

UNDER THE HOOD:

Demystifying How Your Vehicle Works

Warming Up to Your Car's Heater

Your car's heating system not only provides you with warmth when Mother Nature brings on the chill, but it also plays a role in safety. You can't see to drive safely if your windshield is fogged-up or frosted-over. With more than just comfort riding on this topic, let's talk about how your vehicle's heating system works and common problems you should know about.

Heating System Parts and How They Work Together

The parts that make up a car's heating system are generally the same regardless of make or model.

Usually, they include:

- **Heater core**
- **Heater fan**
- **The vehicle's coolant system**
- **HVAC controls**

Hot coolant (a mixture of antifreeze and water) gets drawn into the heater core, a radiator-like component that converts the heat from the fluid into warm air. Then, the heater fan, controlled by the HVAC controls, blows that heat into the car's interior. After the coolant cools, it travels back into the heating system to repeat the cycle.

What Can Go Wrong?

Below, we've listed a few of the reasons why a vehicle heater might not work well and suggestions for fixing the problems.

1) Kaput thermostat – If your vehicle's temperature gauge is going into the red after driving for only about 15 minutes, you may have a stuck thermostat. This can create issues with not only your heat but also the engine's cooling system.

How to fix it – Usually, replacing the thermostat will be the best course of action. Warning: Anyone doing this on their own should wait for the car to cool completely. Never open the radiator cap when the engine is hot. This can result in burn injuries.

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STRANGE FACTS:

- **Spider webs** were used as bandages in ancient times.
 - **Blood donors in Sweden** receive a text when their blood is used.
 - **Sunglasses** were originally designed for Chinese judges to hide their facial expressions in court.
 - **Cotton candy** was invented by a dentist.
 - **Children of identical twins** are genetically siblings, not cousins.
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- **Squirrels** are behind most power outages in the U.S.
 - **The Goodyear Blimp** is the official bird of Redondo Beach, California.
 - A **“moonbow”** is a rainbow that happens at night.
 - A human could swim through a **blue whale’s veins**.
 - A **cloud** can weigh more than a million pounds.

From <https://bestlifeonline.com/weird-amazing-facts/>

I Need an Alignment

When I was still working at my shop as the service advisor, customers would call with this request multiple times per week. I can count on my one hand and have 2 fingers left over for the number of times I’ve had my car aligned in my driving lifetime, which spans 54 years. This has to be one of the most oversold services I’ve ever seen. Now, if your car was involved in a crash, hit a curb, suffered some other impact, or needs to have steering or suspension components replaced, it certainly makes sense to have it examined by a competent professional and let him determine whether it should be aligned. By the way, getting new tires is no reason to have a car aligned if the old tires showed no signs of wear due to misalignment. Here again is where a professional can save you a lot of time and expense. Sometimes tires do show indications of misalignment in the classic sense, but the real problem is the tire itself. For instance, a tire that breaks a belt could show wear on the inside edge that has nothing to do with alignment. A rookie is not going to spot this situation.

This has to be one of the most oversold services I’ve ever seen.

Whenever someone called for an appointment for an alignment, I always asked why the customer wanted it. Most of the time I heard, “my car drifts to one side” or “it shakes at speed”. The next question was, “how old are the tires”? Often the response was that they were just replaced. After some more questioning, I would often find out that the car was fine before the new tires were installed. Well, you could align this car until the cows come home and it won’t make any difference because some tires take a “set” during production that causes them to be fractionally bigger on one edge than the other. Think of a paper cup laid on its side. It will roll around the smaller end. If both of the tires on one axle are “set” the same way, the car will drift. The only way to “fix” this is to swap the tires around getting them to, in a sense, fight each other. We’ve even had to dismount a tire from a rim and turn it around to make this happen. Problem solved. Strangely, this solution doesn’t affect the wear pattern or life of the tire in most cases.

Ok. So, armed with this information, the next time you have a problem as described above, you should be able to save yourself a lot of time and money by asking the appropriate questions. If the shop says that the only way they will guarantee the tires is if the car is aligned, run for the exit. PJ

Warming Up to Your Car’s Heater (con’t)

The thermostat is located at the radiator’s base between the core and the main hose. After the radiator hose is detached and the coolant is drained into a bucket, the faulty thermostat can be removed and replaced. Leaving this to a mechanic will ensure it’s done safely and effectively.

2) Low level of coolant/antifreeze –

If the coolant level drops too low, enough fluid won’t make it to the heater core to generate heat. As a result, the heater fan will blow cool rather than warm air into your car.

How to fix it – Coolant should be replaced or added according to the vehicle manufacturer’s service maintenance intervals and instructions. Again, the radiator cap should not be touched or removed when the engine is hot!

3) Broken heater fan – Heater blowers, typically located on the passenger side under the dashboard, can break or experience an electrical short.

How to fix it – The fuse should be visually inspected to see if it is blown or switched to see if the issue resolves. If the fuse is fine, the wiring or the motor might be the culprit. When dealing with a car’s electrical system or blower motor, err on the side of safety by having a skilled mechanic perform the work.

4) Leaky radiator – If your car’s radiator springs a leak, the coolant might not reach the heater core. This can cause engine damage or worse!

How to fix it – Sometimes leaks happen due to a bad hose or loose clamp, which can be resolved by replacing the hose or tightening the clamp. If the leak is in the radiator itself, there are products made specifically to seal holes in a car’s radiator. Because radiator leaks can have serious consequences, it is best to get a mechanic’s help.

5) Malfunctioning HVAC controls– Heater problems can also happen when touch screens, dials, and buttons for controlling the heater and air conditioner fail to trigger the heating system.

How to fix it – The issue might stem from a failed blower motor resistor that no longer responds to change a car heater’s settings when you adjust the knobs or buttons on the instrument panel. Resistors can wear out over time and may need to be replaced by a technician.

Don’t Get Left Out in the Cold

If you’re experiencing a problem with your car’s heater and need help, call us. With our free pickup and drop-off service, you can stay inside safe and warm while we pinpoint the issue, fix it, and deliver your vehicle to you after our work is complete.



1. Two to 4 pounds of boneless chicken pieces
2. Salt and pepper
3. 1/3 cup flour
4. 2 Tbsp olive oil
5. 2 slices bacon cut in think strips
6. 2 Tbsp butter
7. 4 oz mushrooms, sliced
8. 1/2 cup white wine
9. 2 shallots or 1/3 cup sliced onion
10. 2 cups chicken stock
11. 1 1/2 Tbsp tomato paste (up to 2 Tbsp)
12. 1 cup petite diced tomatoes, drained
13. 1/2 cup chopped parsely
14. 1/4 to 1/3 cup flour and water

Courtesy of Gail Miller | Makes 4 to 6 servings

1. Season chicken with salt and pepper. Shake with flour
2. Heat oven to 225 deg
3. Heat dutch oven on medium, add olive oil, add bacon and cook about 5 minutes or until 3/4 done. Remove bacon.
4. Sear chicken in 2 batches. On last batch add 2 Tbsp butter. Remove chicken. Add mushrooms and onion and cook 2 to 3 minutes. Add wine. Deglaze the pan. Add stock, paste, and tomatoes. Add bacon and chicken to pot.
5. Bring to a simmer. Cover and put in oven for about 5 hours. Before the last hour combine flour and water and stir into stew. Add parsley.
6. Serve with mashed potatoes, rice or noodles.

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