

## Gear Lever 1

The gear lever enables us to change from one gear to another and is used in conjunction with the clutch pedal. Most modern cars have five forward gears, though some may have four or six. The position of the gears are usually shown on the top of the gear lever and are clearly numbered 1 - 5. In addition to your forward gears there is also a reverse gear, this is identified with the letter R.

The two layouts shown below are the more common in five-speed gearboxes.

The red spot shows the neutral position where the lever automatically springs to when no gear is selected, between 3rd and 4th. The red line shows the travel of neutral, which is useful to check you are not in gear before starting the engine. Reverse gear is often protected by a 'gate' which is opened by either pushing down on the lever or pulling up a ring underneath the lever head. You must avoid looking down at the lever when changing gear - your eyes should be on the road ahead.

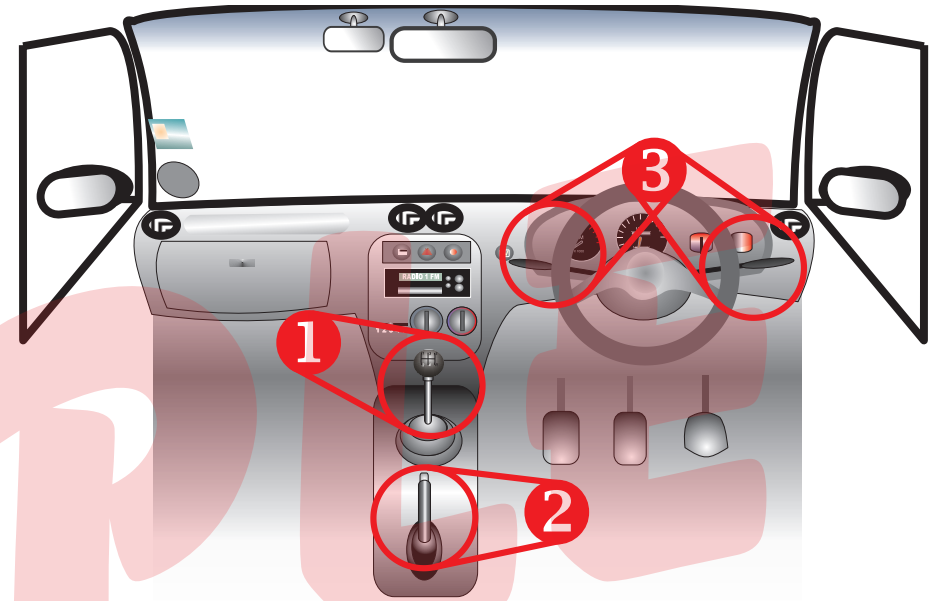
## Hand/Parking Brake 2

The handbrake is used to hold the car still once it has stopped. The handbrake should not be used when the car is moving, except in an emergency such as brake failure.

In most cars the handbrake operates on the rear wheels only.

