

FALL CAR CARE | SEASONAL MAINTENANCE

Time to Winterize

As the temperatures begin to drop, prepare your vehicle for looming seasonal changes. Winterizing your car safeguards your investment and ensures the safety of everyone, even in the worst snowy or icy conditions.

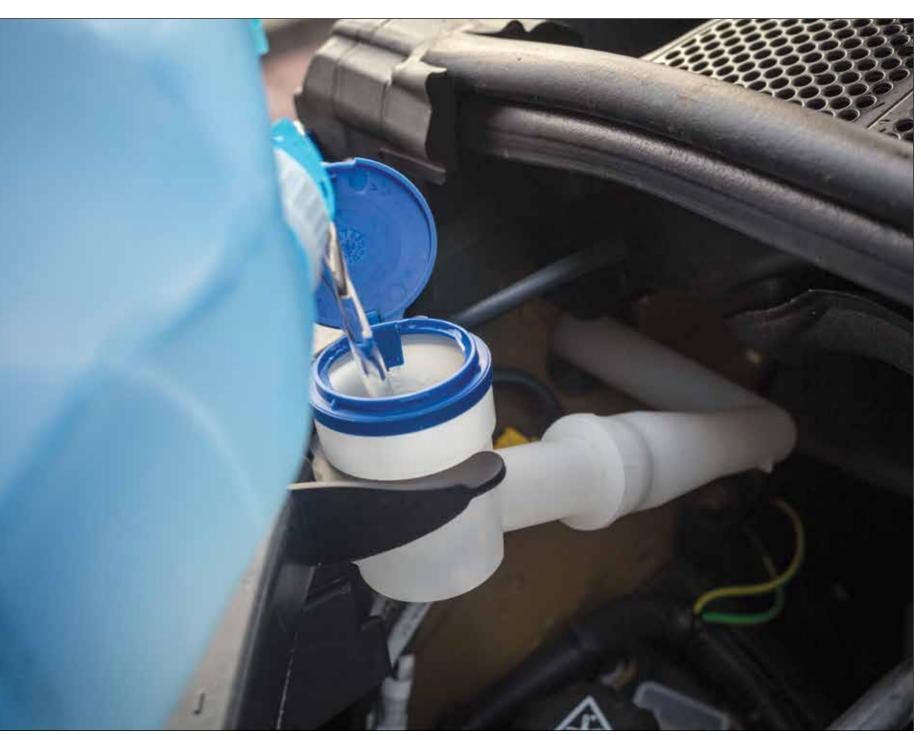
YOUR BATTERY

Cold weather is not kind to car batteries, as their chemical reactions slow down with dropping temperatures. If your car has been slow to start, or the battery is simply aging, you may need to replace it before cold weather sets in. Take advantage of the battery checks that many auto parts stores offer for free.

BEFORE YOU GO

Another crucial aspect to focus on is your vehicle's tires, since they play such a vital role in keeping everyone safe out on the road. The amount of tread remaining on your tires significantly affects their performance, particularly during wintry months.

To easily determine proper tread depth, insert a penny into the grooves with President Abraham Lincoln's head upside down and facing you. Examine the entire tire, ensuring that none of his head is visible. If you can see all of Lincoln's



head, it indicates dangerously low tread. You should immediately purchase new tires.

While inspecting the tread, check the air pressure in your tires. Refer to the tires themselves or the owner's manual to determine the correct pressure for your vehicle. The best time to check is after the car has been stationary for at least 30 minutes.

WIPER BLADES AND FLUIDS

Visibility can be limited when the weather turns cold. Ice and snow can do long-term damage to wiper blades. Take time in the fall to replace if needed. As the fall and winter progress, keep an eye out for brittle or dry rubber on the wipers and streaks on the windshield. That's a sign of trouble. At the same time, remember that vital fluids are needed to keep the windshield clear and the engine running smoothly in challenging © ADOBE STOCH

conditions. Check fluids and refill before winter's arrival.

