

WINTER DRIVING TIPS

- [Auto winterizing Tip No. 1: Winter is here is your car prepared?](#)
- [Auto winterizing Tip No. 2: Does your antifreeze flow? Time to winterize](#)
- [Auto winterizing Tip No. 3: Start your engines - even in the cold](#)
- [Auto winterizing Tip No. 4: Don't let winter freeze your fuel lines - refuel often](#)
- [Auto winterizing Tip No. 5: Windows are made to see through](#)
- [Auto winterizing Tip No. 6: Don't forget the other fluids](#)
- [Auto winterizing Tip No. 7: A little hot air is a good thing](#)
- [Auto winterizing Tip No. 8: Pre-Flight your car for winter driving](#)
- [Auto winterizing Tip No. 9: Winter safety starts with a plan](#)

Auto winterizing Tip No. 1: Winter is here is your car prepared?

The leaves are about to change into a kaleidoscope of autumn colors. Gentle breezes will bath the countryside in moderate and pleasant temperatures. But don't kid yourself. It's not going to last. Before you know it, you'll find yourself transported, as though plucked from the comfort of your home and deposited on a distant planet where the landscape is so barren, windswept and frigid it barely supports life.

That's really not an exaggeration when winter sets in for the Midwest. The season is so harsh that it annually claims the lives of infirm and those who are imprudent. The latter group can include those who don't take the risks seriously enough and those who don't prepare.

Just as winter's bite can test an individual's metal, it will also test the metal, fluids and electrical systems of your four-wheeled transportation. And if your car fails that test, it can leave you stranded at home or, worse yet, stranded on a long stretch of road somewhere without another car in sight.

The solution is to prepare for the worst. Not only will this reduce the chances that you'll wind up stranded somewhere but it will also relieve a lot of the stress you may unwarily carry along with you as you consider going out in the cold.

Preparing your car is called winterizing. Like many auto repair shops, here at Performance Unlimited, north of McHenry off of Route 31, www.4performanceunlimited.com, we can help get your car in shape for the cold and snow ahead. However, there are things you can do yourself, some of which you should do, to ensure you have a safe and, reasonably, comfortable winter.

Over the course of the next several days, we will be posting tips you can use to prepare your vehicle for the onslaught of winter. Many of these procedures you can take yourself. If not, you should find a reputable automotive shop to help out.

Auto winterizing Tip No. 2: Does your antifreeze flow? Time to winterize

There's really no better place to start talking about winterizing your car than in terms of antifreeze (we call this coolant in the summer, though it still needs to apply its cooling capacity in the winter as well. You can call it coolant if you'd like. However, in the winter, before it can cool it needs to avoid freezing).

Another term to know about antifreeze is specific gravity. This refers to the temperature at which it will freeze. Your local auto parts store has inexpensive testers to determine the specific gravity of your antifreeze. We use slightly more expensive versions that are somewhat more accurate. However, whether we test it or you do so yourself, you'll want to know that the fluid in your radiator, hoses and engine block will not form an icy block of its own when the temperature outside dips. The tester also determines the level at which your coolant (same fluid) will boil. The tester will indicate whether your antifreeze is up to par at both ends of the scale.

Winter Driving Tips

When adding antifreeze more is not better. By this I mean that you don't want 100-percent strength antifreeze in your system. The best ratio is 60/40. That's 60 percent antifreeze to 40 percent water.

Another important thing about your antifreeze is that it needs to stay inside the hoses, radiator and engine block. Antifreeze isn't as effective on the pavement. Therefore, you'll want to check to make sure there aren't any leaks. Look at the condition of the hoses. Maybe they're not leaking now but, if you can find cracked, dried or soft spots, they may have a leak in development. Soft spots are often visible when the hose has swelled, so to speak. Hoses are generally consistent in diameter. If the hoses look bad now, they'll only look worse when winter sets in.

The final thing to consider in terms of antifreeze is movement. While we don't want it to leak, we do want it to move when it's supposed to. The driving force for the antifreeze is the water pump. In older cars, this is attached to the fan at the front of the engine. Newer cars often have electrical fans and you may need a qualified auto repair technician to locate and check the water pump in your newer auto. If you can find the water pump, checking for side-to-side play in the shaft coming out of the front of the water pump, or looking for signs of leaking grease or antifreeze can indicate wear in the water pump and, possibly, indicate it's time for a replacement.

