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This step-by-step dryer heating element repair guide describes heating element replacement in an electric dryer. Because the heating element generates the dryer's heat, check it if the air in the dryer doesn't get warm. If the air isn't heating, you'll likely need to repair the dryer heating element. You can inspect the heating element for damage or breaks in the heating coil. If the heating element is damaged, replace it with the manufacturer-approved dryer heating element dryer part.Use these steps in this dryer heating element repair guide to replace the electric heating element in Kenmore, Whirlpool, Maytag, Amana, Roper, Crosley and Estate dryers with a lint screen housing located in the top cabinet panel. Replacing the heating element is a relatively straightforward DIY repair that can save you a trip to the repairman. The heating element is typically located in the back of the dryer, near the bottom. Once the wires are disconnected, use a socket wrench or Phillips head screwdriver to remove the screws or nuts holding the heating element in place. If your Kenmore Elite dryer isn’t heating up properly, a faulty heating element could be the culprit. Replacing the heating element is a relatively straightforward DIY repair that can save you a trip to the repairman. This guide will walk you through the process of how to remove heating element from Kenmore Elite dryer, providing clear instructions and helpful tips along the way. Safety First: Before You Begin Before you start, it’s crucial to prioritize safety. Always unplug the dryer from the electrical outlet to prevent electric shock. Additionally, wear safety glasses to protect your eyes from any potential debris. Tools You’ll Need To remove the heating element from your Kenmore Elite dryer, you’ll need the following tools: Phillips head screwdriver: This is essential for removing screws. Flat head screwdriver: This can be used to pry off panels and clips. Socket wrench: You may need this to remove certain screws or nuts. Needle-nose pliers: These are useful for gripping small parts. Work gloves: Protect your hands from sharp edges and potential burns. 1. Disconnect the Dryer: Unplug the dryer from the electrical outlet and turn off the power supply. 2. Remove the Dryer Drum: Locate the drum support brackets, usually located on the front or rear of the dryer. Use a Phillips head screwdriver to remove the screws holding the brackets in place. Once the brackets are removed, gently lift the drum out of the dryer. 3. Access the Heating Element: The heating element is typically located in the back of the dryer, near the bottom. Locate the access panel covering the heating element and remove it. You may need to use a flat head screwdriver to pry it off. 4. Disconnect the Wires: Carefully disconnect the wires connected to the heating element. Note the location of each wire so you can reconnect them correctly later. Use needle-nose pliers to gently pull the wire connectors off the terminals. 5. Remove the Heating Element: Once the wires are disconnected, use a socket wrench or Phillips head screwdriver to remove the screws or nuts holding the heating element in place. Gently pull the heating element out of the dryer. 6. Inspect the Heating Element: Carefully inspect the heating element for any signs of damage, such as cracks, burns, or corrosion. If the element is damaged, it needs to be replaced. 7. Install the New Heating Element: If you’re replacing the heating element, follow the same steps in reverse to install the new one. Ensure the wires are connected correctly and the heating element is securely fastened. 8. Reassemble the Dryer: Once the heating element is installed, reassemble the dryer in reverse order. Reinstall the drum, brackets, and access panel. Take Pictures: Before disconnecting any wires, take pictures of the wiring configuration. This will help you reconnect the wires correctly. Be Gentle: When removing the heating element, be gentle to avoid damaging the wires or the surrounding components. Replace the Screws: Ensure you use the original screws or equivalent replacements when reassembling the dryer. Test the Dryer: Once the dryer is reassembled, plug it back in and test it to ensure the heating element is working properly. By following these steps, you can confidently remove and replace the heating element in your Kenmore Elite dryer. This DIY repair can save you time and money, extending the life of your appliance and keeping your clothes dry and comfortable. Q: How do I know if my dryer’s heating element is faulty? A: If your dryer isn’t heating up properly, or you notice a burning smell, the heating element could be faulty. You can also visually inspect the element for signs of damage. Q: Can I use a generic heating element instead of an OEM one? A: While generic heating elements may be cheaper, they may not be as reliable or durable as OEM parts. It’s best to use an OEM heating element to ensure compatibility and longevity. Q: What should I do if I’m not comfortable removing the heating element myself? A: If you’re not comfortable working with electrical appliances, it’s best to contact a qualified appliance repair technician. They have the expertise and tools to safely and effectively repair your dryer. Q: How often should I replace the heating element in my dryer? A: The lifespan of a heating element can vary depending on usage and maintenance. However, it’s generally recommended to replace the heating element if it shows signs of damage or if your dryer is not heating properly. Q: Is it safe to use the dryer if the heating element is faulty? A: It’s not safe to use a dryer with a faulty heating element. A damaged heating element can overheat and pose a fire hazard. If you suspect the heating element is faulty, unplug the dryer immediately and contact a qualified technician. Your Kenmore electric dryer not heating might be due to a faulty heating element, a problem with the power supply, or damaged timer contacts, among other causes. Most likely, a blown fuse or an ignition system