

Car maintenance checklist

It doesn't take too long to check the basic maintenance items in your car like engine oil, transmission fluid or tires. This generic car maintenance checklist is designed to give you a general idea; as different cars have different requirements. For the correct information on how to maintain your car, as well as safety precautions, refer to your vehicle's owner's manual or take your car to a dealer or auto repair shop.

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Car maintenance basics

It's really not that difficult to keep your car in good shape. Here are the basics:

- Read your car owner's manual, it has all the information on car maintenance as well as safety precautions.
- Keep all the fluids (e.g. engine oil, transmission fluid, coolant, etc.) clean and topped up.
- Follow your maintenance schedule, there is a number of things that need to be regularly serviced or replaced at certain intervals (e.g. brakes, air filter, timing belt, spark plugs, etc.)
- Check tire pressure regularly.
- Change your windshield wipers if they don't clean properly.
- Wash and wax your vehicle once in a while to keep the car finish shiny and protected from corrosion.
- Deal with any problems as soon as they arise, before they become more serious and require expensive repairs.
- Use only original parts.
- At least once a year have your car check out in a garage.

How to check engine oil

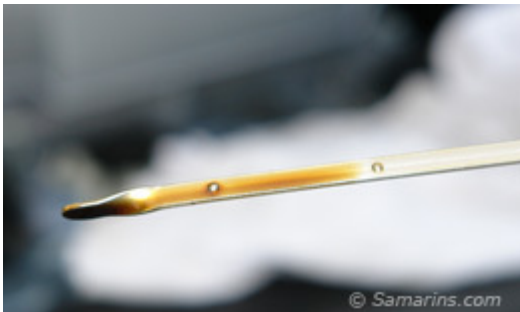
Check engine oil regularly, especially if you notice that the oil level drops between the oil changes. Engine oil cools down and lubricates the engine. Driving with very low oil level can cause engine problems.



Park your vehicle on a level ground. Set the parking brake. Make sure the transmission is in "Park." Stop the engine. Wait for a minute or two to let engine oil drain into the oil pan. Pull the engine oil dipstick. If you don't know where it is located, check your [owner's manual](#), usually it has a bright handle saying "Engine Oil".



Wipe the dipstick off. Insert it back fully. Pull it out again and check the oil level.



The oil level should be between the "Low" and "Full" marks. In this photo the level is OK and oil looks clean.



Check the oil condition: If it's way too black, as in the left photo, it's definitely time to change it. If it's brown, but still clean and transparent, as in the right photo, it's OK. If engine oil is of the "coffee with milk" color it means that engine coolant mixes with oil. This is a sign of some internal engine problem, such as, for example, a leaking [head gasket](#) - have your car checked out.

If oil looks clean, but the level is low, you can just top it up.



To top up engine oil use a recommended type of oil; for example, if your owner's manual or the oil filler cap indicates SAE 5W-20, use SAE 5W-20 oil. If your engine needs synthetic oil, use only synthetic oil. You can find the recommended oil type for your car in your owner's manual.



How to top up engine oil: Add a little amount of oil into the oil filler neck. Wait for a minute to let oil to flow into the oil pan. Check the oil level again with the dipstick. If it's still low, add some more. But don't overfill it. Don't forget to install the dipstick back and close the oil filler cap when you finished.

Engine coolant (antifreeze)



Visually check the engine coolant level in the overflow tank. Your owner's manual has the directions. The level should be between "Low" and "Full" marks. **(Don't open the radiator cap or the pressurized overflow tank cap when the engine is hot! The cooling system is under pressure when hot!)** If the coolant level is low, you can top it up using recommended type of coolant mixed with water. Again, your owner's manual has the proper way to do it.



Add coolant only when the engine is cool. Use only recommended engine coolant. Sometimes engine coolant is sold already premixed with water and sometimes you will have to mix it. Check your owner's manual or read the directions on the coolant bottle. Carefully add the coolant into the overflow tank to make it between "LOW" and "FULL" marks.



If the coolant level drops within a short time after topping up, there may be a leak. Have the

coolant system checked - lack of coolant may cause the engine to overheat which may result in serious damage.

Engine air filter



The engine air filter keeps the air entering the engine clean, but over time the filter gets dirty and restricts the air flow. The engine air filter is usually recommended to be replaced every 12,000-15,000 miles or 20,000-24,000 km. Typically the air filter gets checked when you bring your car for an oil change. If you want to check it or replaced yourself, on most cars and trucks it's a fairly easy task. Your owner's manual has the directions. If you find that the air filter is dirty, replaced it; it's not a very expensive part. It's best to use an original air filter that you can buy at your local dealership parts department; usually it costs around \$20. When you are installing the air filter, make sure it's installed correctly; again, check your owner's manual. If the filter is not installed properly, unfiltered air entering the engine could damage the airflow sensor and increase engine wear.

How to check automatic transmission fluid

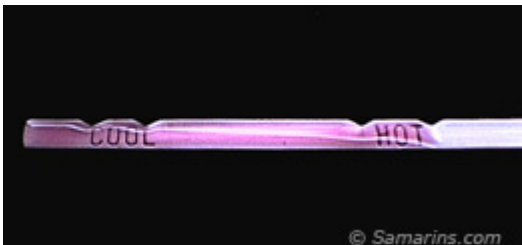
An automatic transmission depends on the transmission fluid for transferring engine power to the wheels, shifting gears, lubricating moving parts and cooling down the transmission. Check the transmission fluid when your car is serviced and change it as recommended. Different cars have different ways of checking the transmission fluid level; some require the engine to be shut off (e.g. Honda), some cars don't have a transmission dipstick at all and the fluid can only be checked in a repair shop. Check your owner's manual for proper procedure. This is how the transmission fluid checked on most cars:



After the vehicle was driven for a while to let the transmission fluid warm up, place your vehicle on a level ground. Set the parking brake. Make sure the transmission is in "P" (Park) position. Leave the engine running. Find the automatic transmission dipstick (your owner's manual will tell you where it is located). Pull the dipstick out.