AWD OR 4WD SYSTEMS

Maintenance is essential for all-wheel drive or four-wheel drive systems, especially if they haven't been used all summer. Refer to the owner's manual for maintenance requirements.

FALL CAR CARE | BE PREPARED

Emergency Preparedness

Vehicle breakdowns can be even more hazardous when they happen in harsh weather conditions.

That's why it's so crucial to take advantage of the weeks and months before winter to prepare a wide-ranging emergency plan just in case.

Make sure you have several essentials in the event of an unforeseen issue with your vehicle. Among the most important items that the National Safety Council recommends are jumper cables. They're a must-have item since a dead battery usually occurs unexpectedly. Any battery will lose its charge over time, but that can be especially true in cold weather. A good set of jumper cables could save the day.

Flat tires are another common issue that can happen without warning, and they're a significant risk during the winter because of uneven and slippery roadways. Inspect your tires now and replace them if needed. Most vehicles come with a small emergency spare tire, but remember that it's only suitable for short distances typically 30 to 50 miles. These down-sized versions are also usually speed-limited. So consider investing in an additional all-weather tire in case of emergency.

Many drivers don't keep basic first aid supplies on hand, but they are an essential



element of emergency planning. A well-stocked kit contains bandages, gauze, antibiotic ointment and tape, among other necessary items. If you were to be injured during a collision or while changing a tire, this kit becomes invaluable. Keep rain boots and a poncho in the vehicle so you're prepared to investigate a breakdown or change a tire when it's rainy or snowing. Look for allweather gear with reflective colors or purchase reflective tape from a nearby auto parts store and apply it to your clothing.

Unfortunately, breakdowns don't happen only during the daytime, so pack a flashlight and spare batteries for it in your emergency kit. You'll need better visibility while performing these tasks than any phone light can provide. Conserve © ADOBE STOCK

your phone battery for as long as possible.

There may be an extended waiting period for assistance, particularly in the most challenging conditions. So, include extra clothing, non-perishable snacks, a blanket and drinking water in your emergency kit.

Changing Your Oil

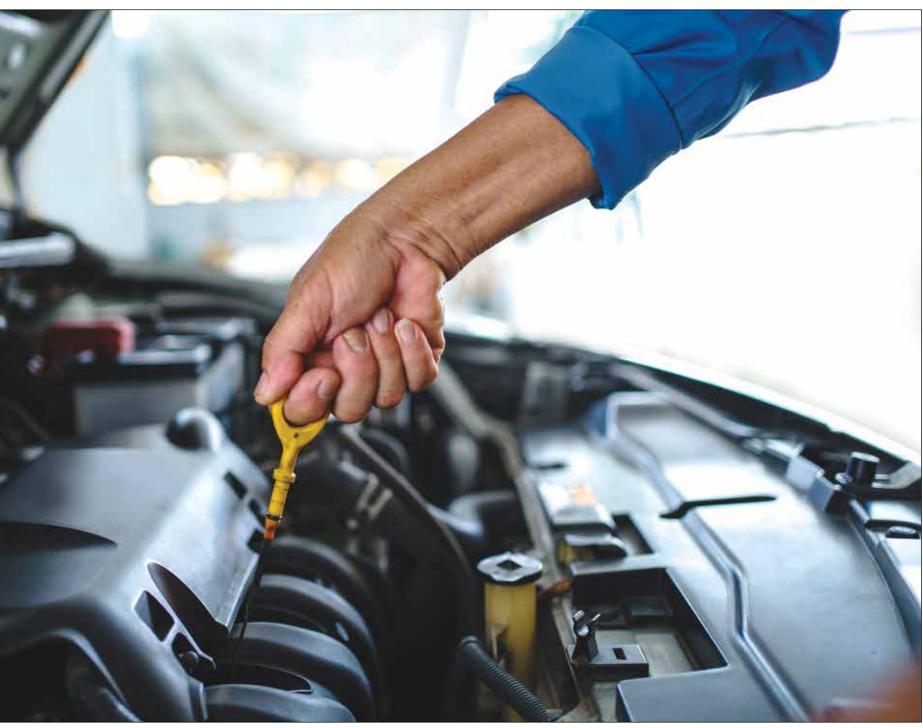
You've just passed through one of the year's most challenging periods for a car engine, as the heat of summer tests even the best motor oils.

