

Section four ➡ Mirrors

This section covers

- Mirrors
- Adjusting mirrors
- Using mirrors
- Blind spots
- The mirrors and hazards
- MSM routine

Mirrors

Using the mirrors has to be part of a safe, systematic routine such as Mirrors – Signal – Manoeuvre (MSM). You must always know how your driving is likely to affect traffic behind you.

The MSM routine includes interpreting what you see in the mirrors and acting appropriately. Regular and sensible use of the mirrors is an essential element of safe driving.

Modern cars are required to have an offside (driver's side) mirror fitted, as well as an interior mirror. However, most vehicles have three driving mirrors

- an interior mirror
- two exterior mirrors: one on the nearside (left-hand) door and one on the offside (right-hand) door.

Vans and other vehicles with a restricted view to the rear must have an exterior mirror on each side.

Function

Your mirrors

- give you a view of the road behind and to the sides
- enable you to keep up to date with what's happening behind and to the sides of your vehicle
- help you to make safe and sensible decisions, based on the position and speed of other traffic.

Defensive driving

Mirrors are one of the keys to defensive driving. Always use them to keep up to date with what's behind and to the sides of your vehicle.

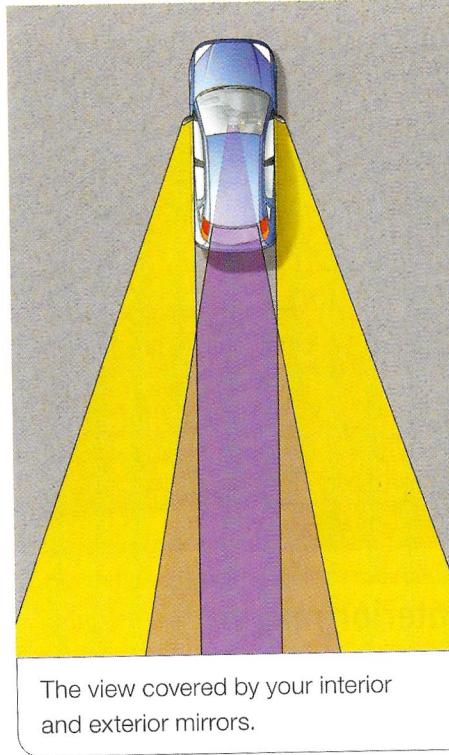
REMEMBER, don't just look into your mirrors; act safely and sensibly on what you see.



Flat mirrors

Most interior and some exterior door mirrors have flat glass.

Flat mirrors don't distort the picture of the road behind. This makes it easier to judge the speed and distance of traffic behind you.



Convex mirrors

Many exterior mirrors have convex glass, which

- is slightly curved
- gives a wider field of vision.

This makes accurate judgement of speed and position of vehicles behind you more difficult.

A vehicle behind seems smaller in a convex mirror, so it could be closer than you think.

Some cars have 'split' mirrors, which give a wider field of view.

Extended-arm mirrors

Some caravans and trailers block your interior mirror's view of the road behind, which means you must rely on your exterior mirrors.

If you're towing a caravan or a wide trailer, fit side mirrors with extended arms to enable you to see past the caravan or trailer.

➔ Adjusting mirrors

Before moving off, make sure all mirrors are clean and adjusted to give you the best possible view of the road behind.

While in your normal driving position, adjust your mirrors so that you require the minimum of head movement to get a good view of traffic behind.

Always check your view as part of your 'cockpit drill' (see section 5).

When adjusting mirrors, grip them at the edge to avoid getting fingermarks on the surface. Fingermarks can distort and blur the view in the mirror.



Interior mirror

Adjust your interior mirror so that you get the best possible view through the rear window, especially to the offside, with a minimum of head movement.

Exterior mirrors

Adjust your exterior mirrors

- to give the best view behind
- so that the side of the vehicle is only just visible.

Don't adjust the mirrors while you're driving. Do it before you move off, or at any time your vehicle is stationary.

Check when you get into your vehicle that they've not been knocked out of position.

Remember to check that your exterior mirrors are still positioned correctly after you've been through a car wash.

Keep your exterior mirrors clean. In bad weather, check they're clear of frost and condensation before you move off.

Electric mirrors

Many vehicles have door mirrors which can be adjusted electrically using switches inside the vehicle.

Some of them have a heating element to keep them clear of frost and condensation.



Anti-dazzle mirrors

The interior mirror usually has an anti-dazzle position. When driving at night, you can use this to prevent dazzle or distraction by the lights of traffic behind you. You'll still be able to see the lights, but the dazzle will be greatly reduced.

REMEMBER to reset the mirror for normal use.



➔ Using mirrors

Using your driving mirrors regularly and sensibly is vital to good driving.

Learning to judge the speed and distance of vehicles behind you takes time.

Try the following exercise when your vehicle is stationary.

- Compare the different impressions you get when you view vehicles through the interior mirror and the exterior mirror. The vehicles may seem smaller in the exterior mirror. Then look over your shoulder to get the real view.

