



Monthly Driver Checks

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How to Check Engine Oil Level

Oil reduces the friction in your engine and keeps it running smoothly. You should check your vehicle's oil **at least** once a month to make sure that there is enough oil and that it is not contaminated.

- 1. Make sure your vehicle is on a level surface, put it in park and shut off the engine.**
- 2. Pull the interior hood latch.** Although the location of the hood release may differ from one vehicle to the next, all releases work in pretty much the same way. See if your car has a latch near the left side of the driver's seat, under the steering wheel. It may have a picture or marking indicating it is the hood latch. If unable to locate the hood latch, consult your owner's manual.

Press, push, or pull the latch until you hear the hood pop open. This will partially release the hood. A safety catch prevents the hood from opening accidentally while you are driving.



- 3. Locate the latch under the front of the hood.** The hood should now be partially open. With one hand, raise the hood as far as it will go. With the other hand, feel along the area between the hood and the grill for the safety catch. It will generally be at the center or just to one side. Pull up on the latch with one hand, while simultaneously lifting the hood with the other hand. The latch may go up or sideways, depending on the car.

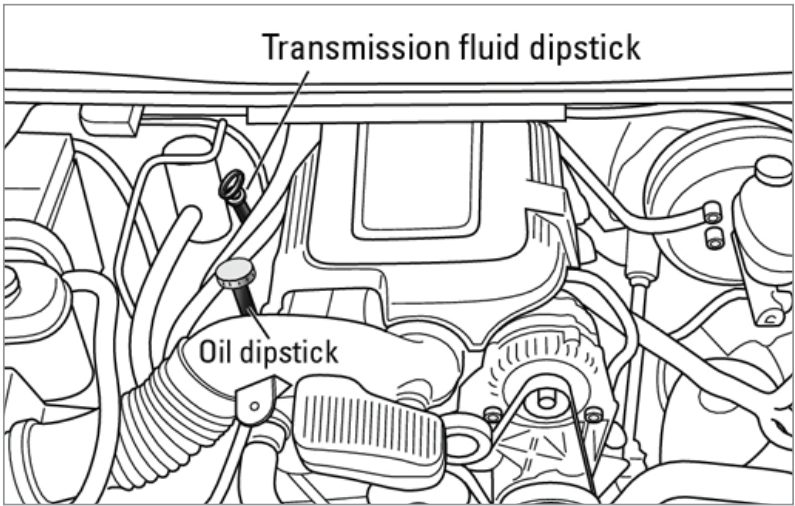


- 4. Prop up the hood solidly.** Some hoods stay up by themselves. Most hoods have a hood prop - a long, thin metal rod attached either to the underside of the hood or to the bottom edge of the hood opening. Either lower or lift the rod (depending on where it is located) and fit the end of it into the slot that is provided to hold it in place. Make sure that the hood is secure.

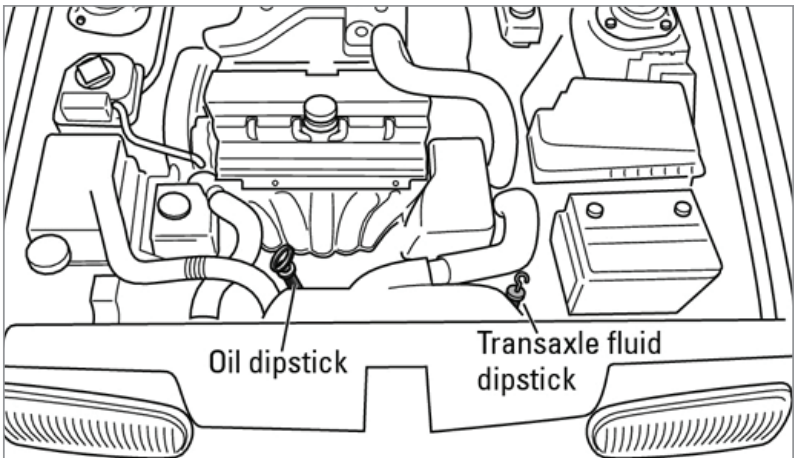


- 5. Make sure the engine is cold (or has been off for at least 10 minutes) before you check the oil.** If you do not wait, most of the oil will still be in the hot engine and not the oil pan. This will give you an inaccurate reading.

