# How to drive a manual car



Learning to drive a car with a manual transmission (also known as a stick-shift) was once a rite of passage in Australia but, thanks to the rise in popularity of automatics, the old cog-swapper gearbox isn't as common these days. However, everyone should still learn to drive manual in case of an emergency!

Basically, a manual gearbox needs to be shifted by the driver, via a device fitted between the engine and transmission called a clutch. The shift points to change each gear are measured in Revolutions Per Minute (RPM) of the engine, displayed on the dashboard tachometer.

To change gears drivers depress the clutch pedal, mounted to the left of the brake pedal, and push a gear stick in an increasing or decreasing sequence. Depending on the car, manual gearboxes can have between three and seven gears, plus a reverse gear for going backwards.

It takes practice to balance the car controls when learning how to drive manual as every car is different and will need different amounts of throttle, brake and clutch slip. This is why it is important for beginners to take manual driving lessons to build experience, so they can become confident and driving stick shift will become second-nature.

#### **Manual vs Automatic**

While the driver is in charge of shifting their own gears with a manual gearbox, an automatic transmission uses computers and hydraulic fluid to shift gears on its own, with the driver only needing to use the gear shifter when wanting to reverse or stop the car.

This means, for people living in major cities where traffic jams can take hours to clear, the automatic is a wise choice. For simply using your car as a means of basic transport, an <u>automatic transmission</u> is the wisest choice.



However, there are cases where a <u>manual transmission</u> is considered beneficial. For towing very heavy loads, or in driver-oriented sports cars and race cars, there is a preference for manual gearboxes.

Manual cars will wear their clutches out over time, and the labour required to change them often runs into the thousands of dollars. That said, automatic transmissions can be even more expensive with fluid changes required at major service intervals. Autos and manuals will wear their internals over time, and both will be expensive to rebuild as they're highly technical pieces of equipment.

### Legally learn to drive stick shift

You don't legally have to learn to drive a manual car in Australia, however there are restrictions on who can drive manual cars. While we don't have a specific licence (or manual license if you're in America) you can be restricted to only driving auto vehicles depending on what car you take to your licence test.

In NSW, if you obtain your P1 licence (red P-plates) in an automatic car you can only drive vehicles with that transmission until you pass your P2 licence (green P-plates). However, in Victoria, this restriction stays in place through both P1 and P2 licences until you obtain your unrestricted licence.

Western Australia and Queensland require you to sit a practical driving test to remove the restriction on the licence. In Queensland you also have to fit Learner plates to the manual car and be supervised by a person who has held an open, unrestricted, licence for at least one year.

#### You don't legally have to learn to drive a manual car in Australia.

Western Australia requires you to obtain a Learner's permit to be eligible to learn to drive a manual transmission car, which has to be done under supervision, before you can sit a practical driving test in a manual-equipped car to remove the automatic-only restriction.

Tasmania has different restrictions. The restriction to only drive <u>automatic vehicles</u> remains in place indefinitely even on unrestricted licences, however you can request to have the restriction removed after three years.

South Australia has no restrictions on driving between automatic or manual cars, so it doesn't matter what vehicle you do your test in.

## **How To Drive A Manual Car**

- 1. Before starting the car, depress the clutch pedal to the floor and check the gear stick is in neutral, which should be in the middle of the gear selector positions.
- 2. Start the car, keeping the clutch pedal on the floor, put your right foot on the foot brake, and select first gear.
- 3. Disengage the parking brake (otherwise known as the e-brake or handbrake), while maintaining pressure on the foot brake to ensure the car doesn't roll forwards or backwards.
- 4. Smoothly release the pressure on the clutch pedal, allowing the pedal to rise, while simultaneously applying a very small amount of pressure on the accelerator to increase engine RPM.
- 5. If you are attempting to take off up a hill you can leave the handbrake on while you increase engine RPM and very slightly start easing pressure off the clutch pedal. This will pre-load the engine and stop it from stalling when you go to take off.
- 6. When shifting to the next gear smoothly wind back pressure on the accelerator as the RPMs reach 1/3 to halfway up the tacho (depending on the individual car), depressing the clutch pedal once you have released pressure on the accelerator.

- 7. With the clutch engaged, select the next gear, and smoothly and quickly release the clutch pedal.
- 8. Smoothly start feeding in accelerator once you have released the clutch pedal. Being smooth on the controls is paramount to successfully driving a manual car.
- 9. When slowing for traffic watch the engine RPM and remember to change down a gear once you reach approximately 1500rpm.
- 10. To change down gears you simply reverse the process of going up through the gears, remembering to also apply light pressure on the brakes.
- 11. Should you need to come to a halt, remove pressure on the accelerator, depress the clutch and change down ratios while depressing the brake pedal. If the car starts to buck or surge, change down immediately.