problem causes your Kenmore gas dryer not to heat. According to the American data analytics, software, and consumer intelligence company, J.D. Powers survey 2018, Kenmore is the best brand in the clothes dryers category. However, the dryer could still have a few issues after years of usage, just like other electrical equipment. While there are several causes for your Kenmore dryer not heating, rushing to get a new one is not always necessary because you can quickly solve the problem most of the time. How can I troubleshoot a Kenmore dryer that is not heating? You shouldn’t fret if this is the question you’re asking. I provide some Kenmore dryer troubleshooting tips in this article. I explain the causes and give solutions to your dryer’s power supply failure, blocked vents, burned-out heating element, or the dryer timer contacts not working. Ultimately, I will answer some of the most commonly asked questions about a Kenmore drier not heating. Kenmore electric dryers fall into elite and non-elite categories. Although they both perform the same task, the elite versions, which differ primarily in their superior materials and design, have extra features. Therefore, whether you have the standard Kenmore dryer or kenmore elite dryer, not heating, the causes and solutions are likely related. Below are some common causes of your Kenmore dryer failing to produce heat. The high-voltage Kenmore dryers need 220-240V to operate. A lower voltage wall outlet, damaged power cord, or tripped circuit breaker are three power-related problems that can prevent your Kenmore dryer from heating. How To Fix To check and fix a power issue with your Kenmore dryer, follow these steps: Check if the power cord has visible damage, such as threadbare wires or melted insulation. These damages can cause your dryer’s cable not to complete the circuit and, therefore, not heat. Check if one of the circuit breaker switches dedicated to the dryer has tripped. You will notice it is not in line with the other switches if it has. Flip the tripped switch back on. If none of the two problems above is the issue, test the wall power outlet to check if it sends 240 volts to the dryer. The motor will run if your dryer is connected to a 120V outlet, but the dryer won’t heat. Below is a video from the YouTube channel Jim Hilt with instructions on how to perform a voltage check: A dryer vent removes excess heat from the dryer to prevent overheating and possible fire accidents. The vent also removes excessive moisture and lint from the drying drum. Besides making the dryer fail to dry clothes, a blocked vent can cause overheating and blow the thermal fuse. Your Kenmore dryer has an indicator that blinks when the vent is clogged. However, if the indicator is not blinking, the dryer cycles leave clothes not dry, and the dryer seems not to get hot; usually, a clogged vent is the problem. You can also run your dryer on high heat and place your hand at the outside vent to see if you will feel hot air coming out. If not, the vent is clogged and needs cleaning. How To Fix Follow these instructions for clearing a clogged dryer vent: Cut off the power to the dryer and unplug it. Pull the dryer away from the wall and carefully disconnect the vent from the hood at the back of the drum. Insert a vent-cleaning brush into the tubing to loosen the lint and debris. Vacuum the vent to eliminate dirt that didn’t attach to the brush. Repeat steps 3 & 4 at the other end of the dryer vent outside the house. Reattach the clean vent to the hood and push the dryer back to its usual position. Plug the dryer cord and turn on the power, then do the hand test to see if the tube is venting as it should. Your dryer should send moisture out of the drum and heat up to dry your washing. The heating element in your Kenmore dryer warms the air before it is sent to the drum to dry your clothes. The heating element can blow out after consistent usage or following a short circuit. Your dryer won’t heat up in that case, and you will need to replace the element. How To Fix You can test and replace a Kenmore elite dryer heating element following these steps: Unfasten the mounting screws on the heating element with a quarter-inch nut driver and take the element away from the heater box. The element sits on the lower part of the casing that completes the burner duct or heater box. Check if the element sports breakage or burn signs. If you can’t tell by just looking, proceed to test the heating element for continuity. Take a multimeter and rotate the dial to the lowest ohm reading. Place one lead of the meter on one of the heating element terminals and the other lead on the other terminal. A 0-50 ohms meter reading indicates that the element has continuity. However, if no change happens on the multimeter display, the element is burnt, and you should replace it. Proceed with the replacement steps. Take the high-limit thermostat fitted into the old heating element and fix it on the new element. Fit the new element onto the lower heating box space where the old one was so that the mounting screws’ holes are aligned. Fasten the mounting screws. Reconnect the heating element wires ensuring each wire goes to the right place. Note that the wrong connections can damage the new element. Fit back the outer cover and thread the screws. Reconnect the dryer to the wall plug, turn on the power, and test if the dryer resumes heating. Your Kenmore Elite dryer timer controls the drying time according to the set cycle. The timer is in the control panel and set by turning the knob. A small motor at the rear of the control panel controls the dryer timer. During a drying cycle, the internal cams of the timer open and close contacts or switches to operate the dryer components. If the timer contacts malfunction, your dryer will either not start or not heat, and the timer won’t advance. How to Fix You can replace a Kenmore Elite dryer timer by following these steps: Turn off the power to the dryer and unplug the cord. Pull off the dryer timer knob from the control panel. Unthread the screws mounting the control panel rear