1. Controlled smart motorway

These are like a normal motorway except for the addition of variable speed limit signs on overhead gantries. There is a normal hard shoulder, separated from the driving lanes by a solid white line. The hard shoulder is for emergencies only: it’s never used for traffic.

Variable speed limits are activated to help reduce speed when there is a distinct increase in the volume of traffic in order to ease congestion.

2. Hard shoulder running motorway

Visually similar to a controlled motorway however the hard shoulder may be opened or closed to traffic at different times, to relieve congestion. Signs on the gantries and/or verges let drivers know when to use the hard shoulder. You should only use the hard shoulder as an extra lane when the hard shoulder is clearly signed as open to use.

These are used to control traffic flow, by utilising the hard shoulder and varying the speed limit, they can get you where you want to be by smoothing the traffic, minimising hazards, reducing noise and vehicle emissions.

You should only use the hard shoulder (which is identified by a solid white line) when directed to do so.
3. All lane running motorways

This indicates that there is no hard shoulder and traffic should use all four (or five) lanes. Signs on gantries over each lane show changes in the speed limit, direction arrows tell drivers to change lane or a red “X” indicating the lane is closed.

As there is no hard shoulder when these signs are in use emergency refuge areas are provided every 500 to 1,000 metres for vehicles in trouble. These refuge areas detect broken-down vehicles and are covered by CCTV.

Smart motorway handy hints

Always
- keep to the speed limit shown on the overhead gantries
- exit the smart motorway at the first available exit if your vehicle experiences difficulties, for instance a dashboard warning light appearing
- put your hazard lights on if you break down

Never
- drive in a lane with a red “X” over it
- drive on the hard shoulder (indicated by a solid white line) unless directed. If there is no signal active over the hard shoulder then this means it is not open to traffic

Red X signals

When this signal is displayed above a motorway lane you must not use this lane. If you continue to drive on a closed motorway lane, you risk prosecution and could endanger yourself and others.

The red X can be displayed on signs above each lane or on large signs on the verge of the carriageway. Any of the lanes may be closed by a red X: Arrows will show the next available lane.

These are used to manage incidents, close lanes and provide a safe working environment for traffic, emergency services and workman in roadwork areas.

What to do in an emergency

If your vehicle is damaged or experiences difficulties and there is no hard shoulder, or the hard shoulder is open to traffic, the advice from Highways England is to make for the next emergency refuge. Refuge areas are marked with blue signs featuring an orange SOS telephone symbol on them.

The official advice from Highways England if you have a vehicle problem is as follows:

1. In all cases, switch on your hazard warning lights when the vehicle is stationary.

2. If you can get to a refuge area and leave your vehicle safely, contact Highways England via the roadside emergency telephone provided in the refuge area. They will either send a traffic officer to help you, or set the motorway signs to temporarily clear the nearside lane to assist you to re-join the motorway.

3. If you cannot get to an emergency refuge area but the vehicle can be driven, move it to the hard shoulder (where provided) or as close to the nearside verge or other nearside boundary as possible.

4. If you stop in the nearside lane next to a hard shoulder or verge and feel you can exit safely with any occupants, consider exiting your vehicle via the nearside (left hand) door, and wait behind the safety barrier, if there is one and safe to do so. If it is not possible to get out of your vehicle safely, or there is no other place of relative safety to wait then you should stay in your vehicle with your seat belt on and dial ‘999’ if you have access to a working mobile phone. Once the regional traffic control centre is aware of your situation, via the police or roadside technology such as CCTV, they can use the smart motorway technology to set overhead signs and close the lane to help keep traffic away from you. They will also send a traffic officer or the police to help you.
**Speed limits**

If no special speed limit is displayed on the overhead signals on a smart motorway, then the national motorway speed limit applies (70mph at time of publication).

When the signs display other speed limits in red circles, those limits are legally enforceable.

Smart motorways are covered by speed cameras and failing to keep to the displayed limit may lead to a fine and points on your licence.

Failing to adhere to the speed limits on smart motorways could mean you face a fine of £100 and 3 points on your licence.

More information

https://www.gov.uk/guidance/how-to-drive-on-a-smart-motorway

https://highwaysengland.co.uk/programmes/smart-motorways/