Winter presents its own challenges, however, so be sure to stay on schedule with your oil changes.

Traditionally, the recommendation was to switch out your oil every 3,000 miles but due to advancements in automotive technology, this has now shifted to intervals of 5,000, 7,000, or sometimes 10,000 miles. So, refer to your owner's manual for specific guidelines rather than relying on outdated information.

Checking your oil level regularly is a good practice, as your vehicle may require additional oil even if it is relatively new. Consult your owner's manual for instructions on how to properly check your levels. While older cars typically use a dipstick for this purpose, newer models may have a sensor that automatically monitors the oil.

To check your oil using a dipstick, park on a level surface, turn off the engine, and let the car cool down. Next, open the hood, locate the dipstick, remove it, wipe it clean and reinsert it fully, then remove it again. Look for markings on the dipstick



indicating the optimal oil level. If the oil level falls within the designated range, your vehicle is in good condition.

When the oil level is below the minimum mark, you'll need to add more oil. The color of the oil should typically be gold or light brown. A lighter color could indicate a coolant leak, while the presence of metal particles may suggest engine damage.

The recommended oil weight should be indicated on the oil cap or in your owner's manual. Synthetic oil may be recommended in your owner's manual. It's formulated to withstand high temperatures and breaking down, giving the oil a longer lifespan.

If you live in an area with extreme temperatures or frequently take short trips, synthetic oil may be a smart option to consider.

But if you don't drive under these conditions, and © ADOBE STOCK

synthetics are not recommended by the vehicle manufacturer, it's safe to avoid paying extra for these blends. Older vehicles that are functioning well don't typically require a specialty oil. If you're unsure and the owner's manual doesn't provide enough guidance, consult your local dealer.

FALL CAR CARE | CLEANING

Protecting the Exterior

Sun, stray rocks and birds are always a threat to your vehicle's exterior.

Autumn and the coming winter months may provide still others, from falling debris to road salt. Here's how to keep your vehicle's paint job vibrant and glossy.

REGULAR CLEANING

Regularly wash your car, ideally once a week, even into the winter months. If possible, avoid washing your car in direct sunlight. Start by removing dirt and dust by rinsing it with water or a soft, clean cloth. This will reduce the risk of scratches on your paint.

Use a car-specific cleaner with the cloth. Avoid using dish detergent or other cleaners that may contain chemicals that are harmful to your car's finish. Treat stubborn mud, accumulated road salts and bird droppings with an automotive spray bar. Thoroughly rinse the car to remove any soapy residue, then dry it with a microfiber towel or a clean cotton rag to prevent water stains and any other potential damage.

AFTER THE WASH

Next, apply wax or a sealant to maintain the appearance of your car. This provides a protective layer against harsh elements such as the sun, bugs and bird droppings. To ensure optimal results, wax



the car every six weeks after thoroughly cleaning it. Just be aware that small pieces of dirt and debris can potentially cause damage to the clear coat if trapped within the wax.

Paint sealants may offer superior performance compared to wax. If applied correctly, they give your vehicle an even brighter appearance — though they may accentuate existing paint imperfections, swirls or scratches. Seal your car's paint job every six months. For the best results, carefully follow all application instructions from the manufacturer.

WHERE TO PARK

When parking your car, choose shaded areas whenever possible. Additionally, if you have the option, park your vehicle in a garage or a designated car shelter at home. This prevents the paint from fading and shields your car from the outdoors' © ADOBE STOCK

damaging effects. In situations where covered parking is not available, it may be smart to invest in a high-quality car cover. When making your selection, ensure that the cover snugly fits your vehicle and that it's both water-resistant and breathable.