Wipe the dipstick off with a clean lint-free rag. Insert it back fully. Pull it out again and check the fluid level. A transmission fluid expands when warmed up, so if the car has been driven for a while (20-30 minutes), the transmission level should be between "HOT" marks. If the vehicle is cold, the level should be between "COOL" marks. Check the fluid condition: a very dirty fluid with strong burnt smell is a warning sign of transmission problems. Normally the automatic transmission fluid should be clean and transparent, as in these photos.



On most cars the new transmission fluid comes red (photo on the left). Over the time it becomes brownish, as in the photo below.



This is how the synthetic transmission fluid looks after two years of driving - it's still clean and transparent. If your fluid looks very dark or dirty, check your owner's manual, maybe it's time to change it. Some manufacturers require to change the transmission fluid at 30,000 or 50,000 miles others specify that you never have to change it - check what's your car owner's manual says.



If the transmission fluid level is low, you can top it up, but be careful not to overfill it. Overfilling the transmission can cause problems. It's very important to use only specified transmission fluid type - check your owners manual or simply visit your local dealer, they always have proper transmission fluid in stock. Incorrect fluid type can damage your transmission. How to top up the transmission fluid: Using a thin funnel, add a small amount of the fluid through the dipstick pipe. Wait for a few minutes - let the fluid drain down. Recheck the level again. Don't overfill.

Battery



Check the battery condition visually. If you see any leaks, cracks or other damage, the battery needs to be replaced. Make sure the battery terminals are tight and not corroded.

Corrosion at the battery terminals will cause poor connection, which can result in all kinds of problems, including a no-start.

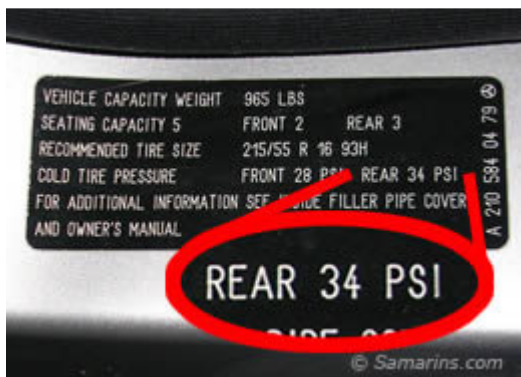
You may find the tips how to clean the battery terminals in your vehicle's owner's manual or online. Just search the internet for *How to clean car battery terminals*, there are some video instructions available. Be careful, that white flaky corrosion stuff is very acidic.

Windshield wipers



Replace the wipers at least once a year or earlier if they don't clean the windshield properly. If you still have the original wipers installed, you can just replace the rubber refills; they cost just a few bucks and can be purchased from your local dealership's parts department. Check if the windshield washer jets are working properly.

Tires



Check the tire pressure regularly - at least once a month. If you don't have the tire pressure gauge, it's worth to buy a good one. You can find the recommended tire pressure in the [owner's manual](#) or on the tire pressure placard (see photo), which might be located on the driver's door jamb, inside the gas tank lid or inside the glove box.



Measure tire pressure when the tires are still cold.



Pump or deflate to the recommended pressure. The maximum pressure listed on tires is NOT the proper pressure!



There is a safe limit of the tread wear. If the tire is worn below this limit, it's unsafe to drive. Your owner's manual has the direction how to measure tire wear or your mechanic can check your tires for you. This tire in the photo is definitely worn beyond the legal limit. Feel vibration at cruising speed? Have your tires balanced. Uneven tire wear indicates alignment problem. Improper alignment causes increased tire and suspension components wear and poor handling. If a car pulls aside, wanders or feels unstable on the road, have the alignment checked. Properly done alignment will make your car's ride a lot more enjoyable.

Tire rotation



Front and rear tires wear at different rate and have different wear pattern. On a typical front-wheel drive vehicle, for instance, the front tires would wear out a lot faster than the rear ones if not rotated regularly. By rotating your tires regularly, you are making sure that your tires wear more evenly and last longer. Some manufacturers recommend to rotate tires at every oil change, others may recommend to do it at different intervals. Tire rotation pattern is also different for different tires. It's best to check your owner's manual or call your local dealer for exact recommendations for your tires.

Taking care of small concerns in time may save you a lot more

As soon as you feel there is something wrong with your car like any kind of irregular noise, vibration, shimmer, or you note some leak or any warning light comes on while driving or anything that seems to be irregular, have your car inspected at a dealer or a garage as soon as you can, as it might be unsafe to drive. It's definitely better to check any small problem before it will cause something serious.

Regular mechanical inspection

For your safety, I recommend to have your car inspected regularly, at least once a year, by a mechanic. I mean not just visual inspection by one of the fast lube places, but a mechanic that can lift your car and check major components such as brakes, suspension, etc., while having your tires rotated, for example. This is because many components (e.g. ball joints), cannot be inspected visually.