cover and put it aside. Disconnect the timer wires. Be sure to note the position of each wire so you can reconnect them correctly later. Loosen the timer mounting screws and remove the timer. Fix the new timer where the old one was and tighten the mounting screws. Correctly reattach the timer connection wires. Fit the back panel and thread the screws. Reattach the timer knob at the front of the control panel. Reinstall power to the dryer and test if the timer starts moving and the dryer resumes heating. The cycle of a Kenmore gas dryer is shorter than that of an electric dryer because of how rapidly it heats up. Gas burns inside the gas dryer burner, rapidly converting to heat. Finding your clothing still damp after a cycle using your Kenmore gas dryer indicates it is not heating. Even if your garments aren’t wet, they might not be completely dry. Below are the two most common causes for your Kenmore gas dryer not heating and their solutions: The gas dryer can continue spinning if the thermal fuse hasn’t blown but it won’t heat. In some circumstances, the gas dryer won’t run at all. On the bottom left of your dryer, behind the back panel, next to the exhaust duct, is where you’ll find the thermal fuse. Lint clogging your exhaust ducts is the most likely reason for a blown thermal fuse. A blockage in the air ducts leads to overheating, and the thermal fuse shuts off the circuit to stop the dryer from causing a fire. Other factors that can cause the thermal fuse in a gas dryer to blow off include a clogged blower wheel, a broken Hi-Limit thermostat, or a tripped thermal cut-off. How To Fix Remove the two wires connected to the thermal fuse. Touch the probe leads of your multimeter to the terminals of the fuse where the wires were attached while set to measure resistance (Ω). The fuse is OK if your multimeter displays a reading close to zero ohms (0Ω). Reconnect the cables if this is the case. The fuse has blown if the multimeter indicates no current flowing or if it shows OL or 1. The YouTube channel Sears PartsDirect shows how to replace a Kenmore Gas Dryer Thermal Fuse below: Note: A dryer thermal fuse frequently blows if the exhaust vent is blocked. Therefore, you should check that the dryer vent is clear and unclogged before turning on the dryer after replacing a blown or tripped thermal fuse. The gas valve of the Kenmore gas dryer, which is two valves in one, ignites the gas and keeps it from escaping when it shouldn’t. If the circumstances are ideal for igniting the gas, the second valve opens and lets gas flow to the burner. Usually, an igniter lights the gas. The gas flows when the igniter is hot enough, which is determined by a flame or radiant sensor. As long as the gas burns correctly, it can continue to flow. To see if the ignition process works properly, you can look via a tiny observation port in the front panel of your gas dryer. How To Fix Here are the steps you can follow to fix this problem The gas valve coils are broken if the igniter glows briefly (approximately 2 minutes) and then goes out without lighting any flames. The flame or radiant sensor is not working if the igniter ignites and the flame doesn’t start for an extended period (greater than 5 minutes). While the above two are the most common reasons, I have covered the other causes in another article focusing on the Kenmore gas dryer not heating. I hope that by now, you have resolved your Kenmore Elite dryer troubleshooting issue should be resolved. If you have replaced your dryer’s power problem, timer contacts, heating element, and dryer vent blockage or the ignition system fixed, but the problem still lingers, maybe it’s time to call a professional The possible reasons for your Kenmore dryer not heating are: A blown thermal fuse. The dryer’s centrifugal switch is faulty. Failed gas valve solenoids. The igniter for the gas dryer is not working. A burned-out heating element. A defective timer. A malfunctioning cycling thermostat. The cost of repairing your Kenmore dryer will vary depending on what you need to fix. Depending on the model, a heating element might cost anywhere from $20 to $120. A new thermal fuse for a Kenmore HE2 dryer typically costs $50. The cost of labor ranges from $50 to $200 on average. The gas valve solenoids from Kenmore are about $11 for a pair. The igniter for the gas dryer ranges in price from $13 to $25. While the cycle thermostat is $7, and the Kenmore dryer timer is $85. Jake is a freelance writer from Pennsylvania who enjoys writing about science and sports. When he’s not writing for Temperature Master, he can be found watching the NFL or playing basketball with his friends. While it might seem intimidating, replacing a Kenmore Elite dryer heating element is a DIY project that can save you a significant amount of money. The heating element is a crucial component in your dryer, responsible for generating the heat necessary to dry your clothes. Ensure you have the necessary tools for the job, including a screwdriver, pliers, and a multimeter (optional). Are you facing a frustrating situation where your Kenmore Elite dryer is taking forever to dry your clothes? The culprit might be a faulty heating element. While it might seem intimidating, replacing a Kenmore Elite dryer heating element is a DIY project that can save you a significant amount of money. This comprehensive guide will walk you through the process, step by step, enabling you to tackle this repair with confidence. Understanding the Heating Element The heating element is a crucial component in your dryer, responsible for generating the heat necessary to dry your clothes. When it malfunctions, your dryer might not heat up at all, or it might take an unusually long time to dry your clothes. A faulty heating element can be caused by several factors, including: Burnout: Over time, the heating element can wear out and burn out due to repeated use. Clogging: Lint buildup on the heating element can restrict airflow and cause it to overheat, leading to damage. Electrical Issues: Damaged wiring or a faulty thermostat can also cause the heating element to malfunction. Safety First: Essential Precautions Before you embark on replacing the heating element, it’s crucial to prioritize safety. Disconnect Power: Always unplug the dryer from the power outlet to avoid electrical shock. Wear Protective Gear: Wear safety glasses to protect your eyes from any flying debris and work gloves to protect your hands. Use Proper Tools: Ensure you have the necessary tools for the job, including a screwdriver, pliers, and a multimeter (optional). Gathering Your Supplies Here’s a list of supplies you’ll need for the replacement: New Heating Element: Ensure you purchase the correct heating element compatible with your specific Kenmore Elite dryer model. You can find replacement parts online or at appliance repair stores. Screwdriver: A Phillips head screwdriver is typically needed to remove screws. Pliers: Pliers are useful for disconnecting wires and removing stubborn screws. Multimeter (optional): A multimeter can help test the old heating element and ensure the new one is functioning correctly. 1. Remove the Dryer Drum: Most Kenmore Elite dryers have a drum that can be easily removed. Consult your dryer’s manual for specific instructions on how to remove the drum. 2. Locate the Heating Element: Once the drum is removed, you’ll find the heating element located within the dryer’s cabinet. It’s usually a metal coil or a rectangular element with wires attached. 3. Disconnect the Wires: Carefully disconnect the wires connected to the heating element. Use pliers to gently pull the wires off the terminals. Take note of the wire colors and their corresponding terminals to ensure correct reconnection. Replacing the Heating Element 1. Remove the Old Element: Once the wires are disconnected, you can remove the old heating element. It might be held in place by screws or clips. Use a screwdriver or pliers to remove it. 2. Install the New Element: Carefully position the new heating element in the same location as the old one. Ensure it’s securely fastened in place using the original screws or clips. 3. Reconnect the Wires: Reconnect the wires to the new heating element, ensuring the colors match. Use pliers to securely tighten the wire connections. 1. Test the New Element (optional): If you have a multimeter, test the new heating element to ensure it’s functioning correctly. Consult your multimeter’s instructions for testing continuity. 2. Reassemble the Dryer: Carefully reassemble the dryer, following the reverse steps of disassembly. Ensure all parts are properly secured and the dryer drum is correctly installed. 3. Reconnect Power: Plug the dryer back into the power outlet. The Final Touch: Troubleshooting and Tips Check for Lint Buildup: After replacing the heating element, inspect the dryer’s lint trap and ductwork for any lint buildup. Regularly clean the lint trap and ductwork to prevent future heating element malfunctions. Test the Dryer: Run a test load of laundry to ensure the dryer is heating properly. Seek Professional Help: If you encounter any difficulties or feel uncomfortable performing the repair, seek professional assistance from a qualified appliance technician. Beyond the Repair: Maintaining Your Kenmore Elite Dryer Regular Cleaning: Regularly clean the lint trap, dryer vent, and interior of the dryer to prevent lint buildup and ensure efficient airflow. Proper Loading: Avoid overloading the dryer, as it can strain the heating element and cause overheating. Check the Thermostat: If the heating element is heating but the dryer is not drying properly, the thermostat might be faulty. Consult your dryer’s manual or a qualified technician for guidance on troubleshooting and replacing the thermostat. By following these steps, you can successfully replace the heating element in your Kenmore Elite dryer and restore its drying capabilities. Remember to prioritize safety, gather the necessary supplies, and follow the instructions carefully. With a little patience and effort, you can save money and extend the life of your dryer. Frequently Discussed Topics 1. How often should I replace the heating element in my Kenmore Elite dryer? The lifespan of a heating element varies depending on usage and maintenance. Generally, they can last for several years, but it’s a good idea to replace them if you notice signs of malfunction, such as slow drying times or no heat. 2. Can I use a generic heating element instead of a Kenmore Elite specific one? It’s crucial to use a heating element specifically designed for your Kenmore Elite dryer model. Using a generic element might not fit properly or function correctly, potentially causing damage to your dryer. 3. What should I do if my dryer is still not working after replacing the heating element? If the dryer still isn’t working properly after replacing the heating element, other components might be faulty, such as the thermostat, wiring, or control board. It’s recommended to seek professional assistance to diagnose and repair the issue. 4. How can I prevent future heating element malfunctions? Regularly cleaning the lint trap, dryer vent, and interior of the dryer is essential for preventing lint buildup, which can cause overheating and damage to the heating element. Avoid overloading the dryer and use the correct drying settings for your laundry load. 5. Is it safe to run the dryer without a heating element? No, it’s not safe to run the dryer without a heating element. The dryer will not be able to dry your clothes effectively, and attempting to run it without a heating element can cause damage to other components or create a fire hazard. The Kenmore Elite H3 is a modern, electronically controlled, front-loading dryer. The dryer uses electricity to heat up a heating coil. The dryer's fan blows air over the coils and distributes the heated air throughout the dryer to dry clothes. Over time, the heating element may burn out, resulting in a dryer that seems to function, but at the end of the timed drying cycle, the clothes are still wet. Replacing the heating coil is a relatively easy project that can be accomplished with just a few tools.Article