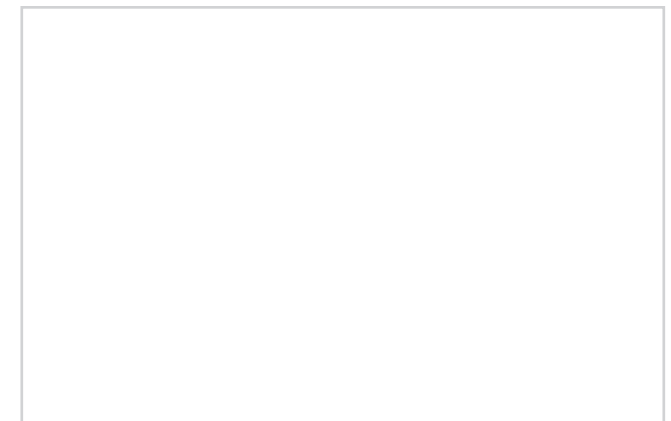
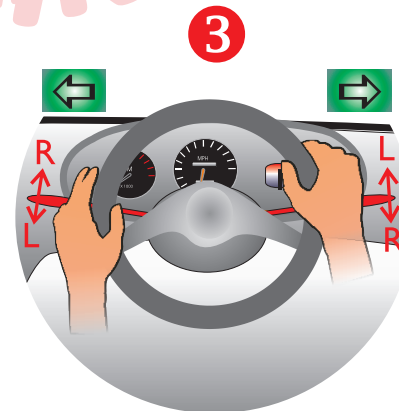
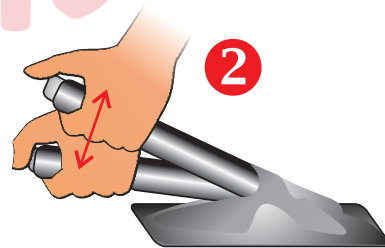
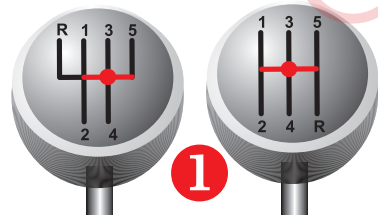
If applied when the car is moving it could lock the rear wheels and induce a skid.

To apply, you should press and hold the button on the end of the lever (this prevents wear to the ratchet system) and pull the lever all the way up, then release the button and the lever will stay in the 'on' position. To release, lift the lever slightly, press and hold the button and ease the lever down, all the way, to the 'off' position. You should always check the handbrake is 'on' before starting the engine.



## Indicator Switch 3

The indicator switch is usually a stalk on the left or right-hand side of the steering column. It allows you to give directional indicators to show other road users your intention to change direction. Most indicators are self-cancelling, but always check after a manoeuvre. You can do this by looking for the repeater warning light on the dash. When using the indicator switch, try to use your fingertips keeping your hand in contact with the steering wheel. This will help you to maintain full control of the vehicle.



## Quick Quiz

Read all of the information on this handout and then answer each of the questions below before your next lesson.

- |    |   |
|----|---|
| Q1 | Why is it important that the handbrake is on and the gear lever is in neutral before starting the engine?   |
| A1 |   |
| Q2 | Why is it not good practice to leave your hand resting on the gear lever between gear changes?  |
| A2 |   |
| Q3 | True or false? The handbrake need only be applied when you are parking your car.  |
| A3 |   |
| Q4 | The indicator lights on your car perform another function, apart from showing your intention to change direction to the left and right, what is it? |
| A4 |   |
| Q5 | How would you know if the indicators hadn't self-cancelled after turning?   |
| A5 |   |
| Q6 | When applying the handbrake how would you know whether the button should be held in or not?   |
| A6 |   |
| Q7 | When you apply the handbrake, does it activate the car's brake lights?  |
| A7 |   |
| Q8 | In an emergency, why is it important to keep both hands firmly on the steering wheel until the vehicle has stopped?                                 |
| A8 |   |

