# The five minute car check



# • Note: there's a video version here:

There's no check like a pro check. The only way to really evaluate a car is to take it to a professional motor mechanic. It's his or her profession, it took five or more years to learn, and you can't possibly do as well.

However, long before you take a car to your mechanic, you can filter out the really bad vehicles yourself. This way you can avoid paying for endless costly vehicle checks on a succession of cars that prove to be unsatisfactory. Checking out a car for yourself is also a great self-confidence booster.





Wherever possible, inspect a car in the daylight on a clear day. Darkness and rain tend to hide serious faults. If it's a wet day and you really need to buy a car quickly, you may be able to get some shelter from the rain at a petrol station.

#### Who owns it?

Before you buy a car, you need to make sure that the person selling it is the real owner. Ask to see the registration documents.



Check that the seller's name matches the name on the ownership papers. Ask to see his driver's licence to prove his identity.





It's also worth noting how long the seller has owned the vehicle. If it's less than three months, the chances are that the seller is an illegal dealer. You don't get bargains from illegal dealers.

If the name on the registration documents doesn't match the name on the driver's licence, then the seller is also probably an illegal dealer. Don't accept excuses such as: "It's my cousin's car." Walk away.

Make sure that the car has current registration and safety certificate.





While you're checking the registration, make sure that the windscreen is free from stone chips and cracks.



Stone chips grow into small cracks and small cracks grow into large cracks. Believe it or not, the windscreen on a modern car is an important part of the structure of the vehicle. Cracks reduce the strength of the windscreen.

Therefore, badly cracked windscreens are not only illegal, but unsafe and often costly to fix.

If an otherwise good car has a cracked or chipped windscreen, it may still be worthwhile buying it, provided you get a discount for the cost of the repair.

The general rule is that any crack on the edge of a windscreen means that the whole windscreen will have to be replaced, but cracks up to 2–5cm may be repairable. Ask your mechanic for advice.



#### **Dents and rust**

Look down the sides and roof of the car for obvious faults in the panelwork, as the lady is doing in the photo. You'll be surprised how much easier it is to pick problems from this position.

Faults in the panelwork (dents, doors that don't fit, etc) don't mean that you shouldn't buy the car, but they should be examined further by someone who knows about such things in order to make sure they are not covering up a much bigger problem.



Even if the dents, etc, are as minor as they seem, they still lower the resale value of the vehicle and you should use them as a negotiating point later on.



Check the roof, doors and underneath the rear window for bubbles or bumps coming through the paint that may indicate rust.

Here's a useful tip: bring a flexible fridge magnet with you. If it sticks firmly and easily to a panel, chances are that the panel is sound. If it drops off or won't stick easily, chances are that panel has been repaired with filler.





Car filler (also called *putty* or *bog*) is used to cover rust or damage, so be suspicious of a panel where the fridge magnet won't stick.

Check the whole outside of the car for dents, rust and damaged paint (open the doors and look underneath as well).



Dust and dirt naturally live on the the underside of the door, but there shouldn't be any rust holes.



This is what rust holes on the underside of a door look like (you'd be lying on your back looking upwards to see them this way).

Also check the sills – the long panels below the side doors, because any rust there will almost certainly cause you to fail your next safety check. Fine scratches under the paint in any of these places probably mean rust has been covered up recently. Use your fridge magnet.





The sill should be smooth and free from rust. The sill helps to hold the vehicle together, so there should be no rust holes in this area at all.

Check the boot – check underneath the lid for rust, lift the spare tyre and look underneath it for rust.



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Make sure there's a spare wheel in the boot. Remove the spare tyre and check for rust holes underneath, because water often leaks into the boot and ends up sloshing around in the spare tyre compartment, eventually rusting it out.

If the vehicle is a pickup or offroader, pay particular attention to the body around the rear bumper (look underneath as well). These vehicles are often used for towing boats and therefore the rear end gets heavy exposure to salt water. Exposure to salt water can rust out the rear of a vehicle to the point where it's uneconomic to fix.



#### **The wheels**

Check the tyres, including the spare. You should be able to fit a match head into the tread in the tyre, otherwise it may not pass its next safety check.



Check also for rips and tears on the tyres – these may be expensive and dangerous.



Write down any faults and report them to your mechanic.



## **The interior**

Check the inside of the car for wear and tear. Look underneath the mats and while you're down there, sniff for musty carpet smells that might indicate a water leak. If the carpet is damp or smells musty, insist that the car goes through a car wash with you inside, or spray the car cabin, especially the windscreen, with a garden hose. Watch for leaks inside.



If the car doesn't leak during a commercial carwash, but the carpet is still damp and/or musty, then the heater is probably leaking into the interior of the car. This may be a much more serious problem than it sounds, and should be pointed out to your mechanic.



## How tired is this car?

Open the driver's door from the outside. Grasp the sides of the door like a handle and try to jiggle it up and down.