continues below this adArticle continues below this ad How to Fix Kenmore Elite Electric Dryer Not Heating If your Kenmore Elite dryer runs but does not heat then there are a series of troubleshooting steps you can do yourself to repair your dryer. The problem could be a bad thermal fuse, a thermistor, or in my case, the electric heating element. In this article I cover all the disassembly steps and how to fix Kenmore Elite electric dryer not heating. This repair will also cover changing the drum belt, since you must remove the drum. Appliance Involved: Kenmore Elite Electric Dryer Model 110.606932990 (discontinued) Parts Required: Kenmore/Whirlpool 3387747 Element for Dryer Manual: Optional Parts: Tools Required: Repair Instructions Step 1a: Verify the proper voltage. One of my readers, Mike, who is a 30-year appliance repair veteran shared a step I initially missed, which could save you from unnecessarily replacing the heating element. Electric dryers are 220 Volts where normal US outlets are 110 Volts. They get the 220 volts by adding two legs of the 220 V service. If one of the legs are dead you could have power at the dryer, enough to turn the drum and run the electronics, but not the power necessary for the heating element. Here is his suggestion: You should always check for correct voltage supplied. 240 volt circuit has two 120 volt circuits sharing a common neutral. It is possible and quite likely for a circuit breaker or fuse for one leg of that circuit to fail while leaving the other leg live. That could leave the controls and motor circuit operating normally but depriving the 240 heating circuit dead. All components would test good but still no heat. Easiest way to test is to pull power cord plug out slightly to access male terminals with multimeter set for ac voltage. Should measure approximately 120 volts between each side post and center post and approximately 220 volts between two side posts. If you don’t have 220 volts then you need to look into the electrical wiring and circuit breaker at your house but I’m not going to cover that here. If you do have 220 V AC at your dryer then read on for how to troubleshoot your dryer. Step 1b: Unplug your dryer. We are working with an electric dryer so the first thing you are going to want to do is to unplug the dryer from the wall. When we open up this dryer you could be electrocuted if you do not unplug your dryer. Safety First: Unplug the dryer before working on it Alternatively, if you cannot get behind the dryer to unplug it, you can cut the power in the circuit breaker panel: Dryer 60-Amp Circuit in Breaker Panel If you use the circuit breaker panel to cut power to the dryer you should really test that the dryer will not come on before you proceed to make sure the label on the circuit breaker panel was correct (or that you switched the correct breaker off). Step 2: Remove the control panel bezel ends. There are snap-on plastic covers on each end of the control panel: We need to remove the caps on the end Grab the top edge and pull the top edge of the cap free End cap removed Repeat for the left end cap. Remove the other end cap as well Step 3: Remove the two control panel screws. There are two Phillips head screws on the left and right lower corners of the control panel: Control Panel Screw Locations The screws go in at an angle Step 4: Lift the control panel up and out of the way. Caution: If you didn’t unplug your dryer in step 1 then you must do it before proceeding–you will be exposing the high-amp wiring that powers the dryer. The control panel is hinged at the top back corners. Grab low on each side and swing the bottom out and rotate the panel up and over: Swing open the control panel Here is a picture of the control panel opened up: Here the control panel is opened up I was lucky that the tech manual was tucked under the control panel, which can really help in troubleshooting. Step 5: Remove the screws from the rear of the top cover. Unscrew the 3 hex head (and slotted for a flat-head screw driver) screws from the top of the back edge of the top cover. The screws are 1/4″ hex heads so if you have a screw bit driver, it will fit perfectly over them: Remove these 3 hex head screws Step 6: Remove the top panel. Caution: The edges of the sheet metal can be sharp. Slide the top a little more than an inch straight forward and then lift the top panel off. Slide the top straight toward the front Once you have slid the top out you can lift it off: Lifting off the top panel Set the top panel aside. I also cleaned the top while I had it off since a previous owner of the dryer had spilled laundry detergent up under the control panel. Step 7: Remove the lower front panel. There are two spring clips on the top of the lower panel in the following locations: Location of spring clips on lower front panel The instructions I read elsewhere said to just pry the top edge till it came loose but that just resulted in bending the top edge. I found an easier way–insert a thin flat screwdriver on the top of the clip and then gently lift the screwdriver up, which will release the lower panel: Releasing the front lower panel spring clips Here’s the top edge of the panel released: Here is what the clips look like released The bottom edge of the panel is sitting on two spring clips that thread into a slit on the bottom edge of the door: Lift the lower panel up and off the spring clips Set the lower panel aside. Step 8: Remove the lint screen. Remove your lint screen Set the lint screen aside. You need to remove the screen because soon we will remove lint duct that it inserts into. Step 9: Remove the door springs. There are two door springs that we will need to remove, one on each side: Door spring locations The easiest way to remove them is to unhook the bottom end from the dryer shell and then unhook the top end. Here’s what they look like Here are what the springs look like removed. Note: if you open the door, after removing the springs, the door will fall open as the springs support the door when it is being opened. Step 10: Remove the lint duct. The lint duct