is a malfunctioning solenoid valve. A solenoid valve is a control unit that uses electricity to automate the opening and closing of an orifice in the valve body, allowing, preventing, or redirecting the flow of water, gas, or other medium. It is made up of three main parts: the solenoid body, the electromagnetically inductive coil, and internal components (stem, plunger, and spring). Solenoid valves are used in washing machines, dishwashers, ice makers, refrigerators, vending machines, sprinklers, and many other systems requiring water flow. As such, whole-house humidifiers utilize a solenoid valve to control the amount of water flowing to the humidifier; specifically, an electromagnetic two-way (with 2 ports; inlet and outlet) solenoid valve. Why do they fail? Can they be cleaned? Or do they need to be replaced? There are several reasons a solenoid valve may stop working properly. The most common reason solenoid valves fail is that dirt or other contaminants become lodged in the valve seat, preventing the solenoid from opening or closing properly. Solution: A simple cleaning may be all that is needed. 2.Improper voltages, electrical malfunction, or loss of power canalso cause: Improper opening or closing. Corrosion. Burnt-out coils. Freezing in the open, closed or partially-opened position it was last operating in. Solution: Check that the manufacturer-recommended voltage to the humidifier and valve are correct. Excessive fluid pressure differentials between the inlet and outlet sides of a valve can cause internal valve components to buzz or clack during operation. Solution: Check fluid pressure and make adjustments as necessary. A leaky valve usually means that the solenoid is stuck open or partially open. This can be caused by a number of issues, but inevitably creates leakage of liquid. Causes included degraded O-rings, a plunger valve that does not close completely, cracks in the plunger valve seat, or internal dirt particle build up. Solution: The solenoid valve needs to be replaced. Clean vs. replace When debris collects in the valve seat of the solenoid valve body, it can simply be cleaned and returned to the humidifier. Corrosion can be removed by soaking in vinegar and water. As with any mechanical apparatus, proper and proactive maintenance and care of a solenoid valve can extend product life and ensure predictable operation. On average, a solenoid valve should last between 1 and 3 years. Does water supply matter? It can, yes. Water with high sediment levels can clog a solenoid valve more quickly; however, installing a filter in the water supply line prior to the solenoid valve will reduce the number of particles reaching the valve. Where theres water, theres maintenance; whether you have a decorative fountain, a bathtub with jets, a faucet aerator, or a humidifier. Your humidifier provides a valuable service in providing healthier indoor air quality. Maintaining it will ensure it will do so for years to come. Page 8 The Humidifier Solenoid Valve A Common Frustration J. Paige Freeland; Marketing Manager, General Filters, Inc. A common frustration among homeowners who installed and use a whole house humidifier in their HVAC system is a malfunctioning solenoid valve. A solenoid valve is a control unit that uses electricity to automate the opening and closing of an orifice in the valve body, allowing, preventing, or redirecting the flow of water, gas, or other medium. It is made up of three main parts: the solenoid body, the electromagnetically inductive coil, and internal components (stem, plunger, and spring). Solenoid valves are used in washing machines, dishwashers, ice makers, refrigerators, vending machines, sprinklers, and many other systems requiring water flow. As such, whole-house humidifiers utilize a solenoid valve to control the amount of water flowing to the humidifier; specifically, an electromagnetic two-way (with 2 ports; inlet and outlet) solenoid valve. Why do they fail? Can they be cleaned? Or do they need to be replaced? There are several reasons a solenoid valve may stop working properly. The most common reason solenoid valves fail is that dirt or other contaminants become lodged in the valve seat, preventing the solenoid from opening or closing properly. Solution: A simple cleaning may be all that is needed. 