

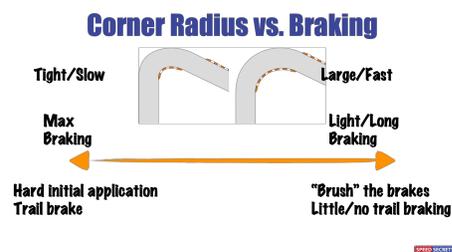
**Improve Your
Braking &
Corner Entry**
SPEED SECRETS
Webinar

Why do we use the brakes?

1. Adjust speed
2. Manage load transfer
3. To get to full throttle sooner

Braking

- Think “brake zone” – from BoB (Begin-of-Braking) to EoB (End-of-Braking)
- Initial application pressure
- Manage pressure in zone
- Time downshifts
- Timing & rate of release of brakes
- Trail braking guidelines:



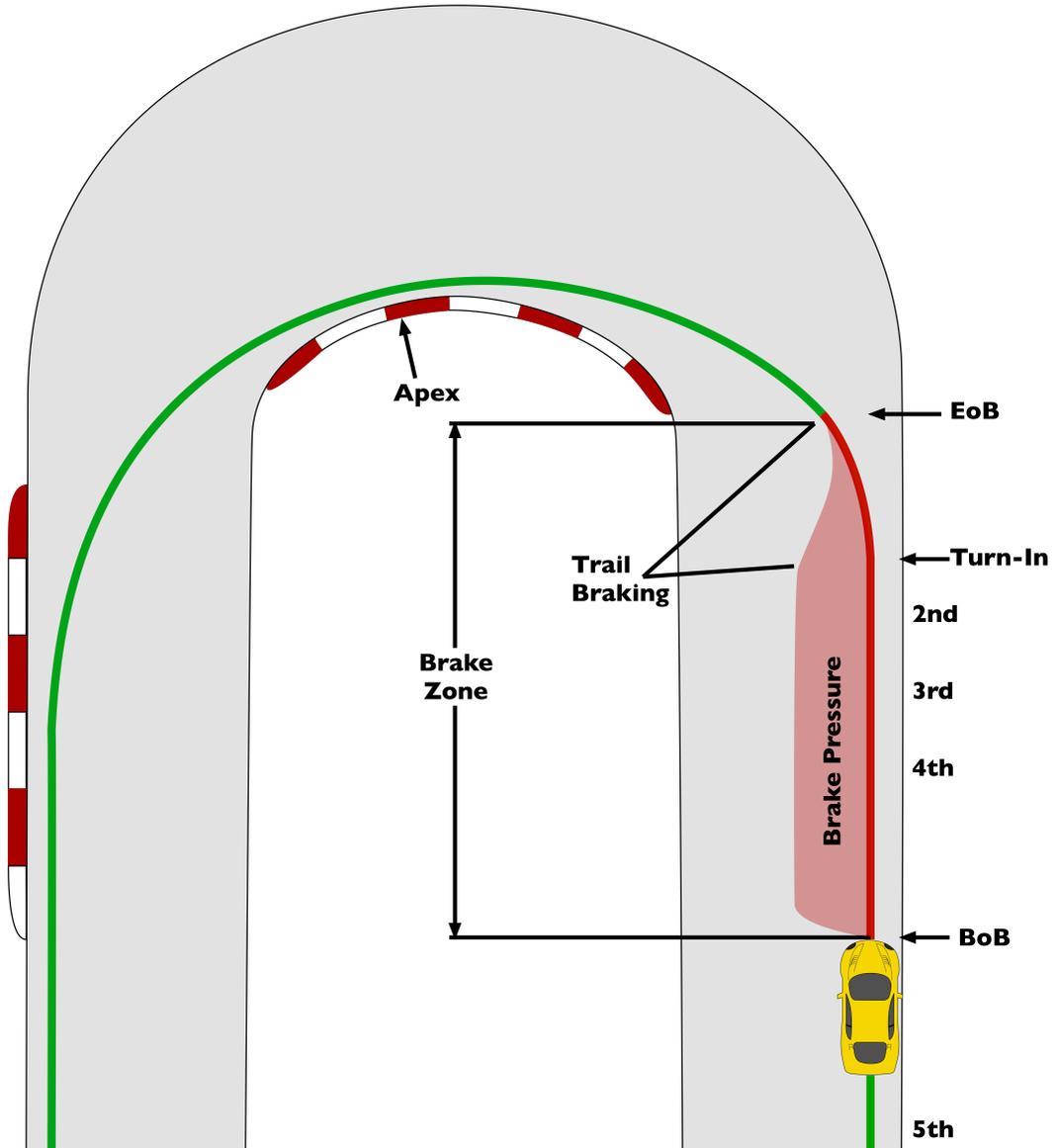
Corner Entry

- Trade off braking for cornering
- Manage car balance
- Fine-tune speed
- Steering input rate

