# Simple Car Maintenance

Welcome to this **Perfect Driver** course. Throughout this course, we are going to look at the law, skills, techniques, and ideas to help you become a better, and safer driver.

In this lesson, we'll look at **Simple Car Maintenance.** 



**Defect Notices.** Police in all states have the power to issue defect notices on infringing vehicles. This may include cars where certain lights are out, a horn is not operating, tyres are bald, or for any other reason that makes the car dangerous to drive.

This also includes illegal modifications like windows too darkly tinted, wheels that are two wide, cars that have suspension that raises the car too high, or too low.

When issued with a defect notice, you may not be able to drive the car at all. So it is up to you to make regular checks and maintenance to ensure your car is not defected.



### Simple Car Maintenance

**Fixing Your Car.** For most of us, the mechanics of a car are well beyond us. If something goes wrong, we simply can't fix it.

But there are three common issues that chances are you'll come across one day, and they are not that difficult to fix.

These include:

- Running out of Fuel.
- Getting a Flat Tyre.
- Getting a Flat Battery.

We'll take a quick look at each of these next.

However, if you are a member of an organisation that provides 24hr roadside assistance, you can call them in any of the above situations for help.

**Running Out of Fuel.** If you carry spare fuel, ensure it is stowed correctly, and stored in an approved container. If you run out of fuel, most service stations will sell you a five litre container (which you can fill with petrol), and a funnel. Five litres may not get you far, but hopefully enough to get the car to a service station.

**A:** Get fuel in an approved container. **B:** Place the funnel where you add fuel to your car. **C:** Carefully pour fuel from the container into the funnel.







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**Changing a Flat Tyre.** Although it's mostly referred to as 'changing a flat tyre', what you actually do is replace the entire wheel that has the flat tyre with your spare wheel:

- First ensure the spare wheel is in your car, and is pumped up.
- Ensure the car is on a level and flat surface.
- Loosen the wheel nuts (do not remove yet) on the wheel with the flat tyre.
- Use the jack to lift the car. Place the jack under the car near the wheel with the flat tyre.
- Remove the wheel nuts and the wheel with the flat tyre.
- Place the spare wheel to replace the wheel with the flat tyre.
- Tighten the wheel nuts, and lower and remove the jack.



**Flat Battery.** If a vehicle has a flat battery, you can use jumper cables to get it started. First, you need a car with a working battery, and some jumper cables.

- Position the cars so they are nose to nose (or as close as you can).
- Turn both cars off and ensure they are safely parked.
- Attach one end of the red cable to the positive terminal of the flat battery. It will be marked with a +.
- Attach the other end of the cable to the positive terminal on the car with a good battery.
- Attach one end of the black cable to the negative terminal of the flat battery. It will be marked with a -.
- Attach the other end of the cable to the negative terminal on the car with a good battery.
- Start the engine on the working vehicle.
- Attempt to start the vehicle with the flat battery. If it does not start, check all connections and try again.
- If it starts, remove the jumper cables in the reverse order in which they were attached. Take the car for a drive - this will charge the battery.







# Simple Car Maintenance

**Tyres.** The tyres on your car are vital for car safety, and must be replaced, or rotated from time to time. While you'll generally get this done at a tyre store, it's up to you to determine when you tyres need changing or rotating, or perhaps if there some other issue.

To perform a tyre check, turn your wheel completely to one direction after parking. You'll then be able to get a good look at the front tyres. The back tyres do not turn, so you'll have to get a bit closer to check them.



**Do you Have a Spare?** All cars must carry a spare tyre (actually, a spare wheel with a tyre) in case of emergency. And a spare tyre is not much use unless you also carry a jack (to lift the car to change the tyre), and spanner to undo the wheel nuts on the spare wheel.

Most spares are kept in the boot of the car - either to one side, or underneath the boot in an extra, almost hidden compartment. It is here you will generally find the jack, and spanner as well.





### Simple Car Maintenance

**Tread.** The main thing you can check simply by looking (although there are gauges you can get to make this more exact) is whether your tyres have enough tread on them to be considered legal.

Legally, a tyre must have a minimum tread of 1.5mm all around the tyre. If smaller than this, the tyre must be replaced. Most tyres these days have what is called a tread wear indicator bar. When this bar is reached, it indicates the tyre must be replaced.



**Wearing.** Almost as important is whether a tyre is wearing evenly. If a tyre is wearing on one side, and not the other, you may need to get the wheel alignment fixed. At the very least, your tyres may need to be rotated to ensure wear is evened up, but if serious, the tyre must be replaced.



### Simple Car Maintenance

**Tyre Inflation.** For best performance, and for best petrol economy, ensure that your tyres are inflated to the recommended level. While this can change between tyre size and manufacturer, it is normally between 28psi and 36psi.

You can check your tyre inflation at most petrol stations. Look for the tyre inflation equipment - unscrew the cap from a tyres and apply the tyre inflation gauge. If you don't apply any air (via a trigger) it will tell you the current inflation level. Pressing the trigger will inflate the tyre.