- Also while you're stationary, look for blind spots. These are the areas that your mirrors don't show you, which are explained later in this section.

Which mirror to use

Your use of the mirrors should be linked to the manoeuvre you intend to make and the type of vehicle you're driving.

Normally you should use the interior mirror first, followed by the exterior ones if necessary.

Your use of the exterior mirrors will depend on the manoeuvre and the situation. For example, before turning left in slow-moving traffic, your nearside exterior mirror will help you to look for cyclists filtering on your left.

When to use your mirrors

You should always

- use your mirrors in good time, that is, well before you
 - approach a hazard
 - slow down, change lane or begin any manoeuvre
- act sensibly on what you see
- begin the MSM routine early (see later in this section).

Always use your mirrors before

- moving off
- signalling
- changing direction or lane, turning left, turning right or overtaking
- slowing down or stopping
- opening your car door.

When you look in your mirrors, ask yourself

- How close is the traffic behind you?
- How fast is it moving?
- What's it doing?

- Is the manoeuvre safe?
- How will my signal affect following drivers?

It's also important to use the mirrors early enough to allow other road users time to react to any signal you need to give. Use your mirrors to check their reaction.



Check your internal mirrors



Check your external mirrors

Blind spots

A blind spot is an area that can't be seen either when using normal forward vision or when using the mirrors. The main blind spots are

- the area between what you see as you look forward and what you see in your exterior mirror
- the area obscured by the bodywork of the vehicle when you look in your mirrors. Vehicles of different shapes have different blind spots.

Some vehicles – such as 4x4s – have very large blind spots, which can block the driver's view of pedestrians, motorcyclists or even small cars.

Exterior mirrors and reverse-assist technology can help reduce blind spots, but remember that they won't show you everything behind you. You can buy auxiliary mirrors to mount on the surface of your exterior mirrors. These give an even wider angle of vision and go some way towards reducing blind spots, but won't entirely eliminate them.

Similarly, vehicle manufacturers are introducing systems that use radar or cameras to warn drivers – by flashing a light or making a sound – if a vehicle encroaches into a blind spot. If you have such technology installed, it's still vital to check your mirrors as normal.

Even though you've used your mirrors, always look round over your right shoulder to check the blind spot before you move off.

Don't rely on your mirrors before opening your car door; always look behind you. A cyclist or motorcyclist could easily be hidden from view.



Check your blind spot

Checking blind spots on the move

On occasion it will be necessary to check blind spots while you're on the move. These blind spots will be to either side and shouldn't require you to look round, but rather to give a quick sideways glance.

Looking right round to check blind spots on the move is unnecessary and dangerous, especially when driving at high speeds; in the time it takes, you'll lose touch with what's happening in front.

Regular and sensible use of the mirrors will keep you up to date with what's happening behind. You will, however, still need to know when a glance into the blind spots is needed.

Take a quick sideways glance

- before changing lanes
- before joining a motorway or dual carriageway from a slip road
- before manoeuvring in situations where traffic is merging from the left or right.

Recognise where other drivers' blind spots will be and avoid remaining in them longer than necessary. This is particularly important when overtaking large vehicles.



→ The mirrors and hazards

A hazard is any situation that involves you being in some risk or danger. Hazards may cause you to slow down or change course.

When approaching a hazard, you should use your mirrors and be prepared to change speed and/or direction.

Hazards include

- bends in the road
- junctions
- pedestrian crossings

- roadworks
- livestock on the road.

Always check your mirrors in good time, and before you change direction, to decide

- whether a signal is necessary
- whether it's safe to change speed or direction.

Keeping up to date

Keep up to date with the position and speed of traffic behind you.

Good drivers always know as much about the conditions behind as they know about the situation ahead.

Traffic positions change rapidly on some roads. Frequent glances in mirrors keep you up to date with what's behind. How frequently you do this depends on road and traffic conditions.

Driving on high-speed roads

When driving on motorways or dual carriageways, check your mirrors earlier than you would on ordinary roads.

Higher speeds are more difficult to judge and situations can develop more quickly.

④ MSM routine

Regardless of your driving experience, you should make the Mirrors – Signal – Manoeuvre (MSM) routine an integral part of your driving.

Remember this routine

- **MIRRORS** – check the speed and position of traffic behind you
- **SIGNAL** – consider whether a signal is necessary. If it is, signal your intention to change course or slow down clearly and in good time
- **MANOEUVRE** – a manoeuvre is any change of speed or position.

Manoeuvre

This is broken down into

P – Position

S – Speed

L – Look.

Position

Your vehicle must always be in the correct position for the manoeuvre. When a change of direction is required, move into position in good time.

Speed

Ensure that the vehicle is travelling at the appropriate speed and in a suitable gear to complete the manoeuvre safely.

Look

The 'look' phase consists of four elements (**LADA**)

- Looking – What can you see?
- Assessing – What are your options?
- Deciding – Depending on what you see.
- Acting – Either continue or wait.