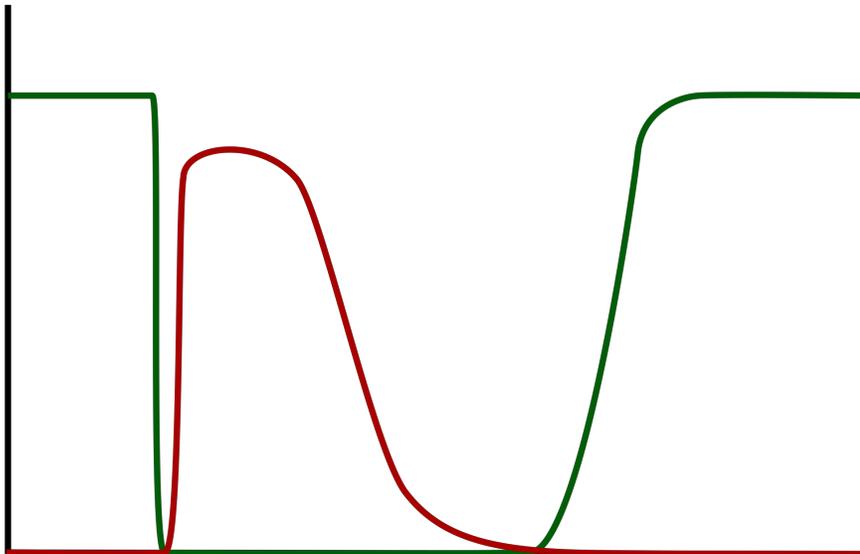
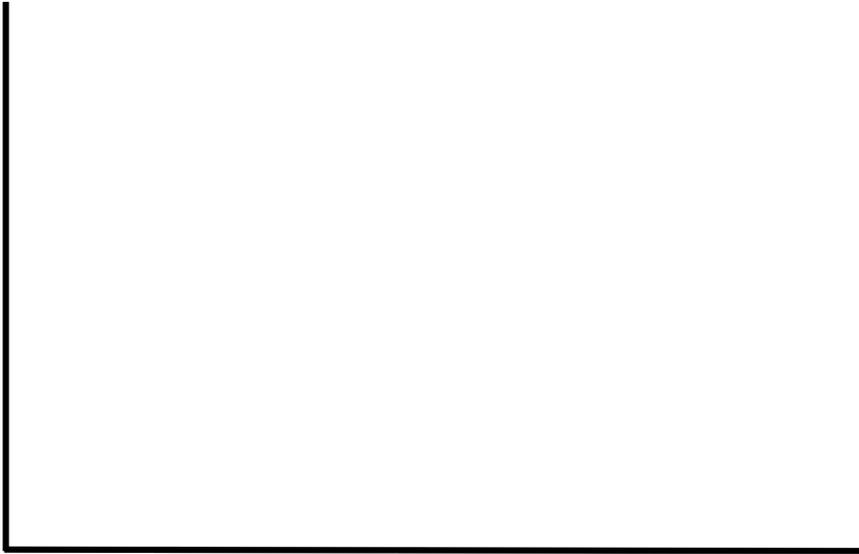
4 Ways to Improve Lap Time with the Brakes

1. *Compress*: later BoB
2. *Move in*: later BoB and EoB
3. *Release sooner*: earlier EoB
4. *Lighter*: same BoB & EoB; less pressure