Inside the engine is a part called the thermostat. Just like the thermostat in your house, a thermostat in your engine reads the temperature. In your engine, it's worried about the temperature of your coolant/antifreeze. When the fluid is cold, the thermostat should remain closed so that it heats up in the engine. When the fluid is hot, the thermostat opens so that the fluid runs through the radiator and cools before your engine overheats. A thermostat that is stuck open will never sufficiently heat your engine to operating peak operating temperature. A thermostat that is stuck closed will likely overheat your engine. This is an area where you may also want to call in an expert. However, one way to check is to turn on the heat in your car (the antifreeze/coolant flows through a heater core that provides heat to the interior of your car). If the heat doesn't blow warm, even hot, you may have a thermostat that is stuck open. If it's stuck closed, well, you've probably overheated already anyhow.

To summarize: your coolant needs to take on the additional role of antifreeze in the winter and a simple tester will let you know if it has what it takes. The fluid needs to stay in the cooling system and needs to move when appropriate. If it meets these requirements, you've got these winterizing bases covered.

Auto winterizing Tip No. 3: Start your engines - even in the cold

Racing fans are very familiar with the excitement at Indy or Daytona, when the words, "Start Your Engines" are heard over the PA system. However, we'd rather you didn't feel a different kind of anticipation when you turn the key on your car in the middle of a frigid winter night, hoping, but not really sure, that your car will start.

One way to reduce the anticipation is to ensure your car's engine is properly tuned. A car with worn plugs and wires, or with engine timing that isn't set right any longer, will test your car's ability to start in warm weather. Add sub-freezing temperatures to that equation and you've seriously upped the ante.

Even if your car is properly tuned, that's not an absolute guarantee that it will start. There are other factors to consider, such as: how is your battery, does the alternator provide an adequate charge, does the starter draw too much?

You should check your battery. Is it more than four-and-a-half-years old? If so, probably best to replace it. Does it have enough electrolyte (acidic water) inside. How does the electrolyte rate in terms of specific gravity? You can purchase another inexpensive tester to check this. However, there are some batteries these days that are sealed. Best to leave them that way. Chiseling a hole in the top of your battery may allow access to the electrolyte, but it won't do your battery any good in the long run.

Winter Driving Tips

Take a look at your battery and its cables. Are the cables cracked, frayed or are the ends covered with a white powder. Are the connections firm and clean (you may need to disconnect the cables to see if the connections are clean - but be careful - making conductive contact between battery connections and other conductors can cause sparks and, in some cases, cause the battery to explode). Is the battery clean? Interestingly enough, a battery can actually discharge across a grease covered surface.

In terms of your alternator and starter, there are electrical testers you can purchase at auto parts stores. However, this is another area where you may want to turn to an expert. Here at Performance Unlimited, 5415 Austin Ct., Ringwood, we not only have state-of-the-art equipment to check your entire charging and starting system, our certified mechanics also attend regular classes to stay up to date on the latest industry standards related to these topics. But, whether you come to us or someone else, make sure you're bringing your car to someone you trust. We provide parts and repairs when they're needed and only when they're needed.

We'll test your alternator, your starter and your batter, to ensure it will hold a charge, and guarantee that your electrical systems are up to par.

Auto winterizing Tip No. 4: Don't let winter freeze your fuel lines - refuel often

An internal combustion engine, which, unless you've purchased a new electric car, is probably what you drive, must have fuel in order to run. If you let the tank run dry, you'll find yourself coasting to the side of the road with an engine that's stopped running.

In the winter time, it's a good idea, not only to make sure you have gasoline in your tank, but to keep the tank from becoming too low on fuel. The reason this is important is that air, often containing humidity, can mix with your gasoline. While the gasoline won't freeze until 97-degrees below zero, the water mixed with the air in the gasoline will freeze at 32-degrees Fahrenheit. Therefore, when you have less gasoline in the tank, and more moisture-rich air, you are a greater risk of having frozen liquids interfere with the gasoline's ability to flow.

You don't merely need to worry about the gasoline in your tank - you also have to worry about it in your fuel lines. This is particularly true where moisturized air has already infiltrated into your gasoline. One way to avoid this problem is to periodically use a gasoline additive that dries the gasoline (removes the moisture) and helps to prevent the gasoline from freezing.

Some of these products claim to help clean your fuel injectors, improve winter starts and improve your mileage. Those benefits are nice, if true, but if all the additive does is to keep your fuel lines dry, it's well worth the effort. Manufacturers may recommend adding a bottle of their additive with every fill up. That, however, can prove expensive. Every two or three tanks full is probably enough.

Auto winterizing Tip No. 5: Windows are made to see through

"I can't see. I can't see."

"Why not?"

"My eyes are closed."