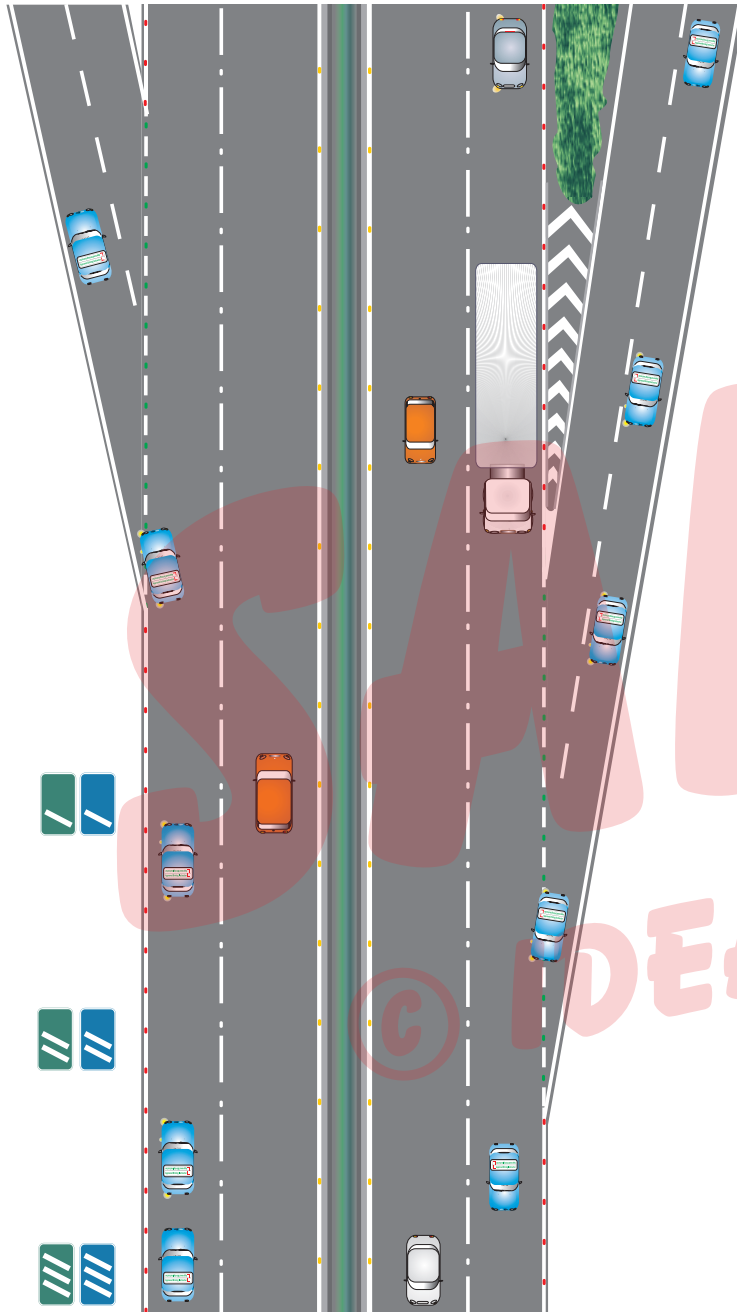
## Did you know?

When driving, it is vital that you never take your eyes off the road for longer than is absolutely necessary. If you were to look down at the gear lever when you changed gear, say for about 2 seconds, then at a speed of 30 mph you would have travelled approximately 28 metres, with no awareness of what was happening in the road ahead and around you. If driving at 50 mph, within the same 2 second period you would have travelled nearly 50 metres! That's the length of an Olympic size swimming pool. A lot can happen in that distance on the road. Your eyes should mainly be focused on the direction you are travelling, scanning the road ahead and glancing frequently in the mirrors, keeping up-to-date with the traffic in front, behind and around you.

## Top Tips

Most modern gear levers are sprung to return to a central neutral position when taken out of gear. You can use this 'spring' to your advantage when changing up and down the gears. E.g. when changing from 2nd to 3rd gear, just nudge the gear lever out of 2nd, allowing the 'spring' to return it to the middle, then simply nudge it forward. Sometimes, when people try to push the lever across, it ends up going into 5th gear. Use this technique anytime you are changing into 3rd or 4th gear.

If you ever lose track of what gear you are in, or are just unsure if you have selected the correct gear, just nudge it to 'spring' to the middle and then you can select the right gear to match the speed and road conditions.



**Purpose:** Slip roads provide you with entry and exit points to a motorway or dual carriageway. These normally join the main carriageway from the left.