**Flat Tyres.** If a single tyre appears to be deflating regularly and for no reason, it probably has a slow leak. Tyres can be repaired, but you may need to get a new one.

If you do get a flat tyre, you can use the spare tyre that every car legally must carry. Take the damaged or flat tyre to a tyre store for a recommendation on new vs repaired tyre.





### Simple Car Maintenance

**Oil.** If you have your car regularly serviced, oil changes should not be an issue. But nonetheless, checking your oil, and filling up your oil is a fairly simple and painless affair.

Oil is used in your engine to help lubrication and reduce wear. If it runs too low, your engine can suffer damage.

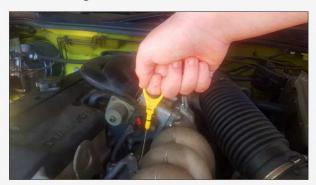
The place to add oil in your engine is normally highlighted - and should look something like you can see below.



### Simple Car Maintenance

Locate the area in your engine bay where the oil is checked. This is in the form of a *dipstick*. Pull the dipstick out, and wipe it off. Then insert the dipstick where it was, and pull it out again. You'll then be able to see on that dipstick the level of your oil - and whether it is too high or too low.

If it is too low, locate the main engine bay. It will have a large plug that can be unscrewed - and hopefully will be marked with the word **Oil.** You can unscrew this plug, and pour the oil directly into the engine area.





### Simple Car Maintenance

The only thing you'll need to determine is the exact type, or specification of oil. It may be denoted on the engine bay itself - if not, you may need to look it up online, or check with the local auto store. Some oils may list the type of cars it is compatible with.



**Coolant.** Almost all cars are what is called water cooled - they require water in the radiator to ensure the engine remains cool and runs correctly.

Your radiator is located near the front of the engine, and will have a large lid - hopefully marked as radiator, or water. Unscrew this plug to place more water into the radiator. You can also add some specific coolant liquid, available at auto stores.

There is no gauge on the radiator that tells you whether it is full or not. But, you should have a dashboard light connected to the radiator, so that if coolant levels run low, you'll know about it.

If you run with too low a coolant level, you risk engine damage, and your car overheating.



### Simple Car Maintenance

**Wiper fluid.** Wiper fluid is used when you pull your wiper controls forward - a spray of water blasts your windscreen so you can turn on the wipers to clean it. If this does not happen, you'll need to refill this fluid.

Wiper fluid exists in a container in the engine bay which should be clearly marked. When you run out of wiper fluid, you can fill this up with water - mixed with some cleaning formula you can get at any auto store.



### Simple Car Maintenance

**Brakes.** Most of us are not expected to be able to replace brakes, and nor should we. Leave it to the experts.

If your car is regularly serviced, the serviceperson will note that the brakes are low, and need replacing. If your brakes appear to be not functioning correctly, or are making some noise, you must get them checked immediately.



# Simple Car Maintenance

**Dashboard lights.** Your car will have a series of dashboard lights that only appear when there is a problem. They can denote any range of things - low coolant level, low oil level, airbag issues, and many more.

If you see an unfamiliar light displayed on your dashboard, check the car manual or online to see what it represents. It may be something simple, like wiper fluid, but also something more important - so check it out immediately.



**Dashboard Lights On.** In the example below, this light on the dashboard indicates that the *parking brake* is still on, and the main seatbelt has not been buckled.



# Simple Car Maintenance

**Lights and blinkers.** If an headlight, or blinker goes out on your car, it can be hard to know from the driver's seat. So, every now and then, you'll need to check that all lights and indicators are working correctly.

Get a friend to sit in your car, turning the lights and indicators on and off as you walk around the car. You'll quickly see if a light is not working as it should.



**Check your windscreen.** Small cracks can easily appear in a windscreen, normally from small rocks thrown up from the road.

Small cracks turn into large, expensive cracks. If you spot the cracks early enough, and they are not serious, you can have them repaired fairly inexpensively.



### Simple Car Maintenance

**RACQ - NRMA.** All states have a motoring organisation you can subscribe to that will provide road side assistance should you require it.

This means if you run out of petrol, get a flat tyre, get a flat battery, or get in an accident, you can give them a call, and before too long a serviceperson will arrive and help you on your way.

These days, many cars come with roadside assistance as a part of the car purchase.



**Roadside Assistance Bodies.** You can now become a member of a number of organizations that provide 24hr roadside assistance around Australia. Here are the main ones.

SOUTH AUSTRALIA RAA VICTORIA

TASMANIA RACT

New South Wales NRMA

WESTERN AUSTRALIA RAC

AUSTRALIAN CAPITAL TERRITORY NRMA QUEENSLAND RACQ NORTHERN TERRITORY
AANT

# Simple Car Maintenance SUMMARY In this lesson, we discussed Simple Car Maintenance. This included: Defect Notices. Tyres, Oil, Petrol and Coolant. Wiper fluid. Brakes. Dashboard lights. Lights and blinkers. Check Your Windscreen. Roadside Assistance.

# Signature. It is very important that you use the mouse, or touch, to sign the form below. This helps us record your progress accurately. Submit Signature CLEAR SIGNATURE

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