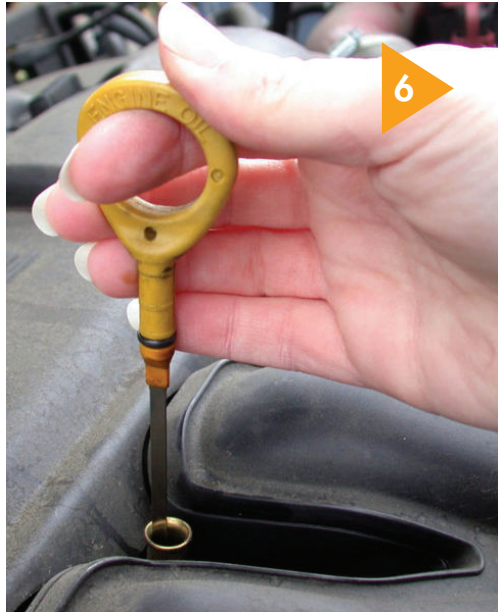
The location of the oil dipstick depends on whether your vehicle has an in-line engine (rear-wheel drive).



Or a transverse engine (front-wheel drive), as shown here. With a transverse engine, your dipstick should be located near the front of the engine.



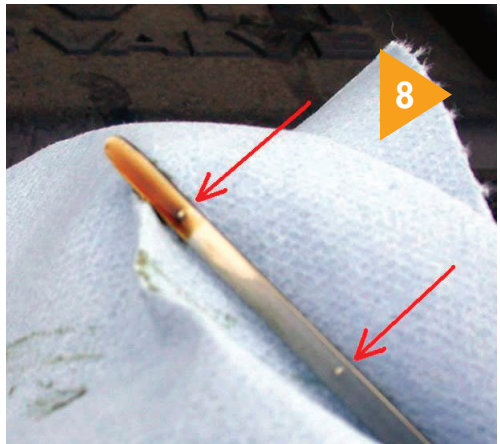
- 6. Pull out the dip stick and wipe it off on a clean, lint-free rag.**



- 7. Insert the stick back into the pipe.** If the dipstick gets stuck on the way in, turn it around. The pipe it fits into is curved, and the metal stick bends naturally in the direction of the curve if you put it back in the way it came out.

- 8. Pull the dipstick out again and look at the film of oil on the end of the stick.** Note how high the oil film reaches on the dipstick and the condition of the oil, and add or change the oil as needed.

Oil turns black quickly, but that does not affect the quality. Rub a little between your thumb and index finger, and if it leaves a dirty smudge, it probably needs to be changed.



- 9. If your oil looks clean enough but only reaches the “add” level on the dipstick, you need to add oil.** You can buy oil the next time you fill up with gas at the service station or you can find it at auto supply stores, supermarkets, discount stores, and large drugstores.



Note: You do **not** add oil into the tiny tube that the dipstick sits in. Look for a screw-off cap on top of the largest part of the engine. It could be blank or it could be labeled “Oil Cap”, and it might even indicate which grade of oil you ought to be using in your car. Unscrew that cap and add oil as needed.

- 10. Put the dipstick back in. Secure the hood and you are done.**



How to Check Windshield Washer Fluid

Windshield washer fluid helps your windshield wipers remove dirt and grime from the windshield. Mostly water, washer fluid usually includes ammonia to enhance its cleaning ability, alcohol to prevent streaking and to keep ice from forming in the washer nozzles. The fluids in your vehicle are usually checked and topped off when you have it serviced. If you find yourself cleaning the windshield more often it may be necessary to check the windshield washer fluid level.

- 1. Make sure your vehicle is on a level surface, put it in park and shut off the engine.**
- 2. Pull the interior hood latch.** Although the location of the hood release may differ from one vehicle to the next, all releases work in pretty much the same way. See if your car has a latch near the left side of the driver's seat, under the steering wheel. It may have a picture or marking indicating it is the hood latch. If unable to locate the hood latch, consult your owner's manual.

Press, push, or pull the latch until you hear the hood pop open. This will partially release the hood. A safety catch prevents the hood from opening accidentally while you are driving.



- 3. Locate the latch under the front of the hood.** The hood should now be partially open. With one hand, raise the hood as far as it will go. With the other hand, feel along the area between the hood and the grill for the safety catch. It will generally be at the center or just to one side. Pull up on the latch with one hand, while simultaneously lifting the hood with the other hand. The latch may go up or sideways, depending on the car.