Obviously, the door is allowed to swing open and shut, but it should have NO UPWARDS OR DOWNWARDS MOVEMENT.



This last test is a basic check of how many times the car door has been opened. Car hinges are quite strong, and any car under 150,000km should have NO upwards or downwards play in those hinges. If they do have play, then the car has probably done greater than 150,000km. If the car has lots of play in the hinges, then it has probably done at least 250,000km.

So, if there's lots of play in the doors, but the car is supposed to have a low mileage, someone is bullshitting you.



#### How good is the engine?





Check underneath the motor and gearbox for oil leaks.

On older (budget) cars, minor oil leaks may be okay – they are just a sign of wear and tear, that's all, but they should still be checked out by your mechanic. Major oil leaks are never okay.

If there is red oil underneath, then there's probably a problem with the automatic transmission or steering.



# **Don't forget to check the oil!**

With the ignition key switched off, the handbrake on and the gearstick in either *Neutral* or *Park*, open the bonnet and take out the engine dipstick.



If you can't find the dipstick, get the seller to find it for you. Wipe off the dipstick with a rag and reinsert it into the engine. The oil should be between the two markings on the dipstick (see illustration).







The oil on the dipstick should be between the E & F (Empty & Full) markings. You should be able to see the dipstick through the oil.

Very dark oil tells you that the owner hasn't maintained the vehicle properly. Dark oil doesn't necessarily disqualify the vehicle, but it's something you should point out to your mechanic when you get the vehicle professionally checked. As a general rule, the newer the car, the more serious dark oil is, because modern car engines simply won't tolerate old oil.

Low oil is also serious, because it means the engine is worn (low and dark is the worst combination). As a general rule you should avoid cars with tired engines, unless you're at the ultra-budget end of the market.



If you're looking for a decent car then you should probably avoid cars with a low oil level in the engine, unless your mechanic says otherwise. Remember that low oil and oil leaks tend to go together. In some places oil leaks will cause the vehicle to fail a safety check.



It's important to check for signs of a blown head gasket. Head gaskets may be very expensive to fix and if left unfixed you'll probably end up broken down at the side of the road.

The symptoms of a blown head gasket are

mysterious coolant loss, sometimes accompanied by rough running and overheating, clouds of white steam coming from the exhaust, oil in the water, water in the oil, and/ or white goo under the oil filler cap (see picture above). You should also lift out the oil dipstick, if there is one. If the oil is the colour of the white goo in the middle of the oil filler cap in the picture, you have a cracked cylinder head and/or blown head gasket. You should also be suspicious about any vehicle with a heater that leaks coolant into the interior of the car. A leaking heater is sometimes a symptom of a head gasket problem. So is a blown or leaking radiator or its hoses. Walk away.



#### The smoke test

Start the engine and rev it as if you were about to take off on a hill, but not so hard that it sounds like the motor is about to fly apart.

Hold the revs steady for about ten seconds while you or a friend check for obvious smoke coming from the exhaust. (If you are by yourself you'll have to look over your shoulder. Don't let the owner do the revving as they inevitably rev too low, and it's difficult to order him or her to rev harder.)





Just because you can't see any smoke doesn't mean the engine is okay – you'll still have to have it checked by a mechanic – but if the engine is blowing obvious smoke (steam on cold winter mornings is okay), don't bother to proceed further. By the way, it's perfectly normal and okay for a car to spit out a few droplets of water from the exhaust while it's idling.





Get an old rag and block the end of the exhaust pipe completely. The car may rock or stall after a while and that's okay.

The reason for the test is to listen for the telltale hisses from underneath the vehicle, that indicate a hole in the exhaust. If you hear clear hissing sounds, then you must point this out to your mechanic (it's okay to get a little hissing from around the rag you're holding). On a cheap vehicle you may not wish to proceed with the sale at this point, because a hole in the exhaust often means the entire exhaust system needs replacing, which may cost more than the vehicle is worth.



# **Dashboard stuff**



While you are sitting in the driver's seat, try out both the sound system and the air conditioning, if the car has them. It's worth bringing a CD or iPod along with you for this purpose. You should also turn the air conditioning onto 'cold' and set the fan on full.

The air conditioning may take a couple of minutes to produce really cold air, but if it's working properly it should be able to turn the inside of the vehicle into a fridge within a couple of minutes. Leave it on during the test drive if you are not sure. If it's winter, leave your coat on. In many places air conditioning is a desirable extra, not a necessity, but if you live in a climate where air conditioning is needed in order to avoid summer meltdown, you'd better be sure that it's really working.



On some cars the air conditioning will simply need refilling in order to make it work again, but in others, especially anything European, dysfunctional air conditioning is likely to cost many thousands to fix.

(If the next test is too confusing for you, skip it and proceed to the test drive, but point out to your mechanic that he needs to check out the dashboard lights on your behalf.)



Make sure that the car is in neutral, then turn on the ignition key just far enough that the coloured lights on the dashboard come on. If you start it accidentally, that's okay, just turn it off and start again.