FALL CAR CARE | BE SMART

Watch for Common Issues

Fall is the time to closely watch for looming problems with your vehicle, since they can become so much worse with colder weather.

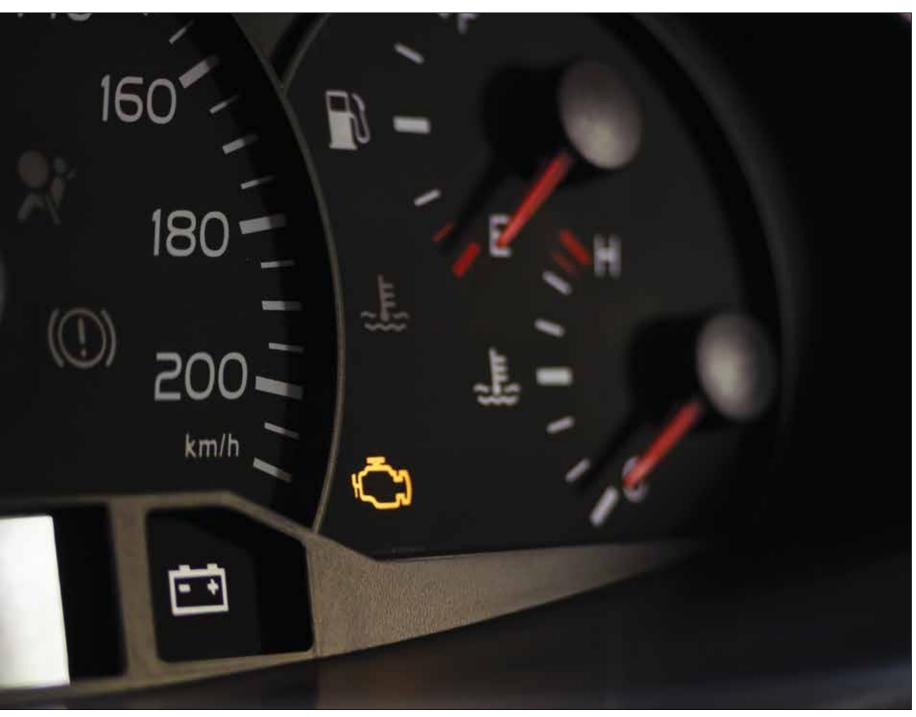
In some cases, routine maintenance will uncover small problems before they become big ones – but it's always smart to keep an eye out for common issues in between service visits. Here's what to look for:

WARNING LIGHTS

Vehicles now come standard with a variety of lights in the dashboard to provide warnings about issues throughout the system. The lights illuminate when a sensor in the engine control unit or computer detects an issue. Consult your owner's manual to become familiar with what these lights indicate. If your car or truck is still under warranty, you'll have to take it to the dealer so a licensed employee can make repairs. Otherwise, find a trusted mechanic to get things back on track.

POOR MILEAGE

Poor fuel mileage is typically caused by worn-out or dirty components like filters or sensors. Problems within this system create a situation where more fuel is needed to run the engine at required speeds. To prevent or correct



these issues, take your car or truck in for regular servicing and maintenance.

ENGINE SPUTTERING

If your engine is sputtering, there is a problem with the vehicle's complex system of ignition or fuel components. They work together to power your car or truck. Fixing this may be as simple as bringing in the vehicle for maintenance. Otherwise, component replacement may be required. Always follow the manufacturer's recommendations.

TROUBLE STARTING

There may be problems with your starter motor or the battery. A vehicle's starter gets the engine going so that you can drive. Failure of this component is often due to damage to the starter motor, electrical solenoid or other electrical faults that may arise. See your dealer or trusted mechanic to make repairs.

More often, the issue is a dying or dead battery. Experts suggest replacing a vehicle's © ADOBE STOCK

battery every three years or 50,000 miles, whichever comes first. This is recommended whether the battery shows signs of slowing down or not, to avoid an unsuspected breakdown. Other potential culprits if your car or truck won't start include a damaged battery temperature sensor or alternator.