2.Improper voltages, electrical malfunction, or loss of power canalso cause: Improper opening or closing. Corrosion. Burnt-out coils. Freezing in the open, closed or partially-opened position it was last operating in. Solution: Check that the manufacturer-recommended voltage to the humidifier and valve are correct. Excessive fluid pressure differentials between the inlet and outlet sides of a valve can cause internal valve components to buzz or clack during operation. Solution: Check fluid pressure and make adjustments as necessary. A leaky valve usually means that the solenoid is stuck open or partially open. This can be caused by a number of issues, but inevitably creates leakage of liquid. Causes included degraded O-rings, a plunger valve that does not close completely, cracks in the plunger valve seat, or internal dirt particle build up. Solution: The solenoid valve needs to be replaced. Clean vs. replace When debris collects in the valve seat of the solenoid valve body, it can simply be cleaned and returned to the humidifier. Corrosion can be removed by soaking in vinegar and water. As with any mechanical apparatus, proper and proactive maintenance and care of a solenoid valve can extend product life and ensure predictable operation. On average, a solenoid valve should last between 1 and 3 years. Does water supply matter? It can, yes. Water with high sediment levels can clog a solenoid valve more quickly; however, installing a filter in the water supply line prior to the solenoid valve will reduce the number of particles reaching the valve. Where theres water, theres maintenance; whether you have a decorative fountain, a bathtub with jets, a faucet aerator, or a humidifier. Your humidifier provides a valuable service in providing healthier indoor air quality. Maintaining it will ensure it will do so for years to come. Page 327 squirrel cage fans to change, the old ones were made from plastic which were 24 years old, they were crapped out to say the least, the design of the unit inside the guest rooms suck, you have to remove the blower motor to do the change out, the motors are held my clamps, easy to take off but a hell to put back on being the motor is about 1 1/2 inside the closet, takes me about an 1 1/2 to do the job, dame I hate changing them, I wish I could just PM a room as some of the other guys. How can financial brands set themselves apart through visual storytelling? Our experts explainhow.Learn MoreThe Motorsport Images Collections captures events from 1895 to todays most recentcoverage.Discover The CollectionCurated, compelling, and worth your time. Explore our latest gallery of EditorsPicks.Browse Editors' FavoritesHow can financial brands set themselves apart through visual storytelling? Our experts explainhow.Learn MoreThe Motorsport Images Collections captures events from 1895 to todays most recentcoverage.Discover The CollectionCurated, compelling, and worth your time. Explore our latest gallery of EditorsPicks.Browse Editors' FavoritesHow can financial brands set themselves apart through visual storytelling? Our experts explainhow.Learn MoreThe Motorsport Images Collections captures events from 1895 to todays most recentcoverage.Discover The CollectionCurated, compelling, and worth your time. Explore our latest gallery of EditorsPicks.Browse Editors' Favorites Join Date: Aug 2002 Posts: 219 Upvotes: 0 Received 0 Upvotes on 0 Posts Humidifier drain hose My system will be entering it's second heating season. The Honeywell humidifier is the gravity type, water flows thru pad and the excess water goes down a clear tubing to the drain. This tubing is nasty. It has crap built up in it and it looks like mold is growing too. Please tell me its normal? If not, what can I do to keep this from happening? I would like to replace, but if it will end up looking the same, then why bother? Join Date: Aug 2002 Location: Mountain Williams Missouri Posts: 17,505 Upvotes: 0 Received 1 Upvote on 1 Post HUMIDIFIER They have stuff that will clean that out of the pad and line.IF it dont, just get a new pad from your HVAC guy.There is a small tablet you can get to put in the humidifier and help keep it clean. But you do want to make sure that that all ED Join Date: Aug 2002 Posts: 219 Upvotes: 0 Received 0 Upvotes on 0 Posts I have the HVAC Co that installed come out twice a year (fall and spring) for maintenance. It is a real bargain, only $110 ($55 each). I just wanted to know that something could be done before I press the issue. I realize the pad will be extra $. Thanks! Join Date: Sep 2001 Location: Rochester, Minnesota Posts: 16,983 Upvotes: 0 Received 0 Upvotes on 0 Posts Buy a new pad at your Local Home Center store, and the hose just flush it with bleach and water.. If your Aprilaire humidifier is not functioning correctly, one potential issue could be a faulty solenoid valve. Replacing this valve is a relatively simple task that can be completed in a matter of minutes. In this comprehensive guide, we will provide step-by-step instructions on how to replace a solenoid valve on an Aprilaire humidifier.What is a Solenoid Valve?A solenoid valve is an electrically operated valve that controls the flow of water. In an Aprilaire humidifier, the solenoid valve opens and closes to regulate the water supply to the humidifier's evaporative pad.Tools and Materials RequiredBefore you begin, gather the following tools and materials:New Aprilaire solenoid valvePhillips head screwdriverAdjustable wrenchBucket or container for draining waterSafety PrecautionsBefore starting any work, ensure the humidifier is turned off and disconnected from the power source. Also, wear safety glasses and gloves for protection.Step-by-Step Instructions1. Drain the HumidifierOpen the drain valve at the bottom of the humidifier to drain any remaining water. Place a bucket or container under the drain valve to collect the water.2. Remove the Front CoverUse a Phillips head screwdriver to remove the screws holding the front cover in place. Carefully lift the front cover off the humidifier.3. Locate the Solenoid ValveThe solenoid valve is typically located on the side of the humidifiers water reservoir. It is a small, cylindrical device with two wires connected to it.4. Disconnect the WiresUse a flat head screwdriver to gently pry the wires off the solenoid valve. Note the orientation of the wires for reconnecting later.5. Unscrew the Solenoid ValveUse an adjustable wrench to carefully unscrew the solenoid valve from the water reservoir. Some water may leak out during this step, so have a towel or rag handy to wipe it up.6. Install the New Solenoid ValveScrew the new solenoid valve into the water reservoir by hand. Tighten it securely using the adjustable wrench.7. Reconnect the WiresConnect the wires to the solenoid valve terminals in the same orientation as they were removed earlier. Ensure the wires are securely connected.8. Reinstall the Front CoverPlace the front cover back on the humidifier and secure it with the screws you removed earlier.9. Test the HumidifierTurn the humidifier back on and monitor it for proper operation. The solenoid valve should open and close as needed to regulate the water supply.Additional TipsIf you are unsure about any step, refer to the Aprilaire humidifier user manual or contact a qualified HVAC technician.It is recommended to replace the solenoid valve every 3-5 years to ensure optimal performance of the humidifier.If you encounter any leaks after replacing the solenoid valve, check the connections and tighten them if necessary.TroubleshootingHumidifier is not producing enough moisture: Ensure the solenoid valve is open and the water supply is not restricted.Humidifier is leaking water: Check the connections around the solenoid valve and tighten them if necessary.Solenoid valve is making a buzzing noise: This could indicate a faulty valve. Replace the solenoid valve.ConclusionReplacing a solenoid valve on an Aprilaire humidifier is a straightforward task that can significantly improve the performance and efficiency of your humidifier. By following the steps outlined in this guide, you can easily complete this repair and ensure your humidifier functions optimally.FAQ1. How often should I replace the solenoid valve on my Aprilaire humidifier?It is recommended to replace the solenoid valve every 3-5 years to ensure optimal performance.2. What are the signs of a faulty solenoid valve?Signs of a faulty solenoid valve include insufficient moisture production, water leaks, and a buzzing noise.3. Can I replace the solenoid valve myself?Yes, replacing the solenoid valve is a relatively simple task that can be completed in a matter of minutes. However, if you are unsure about any step, it is best to consult a qualified HVAC technician. I show how to replace the solenoid on a whole house humidifier. The 4040 24 volt humidifier solenoid valve is compatible with a wide range of whole house humidifiers. Check the label on the old solenoid valve before purchasing a new solenoid valve for compatibility. Here is a link to this solenoid and a list of replacement part numbers out more home improvement tips on our weekly podcast solenoid on humidifier. Repair humidifier solenoid valve. How to change a solenoid on a humidifier.