The dashboard warning lights should come on when you first turn the key, then go off when the engine is started. If they stay on once the engine is started (or don't work at all), something may be wrong.

There's a nice explanation of common automotive warning icons **here**.



# **Test Drive**



Go to a carpark and drive the car in a tight left and then right hand circle. If you hear a loud knockknock-knock noise coming from the front wheels then you know for sure that the car is high mileage and probably very tired. That knock-knock-knock noise should disqualify all but the cheapest cars because it means that the constant-velocity joints are worn out, and probably the rest of the car is also. If you are buying a budget model, point out the noise to your mechanic and take his or her advice.

Don't do this next test unless the road is clear and you are an experienced driver.



Preferably take the car you are testing out on a long, straight road with little traffic. Take your hands off the wheel (keep them close) and see whether the vehicle pulls markedly to the left or right (all cars will gradually move to the left – that's okay, you're looking for a marked tendency to head for one side of the road).

Don't forget to drive safely – watch out for other cars. Put your hands lightly back on the wheel, check that no cars are immediately behind or beside you and then lightly apply the brakes. The car should begin to stop in a straight line. If it pulls to one side, if the brakes 'grab' on suddenly or seem not to be working very well, write this down when you stop and point the problem out to the mechanic who does the vehicle check.

Write down anything else that seems weird (e.g., strange noises) and point the problem out to your mechanic.

Unless you've already done this, it's not a bad idea at this point to take the vehicle through a carwash as part of the test drive. This will highlight any leaks, which are more serious than they may sound because they tend to rust out the vehicle from within. Internal water leaks may also wreck the vehicle's electronics.



#### **Remote control**

Check that the vehicle has two, working, key remotes!



Above is a range of remote keys. These are used on European vehicles from about 1995 and vehicles from everywhere else from about 1998. Without this key remote the car probably won't run.



This is an alarm remote, part of an alarm kit bought from a motor parts shop and designed to fit any vehicle. This type of remote is often used on vehicles before about 1995. This alarm remote looks similar to the key remote, but it's really just an easy way of turning the alarm on and off. There are generally less problems if one of these goes bung.





Most modern cars produced after about the mid-1990s require that you have a remote key, or the car simply won't start. When car owners lose or break their only remote, they frequently discover that it will cost **hundreds or even thousands** to replace the keys and reprogram the car's security system.

The problem is not with the remote itself, but with a tiny computer chip within the remote, called the transponder chip. This chip carries a pin number that must match the pin number within the car's computer, or the car will not start. Although these chips are simple and cheap to manufacture, the car companies are often the only supplier and they sell these chips at prices that amount to extortion.

If you have only one remote key and you lose it, you're in trouble. However, many secondhand cars are sold with only one remote because the original spare has been lost or broken.



Certain recent cars (notably many Citroëns) are supplied new with only one remote key, which annoys us. Supplying a new car with just one key is simply cost-cutting by the carmakers. Sensible owners are then forced to pay hundreds more to get a spare key.

Locksmiths can often make duplicate key remotes for older cars for reasonable prices. However, on many late model cars, locksmiths probably won't be able to duplicate your key remote. Only the dealer can duplicate the original remote, and often at a very high price. Therefore, many owners skip the expense of duplicating their only key, not realising the risk they are taking.

Twenty years ago you could take a car key to a locksmith and get a duplicate cut for \$10. Those days are long gone. If the car you're looking at was made after 1995 and doesn't come with a spare key remote, our advice is to buy a different vehicle. If the seller tells you that a duplicate key remote will only cost a few dollars to buy, don't take his word for it: make him buy one for you. Any buyer of a modern car has a right to get two sets of car keys when they purchase their vehicle. Supplying these keys should be the seller's problem, not the buyer's.



# **Call in the professionals**



All okay? Now arrange a professional car check! We recommend you contact your local automobile association and get your car checked by whomever they recommend. Otherwise, use the best available motor mechanic, and not a brother, dad or friend who thinks he knows a bit about cars, okay?

If there's really no mechanic available and you want to proceed with buying the vehicle, give a small deposit (not over 50) and make the sale conditional upon the vehicle passing a new Warrant of Fitness or other state safety check in your presence before the balance is paid.



Explain to the mechanic at the safety testing station that you're thinking of buying the car, and ask him to be super-thorough.

If the car fails on anything, get a firm quote for the cost of repairs and have this cost deducted from the purchase price, or don't continue with the sale.

Go online and pay a small fee to see if the vehicle is legal, hasn't been reported stolen and doesn't have any money owing on it.

https://carjam.co.nz/

https://www.carfacts.com.au/

# https://www.hpi.co.uk/

Get a receipt and make sure that all legal papers are filled in & signed. Make sure that the ownership is immediately transferred into your name. Don't take the seller's word for it – go with him to make sure the change of ownership has really happened •

# Note: there's a video version of this guide here:

