

Battery Basics

Batteries are an essential part of your vehicle and can cause some issues if not fixed before the winter months roll in. Here are some tips to help you check your battery and keep it lasting through the winter.

BATTERY MAINTENANCE

Batteries lose power over time. The longer you have had your battery, the more inclined you should be to check it. Check all the cables connecting your battery to the vehicle for damage or corrosion. Battery cables should fit tight on the battery. If there is corrosion making your battery cables loose, use a wired brush to clean off the corrosion.

Vehicle batteries usually last around three years. Check to see how long you have had your battery in your vehicle. Most local parts stores can test your battery's charge for free. Replace the battery at your local auto care store if it exceeds three years and is showing signs of degrading.

Cables, connectors and other parts for your battery can all be found and replaced at your local parts store. Invest in a portable battery charger that you can place in the trunk of your vehicle in case of emergencies.



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KEEPING YOUR CHARGE

Batteries can lose their charge if your vehicle is stored or parked for too long. If you store your vehicle for an extended time during the fall and winter seasons, you might consider purchasing a trickle charger. The device connects your battery to a wall outlet and gives your car enough power so that it does not lose charge. Trickle chargers can be found in most local parts stores.

A less expensive way to

keep the charge in your battery is to have someone drive your vehicle for about 15 minutes or more a day. This helps keep not only your battery but the rest of your vehicle and engine running smoothly.

One other low-tech option

you may have if you cannot find someone to help run your vehicle for you everyday is to disconnect the negative cable from your battery only. Doing so does have its cons. You will more than likely lose time, stereo and other settings.

Fall Maintenance Checklist

Fall is an essential time to prepare your vehicle for the upcoming cold winter months. Whether you are preparing to store your vehicle or prep it for winter, here's a checklist to follow from CarCare.org.

CAR CARE CHECKLIST

The Car Care Council, a non-profit organization dedicated to educating motorists about the importance of regular vehicle care, shares a fall car care checklist to help drivers prepare their vehicles for the winter months.

Check all fluids, including engine oil, power steering, brake and transmission fluid. Antifreeze and windshield washer fluid levels should all be checked before winter months. These levels should be checked every time you change your engine oil.

Check hoses and belts to make sure they are not cracked or have any damage to them. Car Care recommends changing any lightly damaged hoses as cold months can create more damage. Damaged hoses can create major problems for your engine if not taken care of properly.

Your battery should be checked and replaced if necessary. Make sure all connections to your battery are clean



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and not damaged. Batteries last up to three years and should be changed after exceeding that time. Cold weather can create starting issues with older batteries.

Having a local auto care technician check the brake system annually will keep you from having any breakdowns during the winter months and save you trips to the mechanic.

Check your engine to make

sure your vehicle is performing well and has the best balance of power, fuel economy and low levels of emissions.

Vehicle lighting should be checked during the fall season, as it gets dark earlier during the fall and winter months. Take your vehicle to the mechanic if you are experiencing any interior or exterior lighting problems.

Check for damage on your

wipers, and replace wipers if you see any tears or missing parts. You can purchase wipers at any of your local auto parts centers. Most parts centers will even install purchased wipers free of charge.

MAINTENANCE LIGHT

An engine maintenance light is never a fun sight to see when starting your vehicle. A number of codes and alerts can trigger your engine light to turn on. Take the time during the fall season to troubleshoot the engine maintenance light. You want to avoid any kind of breakdown or damage to your vehicle during the winter months.

Take your vehicle to your local dealership or mechanic to troubleshoot and address the reason for the engine maintenance light.

Storing your Vehicle

If you have a summer car or vehicle that you store during the winter, be sure that you properly prep the vehicle for longterm storage.

There are a number of steps and precautions you should take to ensure the vehicle's condition does not lessen while in storage.

STORING OPTIONS

There are different steps to take depending on whether you have a garage or not. Keeping your vehicle sheltered during the winter months is one of the most important precautions to prevent declines in performance and looks.

A garage is the ideal place to store your vehicle to protect it from the harsh elements of winter. If you do not have a garage, there are a couple of options. Consider investing in a storage facility. There are some that keep storage units air conditioned. The most important thing is that you keep your vehicle clean and dry.