is held in place with two screws and a spring clip. The spring clip is on the bottom left and the screws are on either side as shown below: Lint duct spring clip and screw locations Remove the two screws and then take a flat head screw driver and slide the spring clip to the left and up and off the bottom edge of the dryer shell. Here I am removing the spring clip: Get the clip started with a screwdriver and then remove it Here is the lint duct removed. I cleaned it out before I put it back on because it was packed with lint: The lint duct removed. Step 11: Disconnect the drum lamp electrical connector. In the top front left corner there is a black single electrical connector, which can be seen in the picture below: Dryer drum lamp electrical connector To disconnect this connector simply grasp each end of the connector and pull the connector straight apart. A closer look at the connector: Pull the connector straight apart Here the connector is disconnected: Drum lamp electrical connector disconnected Step 12: Disconnect the door switch. Directly in front of the drum lamp connector there is a two wire switch with a white wire and a blue wire switch. Pull the connectors directly off the terminals as seen below: Door switch electrical connector removal Here the electrical connectors are disconnected: Door switch disconnected Step 13: Disconnect the moisture sensor wire. There is a yellow wire with a red strip on it on the lower right: Moisture Sensor Wire Location Pull the connector straight off as indicated below in the picture which is taken looking up from below: Pull the moisture sensor wire connector straight off Here the moisture connector is removed: Moisture sensor wire disconnected Step 14: Remove the 4 Front Door Panel Screws. First remove the bottom two screws. They are 1/4″ hex head. Here is the lower right screw: Lower right screw location The lower left screw: Lower left screw location Once you have removed the bottom two screws, remove the top two screws: Top two screw locations Step 15: Remove the front door panel. Caution: there are sharp edges on the sheet metal. Support the drum with one hand and carefully grab the top of the door panel. The door assembly is supporting the front end of the dryer drum but it can safely rest on the other internal components of the dryer. Lift it about a half-inch and then pull it straight off. Here is the door panel removed: Front door panel removed Set the door panel aside. Be careful because there are two rollers on the bottom. Step 16: Disconnect the drum belt tensioner. We need to remove the drum to access the parts we need to troubleshoot. To remove the drum we need to remove the belt from the tensioner. You can access the tensioner on the lower left side of the drum as indicated below: Access the drum belt tensioner here Use a flashlight to see back around the drum. Rotate the tensioner pulley up and to the left and slip the belt out from under the pulley: Release the tension from the pulley and slip off the belt Here the belt is disconnected from the tensioner: Here the belt is slipped off the tensioner Make sure the belt is not looped over the shaft of the motor so the belt will not “snag.” The motor shaft is at the lower center of the picture above. Once you have the tensioner disconnected, the belt around the drum should be loose like this: With the tensioner disconnected the belt will be loose Step 17: Remove the drum. Tip: I think this drum is exactly the same on the front end as it is the back end but you may want to mark which end went in first at this point, before you remove your drum. Mine had some rust on the back end which let me know which end was which. The easiest way to remove the drum is to put one hand into the drum, lift the drum slightly, and bring the drum straight out the front of the dryer. you may need to spread the sides slightly. Removing the drum Set the drum aside. You can set it on one of its end so it doesn’t roll around: Dryer drum resting on its end Step 18: Clean out the inside of your dryer. This dryer was extremely dirty inside, which is actually dangerous as all that lint could catch fire. You should definitely clean out ALL lint out of your dryer when you perform this repair. The dryer with the drum removed–it needs cleaning badly! Here’s a closer look at all that lint buildup I used a vacuum and cleaned it out. Step 19: Identify the components of the dryer heater assembly. We are now at a point where we can really get in there and determine the root cause of the dryer not heating. Because the dryer drum turns but the heat does not come on we are going to focus on the heater and the three main parts of that assembly: the thermal Cut-Off, High Limit Thermostat, and the Heating Element (all you can see is the connector in the picture below): Components of the Heater Assembly Here you can see the element and connector both These thermal switch, thermostat, and heating element are in series, and here is a snapshot of the schematic: Here’s the dryer schematic with the heater circuit highlighted Because each of these components are in series you can test them in place without disconnecting their electrical connectors. Because I’m in the habit of “isolating” components, I disconnected one leg of each component when I was testing it, but it is not necessary because there is nothing in parallel with each component. Step 20: Test the heating element. Set your multimeter to resistance (the horse shoe shaped symbol) and measure the resistance across the terminals of the heating element. The resistance should be between 7.8 and 11.8 ohms. When I tested mine, the multimeter read “OL” which indicates an open circuit, or infinite resistance. This means that at some point in the heating element circuit, between where the two leads on the multimeter are connected, there is a break in the wiring. THIS IS THE PROBLEM! I’m going to go on and test the thermal switch and hi-limit thermostat too, to verify they are good while I’m in here. Testing the heating element Step 21: Test the high limit thermostat. Keep your multimeter on the