

Never service any equipment where the power hasn't first been disconnected. Some electrical parts such as capacitors can still hold dangerous electric current even after the power has been disconnected.

If you suspect that gas may be leaking from your system, get out of your home, shut off the main source of gas, and call your local gas company immediately.

If you live in our service area you can call and we'll send trained technician to professionally service and repair your HVAC system.

When your furnace isn't keeping you warm, start here before doing anything else:

1. **Filters:** Make sure all filters have been replaced recently and are clean and free-flowing.
2. **Thermostat:** Make sure the thermostat is set to heat and the temperature is set a few degrees above the current indoor temperature. Note that if you recently had your thermostat in cool mode, you might have to wait up to 5-10 minutes to allow the system to switch over. Many thermostats have built-in delays.
3. **Gas/Heating Oil:** Check to see that there is oil in the tank or the gas has not been shut off. While it might seem obvious, you might save some money by checking this first.
4. **Condensate Pan/Drain:** If you have a "split system" high efficiency (90% furnace) or and you know where your indoor unit is located, check the drain pan and drain line to be sure the condensate is draining properly, and remove any clogs. 90% furnaces create condensation and a clogged drain will cause your system's safety mechanism to trip and stop operation of system in order to prevent water damage to your home.

If doing one of these things fixed your problem, continue to monitor your system and make sure it's operating properly. This might be a good time to make a non-emergency call to get a tune-up or inspection on your system if it has been more than six months to a year since you had professional maintenance on it. If you live in our service area you can call and we'll send trained technician to professionally service and repair your HVAC system.

Still No Heat? Try this.

If you have your furnace's homeowner's manual, it will often have troubleshooting tips that are specific to your furnace. Follow those instructions first. If that doesn't work, continue troubleshooting below.

1. **Look for Blinking Lights.** There is often an LED light that can be seen from outside the furnace. This light will usually blink in a sequence to provide status or fault codes for your furnace. You will have to consult your manual or the inside cover of the furnace for details on what the blinking light means. If you aren't able to learn anything from the blinking status light(s), try step 2 below.
2. **Reset the Power.** By code, there should be a power disconnect within a few feet of your furnace and it is often labeled. It is common for this to be a light switch. Flip this off and wait about 20 seconds and then turn it back on. You should hear a few clicks and the blower starting up. The blower comes on to "purge" any heat that might still be inside

your furnace. After that it will go through the startup sequence and attempt to fire the furnace. If you wait a minute or so and you don't hear anything happening, proceed to step 3. If the furnace starts normally, keep an eye on it for a few minutes. It might shut back off. No matter what happens, you probably need service but you might be able to get a little heat first.

3. **Remove the cover.** At this point, you're advised to call for service, even if you find the issue, you are going to need parts and the sooner a professional diagnoses the problem, the quicker they can get your furnace back up and running.

That Wasn't the Problem Either? More Furnace Troubleshooting Is Below.

To troubleshoot other specific symptoms affecting your HVAC furnace system, find your symptom in the chart, then click on each of the possible causes you're interested in learning more about:

Symptom	Possible Cause
Thermostat Blank	<ul style="list-style-type: none">• Circuit breaker tripped• Condensate drain clogged• Thermostat battery dead• Wiring issue
Blowing Cool Air	<ul style="list-style-type: none">• Furnace not starting
No Air Moving	<ul style="list-style-type: none">• Worn or thrown belt (older systems)• Bad blower motor
Water Leaking from AC	<ul style="list-style-type: none">• Cracked pipe• Bad condensate drain pump• Condensate drain clogged
Furnace Making Noise	<ul style="list-style-type: none">• Bad fan blower motor• Bad fan bearings• Loose or slipping fan belt (older systems)• Broken fan shroud• Broken or unbalanced fan blades• Bad inducer motor or bearings
Furnace Won't Turn Off	<ul style="list-style-type: none">• Bad thermostat• Wiring problem or short
Electrical or Rubber Smell in Vents	<ul style="list-style-type: none">• Bad blower motor• Bad blower capacitor

- Bad blower bearings
- Wiring problem or short

- **Condensate drain pan and drain line troubleshooting:**

- If you have a split system your indoor unit produces condensation when the hot air from your furnace cools. This condensation is designed to drain outside your house through a plastic PVC drain line. If this line becomes clogged, it will overflow from the unit and into the drain pan. Once the drain pan fills up, a safety cutoff switch will kill the power to the unit to prevent the condensation from causing water damage in your home.
- Your indoor unit may be located in the basement, attic, or a closet. Once you find the unit, check the drain pan for water. If it's full, you've found your problem.
- The drain line(s) will need to be cleaned out. Professionals may do this with a combination of compressed air and/or a pipe snake or other specialized tools. If you aren't able to get the water drained out by yourself, call us at 800-246-3516
- The drain line is one of the many air conditioner parts cleaned and serviced as part of our service maintenance program, which usually prevents issues like this from occurring.