**When joining a motorway/dual carriageway you should:**

- assess the speed of traffic on the main carriageway on approach
- adjust your speed to match that of the traffic on the main carriageway before joining it
- not cross the solid white lines that separate the lanes
- use the MSM/PSL routine, indicating your intention to join the carriageway in good time
- give priority to traffic on the main carriageway. Do not force your way into the traffic flow
- merge with traffic in the left-hand lane where there is a suitable safe gap
- stay in the slip road if it continues as an extra lane on the main carriageway
- keep in the left-hand lane until you have adjusted to the speed of the traffic and properly assessed the carriageway before considering overtaking

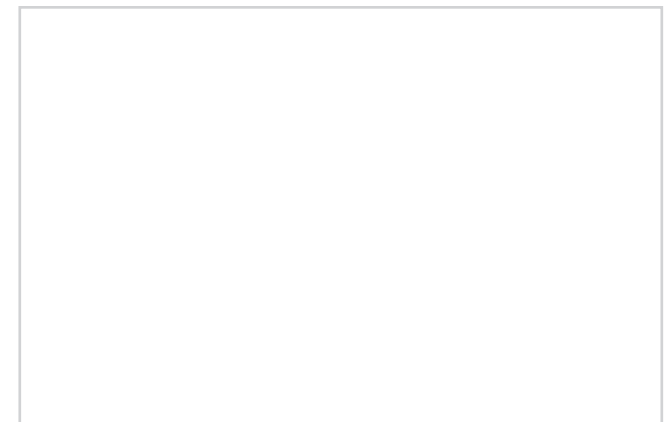
**When leaving a motorway/dual carriageway you should:**

- plan well ahead looking for signs informing you of your exit
- move into the left-hand lane well before your exit. Do not cut across lanes straight into the slip road or move to the left more than one lane at a time
- use your MSM/PSL routine and signal in good time
- reduce your speed on the slip road as necessary

**Other vehicles joining a motorway/dual carriageway**

- After passing an exit, there is usually an entrance so you should be aware of other vehicles joining
- Look well ahead to assess their position and speed - be prepared to adjust your speed if necessary
- Do not try to race for position ahead of the vehicles
- If safe to do so you should move to another lane to allow merging traffic easier access to the carriageway

*Tip: When exiting, start your MSM/PSL routine at the 300 yard (270 metres) countdown marker. This shows your intention in good time.*



## Quick Quiz

Read all of the information on this handout and then answer each of the questions below before your next lesson.

Q1 What colour are the reflective studs on a motorway or dual carriageway and where would you find them?

A1

Q2 True or false? Cyclists are not allowed on the slip road to a dual carriageway.

A2

Q3 Why is it important to be particularly aware of your speed after exiting a motorway or dual carriageway?

A3

Q4 How many lanes does a dual carriageway have?

A4

Q5 When planning to leave a motorway or dual carriageway, what can you see that helps judge the distance to the slip road?

A5

Q6 If you pass an exit on a motorway, what might you expect a short distance further on?

A6

Q7 True or false? As you are about to join the main carriageway you should consider a quick sideways glance to confirm the position of other vehicles.

A7

Q8 What is the maximum speed limit for a car on a motorway or dual carriageway?

A8

## Did you know?

It's not just the police who are empowered to stop motorists on a motorway. Highways Agency Traffic Officers and Vehicle and Operator Services Agency Officers also have the authority to stop vehicles. Their role includes: Managing traffic and clearing up incidents to get everyone moving again as soon as possible, arranging for the removal of damaged/broken down or abandoned vehicles, setting up mobile / temporary road closures as needed, removing dangerous debris from the road and monitoring roadworks and traffic flow. There are around 1,500 Highways Agency Traffic Officers working to keep England's motorway network running. There are Traffic Officers on duty 24 hours a day every day of the year.

## Top Tips

On some busy slip roads joining motorways they have what is called ramp metering. Ramp metering is a way of reducing delays at junctions. It works by managing the traffic on slip roads as they join the motorway.

During busy periods signals break up large numbers of vehicles into smaller groups as they join the motorway. This reduces disruption to merging traffic and reduces bottlenecks.

The system uses signals on the slip road. These start working automatically when traffic sensors on the motorway show heavy traffic moving more slowly than it should.