



Driving on Snow and Ice – Advice, Hints & Tips

The most important aspect of driving on snow and ice is to avoid skidding and losing control of your vehicle, because controlling a skid is much more difficult than avoiding one in the first place! In nearly all cases driver error is the cause of a skid, not the weather conditions! Following the information below may help you avoid that skid!

There are a few basic things all drivers should understand. Firstly, vehicles transmit all acceleration, braking and steering forces through the contact area of the tyres, this contact area is about the same size as the sole of your shoe, it is also the only bit gripping the road surface, when this grip is lost you are in a skid!

There are several things you can and should do to give yourself the best possibility of maintaining grip and therefore your ability to steer and brake the vehicle. The list below starts at home. Long before you even get in the car to drive, good planning and anticipation can help to avoid a skid.

Listen to local radio and TV well before you intend to drive in order to see what the conditions are going to be like.

If you must drive in bad weather, make sure both you and your vehicle are prepared for the conditions and carry your winter kit (see the last newsletter) just in case you get stuck. Of course, if the conditions are really bad, the best and safest option is to stay at home, but if this cannot be done, then plan your journey to avoid minor roads and hilly routes which are liable to be covered in ice and hard packed snow. Take note of the following advice:

- If possible clear all the snow off your vehicle before you start driving because snow adds weight to the vehicle making it less stable, the lighter the vehicle the easier it is to control!
- Leave a lot more time to complete the journey, the last thing you want to do is be in a hurry in adverse weather conditions.
- Try to use only main roads and get on them as soon as possible, these are more likely to have been gritted, and be extremely careful getting to the main road as this is very high risk, avoid local ungritted minor roads with hills at all costs.
- Drive very defensively, don't do anything in a hurry, don't assume others will be able to stop at junctions, or that you will have the grip needed to pull away smartly from stationary into a moving flow of traffic with small gaps. Wait for a larger gap where you can be sure of getting out of the junction and up to a safe speed without causing others to brake.



- Observation is of paramount importance in these conditions, you need to spot hazards up to 10 times further away than normal, so you have enough time to react smoothly and in plenty of time to avoid a skid. Remember, even if you have ABS it can take up to ten times the distance to bring your vehicle to a stop on a level road!
- To avoid a crash, you must be able to stop in the distance you can **see** to be clear, in other words if the road is blocked just around the next bend or over the next brow, can you stop safely? To give you an idea, the Highway Code says the braking distance on a good road surface at 30mph is **14 metres**. An **ABS** equipped family saloon car driving on a level surface on hard packed snow and ice will take about **90 metres** or more to stop.
- As conditions worsen your following distance should increase, on hard packed snow and ice you should be at least 6 – 8 seconds behind the vehicle in front. This may seem a long way but if the vehicle in front crashes it will stop suddenly, and you need to be able to stop before running into it.
- Drive as gently as you can, do not use any of the controls harshly especially the brakes, steering, accelerator or clutch.
- **Pay particular attention to hills that have not been gritted, if going up, you need to have enough momentum to get to the top (to avoid getting stuck half way up) which might mean driving faster than is safe, or even worse if driving down a hill, will you be able to stop or will the vehicle you are driving be able to even hold its own weight without sliding? I would advise trying to avoid hills if at all possible, during severe conditions where hard packed snow and ice are covering the road surface as this very often leads to loss of vehicle control.**

How to correct a skid

OK, so that should keep you out of trouble in the first place but what if you do get into a skid. The most important thing is not to panic brake or accelerate, as this is unlikely to help and can make things worse. However, it is important to react correctly and quickly to regain control.

A skid is normally caused by one of three things, excessive acceleration, excessive braking or excessive speed for the prevailing conditions, you could add harsh or coarse steering to the list. To correct the skid, you need to get rid of the cause and get the wheels revolving at the same speed as the vehicle is travelling along the road surface. This will give you the best chance of regaining vehicle control.

1. If you are driving a manual car, immediately push the clutch down as you don't want the engine controlling the wheel speed, you want the wheels revolving at road speed.



2. At the same time as operating the clutch, quickly steer in the direction of the skid as this will help the front wheels revolve and regain grip as soon as it is available (if the vehicle is sliding to the right then momentarily steer right, if sliding left then steer left) then steer in the direction you want to go.
3. If you are driving a vehicle fitted with ABS braking it is possible to brake and steer at the same time (this is the reason ABS was developed), however in extreme conditions and because the front wheels have to share all available grip between the braking and steering systems you will have a reduced steering effect if you keep braking. Depending on the circumstances and the grip available you may be able to steer around an object by coming off the brake and let the steering have all available grip to avoid a crash.
4. If you are driving a vehicle without an ABS system all you will do by pressing the brake pedal is lock the front wheels, whilst the wheels are locked you will have no steering at all. Reducing pressure on the brakes may give you some steering but of course then you will have no braking. For non ABS vehicles I recommend a system called cadence braking where you pump the brake pedal up and down, this will give you some steering and some braking. The important thing to remember about cadence braking is that enough pressure is applied to lock the front brakes and then they must be completely released so they can free wheel.
5. Once you have got rid of the cause, reduced speed and regained grip, you can slowly take your foot off the clutch and drive away.

Call us on **0115 971 3343** or visit: **pedigreeas.co.uk**

You can sign up to our Newsletter database, where you can download current and past newsletters of interest to you. We will not pass on your information to third parties!

Disclaimer: Drivers are reminded; it is their responsibility to drive safely and within the law. Any information contained within this document is provided for general information purposes only and is not intended to provide specific advice. Pedigree Automotive Solutions offers no guarantees as to the accuracy of this information and are unable to accept any responsibility for any errors or inaccuracy.