- **Circuit breaker tripped:**

- Circuit breakers are designed to protect your HVAC equipment from damage and your house from a fire if an electrical problem develops. That being said, it is possible that resetting a circuit breaker will get your system working again, at least for a little while.
- How to do it: Locate your electrical panel.
- Open the panel and look for breakers that are tripped. Some circuit breakers show a red indicator if they are tripped, others might just be flipped to off or partially off. Your breakers should be labeled, so look for ones related to the HVAC system.
- To reset a breaker, turn it all the way off and then back to on. If it trips back right away, leave it off. That means it is doing its job of protecting your home, because there is an electrical short somewhere that otherwise might have caused a fire.
- Either way, if the breaker being tripped was the issue, you should call Duffy Energy– There is a good chance that whatever made the system trip will happen again.

- **Thermostat battery dead:**

- If the problem is a dead battery in your thermostat, the fix can be quick and cheap – But don't get your hopes up too high quite yet, because these days most thermostats don't have batteries.
- They are most often powered by the main equipment. If you have a modern WiFi type thermostat it most likely doesn't have batteries. You can check, however. There are too many types to provide instructions, but you can either get your

make and model number and Google whether it has batteries and how to replace them or look for yourself. If you want to check for yourself, look carefully at your thermostat. Normally you can open up the lower panel or unclip it from the wall. Once you get it open or unclipped from the wall look for a battery door. Open the battery door and replace the batteries. Hopefully you're back in business! If not, call 800-246-3516 and we'll be happy to help.

- **Cracked Drain Pipe:**

- You may certainly be able to repair a cracked drain pipe yourself. We would recommend that since you are having problems with your HVAC system, it's probably best to have a licensed technician check out the system and make sure there's no other underlying problems before fixing the drain pipe.

- **Bad Condensate Drain Pump:**

- Locate your indoor unit and look in the drain pan (that's the thing under the unit that catches water) for a condensate drain pump. When the system can't drain directly by gravity due to installation constraints, the installer or contractor may have used a pump to remove the condensate from your system. These are self-contained pumps that come on automatically, as a sump pump does, to get the water out.
- Condensate drain pumps are often plugged into an outlet rather than being hard-wired into the electrical system. Test your outlet to make sure there is power. If the outlet is bad, the pump of course won't work, and you'll need to get a licensed electrician (or an HVAC tech) to replace that outlet.
- If the outlet isn't the problem (you can also use an extension cord to test the pump with a different power source), then your pump could be bad. Call 800-246-3516 if you need help.

- **Bad Fan Blower Motor:**

- If this is the problem, we recommend you call 800-246-3516 check your system and repair or replace the fan blower motor.

- **Bad Fan Motor Bearings:**

- If this is the problem, you might hear a screeching or grinding sound like metal on metal, perhaps in a rhythmic, oscillating way. Call 800-246-3516 to check your system and repair or replace the fan blower motor.

- **Broken or Loose Blower Wheel or Blower Housing:**

- On a typical split system, the blower will be located in the inside portion of the split system. These are usually found in the attic, crawlspace or a closet in your house.
- When you find your furnace/air-handler if you hear grinding, banging, humming, or smell any kind of burning or electrical issue you probably have something wrong.
- If you need any help, call 800-246-3516 or another licensed HVAC company.

- **Bad Thermostat:**
 - Diagnosing whether the thermostat or wiring is the issue can be tricky. If you are sure you have a bad thermostat, you can attempt to replace it yourself. Be advised that different equipment requires different setups, especially with smart thermostats. It's often not as simple as just connecting the right wires and mounting the thermostat on the wall. Read the documentation that came with the thermostat, and watch available online tutorials.
 - *Note:* You should ALWAYS turn off power to the indoor unit before removing or installing thermostat. Otherwise, you may damage thermostat or indoor transformer. If you have any problems call 800-246-3516.

- **Wiring Problem or Short:**
 - Diagnosing wiring problems can be one of the most difficult issues to troubleshoot. Intermittent faults such as shorts or poor continuity can appear to work properly when testing and then exhibit strange issues. The new modern systems and thermostats are more sensitive to wiring issues.
 - For either thermostat wires or other electrical issues affecting your comfort systems, we recommend calling 800-246-3516.