If a unit is out of the question, you can purchase an all-weather cover to put over your vehicle to help you keep your vehicle clean and dry throughout the year. Note that these covers do take damage over time and will need to be replaced from time to time.



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STORAGE PREP

Before you store your vehicle, there are measures that need to be taken to ensure quality in your vehicle. Here are some tips for prepping your vehicle.

Water damage, bird droppings and tree sap can cause

paint damage to your vehicle. Cleaning and detailing your vehicle is an easy step to take to keep your car looking good and fresh.

If you are storing your car for an extended period longer than 30 days, consider changing the oil in your vehicle. Engine oil contains contaminants that can cause damage to the engine.

Fill the tank before storing your vehicle for more than 30 days. Filling your gas tank will prevent your vehicle from accumulating moisture in the fuel tank.

Tires can lose pressure over time by developing flat spots.

Check the tire pressure every month while in storage to make sure the vehicle does not develop these flat spots. Take off the tires and rest the vehicle on jacks if it will be in storage for more than 30 days.

Winter or All-Weather Tires

The decision between winter tires and allweather tires can be a tough one to make.

Winter tires are an expensive investment but one that can prevent issues for you and your family during the winter months. All-weather tires are an all-around good tire that may be the better choice depending on where you live. Here are some tips and insight on both tires.

WINTER TIRES

If you live in an area prone to heavy snow, slush or ice, invest in winter tires. Winter tires are different that your standard tire. They contain a softer rubber compound to enhance grip. Winter tires are an investment. A complete set can cost up to \$1,000 but they can be the difference between life and death.

Winter tires give you more control in your vehicle to push through the snowy winter weather. All-weather tires contain the same traction as half-worn winter tires. If you live in an area seeing harsh winter weather, winter tires are the right investment to make. If taken care of properly, they can last up to six years.

Note that winter tires are seasonal tires and do sell out at some tire stores. It is best to shop ahead of time and be prepared before winter rolls in, and ensure the you have more options in price, brand and quality.



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ALL-WEATHER TIRES

If you live in an area with light to little snowy weather during the winter season, your best option would be to invest in all-weather tires. These tires are a less expensive option for

your vehicle. All-weather tires, as the name suggest, can be used throughout the year. They are durable and possess tread that helps them perform in wet and dry conditions.

All-weather tires can stay on

your car at all times, saving you from having to make trips to the tire shop to change into your seasonal tires. All-weather tires are convenient and versatile investment for your vehicle.

If you use all-weather tires

throughout the year, check the quality of your tire each month. Make sure you check tread, traction and wear on the tire. It is best to start searching and replacing your tires in early fall before winter begins.

Vehicle Cleanliness

Your goal should be to vacuum and wash your vehicle at least one to two times per month.

If this isn't possible with your schedule and day-to-day life, here are some tips that can help you maintain a clean car.

