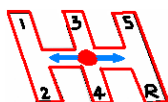




Gear Changing

Gears allow you to move the vehicle from being at a standstill and give you the power to build up the speed of your car; gear changing requires good coordination between your hands, feet, eyes and ears



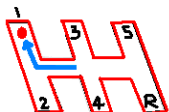
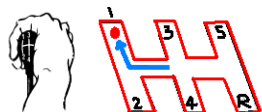
The above diagram shows you how the gears are laid out in a typical car; this particular gear layout has five forward gears and one reverse gear. Some of the older vehicles will only have four gears while some expensive vehicles may have six or more gears.

To engage reverse gear you sometimes have to either push the gear lever down or lift it up towards you. Different vehicles have different setups, so always check where reverse is on your vehicle.

The most efficient way of selecting gears is to use the "palming method". (By using this method you eliminate the risk of your hand slipping off the gear lever or selecting the wrong gear). When the gear lever is in neutral there are two self centring springs holding the lever in place just below third and above fourth gear.

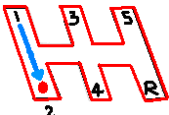
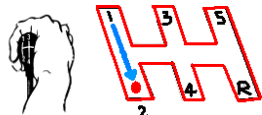
When changing gears make a point of not looking down at the gear lever as your attention will be diverted from the road and you could end up losing control over your steering. Never rush or force your gear changes as this will probably result in a missed gear changes.

For 1st and 2nd gear have the thumb facing down and the palm facing away from you.



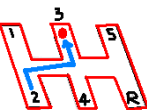
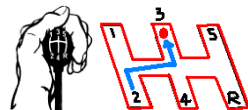
1st Gear is designed for very heavy duty sluggish work; it is used for moving off, manoeuvring and for creeping slowly in traffic and at junctions, (speeds of less than 5mph).

Once the car has moved off the 1st gear will struggle to speed you up any further beyond 5mph, it will also make lot of noise as well as waste fuel therefore once you have the car moving you must change gear.

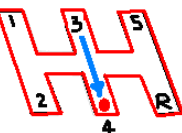
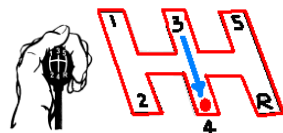


2nd Gear is used for moving off down very steep hills, building up speed after moving away and driving at low speeds, (speeds between 5 and 20mph). to select 2nd gear use the same palming method as for the 1st except instead of pushing gently forward you pull the lever back towards the back of the car. For speeds below 5mph the engine will struggle to pull the car and you risk stalling the engine, above 20mph you will end up over revving the engine without significant increase in car speed.

For all other gears have the thumb facing up and palm facing you.



3rd Gear is used to build up speed and when you need more power for climbing hills. It also increases your control when going down steep hills and dealing with some bends, (speeds of between 15 and 30mph). Reasons are the same as for second gear.



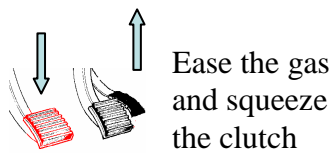
4th Gear is used for driving at speeds of 30 mph and above on stretches of roads where you can see the road to be clear of hazards for reasonable distance.

5th Gear gives better fuel economy. This is normally only used on open roads when travelling constantly at higher speeds of around 50mph and above.

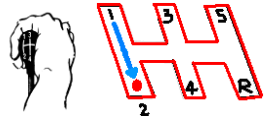
How to Change Gear

Follow these simple steps for a successful gear change.

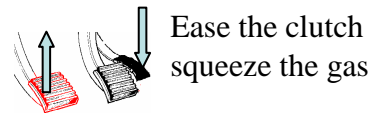
You generally move away using first gear (on occasions if you are facing steep slope it may be advantages to move away in second). Listen to the engine, as the sound gets louder and aggressive change from a lower to a higher gear, whether it is from first to second or second to third the routine is the same.



Ease the gas
and squeeze
the clutch



Face the palm
away from you
and slide the
lever back



Ease the clutch
squeeze the gas

Allow your right foot to ease off the gas pedal then squeeze the clutch pedal to the floor, using the palming action select second gear. Ensure you apply enough pressure on the gear lever as you move in to second gear. Once you're happy that second gear has been selected, ease the clutch pedal up slowly and squeeze gas pedal gently. The secret to smooth gear changes is to bring your clutch pedal up slowly as this allows the clutch plates to come together gently.

Repeat the above procedure when selecting the higher gears. Remember to change your grip on the gear lever, so your palm and knuckles are facing the steering wheel. Never rush a gear change!

Block Gear Changes

Some drivers have a habit of always changing through the gears one-by-one (1,2,3,4,5 - 5,4,3,2,1). This habit has stuck with some older drivers from when they originally learned to drive many years ago. Today, in a normal car and for everyday on-road driving, it is not generally good practice to use the gears in this way. We can change down the gears in blocks (5th to 2nd or 4th to 2nd. etc). Over the years, motor car design and engineering has improved. Compared with cars of even ten years ago, modern cars are lighter, more powerful and more aerodynamic. These changes mean that the driving method that was essential in older cars is no longer needed in modern driving. It is not necessary to change gears in sequence. For example, if you are driving along at 50 mph in 5th gear and you want to turn left into a side road, you may be able to do so without having to stop. As you approach the junction, you need to reduce your speed (using your brake) until you are going slowly enough to take the junction safely. When you have slowed down to a safe speed using the brakes, you have to select a gear that will drive the car comfortably at that speed. In most cars the best gear for the job will be 2nd. So, move the gear lever directly to the second gear position skipping the other gears.

The benefits of this style of driving include better fuel economy, less overall wear and tear, less driver fatigue on long journeys and more steering control in emergencies.