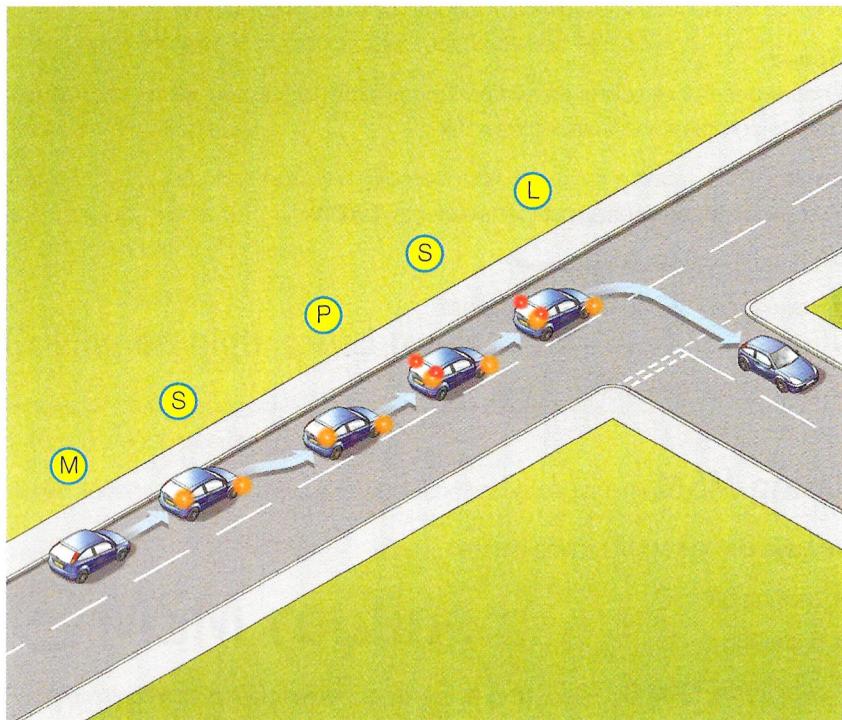
Using MSM

Always use the MSM routine before

- moving off
- signalling
- changing direction
 - turning left or right
 - overtaking or changing lanes
- slowing down or stopping.

Never

- signal without checking mirrors first
- rely solely on mirrors when you're reversing. Keep looking around to watch for other road users
- assume that, because you've signalled, you can carry out the intended manoeuvre safely. Check to be sure, because other road users might not
 - have seen your signal
 - understand your intention.



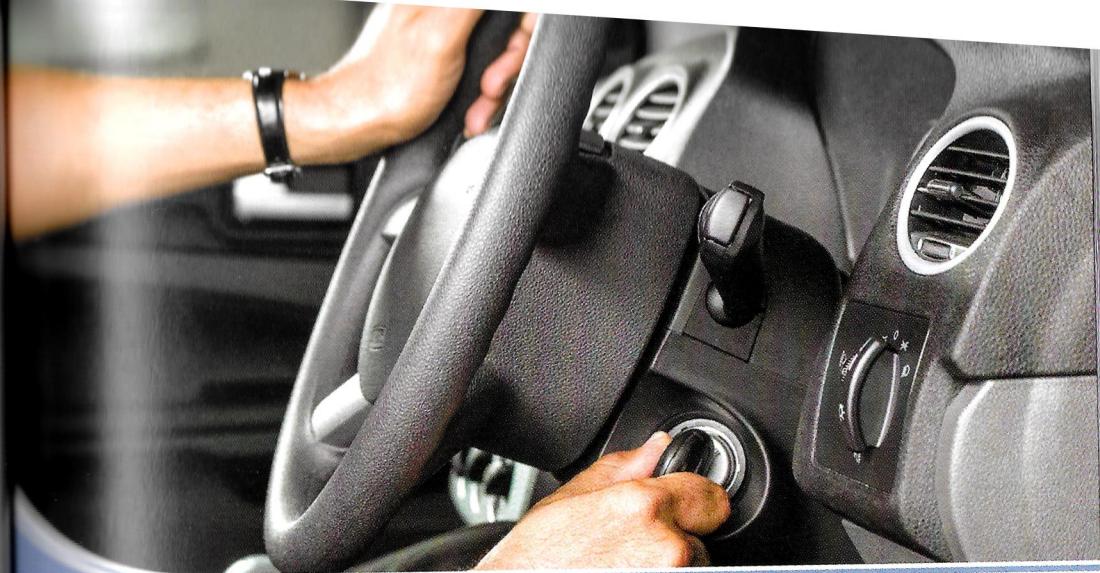
(M) Mirror

(S) Signal

(P) Position

(S) Speed

(L) Look



Section five

→ Starting to drive

This section covers

- Getting started
- Starting the engine
- Moving off
- Braking
- Stopping in an emergency
- Skidding
- The parking brake
- Steering
- Changing gear
- Signalling
- Moving off at an angle
- Moving off on hills