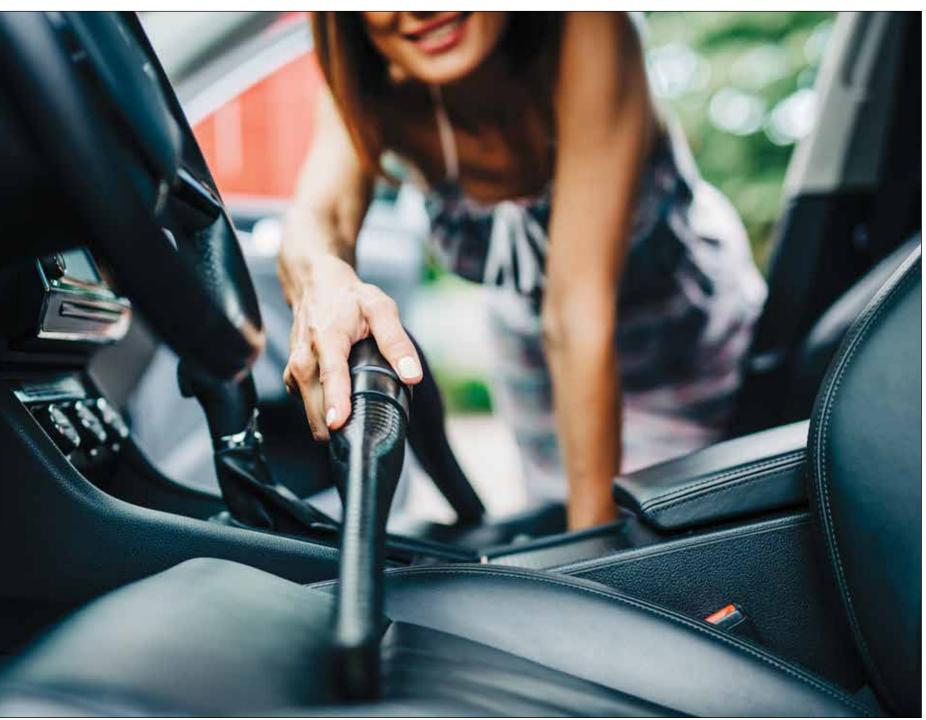
CLEAN AND DECLUTTER

Rolling cups and piling trash can be distracting and hazardous if they find their way near your gas or brake pedal. Place all your trash in a small trash can or plastic bag. Having one place where everyone who rides in your car can place their trash will help you keep your car clean with minimal effort.

If you have a busy schedule, take the few minutes you have while pumping gas to empty the trash can, cups and any other waste that may be in your vehicle.

The floor of your vehicle may always remain the messiest part of your car. Buying all-weather mats that you can easily slide out and shake off will help you make fewer trips to vacuum.

Car cup holders can get pretty messy from time to time. The bottom of your cups can create a sludge buildup that can stain seats and clothes if you aren't careful. Throw away cups and small trash you may throw in the cup holders to keep from creating cup holder sludge.



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TAKE ADVANTAGE OF SPACE

One of the most overlooked spaces for storage in your vehicle is your glove box. If utilized correctly, your glove box can be filled with various items that can help keep you, your car and passengers clean.

For most drivers, your glove box contains an owner's manual and papers relating to the vehicle. It can be one of the most forgotten storage areas in your vehicle. Throw auto wet wipes inside for wiping up spills.

You can take it a step further and purchase a small

storage bag to fill with various items such as wet wipes, cotton swabs, a phone charger and other items. Keeping extra plastic bags to use as your vehicle trash can is another way to take advantage of the space in the glove box.

Another space that is not

always fully utilized is your trunk. Your trunk should contain items that can help you during an emergency situation. Keep items like a portable car battery charger, spare clothing such as a heavy jacket or rain coat and rain boots, in case you find yourself in an emergency situation.

Be Prepared for Emergencies

Vehicle breakdowns during the winter are more dangerous due to weather conditions.

Take the fall season to prepare a number of items that can help you during breakdowns.

EMERGENCY ESSENTIALS

Drivers should keep equipment in their vehicle in case of emergency or vehicle breakdown. The National Safety Council shares a list of some emergency essentials you can store in your vehicle.

Jumper cables are a necessity to have in your vehicle because a dead battery will happen without warning. Batteries lose charge over time and sometimes have trouble starting in cold weather. Be prepared with jumper cables in case you need help charging your vehicle.

Flat tires can also strike without any warning and can be a dangerous breakdown during the winter months. Check your tires during the fall and replace them if necessary.

Most vehicles come with an emergency tire, but they are only good for 30 to 50 miles. Instead, buy an extra all-weather tire in case of a flat occurs. The investment will be well worth it if you ever find yourself stranded.

A first aid kit is another emergency essential that many people do not think to have in



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their vehicle. First aid kits should come with gauze, tape, bandages, antibiotic ointment and more. First aid kits can come in handy if you ever cut yourself while changing a tire or if a collision occurs.

EMERGENCY KIT

Along with emergency essentials, drivers should pre-

pare an emergency kit to keep in their vehicle. This emergency kit should contain a variety of products. Here are some items that you can keep in your emergency kit.

Be prepared to change tires or inspect a breakdown in the rain by keeping rain poncho and rain boots in your emergency kit. Purchase a poncho with reflective colors at your local auto parts store.

Breakdowns can happen at any hour. Pack a flashlight and extra batteries in your emergency kit in case you ever experience a breakdown at night. You need to be able to see what you are doing. Phone lights aren't enough, and you want to preserve your phone battery for as long as you can.

Pack drinking water and non-perishable snacks in your emergency kit in case you ever have to wait long hours for help to arrive. Other items in your emergency kit should include windshield washer fluid, emergency contact numbers, a blanket and extra clothing.