How To Do It



Data



Practice Exercises

- I. Street practice
 - a. Aware of pressure/release
 - b. Look for EoB
 - c. Speed sensing
 - d. Heel & toe downshifting
2. Aware of throttle release
3. Practice max initial application pressure
4. Aware of EoB
5. Aware of brake release
6. Experiment with timing & rate of release
7. Experiment with over/under-rotate
8. Hesitate before initial throttle application
9. Draw data trace with your foot/feet
10. Mental imagery
 - a. Crisp throttle release
 - b. Max initial application
 - c. Manage pressure
 - d. Time downshifts
 - e. Turn-in matched to corner
 - f. Timing & rate of release
 - g. See, feel & hear – perfect braking, downshift, turn-in, release, rotation... throttle
11. Practice footwork
 - a. Fitness – foot/ankle/calf strength
 - b. Use scale or partner to provide immediate feedback
 - c. Stationary car
 - d. Simulator to practice technique (use video & data for feedback)
12. Pick “safe” corner & experiment

Examples

Driver: “I want to brake later” (Option 1)

RB: If it’s a *slow-to-medium* speed corner, my coaching would be:

- “What ‘pedal’ are you using now – on a scale of 1 to 10, with 10 being threshold/ABS, what pressure are you using now? And, approximately where are you beginning to brake now?”
- “Next session on track, begin braking at the same place, but use one point less pressure. If you were using a ‘10 pedal,’ use a ‘9’ now. This will get you used to carrying a bit more speed into the corner, which builds your confidence. The second step in this process will be to brake later.”

Driver: “I want to brake later” (Option 2)

RB: If it’s a *slow-to-medium* speed corner, my coaching would be:

- “Next on-track session, make the initial application of the brakes harder. You may be getting to maximum pressure a little too slowly, so focus on getting to maximum pressure earlier in the brake zone. Begin braking at the same place as before – don’t try to brake later yet – but just brake harder. This is the first step in the process, because once you’re comfortable braking a little harder, I suspect you’ll find that you have room to move your BoB a little deeper into the corner.”

Driver: “I want to brake later” (Option 3)

RB: If it’s a *medium-to-fast* speed corner, my coaching would be:

- “Rather than focusing on braking later, I want you to brake lighter – and maybe even release the brakes a little earlier (earlier EoB). Why? Because with a faster corner you don’t need to change the car’s direction as much (rotate it), and by releasing the brakes earlier or braking lighter, you’re keeping the car better balanced. That gives it more overall grip, allowing you to carry more speed through the corner – and that’s more important than braking later.”

Driver: “I want to brake later, but I’m not brave enough!” (Option 1)

RB: My coaching would be:

- “First, I want you to practice looking for the EoB. Often, we feel uncomfortable (self-preservation) when we don’t know where we’re going. By looking for the EoB, we see where we’re going, and feel more confident. Once you’re consistently focusing more on the EoB than the BoB, you will naturally begin to brake later – and feel good about it.”

Driver: “I want to brake later, but I’m not brave enough!” (Option 2)

RB: If it’s a *slow-to-medium* speed corner, my coaching would be:

- “Next time on track, focus on a harder initial application of the brakes. Often, we don’t brake hard enough, soon enough, and then we’re in ‘hang on mode’ as we get near the turn-in point, and we’re uncomfortable. Focus on a harder initial application of the brakes, and get two-thirds of the braking done in the first third of the brake zone. You’ll feel much more confident doing that.”

Driver: “I want to brake later, but I’m not brave enough!” (Option 3)

RB: My coaching would be:

- “You do what you do because you’re programmed to do so; you don’t do what you want sometimes because you don’t have the right programming yet. Our sense of self-preservation/fear kicks in when we don’t have the right programming yet. How do we get the right programming to brake later – especially if we consistently brake too early and practice braking early? We need to do that in our mind before we ever get on the track. Use mental imagery to program your mind to brake later – and imagine feeling comfortable and confident doing so. Imagining the emotions – the good ones – while imagining braking later will build your confidence while building the programming to do it.”

Driver: “I over-slow for corners.”

RB: My coaching would be:

- “Focus on the EoB. Once you’re consistently focusing more on the EoB than BoB, then begin experimenting with releasing the brakes slightly earlier and noticing how the car responds.”

Driver: “I need to be more consistent with my braking.”

RB: My coaching would be:

- “You do what you do because you’re programmed to do so; you don’t do what you want sometimes because you don’t have the right programming yet. Consistency comes from our programming – what is sometimes referred to as habits or muscle memory. If you’re not consistent with any part of your driving, your programming is not solid enough yet. How can you develop your programming? Through physical practice (on track, on a simulator, etc.), or mental practice (mental imagery, which is free and super-effective). I’d strongly encourage you to do more mental imagery, making sure you do more than just visualize – you also move your body to imitate what you need to do on track.”