- 4. Prop up the hood solidly.** Some hoods stay up by themselves. Most hoods have a hood prop - a long, thin metal rod attached either to the underside of the hood or to the bottom edge of the hood opening. Either lower or lift the rod (depending on where it is located) and fit the end of it into the slot that is provided to hold it in place. Make sure that the hood is secure.



- 5. Look for the washer fluid reservoir.** Look for a cap that displays a windshield wiper. It will be near the front of the engine area.



- 6. Check the washer fluid level.** The tank is usually translucent, allowing you to see whether there is fluid in the reservoir or not. Many washer fluid reservoirs have marks to show the fluid level. If the tank is less than half-full, you will need to refill it.



- 7. Open the cap and set aside.** If the cap has a leash, shift it away from the opening.
- 8. Add windshield washer fluid.** Locate the fill line just below the top edge of the reservoir opening. If you are using a funnel, place it in the opening. Pour the fluid into the reservoir until it reaches the fill line. If you are not using a funnel, carefully pour the liquid directly in the opening until it reaches the fill line.
- 9. Replace the cap.** Remove the funnel. Place the cap on the opening and press until it snaps.
- 10. Close the hood.**

Please Note:

- ▶ **Keep washer fluid out of the reach of pets and small children.** Windshield washer fluid is a brightly colored liquid made of methanol, a poisonous alcohol. Sometimes small amounts of other toxic alcohols such as ethylene glycol are added to the mixture.
- ▶ **Pay attention to the kind of windshield washer fluid you use.** Windshield washer fluid is sold in many formulations. Some are concentrated, which means that you need to mix them with water before adding them to the reservoir. If you dilute your washer fluid, distilled water is preferred since it will not leave trace mineral deposits on the glass.

- **Different types of windshield washer fluid have different freezing points.** It is important for drivers to choose the correct type for cold weather to avoid frozen fluids. If the washer fluid freezes, it can damage the reservoir and render the washer system useless.



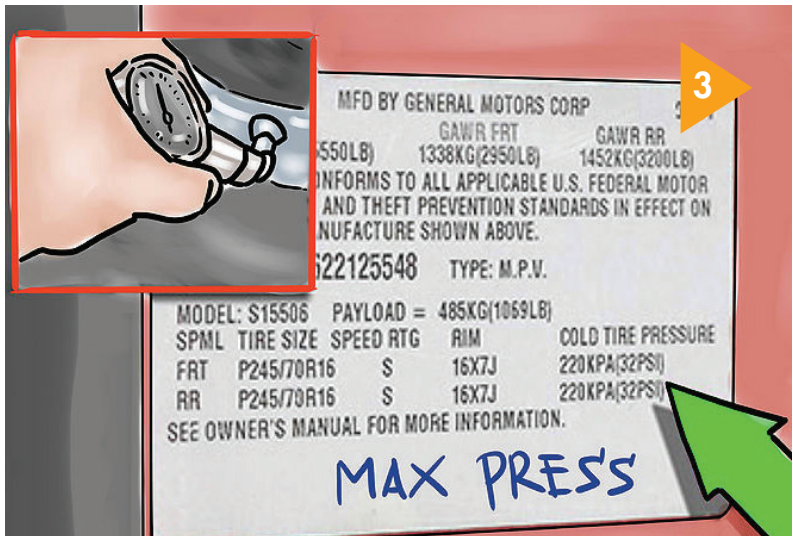
Sometimes, drivers may add water to the tank in a pinch or dilute the washer fluid in the summertime to make it last longer. Avoid this behavior in the fall because it can freeze over in colder temperatures and you will not be able to properly clean your windshield. If you are unsure if there is water mixed in with the cleaning solution, or if it the wrong type for winter, empty the tank and replace it with the proper windshield washer fluid.



How to Check Air Pressure in Tires

Inaccurate pressure can cause poor mileage, uneven tire wear or a blow-out. It is important to maintain proper tire pressure to prevent these from happening. Check your tire pressure **at least** every month to ensure that you are getting the most out of your tires.

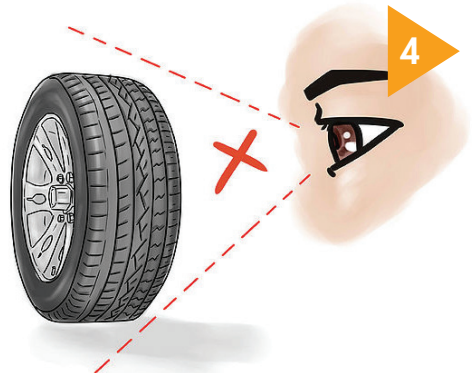
- ▷ Note that the front and back tires may need different pressures, according to the manufacturer.
- ▷ The PSI listed on the sidewall of the tire is the max cold pressure for the tire carrying the highest (weight) load the tire supports. This is not necessarily the pressure you should inflate the tires to.