I can almost hear that exchange between Curly and Moe. Anytime you're driving, it's a good time to keep your eyes open. In the winter, however, sometimes, keeping your eyes open isn't enough. Windshields become frosted, covered with salt, snow and road spray. Not only is driving without a sufficient view dangerous and maddening, it can also lead to a ticket for operating a vehicle with an impaired view.

There are several steps you can take to ensure your view is as clear through the windshield as possible. One place to start is taking a look at your wiper blades. Do your wipers operate properly

Winter Driving Tips

when you turn them on? What is the condition of the blades. Visually inspect the rubber on your wipers for wear and breakage. They're inexpensive enough that, when in doubt, it's best to replace them. Do they sit evenly across the windshield? Do they leave streaks?

Next, check your windshield washer solvent. If the reservoir is cracked and leaks, you'll need to replace it. Here at Performance Unlimited, 5415 Austin Ct., Ringwood, we can help with that. However, once you've identified where to fill the reservoir, it's easy to fill and there are level indicators on the reservoir you can follow to fill to the correct level.

When called upon, does the washer solvent spray across the windshield as desired? We can clean clogged jets and replace pumps that don't quite have the proper oomph anymore. However, these are parts that generally work well for years and years and will often outlive your car.

Another thing you can do to improve your winter driving vision is to wipe your windshield, inside and out, with an anti-fogging solution. These are available at inexpensive prices at your local auto parts store. You may also want to keep some extra wipes on hand in the car, in case you need them.

Finally, do you have a good scraper and brush handy? The scraper should have sufficient reach so you can clean ice off the entire windshield without lying down on the snow-covered hood of your car. The blade of the scraper should also match up smoothly, from edge to edge, with your windshield. These relatively inexpensive items are well worth the modest investment.

Auto winterizing Tip No. 6: Don't forget the other fluids

Of course, it's not a good thing if the term 'solid' appropriately describes the antifreeze in your car. But, antifreeze is not the only fluid you need to consider as you prepare for the winter ahead. There's also power steering fluid – make sure it's filled to the 'Full' line; windshield washer solvent (we've already spoken about that); brake fluid, should be clear and full, transmission fluid, transaxle fluid and engine oil.

The latter fluid is the one we will focus on here, not that the others aren't important as well; just try to imagine the outcome if you ran out of brake fluid. If the temperature drops to the extent that your oil freezes, surviving the arrival of another Ice Age is a greater concern than whether your car will start. In other words, you can rest easy – your oil is unlikely to freeze into a black cube.

But, that doesn't mean the cold won't affect your engine oil. Oil generally doesn't freeze but it does thicken. For the most part, oil will thin after the engine starts and begins producing heat. However, as your car sits overnight or throughout the day, as the oil draws colder, it progressively thickens.

From your car's perspective, the engine oil is even more important than antifreeze. It shares responsibilities with antifreeze (in its coolant stage) in carrying away heat from the engine block. But, more importantly, engine oil serves as a lubricant reducing friction between uncompromising metal parts. Take the oil out of your engine and just see how long your engine runs. And when it stops running, it probably will never run again.

You've almost certainly heard it before but it bears repeating: change your engine oil every 3,000 miles for cars built in 2004 or earlier and 5,000 miles for newer cars. When changing your oil, you should also replace your oil filter.

When you change your oil, you can use a synthetic oil. Some people swear by synthetic oils. They can generally run longer in your car before beginning to break down and may offer superior lubricating abilities. However, there is something else you can do with your oil to make winter life easier on your engine; you can switch to 5W-30 oil that is more attuned to the cold. In other words, it won't thicken as much in the cold as, say, 10W-30.

The numbers related to different oils represent the oil's viscosity. The Society of Automotive

Winter Driving Tips

Engineers (SAE) sets the auto temperature ratings – viscosity. The SAE measures the flow of the oil at different temperatures. The first number, with the 'W', refers to the oil's ability to withstand colder temperatures. So, using an oil with a lower first SAE number means your oil will do its job better in cold weather. Try it. Your engine will thank you and you'll thank your engine.

Auto winterizing Tip No. 7: A little hot air is a good thing when talking about your car's heater

Remember last spring when you started wondering if the A/C was working up to par with the summer ahead? It's time to start thinking in terms of your car's heater and its ability to keep you warm.

Your car's heater is important for more than mere comfort, however. It's also important for clearing frost and fog off the inside of your windows. In this case, an issue of comfort gives way to an issue of safety – yours, your passengers and people in other cars and pedestrians.

Your car's heater blows warm air onto the windows and helps clear the windows when you first start the engine and helps keep the windows clear as your driving. Many cars also combine the heating benefits of the heater in combination with your car's A/C. The air conditioning tends to dry the air. Some cars will operate the A/C in tandem with the heater to bath the windshield with warm air while simultaneously drying the air.

