



Ross Bentley's High Performance Driving Tips - #24

GOING FASTER – PART #3

This last instalment of "how to go faster" focuses specifically on the Braking Phase.

Let's take a detailed look at just three ways (there are hundreds) to shave time off your lap.

1) The Late Braker: For the average racer this is the most common, and most overused, technique. Most drivers think that by going a little deeper into the corner before braking, he will gain a lot by maintaining the straightaway speed longer. It's only natural to think this way. After all, when running side-by-side with another driver, whenever you brake later you end up in front.

However, in reality, by braking later the average racer brakes harder than before, meaning the car enters the turn at the same speed as before. Just braking later, while not carrying more speed into the corner, will gain you very little. All it does is maintain your top speed for a few feet longer on the straight. This is okay for picking up a hundredth of a second, but not much more. Carrying more speed into the corner (as long as you can still make the car turn-in), however, will make a much bigger improvement. Remember this. On an average road racing circuit, if you can enter each corner 1/2 a Mile-Per-Hour faster, then you will have made up to 1/2 a second improvement in lap time.

The big problem, though, with late braking is that you end up spending too much concentration simply on braking, when some should really be spent on more important things. In fact, quite often you've focussed so much on the braking that you overreact and lock-up the brakes. Usually, you've left your braking so late that all you're doing is thinking about surviving, and not about braking correctly and what you have to do when finished braking.

2) The Light Braker: This is usually the first step to really going faster. You brake at the same point as before, but with lighter brake application. This results in you carrying more speed into the corner (remember, if you can carry just an extra 1/2 a MPH, it's going to lead to a great reduction in lap time).

3) The Late, Right Braker: This is the goal. You brake later than previously (as you would in the "Late Braker" mode), but at the original braking rate. So now you gain by maintaining your top speed on the straight longer (small gain), as well as carrying more speed into the corner (big gain). And, you haven't spent all your concentration on just braking - you are thinking about corner entry. That's how to go faster! Remember, of course, there is a limit.

Taking a closer look at the Braking Phase, consider the brakes as a distraction. In fact, the driver who spends the least amount of time on the brakes will be fastest. Brakes are really just for adjusting speed - not for gaining much. So, if you are looking for more than 1/10th of a second on an average road racing circuit, don't just look at the braking areas. In fact, you're going to make up more time with the throttle on, not off.

Racers are always talking about brake reference markers. They're always comparing, and bragging about, how late they begin braking for a corner. But, the important reference point is not where you start braking, but actually where you END braking. Only use brake markers as a back-up reference.

Instead, focus on the End-Of-Braking point to visualise and judge where to start braking for a corner. Your speed at the Start-Of-Braking may be different due to how well you entered the straight, so that reference point will constantly be changing. You need to analyse and sense the speed, and adapt your braking zone to be at the correct speed at the End-Of-Braking and Turn-in reference point so you enter the corner at the ideal speed.

One of the best exercises you can do to improve your braking is to find a deserted piece of road and practise maximum threshold braking from varying speeds. Ideally, this should be done in the car you are going to race, so it may be a bit difficult (if not illegal). Not only does this teach good smooth braking, but more importantly it teaches you to visualise and judge the distance it takes to slow down, so you will be at the right speed when entering the corner.

And while you're at it, practise transitioning off the brakes and back on the throttle, so that aspect of your driving is perfect. In fact, if you have a long enough piece of road, you should be able to accelerate up to speed, use maximum braking down to 1st or 2nd gear, transition onto the throttle and accelerate up to speed again - over and over. Please use good judgement before attempting this exercise.

If you really want to go faster on the track or in a slalom, I urge you to go over these last three articles and really think about each point (and not just because I thought about them for hours and want to get revenge, either!). Good luck.

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