3. Understand the myth about the “max press” value in the owner’s manual or driver’s side door. One popular misconception is that the max pressure suggested by the manufacturer is all the pressure the tire can handle before it pops or malfunctions. In truth, the max pressure is the pressure at which the tires will carry the maximum amount of weight.

- ▷ As soon as you inflate the tires past the max pressure limit, be prepared for the possibility of malfunction. If your tires are bearing heavier air pressure, a pothole at high speeds could spell disaster.

4. Never rely on the eyeball method to gauge air pressure in tires. It is very difficult to tell the difference between a tire with 10 PSI and 20 PSI. Plus, tires normally exhibit a bit of a bulge on the sidewall of radial tires.



If you inflate the tires until the bulge is gone, you run the risk of seriously over-inflating your tires.

5. Many vehicles come equipped with a tire pressure monitoring system, which allows you to check your tire pressures without leaving the driver's seat.

▶ For General Motors Vehicles


- ▶ On your dash, you will see the following buttons (see image to right).
- ▶ Press the vehicle information button until the tire pressure readings are displayed.



▶ For Dodge Vehicles

- ▶ Press and release the up or down button until "Tire PSI:" displays highlighted in the electronic vehicle information center.

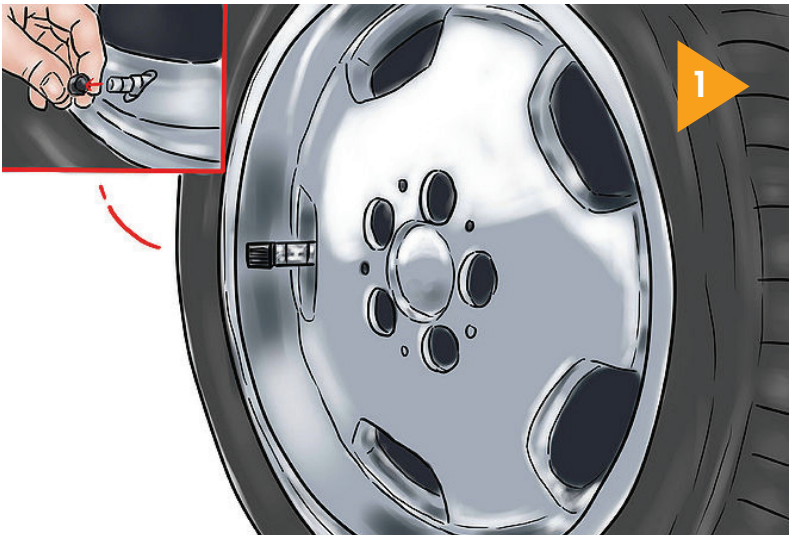


- ▶ Press the  button to view a graphic of the vehicle with a tire pressure value at each corner of the graphic.

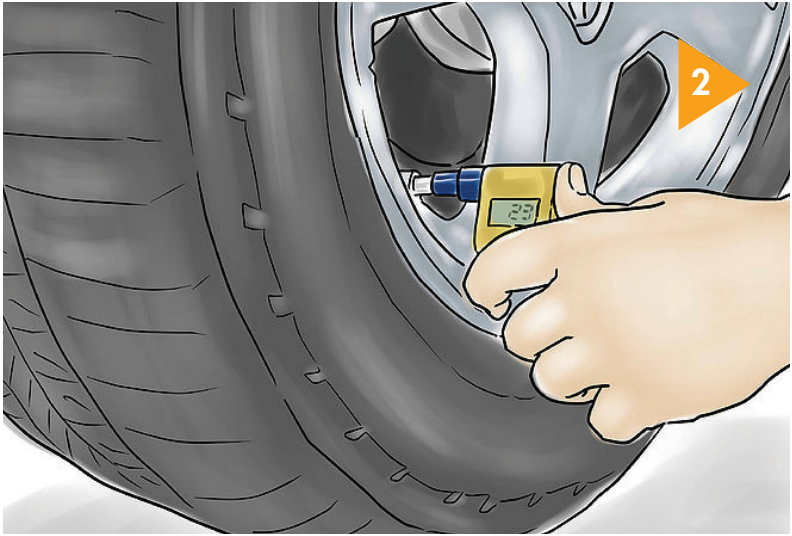
If your vehicle does not have a tire pressure monitoring system, you will need a tire pressure gauge.

- ▷ The pencil-type gauges look like little metal tubes with a ruler-like gauge that pops out showing the air pressure. The markings are small and might be hard to interpret, but they are inexpensive.
- ▷ Dial gauges are more accurate and give you a very clear readout of your tire's pressure.
- ▷ Digital gauges give you a LCD readout that requires no interpretation.

1. Unscrew the valve stem cap from the valve stem on the tire. The valve stem is a black pencil-sized extension near the hubcap, about one inch long.



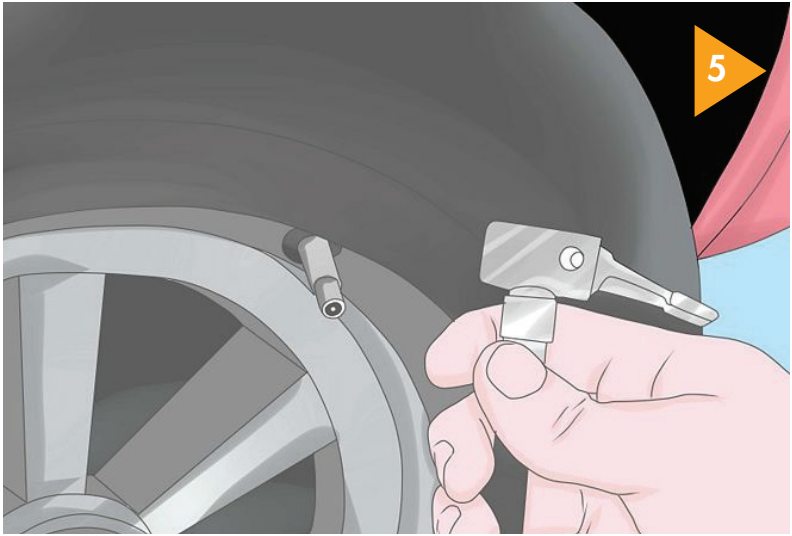
2. Press the air pressure gauge evenly onto the valve stem and record the reading given. If there is a hissing sound, the gauge is not tight or even enough for an accurate reading. The angle of the gauge may need to be adjusted.



▷ Note: Some gas station air compressors will not go above 50PSI. If you are driving a large vehicle that requires 80PSI in the rear wheels, your best option is to drive to a truck stop.

- 3. If the reading on all the tires is the same as the manuals' specifications, you are done.** If inadequate pressure is in the tires, then fill them with air. Make sure you put in the correct amount.
- 4. Add air if the reading is lower than it should be, or bleed air if the reading is higher than it should be.** Turn on the compressor. Place the hose nozzle squarely on the valve stem. Press down firmly and squeeze the valve trigger. If it hisses loudly, press more firmly until the hissing stops or is minimized.

Use the air hose to add air in short bursts, checking the pressure after each time with your tire gauge. If you add too much air, press the center pin in the valve stem with the back of the air hose nozzle or with the little knob on the back of the rounded end of the tire gauge.



- 5. Keep checking the pressure until you get it right.** Do not get discouraged if you have to keep adjusting the air pressure. No one gets it right the first time!
- 6. Replace valve stem cap.** The cap does not hold air in, but it keeps dirt and moisture away from the valve mechanism in the valve stem, which does hold air in.



Please Note:

- ▶ An **underinflated** tire causes more sidewall flexing which increases stopping distance, lowers fuel economy and shortens the life of a tire. In rare cases the tire can blowout because of excessive heat from too much sidewall flexing and can even roll off the wheel in emergency maneuvers.
- ▶ An **overinflated** tire makes for a harsher ride and makes the tire more prone to damage if you hit pot-holes or other objects in the road.
- ▶ **Check the air pressure of your tires as the seasons change.** In hot weather, the pressure in your tires rises by 1PSI for every 10° F as the air in them heats up and expands. Conversely, in cold weather, the pressure falls by 1PSI for every 10° F drop as the cold air contracts. Therefore, it is very important to re-check tire pressure when the seasons change.
- ▶ **Sunlight heats up tires even if they're not driven.** For more even readings make sure both sides of the car do not have sun shining on them.

Pictures and content adapted from wikiHow and Auto Repair for Dummies, 2nd Edition by Deanna Sclar.

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