Your car probably has the following controls used for operating the heater: a fan switch to set the level of air flow, a directional switch to determine where the air should blow and a temperature to set the temperature of the air coming out of the heater vents. You should take some time, before winter sets in, to check these controls and make sure they're working properly. You also want to check to make sure the air coming out of the vents blows hot.

If the air isn't hot, the first thing to check is the level of your antifreeze/coolant. Often, when this is low, the air will blow hot a while and then go cold as a pocket of air passes through the heater core. Filling the antifreeze/coolant to the proper level, using the proper mix of antifreeze/coolant and water, will help. However, you may want to check into why you're low on antifreeze/coolant to begin with.

If you have a leak, you'll only have to fill the radiator again later. And leaks can sometimes increase. You could find yourself stuck on the side of the road, in the middle of winter, with an overheated engine. There's something just plain wrong about an overheated engine on a frigid day.

When you discover the fluid is low in your radiator, take your car to a qualified car care representative, such as Performance Unlimited, and have your cooling system checked for a leak.

If your radiator is not low, you may have a clogged heater core or some other problem. Once again, bring a qualified car care specialist into the equation.

Auto winterizing Tip No. 8: Pre-Flight your car for winter driving

Before a pilot leaves the ground he or she is required to complete a safety checklist. It's really a great idea as pilots generally prefer to notice a problem with the plane's controls or a leaky fuel tank before they become airborne. But, for the pilots, completing the checklist is not optional. In a sense, it's not optional for operators of automobiles.

Consider what happens when you're pulled over because a taillight has burned out. You tell the officer, I didn't know it was out. He nods his head understandingly as he hands you a ticket or a warning. Some officers will let you go with a verbal warning. However, they don't have to. It's assumed that you should be conducting a safety check of your vehicle every time before you get in and drive.

In reality, how many of us actually check all the lights, brakes and steering system before pulling out

Winter Driving Tips

of the driveway? It's actually a reasonable idea any time you drive your car. In the winter time, the value of checking your car is even more critical.

OK, you're probably not going to go through the entire checklist every time you drive. That won't stop you from conducting periodic safety checks. If you need some help with this, a qualified auto repair shop can help. Here at Performance Unlimited, we can help you make sure you're ready for everything winter has to throw at you.

Auto winterizing Tip No. 9: Winter safety starts with a plan

You're driving down the highway when the car hiccups. It hiccups again. Suddenly, though you're depressing the accelerator further, the car is slowing. You turn the wheels to the right and coast through the slush until you come to a stop on the side of a quiet road in the country.

This is no time to start making an emergency list. The answer to emergencies is preparation; you need a plan. And any plan worth its salt starts with an emergency kit. This should include blankets, and cold-weather clothing, such as gloves, coat, dry socks, a scarf and, possibly, boots. You'll also want to have a small snow shovel, a flashlight with fresh batteries, emergency reflectors and, maybe even, a few snacks to tide you over while waiting for help to arrive. You may also want to carry an insulated bottle of water.

Along with the shovel, you may want to keep a bag of kitty litter in the car. While the kitty litter may be useful for stray cats who make homes in your wheel wells it's really for traction if you get stuck in the snow. A little kitty litter behind the tires might just give you the traction you need to drive your way out of the ditch or a rut.

You'll want to check your spare tire and jack. It's no fun discovering the spare is as flat as a tire on the car or that you have no way to raise the car to replace a flat tire. It's also a good idea to carry a set of jumper cables. You'll be someone else's hero if you help someone jumpstart a stalled car. You'll be your own hero if you need them and they're in the trunk.

Possibly the most important item in your emergency kit, which you'll probably keep in your pocket or purse, is your cell phone. Ask yourself, is the cell phone charged or do you have a D/C charger in the car? The only concern at that point is whether you have reception. Give this a little thought before choosing a carrier.

Finally, consider knowledge, yours and others, a vital tool in keeping you safe during winter driving. Start by going online or checking the radio or television to see what weather is expected. If a storm is blowing in, consider cancelling your trip or, at least take additional precautions. Additional precautions should include letting someone know where you're going, when you expect to arrive and what route you plan to take. If someone knows to expect you and you don't show up, even if you're in a cell-phone dead zone, the cavalry will come around the bend as soon as someone surmises that you could be in trouble.

For more information about Performance Unlimited, please visit our Web site at: www.4performanceunlimited.com, providing McHenry, Woodstock, Richmond, Wonder Lake and the Northern McHenry County/Southeast Wisconsin with quality auto repair and maintenance.
