

# **An introduction to High Performance Driving**

Key concepts to going fast:

Like any other skill, the ability to drive fast is not something that many are born with.

Race craft is a cultivated and learned skill that takes time and commitment to master. That being said, learning the basics before going out there puts you a step ahead of the rest. The most important thing you can do in learning to drive fast is never to be afraid to ask questions and learn. If at any point during this school you have questions, feel free to put your hand up and we will do our best to address them.

Have you ever seen a high speed chase seen in a movie or played a racing arcade game? Excellent! Forget everything you think you learned from that, as the driving styles you witnessed there were nothing other than cinematic embellishment. The real key to driving fast lies in the following 5 points:

## **Deliberate smooth inputs**

As mentioned above, you'll notice while watching any modern car chase footage, the mind - boggling amount of input that the driver tends to make while piloting the vehicle. It really is remarkable that this amount of erratic input doesn't result in the immediate death of all involved. Large volumes of sudden, jerky, and large inputs into the car will result in you being not only slow but dangerous. It is important that all inputs whether it be clutch, brake or steering be done in a controlled and deliberate action involving thought and care.

This means that each bit of control you apply to the vehicle should be delivered as a result of deliberate thought-related to track conditions and not a knee jerk reaction to some sort of last minute issue. Practice this skill both on and off the track - in the event that something unexpected does occur, you stand a much better shot at coming away clean if you remain calm and deliberately guide your car through the incident.

Being out of control and sliding the car might "feel" fast but it isn't. Always be in control.

## **Forward vision:**

A concept lost for most motorists assisted by the daily commute is that of forward vision while driving. You should always be looking at least 6 car lengths ahead of you while driving. This vision will allow you to anticipate the track or road in front of you allowing for time to plan your deliberate inputs discussed above. As humans we are blessed with peripheral vision and it is this that you should be using to deal with things immediately in front of you. Should you need to devote all of your attention to the immediate vicinity, by all means do so but remember once you've dealt with whatever issue required your focus, return to looking ahead.

## **The racing line:**

Once you have mastered the above two skills it's time to move to learning the racing line. The racing line is the optimal route around the track that covers the least distance and allows you to carry the most speed by using the whole track. Sounds pretty easy right? Believe me it's not. There are many professional drivers that spend their whole career mastering the art of finding the line but there are some simple things that you can do to ensure that you're making the most of it right off the bat.

- Use the whole track – most people new to performance driving tend to believe that the fastest way around a track is to hug the inside. While this may be the shortest distance it is certainly not the fastest. The racing line flows from the inside to the outside and back again in order to allow you to use the whole racing surface. The ability to use that surface means you can brake later and get on the throttle earlier as there is more room for the car to move in. Staying to the inside means you're restricting yourself to a very small area of track and thus requires earlier braking and tighter steering inputs to navigate the corner.
- Landmarking – consistency is the key to running fast laps. Finding consistency can be challenging, but by paying attention and making mental notes of the turn in locations that you find work well, you will be more consistent with your lap times.
- Learn from others – getting frustrated with a certain set of corners or just unsure of the best way to approach it? Find someone else who is faster than you in a similar car and follow them around. We learn by asking, listening and watching. Learn from the way they position their car in each corner and apply what you are seeing to your own driving; just make sure you don't emulate other peoples' bad habits like excessive sliding around or sudden jerky inputs.

#### **Braking points:**

Just like learning the racing line, it also takes time and patience to properly identify how late you can brake into a corner. It is important that you start slow and not attempt to find this limit on your first lap out but employ a gradual approach to pushing to the point at which you brake for the corner. If you feel uncomfortable braking as late as you did on the last lap, then tone it down and find out why.

In cars without ABS you will also need to be more mindful of your braking pressure. As covered above, your braking inputs should be firm but not jerky. Smoothly depress the pedal to avoid lock up. In the event that lock up occurs lift off the brake briefly and then reapply pressure. The concept of pulsing the brakes is called threshold braking and is exactly what modern ABS systems attempt to emulate.

#### **Attitude:**

Your attitude towards your fellow competitors and the event in general are some of the most important parts of performance driving. A positive and focused person ready to learn will improve far faster than someone that believes they already know it all. Even those of us that have been doing this a long time learn something new each time we are at the track.

#### **How do performance driving techniques apply to driving on the street?**

The above topics are not only useful on the track but they also apply directly to our day to day street driving experience. Applying forward vision, deliberate smooth inputs and a positive attitude can help you avoid accidents, have greater control in winter or emergency driving situations and prevent you from spending hours in traffic jams. We recommend however that you don't attempt to find and use the racing line or identify braking points and late brake corners on the street - police tend to frown on that sort of thing!

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