FALL CAR CARE | MAJOR SYSTEMS

Fall and Your Tires

Your tires will take a beating in the rainy and snowy conditions of winter.

Take this opportunity to inspect and potentially replace them, ensuring the safety of your car or truck and passengers inside as the seasons change. When properly maintained, your tires will help improve your fuel efficiency while providing more traction in challenging conditions.

It's important to check your tire pressure on a regular basis. Do this once a month, when the tires are cold. Under-inflated or over-inflated tires can make it harder to steer and brake, potentially leading to a traffic accident. At the same time, driving on improperly inflated tires can result in unnecessary fuel consumption.

Look for the recommended tire pressure on the vehicle information placard located on the inside of the driver's side front or back door, on the tire itself on in your owner's manual. In some cases, the number on the side of the tire represents the maximum tire pressure, not the recommended pressure.

ROTATION AND ALIGNMENT

In addition to monitoring tire pressure, regularly rotate and align your tires. Typically, tire rotation should be done every 6,000 miles. Re-align them every 15,000 miles or so.



For specific instructions regarding your vehicle, refer to your owner's manual. By rotating your tires, you ensure even wear. Proper alignment helps extend the life of the tire.

Colder months can be hard on road surfaces. Have your alignment checked if you hit an obstacle such as a curb, pothole or rough railroad crossing. Have your tires balanced every time you rotate them or when you change tires or wheels.

LOOKING THEM OVER

When inspecting your tires,

check the tread and examine the tire for any cracks, protruding objects or bulges. A nail that is embedded in the tread may not immediately cause a leak, but it could result in a dangerous future blowout. That's why it's so crucial to have professionals inspect and © ADOBE STOCK

repair any punctures or defects as quickly as possible.

When replacing your tires, avoid mixing and matching tires as this can lead to sub-par performance because of uneven tread wear. It may even lead to mechanical problems.

FALL CAR CARE | GAS



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Fall Means Changes in Fuel

Did you know that your fuel shifts with the weather? As temperatures cool in the fall, refiners adjust their gasoline production from summer to winter blends.

THE BLENDING PROCESS

Blending is necessary to ensure optimal engine performance amid changing weather conditions. One key factor that distinguishes summer and winter-blend gasoline is the Reid Vapor Pressure reading. This measures the fuel's evaporation rate at higher temperatures. Winter-blend gas boasts a higher RVP to prevent engine issues in colder temperatures. To boost vapor pressure numbers, winter gasoline is typically mixed with butane.

DIFFERENCES BY SEASON

Federal regulations actually prohibit the use of high Reid Vapor Pressure gas during the summer months, citing its contributions to increased air pollution and emissions. From June 1 to Sept. 15 each year, fuel with an RVP greater than nine cannot be sold. To comply with these regulations, refiners resort to costlier additives, and this extends the blending process. That's often why gas prices rise in the summer.

Certain areas designated as high ozone areas by the Environmental

Protection Agency may also have lower RVP requirements, even as small as seven. In emergency situations, the federal government may temporarily relax these rules. This allows retailers to sell winter-blend gas even during the summer.

INSIDE THE RULES

State regulations vary across America, with some states passing lower RVP standards in the summer. For example, California has set the RVP limit at seven and requires refiners to switch to summer-blend gas between April 1 and Oct. 31. Other states may mandate different gasoline formulations to decrease carbon monoxide levels. Despite these variations, the transition from summer to winter gas is typically seamless in terms of how your vehicle drives. The only noticeable fluctuation may be in pricing as the seasons change. Refiners and retailers say they work together to manage these cost and performance issues.

ETHANOL VARIATIONS

Ethanol is present in 97 percent of all gas as an additive. In states where up to 10 percent ethanol (E10) is allowed, gasoline can meet the summer-blend maximum RVP of nine – even if its RVP is 10. Some states do not permit this exception, however, and this results in a broad range of gasoline regulations and prices throughout the year.