resistance setting and put one lead on each of the high limit thermostat and read the resistance across the thermostat. The resistance should be nearly zero because the component is a “normally closed” circuit. Mine read 0.3 ohms, which should be fine: Testing the high limit thermostat Step 22: Test the thermal cut-off switch. Move your multimeter leads down to the two terminals of the thermal cut-off switch, keeping the multimeter in the resistance setting, and measure the resistance across that switch: Testing the high limit thermal switch Technically the high limit thermal switch is a fuse, so it should be a normally closed short circuit as well and should be nearly a short circuit. Mine read 0.2 ohms, which is fine. Step 23: Troubleshooting summary. The way this heating circuit works is that all three of the components are in series. The thermal cut-off “blows” (i.e. opens the circuit) if the temperature gets above 350 degrees F, the high limit thermostat temporarily opens if the temperature reaches 250 degrees F and then closes again when the temperature drops below 250, to modulate temperature. Each of these two components decide whether the heating element gets voltage across it, which heats the elements. In my case, both the thermal cut-off and high limit thermostat are good, but the heating element is an open circuit, meaning the metal element wires have worn out and broken. The heater assembly needs to be replaced. Bonus: Thermal Fuse and Thermistor Testing I wanted to poke around a bit more while I was in this dryer to point out the components for readers. Two other components that are easy to access, that could keep the drum from turning and the fan from blowing, are the thermal fuse and thermistor. They are on the blower housing: The thermal fuse and thermistor are on the blower housing I removed one of the wires from the thermal fuse and checked the resistance. It read nearly a short circuit, which is about what it should be: Testing the resistance of the thermal fuse The thermistor read around 11k ohms: Testing the thermistor I looked up the thermistor in the troubleshooting manual and 11K is right around what it should read at room temperature: Thermistor Resistance Values Versus Temperature Now back to the repair–replacing the heater assembly… Step 24: Remove the heater assembly. Remove the single screw and lift the heater shield out of the slot which its lower tab is tucked into: Remove the single screw from the heater shield Here is what the heater element looks like from the end, with the heater shield removed: End view of the heater element Disconnect both electrical connectors from the heater element. They are on there pretty tight and I had to use a needle nose pliers to get them off. Grip the connector in the location indicated below and never pull on the wires when removing electrical connectors: Remove the two electrical connectors from the heating element Remove the single heating element bracket screw: Here’s the single heating assembly screw Removing the heating assembly screw The heating element assembly slides straight into the heater box on two rails, one on each side. Mine fit rather tight. To remove it I first pulled on the ceramic body where the electrical connectors are mounted (with my fingers) to get the heating assembly pulled out about an inch and then I clamped a pliers on the side and pulled on the gripped pliers (close to the end) and pulled it straight out the rest of the way: Pulling out the heater assembly Here it is pulled all the way out: Heater Element Assembly pulled all the way out Step 25: Find the open circuit (optional). Because I’m curious I want to really understand how things work and why they don’t. I wanted to find the open circuit on my heating element so I could verify I was replacing the correct component. I knew it was bad because of my multimeter readings which could not be wrong, reading an open circuit, but I wanted to see the break for myself. FYI: you cannot solder a heating element because it gets so hot that the solder would just melt. I quickly was able to visually locate the element break: Here’s the problem–the element is broken Step 26: Install the new heater assembly. I would not touch the spiral heating element with your bare hands as the oil from your skin can cause the element to prematurely fail when it heats up. Below is a picture of the new part. Unwrap the bubble wrap from the electrical connector end: Here is the new heater element It’s not a bad idea to verify that the new part is the same size as the old part before you move on. Mine checked out: Verify you have the right new part Slide the new heater into the two slots on the side: Heater box slots for heater element assembly Slide the heater assembly straight in The assembly gets pushed in until the ceramic electrical connector hits the heater box. Watch the hole where the mounting screw goes to align the hole on the heating assembly rail with the hole on the heater box as seen below: Push the heater assembly in until the mounting holes line up Install the single mounting screw: Reinstall the single mounting screw Reconnect the wires. I have a hard time believing that it matters which one goes on which terminal but the red wire with the white strip was connected to the top connector and the solid red wire was connected to the bottom connector on mine, so that is how I reconnected it: Reconnect the wires to the heating element Here’s the new heater element installed: Here’s the new heater element installed Step 27: Reinstall the heater shield. Tuck the tab in the slot: Insert the heater shield lower tab into the slot Then reinstall the single screw: Reinstall the single heater shield screw Step 28: Verifying the new heater element. This is optional. For fun I wanted to verify the resistance of the new element: The new heater element checks out at 9.9 ohms The new element measures a resistance of 9.9 ohms, which is almost exactly in the middle of the 7.8-11.8 ohms range–we are good to go! Step 29: Put the drum back into the dryer. I took the belt and put it around the drum to