Tire Care Essentials

Keeping your tires in safe condition will keep you safe on the road during winter, when conditions can be most challenging.

Your tires are exposed to harsh driving conditions, so it is important to know how to check tire quality.

TIRE PRESSURE

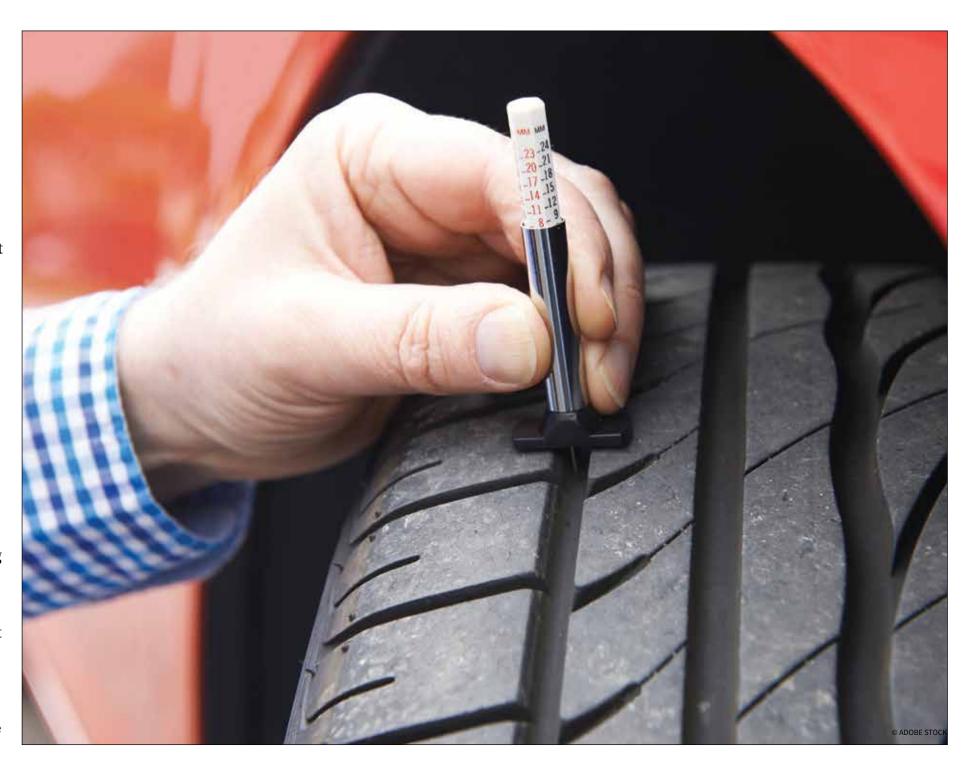
You don't need to be an expert mechanic to check your tires' performance and quality. Stick to these essentials shared by the U.S. Tire Manufacturers Association (USTMA).

TIRE PRESSURE

Tire pressure is one of the most important tire conditions to monitor. Maintaining proper inflation pressure in your tires can help you maximize fuel economy and gives the tires the ability to support maximum performance.

Use a tire gauge to check inflation pressure. You can find recommended pressure on a label on the inside of the driver's door or in your owner's manual.

You should check your tires at least once a month if they do not look low. USTMA recommends checking your tires' pressure when they are cold, meaning parked for at least three hours or more. Inflation pressure increases in warm weather and decreases in cold weather.



TREAD DEPTH

Tire tread gives your tires grip while on the road. It is important to check tire tread because if you lose too much, it can result in you losing control while on the road.

Check your tire tread a few times each month to look for any signs of uneven wear, smooth areas or damage.

USTMA shares an easy and quick way to test your tire tread anywhere you are. Take a penny and place it upside down into a tread groove. If part of Lincoln's head is covered by the tread, your tires are in good condition. If you can see all of Lincoln's head, it's

time to change your tires.

TIRE ROTATION AND ALIGNMENT

Rotate your tires based on the recommendation in your vehicle's owner's manual. If no rotation period is stated, USTMA recommends every 5,000 to 8,000 miles. Potholes or other hazards can cause alignment issues in your vehicle, leading to uneven and rapid tread wear. Your tires' alignment should be checked anytime you hit a road hazard.

Refer to your owner's manual for any specific periods of time it is recommended to change your tires' alignment.