aid my lifting of the back edge of the drum (and because you cannot be holding the back edge when you insert it). Put one hand in the front opening of the drum and support the back end of the drum with the belt as seen below: Hold the front edge with your hand and lift the back with the belt Feed the drum into the housing via the front of the dryer and guide it on the round ledge on the back of the housing, which the drum glides on: The drum reinserted into the dryer housing If not supported on the front edge, the drum will come off the back lip where it rests. I actually used a quick grip with limited success, to help support the front edge while I was moving on to the next step: The quick grip lower jaw is used to adjust the height Make sure the back of the drum is seated on the back of the dryer as seen in the two images below: The outside seam The inside seam Step 30: Reinstall the drum belt. First position the belt in the correct location on the drum. You should be able to see where the belt was wearing. Place the belt with the grooves toward the drum in the location shown here It’s a bit tricky to put the belt back on as it is difficult to see what you are doing while you are doing it as you reach back to work with the belt. Access the belt from below and left of the drum: Access the belt here Loop the belt around the motor shaft, with the ribbed side towards the motor shaft and bring both ends of the belt together as seen below: Loop the belt over the shaft of the motor like this Keeping the two ends of the belt together push them down and to the right, making the belt tight and removing any slack from on side of the belt. Bring the belt tensioner pulley up and slip the belt under it. This is what you should have: Belt tensioner reinstalled Step 31: Reinstall the door assembly. Put the door assembly back in place. This involves positioning the drum on the lip of the door assembly and the corners of the door assembly back up on the lips on top of the dryer sides as indicated below: Putting the door assembly back in place Slip the door assembly on the drum and put the corners of the door assembly up on the top edges of the sides as seen below. Reinstall the screws in the top two corners of the door assembly: Seat the drum on the door assembly You may need to lift up the bottom of the drum and push in the door assembly so the rollers slip under the lip of the drum as seen below: The roller runs along the felt trim that slips over the edge of the drum end With the lower end of the door pushed into place you can install the lower two front screws. Here’s the right one: Reinstalling the lower right front screw Reinstalling the left lower front screw Step 32: Reinstall the lint duct. Reinstall the moisture sensor wire connector (the yellow wire with red stripe). It goes on this terminal: Reinstall the moisture sensor wiring connector Here it is reconnected: The moisture sensor connector reinstalled Now slip the lint duct up on the lint trap frame and reinstall the two screws: Slip the lint duct up on the lint trap frame and reinstall the two screws Reinstall the spring clip on the bottom. Spread the spring open with a flat-head screwdriver and push it down on the lip of the dryer frame as seen below: Open up the clip with a screwdriver and push down on the lip Once it is down on the lip you can slide it to the right into place to help hold the lint duct in place: Slide the clip to the right to properly hold the lint duct up against the fan housing Step 33: Reinstall the door springs. Here are the lower holes where the door springs hook into: Door Spring lower hook locations First hook the lower end of the spring on the bottom hole (insert from the front). Lower end of the spring hooked on the frame Then hook the top end straight above. Here is the right side top end hooked: Top end of the right door spring And the left side: Top end of the left door spring Door springs reinstalled Now that you have the door springs installed, reinstall the lint trap: Reinstall the lint trap Step 34: Reconnect the dryer light wiring. In the front top left corner of the dryer there are three wires that need reconnected. First the dryer light connector, two black wires, must be reconnected: Drum Light Wire Reconnected Secondly, reconnect the two wires to the door light switch. The white wire goes on the left terminal and the blue wire goes on the right terminal: Door Lamp Switch Reconnected Step 35: Test your dryer (optional). At this point, before I got the dryer buttoned up any further, I wanted to make sure it was running correctly. To test it out I had to do the following: Reconnect dryer exhaust line (not critical but I didn’t want to blow any dust around the house). Carefully flip down the control panel so you can turn it on (and to cover the place where the main power comes into the dryer). Reconnect the dryer to power. I wanted to see that the drum was spinning smoothly and that the heater element glowed. Here is a short video I shot demonstrating the dryer at this point: Step 36: Unplug your dryer. Important: If you plugged it in to test it out then you should unplug it before completing the re-assembly. Step 37: Install the lower front panel. There are two slits on the bottom edge (red squares) that sit down on the two spring clips (red ovals) on the bottom front edge of the dryer: Slip the lower front cover on the spring clips Here the panel is sitting down on the springs: The lower panel seated on the springs Once you have the panel slipped on the springs you can rotate the top edge of the panel toward the dryer and push it shut and the top springs will snap the top into place: Push the top edge of the door in to latch in place The panel replaced: The panel replaced Step 38: Reinstall the top panel. If you had lowered the control panel to test the dryer, flip it back up and out of the way. The top panel is held in place by three tabs on the back and two catches toward the front on the underneath side of the panel. Lay the top on the dryer in the position shown below: Lay the top flat on the dryer like this and sl